

**2019 Commonwealth of Virginia
Reporting Package as defined in 2 CFR 200.512(c)**

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A Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2019



Ralph S. Northam
Governor

Aubrey L. Layne, Jr.
Secretary of Finance

David A. Von Moll
Comptroller

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INTRODUCTORY SECTION

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Organization of Executive Branch of Government
Organization of Government – Selected Government Officials – Executive Branch
Organization of the Department of Accounts



COMMONWEALTH of VIRGINIA

DAVID A. VON MOLL, CPA
COMPTROLLER

Office of the Comptroller

P. O. BOX 1971
RICHMOND, VIRGINIA 23218-1971

December 13, 2019

The Honorable Ralph S. Northam
Governor of the Commonwealth of Virginia
State Capitol
Richmond, Virginia 23219

Dear Governor Northam:

It is my pleasure to present the Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2019, in accordance with Section 2.2-813 of the *Code of Virginia*. This report consists of management's representations concerning the Commonwealth of Virginia's finances. Management assumes full responsibility for the completeness and reliability of all information presented. This report reflects my commitment to you, to the citizens of the Commonwealth, and to the financial community to maintain our financial statements in conformance with accounting principles generally accepted in the United States of America (GAAP) as established by the Governmental Accounting Standards Board (GASB). Data presented in this report is believed to be accurate in all material respects, and all disclosures that are necessary to enable the reader to obtain a thorough understanding of the Commonwealth's financial activities have been included.

The 2019 CAFR is presented in three sections. The Introductory Section includes this transmittal letter and organization charts for state government. The Financial Section includes the State Auditor's Report, management's discussion and analysis (MD&A), audited government-wide and fund financial statements and notes thereto, required supplementary information other than MD&A, and the underlying combining and individual fund financial statements and supporting schedules. The Statistical Section sets forth selected unaudited economic, financial trend, and demographic information for the Commonwealth on a multi-year basis.

The Commonwealth's management is responsible for the establishment and maintenance of internal accounting controls that ensure assets are safeguarded and financial transactions are properly recorded and adequately documented. To ensure that the costs of controls do not exceed the benefits obtained, management is required to use cost estimates and judgments to attain reasonable assurance as to the adequacy of such controls. The Commonwealth's established internal controls fulfill these requirements and provide reasonable, but not absolute assurance, that the accompanying financial statements are free of material misstatement.

In accordance with Section 30-133 of the *Code of Virginia*, the Auditor of Public Accounts has audited the Commonwealth's financial statements for the year ended June 30, 2019. The audit was conducted in accordance with auditing standards generally accepted in the United States of America and Government Auditing Standards issued by the Comptroller General of the United States. The auditor's opinion is included in the Financial Section of this report. Audit testing for compliance with the U. S. Office of Management and Budget Compliance Supplement and the related Uniform Administrative Requirements, Cost Principles and Audit Requirements for Federal Awards, is performed at the statewide level. The Commonwealth's Single Audit Report will be issued at a later date. I would like to acknowledge the Auditor of Public Accounts' staff for their many contributions to the preparation of this report.

GASB Statement No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments*, requires that management provide a narrative introduction, overview and analysis to accompany the basic financial statements in the form of MD&A. This letter of transmittal is designed to complement the MD&A and should be read in conjunction with it. In addition to the financial analysis addressing the Commonwealth's governmental and business-type activities, the MD&A focuses on the Commonwealth's major funds: General, Commonwealth Transportation Special Revenue, Federal Trust Special Revenue, Literary Special Revenue, Virginia Lottery, Virginia College Savings Plan, and Unemployment Compensation. The Commonwealth's MD&A can be found on page 27 immediately following the independent auditor's report.

PROFILE OF THE GOVERNMENT

Reporting Entity

For financial reporting purposes, the Commonwealth's reporting entity consists of (1) the primary government, (2) component unit organizations for which the primary government is financially accountable or for which the resources of the component unit primarily benefit the primary government (blended component units), and (3) other component unit organizations for which the nature and significance of their relationship with the primary government is such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete (discrete component units). The funds and accounts of all agencies, boards, commissions, foundations, and authorities that have been identified as part of the primary government or a component unit have been included. Further information can be found in Note 1.B. to the Financial Statements.

Section 2100 of the GASB *Codification of Governmental Accounting and Financial Reporting Standards* describes the criteria for determining which organizations, functions, and activities should be considered part of the Commonwealth for financial reporting purposes. The basic criteria include appointing a voting majority of an organization's governing body, as well as the Commonwealth's ability to impose its will on that organization, or the potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the Commonwealth. The Commonwealth's discretely presented major component units are the Virginia Housing Development Authority, Virginia Public School Authority, Virginia Resources Authority, and Virginia College Building Authority.

The Commonwealth and its component units provide a wide range of services and funding to its citizens, including elementary, secondary and higher education; health and human services; economic development; environmental and natural resources; public safety, corrections, and regulation; transportation; agriculture; and general government services. The financial activities associated with these services are reflected in both summary and detail throughout the CAFR.

Budgetary Control

In addition to the internal controls previously discussed, the Commonwealth maintains budgetary controls to ensure compliance with the legal provisions of the Commonwealth's Appropriation Act, which reflects the General Assembly's approval of a biennial budget. The financial transaction process begins with development and approval of the budget, after which budgetary control is maintained through a formal appropriation and allotment system. The budgeted amounts reflected in the accompanying financial statements represent summaries of agency budgets.

The Commonwealth's budget is prepared principally on a cash basis and represents appropriations as authorized by the General Assembly on a biennial basis at the program level. The Commonwealth monitors spending activity to ensure the expenditures do not exceed the appropriated amounts at the agency level. The State Comptroller maintains a central general ledger that records total appropriations and related expenditures for all agencies and institutions included in the approved budget. Systemic controls are in place to prevent disbursements that exceed authorized appropriations. Additional information regarding the Commonwealth's budgetary process can be found in Note 1.E. to the Financial Statements.

ECONOMIC REVIEW

Local Economy

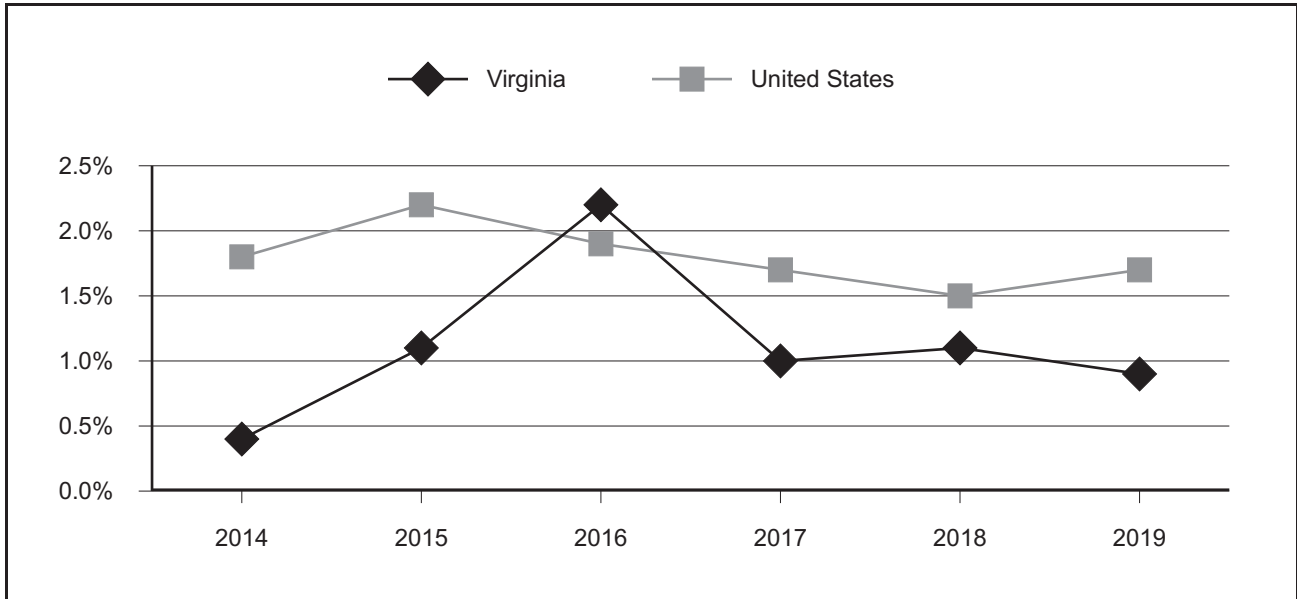
Introduction

This overview of the economy of the Commonwealth of Virginia was prepared by the Weldon Cooper Center for Public Service at the University of Virginia. In fiscal year 2019, Virginia's economy continued to grow at a moderate pace, albeit at a slower rate than the nation on most economic indicators as it has for much of the economic expansion. Even though the employment growth was slower than the fiscal year before, overall unemployment continued to decline throughout the Commonwealth. Personal income and taxable sales growth remained fairly steady. Housing market indicators deteriorated during the fiscal year, with existing home sales and building permit activity dropping and home price growth rates decelerating. Economic growth is expected to slow in the next fiscal year with slower global growth and heightened trade conflict contributing to weakening business and consumer sentiment.

Employment

Virginia non-farm payroll employment grew at 0.9 percent in fiscal year 2019, which was the 10th straight year of expansion (**Figure 1**). However, this growth rate trailed the national rate of 1.7 percent. Moreover, it was slower than the 1.1 percent rate from the year before and represented the slowest rate of growth in the last five years. The state underperformed the U.S. in every economic sector, with the exceptions of the manufacturing and government (federal, state, and local) sectors.

Figure 1
Annual Percentage Change in Nonfarm Payroll Employment
Fiscal Years 2014 – 2019



Source: U. S. Bureau of Labor Statistics

Virginia nonfarm employment crossed the 4.0 million threshold for the first time in fiscal year 2019. The state added an estimated 36,600 jobs during the fiscal year, significantly fewer jobs than the average of 50,000 jobs added per fiscal year from 2015 to 2018. **Figure 2** illustrates changes in Virginia's nonfarm employment by industry for fiscal years 2014 through 2019 along with the employment change between fiscal years 2018 and 2019 for Virginia and the U.S. The largest employment increases occurred in professional and business services (13,700), which has been a consistent job generator outside of federal budget sequestration years. The education and health services sector was the second leading sector, with an addition of 7,700 jobs. The health services sector may have benefited from state expansion of its Medicaid program during the fiscal year. Manufacturing saw its largest employment gain in over five years, with the addition of 7,000 jobs. Other job-gaining sectors were leisure and hospitality (6,000 jobs); federal, state, and local government (4,200 jobs); transportation and utilities (3,600 jobs); construction (2,600 jobs), and financial activities (400 jobs). As in the previous three years, both the retail trade (loss of 6,500 jobs) and information (decrease of 2,600 jobs) sectors failed to grow, likely due to competition from online commerce and digital products, and productivity improvements in those industries.

Figure 2
Nonfarm Payroll Employment in Virginia's Industries
 Fiscal Years 2014 – 2019

Industry*	Virginia Employment (000)						Change, FY 2018 to FY 2019		
							Virginia		U.S.,
	2014	2015	2016	2017	2018	2019	Number (000)	Percent	Percent
Mining and logging	9.8	9.3	8.3	7.9	7.9	7.9	0.0	0.0%	6.9%
Construction	177.1	180.8	186.9	191.0	195.9	198.5	2.6	1.3%	4.1%
Manufacturing	231.5	232.9	234.0	233.9	237.0	244.0	7.0	3.0%	1.9%
Wholesale trade	109.9	109.6	110.2	110.3	110.5	110.1	-0.4	-0.4%	1.3%
Retail trade	410.0	412.2	419.0	419.0	416.8	410.3	-6.5	-1.6%	-0.1%
Transportation and utilities	117.9	123.1	130.1	132.0	134.0	137.6	3.6	2.7%	0.9%
Information	71.6	70.3	68.9	68.3	68.0	65.4	-2.6	-3.8%	0.1%
Financial activities	193.2	195.7	199.3	203.0	206.8	207.2	0.4	0.2%	1.3%
Professional and business services	679.4	689.3	710.8	722.6	740.8	754.5	13.7	1.8%	2.5%
Education and health services	494.1	503.6	522.3	529.0	536.8	544.5	7.7	1.4%	2.2%
Leisure and hospitality	368.6	376.2	394.8	402.6	406.8	412.8	6.0	1.5%	2.2%
Other services	194.8	195.9	198.8	201.3	200.7	201.6	0.9	0.4%	1.4%
Federal government	175.3	175.3	177.4	178.4	178.3	179.7	1.4	0.8%	0.2%
State government	159.8	161.0	160.4	159.6	159.8	160.6	0.8	0.5%	0.4%
Local government	375.1	374.7	374.7	377.8	381.2	383.2	2.0	0.5%	0.6%
Total	3,768.1	3,809.9	3,895.9	3,936.7	3,981.3	4,017.9	36.6	0.9%	1.7%

Source: U. S. Bureau of Labor Statistics; some prior year numbers were revised to reflect the incorporation of newly available and revised source data.

* North American Industry Classification System (NAICS)

Figure 3 shows the annual percentage change in nonfarm employment for 10 of the 11 Metropolitan Statistical Areas (MSAs) in Virginia. The Kingston-Bristol MSA is not included in this table because most of it is located in Tennessee and data for this indicator are not reported separately for the Virginia portion of the MSA. Northern Virginia (the Virginia portion of the DC metropolitan area), Richmond, and the Shenandoah Valley metropolitan areas (Winchester, Charlottesville, and Staunton-Waynesboro) exhibited stronger growth during the fiscal year than the state at large. Southwestern metropolitan areas (Blacksburg-Christiansburg-Radford, and Roanoke MSAs) and Hampton Roads significantly trailed the state in job growth, as has been true of much of the economic expansion.

Figure 3
Annual Percentage Change in Nonfarm Payroll Employment in Virginia's MSAs
 Fiscal Years 2014 – 2019

Area	2014	2015	2016	2017	2018	2019
Virginia	0.4%	1.1%	2.3%	1.0%	1.1%	0.9%
Metropolitan areas (a)						
Blacksburg-Christiansburg-Radford	0.8%	0.8%	1.7%	-0.7%	0.6%	0.0%
Charlottesville	1.3%	3.6%	2.5%	2.0%	1.8%	1.0%
Harrisonburg	0.4%	0.9%	2.5%	1.8%	1.3%	0.9%
Lynchburg	0.4%	0.6%	0.9%	-0.3%	0.6%	0.9%
Northern Virginia	-0.1%	0.9%	2.7%	1.7%	1.6%	1.6%
Richmond	1.6%	1.9%	3.1%	1.1%	1.1%	1.1%
Roanoke	0.8%	0.3%	0.7%	-0.2%	0.0%	0.8%
Staunton-Waynesboro	1.1%	1.2%	1.6%	0.5%	0.6%	1.6%
Virginia Beach-Norfolk-Newport News (b)	0.7%	0.4%	1.3%	0.9%	1.4%	0.4%
Winchester (c)	2.2%	1.4%	2.6%	1.9%	1.8%	1.3%

Source: U. S. Bureau of Labor Statistics; some prior year numbers were revised to reflect the incorporation of newly available and revised source data

(a) Excludes Kingsport-Bristol MSA, and TN-VA, most of which is located in Tennessee

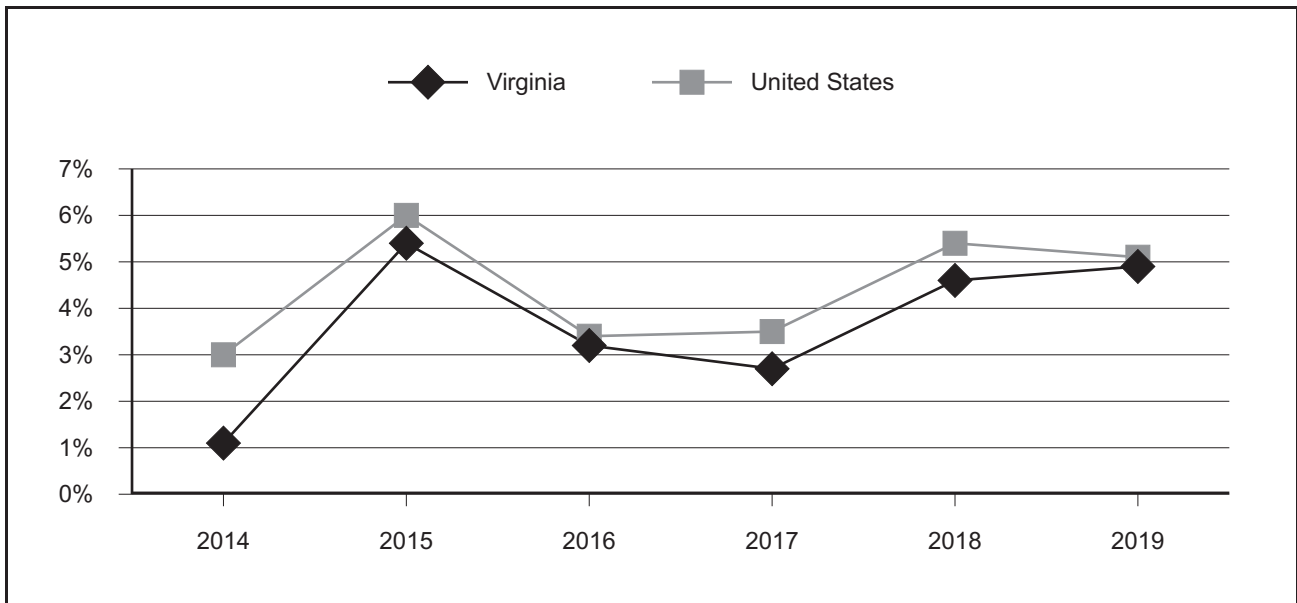
(b) Includes portion in North Carolina

(c) Includes portion in West Virginia

Personal Income

Personal income provides the best currently available gauge of the overall health of Virginia's economy. Changes in personal income are also strongly correlated with state government revenues such as income tax and retail sales tax collections. As shown in **Figure 4**, state personal income growth in fiscal year 2019 (4.9 percent) was the highest since fiscal year 2015. However, the state continued to lag slightly behind the nation on this economic measure as it has for most of the economic expansion. Wages and salaries, which constitute over half of Virginia total personal income, grew 4.4 percent in fiscal year 2019. The next largest component is dividends, interest and rent, which expanded 5.4 percent. Among other components, transfer receipts increased 6.4 percent, supplements to wages and salaries (which includes employer contributions to employee pensions, health insurance, social security/Medicare and other benefits) grew 4.3 percent, and proprietors' income advanced 4.6 percent.

Figure 4
Annual Percentage Change in Personal Income
 Fiscal Years 2014 – 2019

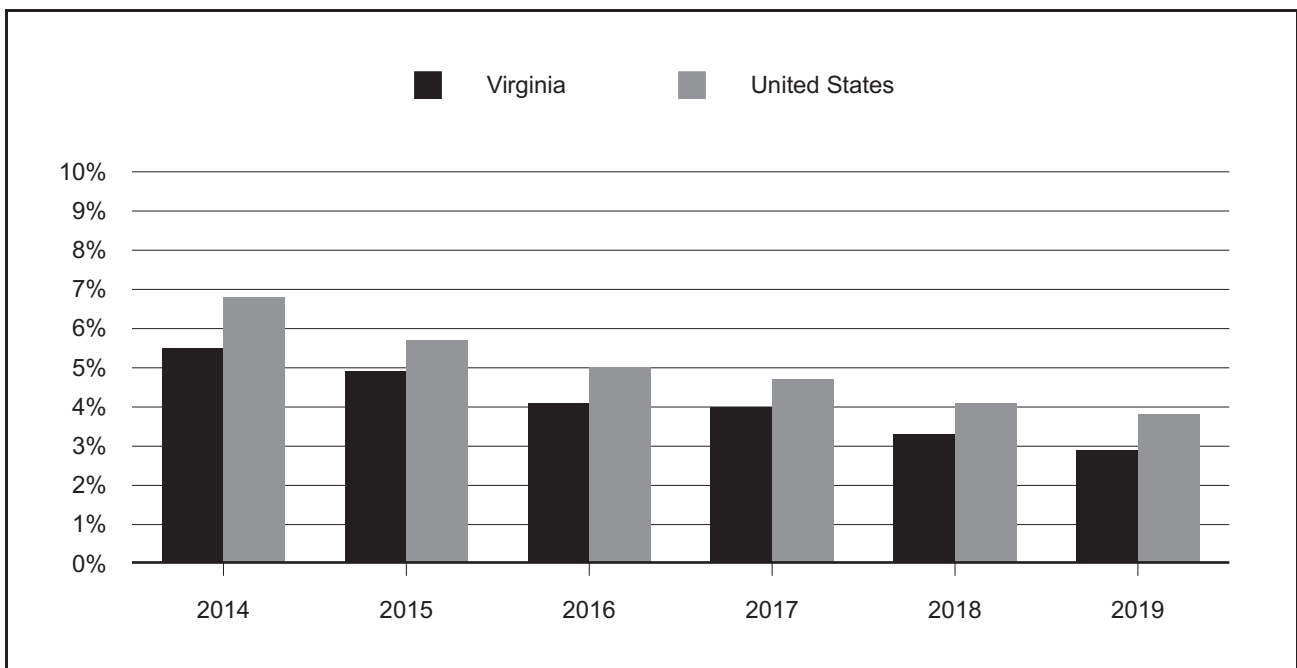


Source: U.S. Bureau of Economic Analysis

Unemployment

Despite slower job growth, labor markets continued to tighten significantly across the state during fiscal year 2019. **Figure 5** shows that the unemployment rate in Virginia declined from 3.3 percent in fiscal year 2018 to 2.9 percent in fiscal year 2019. The national rate fell from 4.1 percent to 3.8 percent over the same period. For the first time, the state unemployment rate dipped below the 3.0 percent state unemployment rate in fiscal year 2007, the year immediately preceding the recession.

Figure 5
Civilian Unemployment Rate
 Fiscal Years 2014 – 2019



Source: U.S. Bureau of Labor Statistics

Figure 6 shows unemployment rates for Virginia’s metropolitan and non-metropolitan regions. Every region saw significant further improvements in fiscal year 2019. Unemployment rates are now lower than 3.5 percent for all of the state’s metropolitan areas and averaged 2.8 percent during the fiscal year, down from 3.2 percent the year before. The nonmetropolitan unemployment rate dropped to 3.6 percent from 4.2 percent in fiscal year 2018. The gap between metropolitan and nonmetropolitan area unemployment rates continued to narrow and indicate that rural area labor markets are more robust than in a generation.

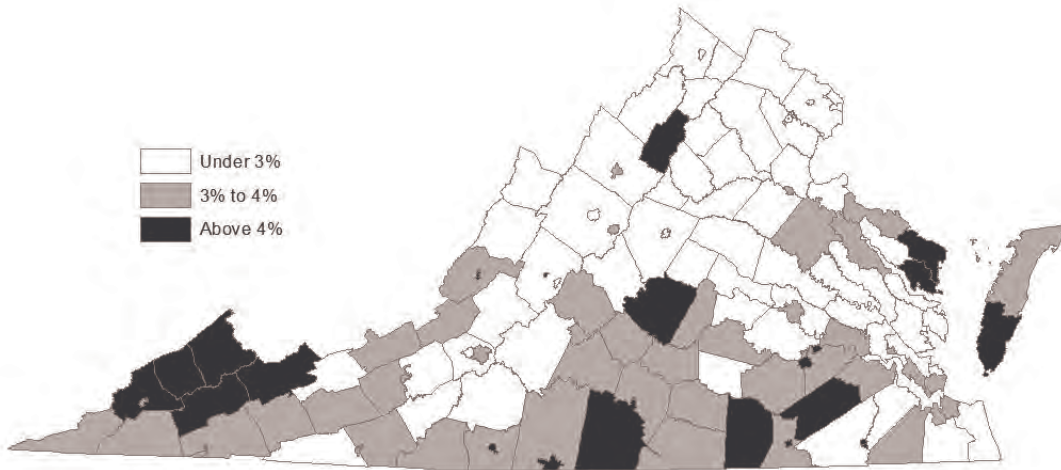
Figure 6
Civilian Unemployment Rate for Virginia’s MSAs
 Fiscal Years 2014 – 2019

Area	2014	2015	2016	2017	2018	2019
Virginia	5.5%	4.9%	4.1%	4.0%	3.3%	2.9%
Metropolitan Areas	5.2%	4.7%	3.9%	3.9%	3.2%	2.8%
Blacksburg-Christiansburg-Radford	5.8%	5.1%	4.4%	4.8%	3.5%	3.0%
Charlottesville	4.8%	4.4%	3.6%	3.6%	3.0%	2.7%
Harrisonburg	5.5%	5.0%	4.1%	4.0%	3.3%	2.8%
Kingsport-Bristol	6.3%	5.5%	4.7%	4.6%	3.7%	3.4%
Lynchburg	5.9%	5.4%	4.5%	4.6%	3.9%	3.3%
Northern Virginia	4.5%	4.1%	3.4%	3.3%	2.8%	2.4%
Richmond	5.8%	5.1%	4.3%	4.1%	3.5%	3.0%
Roanoke	5.5%	4.9%	4.0%	4.0%	3.4%	2.8%
Staunton-Waynesboro	5.2%	4.7%	3.9%	3.8%	3.2%	2.7%
Virginia Beach-Norfolk-Newport News	6.0%	5.4%	4.6%	4.5%	3.6%	3.2%
Winchester	5.1%	4.5%	3.7%	3.6%	3.0%	2.6%
Non-metropolitan Areas	7.4%	6.4%	5.5%	5.1%	4.2%	3.6%

Source: U.S. Bureau of Labor Statistics; some prior year numbers were revised to reflect the incorporation of newly available and revised source data

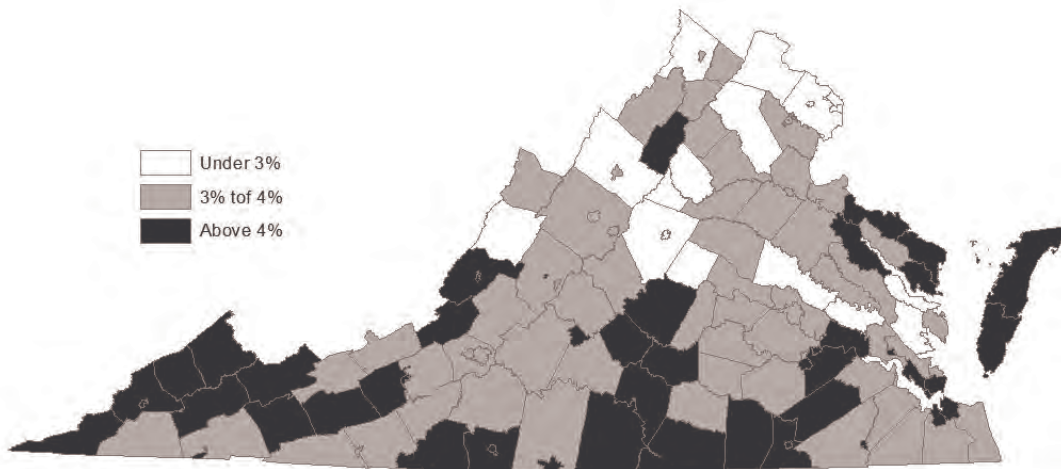
Figures 7a and **7b** show changes in the spatial pattern of unemployment rates in Virginia during the last two fiscal years using locality-level data. Improvements were nearly universal. Just one locality, Emporia City in Southside, saw a slight unemployment rate increase over the previous fiscal year (0.1 percent). For fiscal year 2019, the only large contiguous region where unemployment rates exceed 4.0 percent was in the Coalfield region (Buchanan, Dickenson, Russell, Tazewell, and Wise counties), which continues to be disproportionately affected by reductions in coal mining employment. Parts of the Southside, Southwest, Northern Neck and Eastern Shore experienced unemployment rates higher than the state average of 3.3 percent but saw significant improvements over the previous fiscal year.

Figure 7a
Unemployment Rate by Locality
Fiscal Year 2019



Source: Virginia Employment Commission

Figure 7b
Unemployment Rate by Locality
Fiscal Year 2018

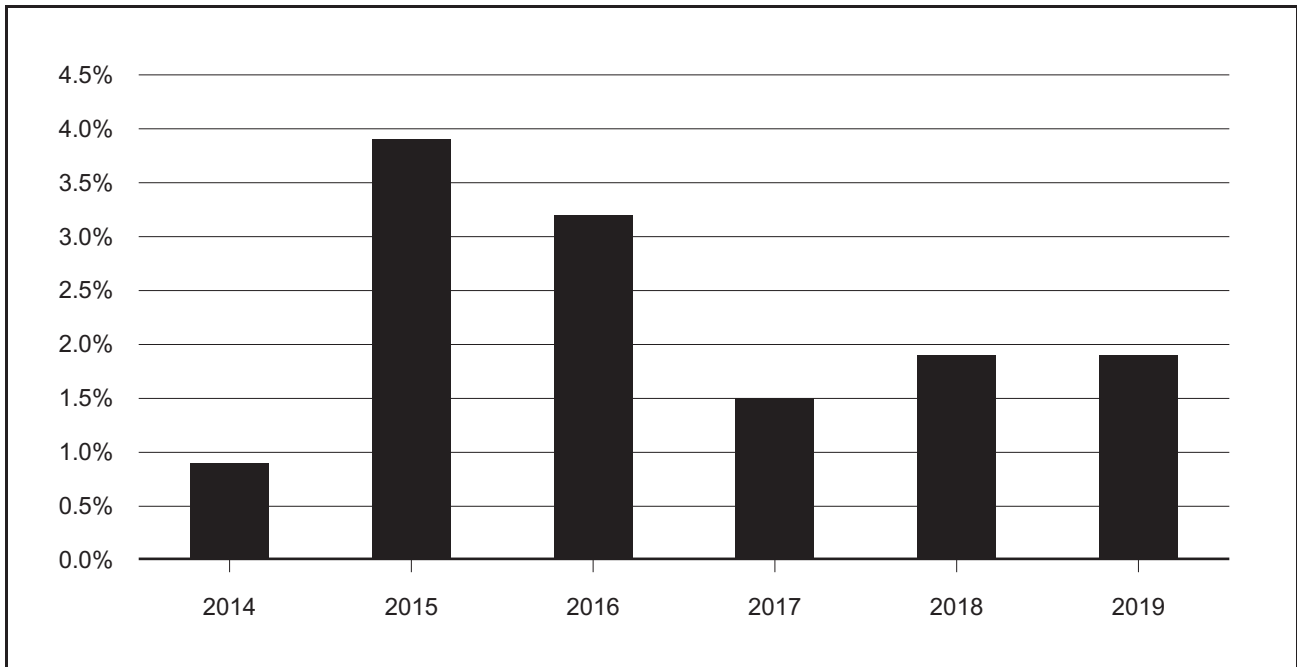


Source: Virginia Employment Commission

Taxable Sales

Changes in state retail sales are represented here using information on taxable sales. This measure is a useful proxy for retail sales, but omits some goods (e.g., motor vehicles, motor fuel sales) that appear in the comparable national measure and includes some services (e.g., restaurant sales, lodging sales) not included in that measure. **Figure 8** shows that the taxable sales growth rate grew at the same rate in fiscal year 2019 as the previous fiscal year (1.9 percent).

Figure 8
Annual Percentage Change in Taxable Sales in Virginia
Fiscal Years 2014 - 2019

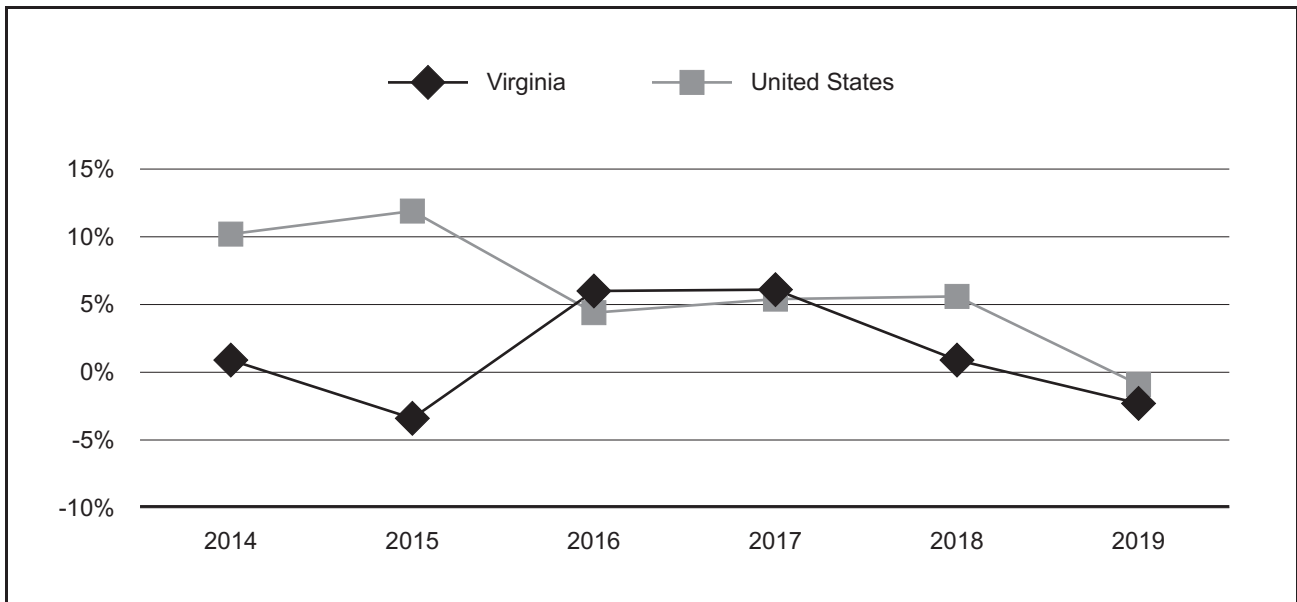


Source: Virginia Department of Taxation.

Housing Market

The Virginia housing market showed signs of sluggishness during fiscal year 2019. Sales of existing and home building decreased from the fiscal year before. According to data available from the Virginia Association of Realtors, sales of single-family homes, townhomes, and condos decreased from 123,137 units in fiscal year 2018 to 121,879 units in fiscal year 2019. This represents a 1.0 percent rate of decrease compared to a 1.7 percent rate of increase in fiscal year 2018. Building permit data show a larger decrease of 2.3 percent in fiscal year 2019 for the number of new privately-owned housing units authorized for construction in Virginia (**Figure 9**). This is the first decrease since fiscal year 2015 (3.4 percent) and was a larger drop than the nation experienced (0.9 percent).

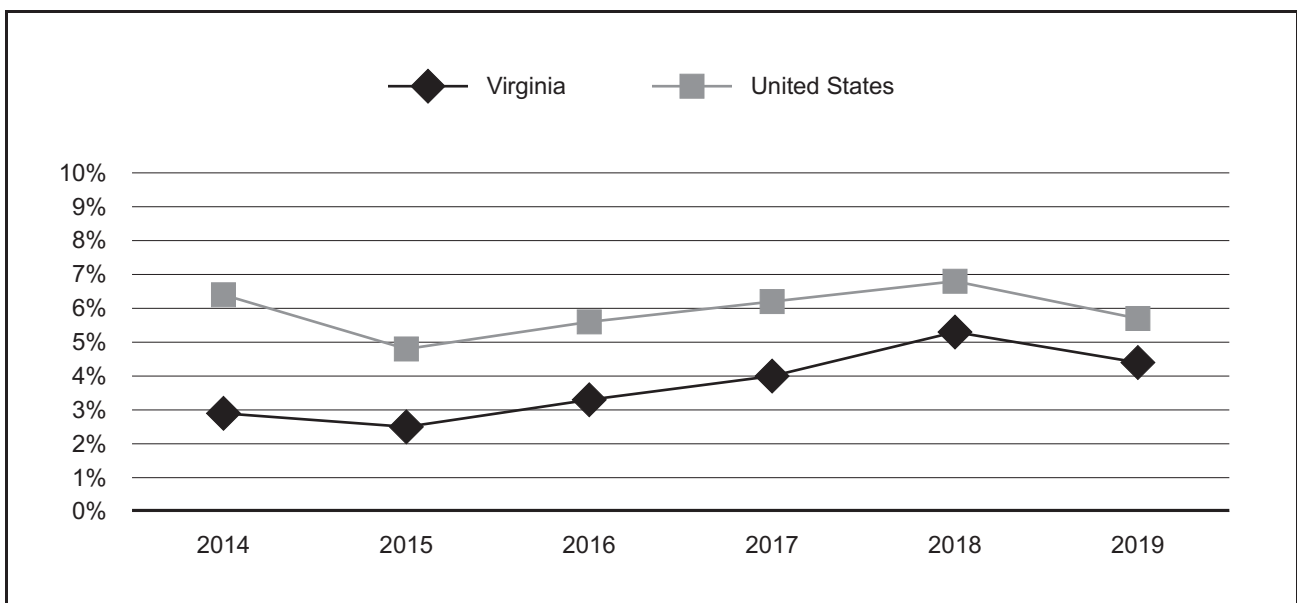
Figure 9
New Privately Owned Housing Units Authorized, Annual Percentage Change
 Fiscal Years 2014 – 2019



Source: U.S. Census Bureau

Housing prices published by the Federal Housing Finance Agency indicate that price appreciation has also begun to slow. **Figure 10** shows the percentage change in housing prices for Virginia and the nation. Virginia housing prices increased 4.4 percent in fiscal year 2019, down from 5.3 percent in fiscal year 2018. Virginia housing price growth lagged behind the national rate of growth at 5.7 percent in what is now a familiar pattern. The decreased housing activity reflects a variety of demand and supply factors, including changes in new federal tax policy treatment of income tax deductions for mortgage interest and state and local taxes, increasing mortgage rates caused by more restrictive federal reserve policy up until the summer of 2019, limited inventories of affordable housing stock, and increases in the costs of some home construction inputs.

Figure 10
Annual Percentage Change in Housing Prices
 Fiscal Years 2014 – 2019



Source: Federal Housing Finance Agency

Conclusion

Virginia's economy continued to grow at a moderate pace in fiscal year 2019. Employment growth slowed slightly compared to the year before but was enough to put continued pressure on state labor markets. All areas of the state experienced unemployment rate improvements. The state unemployment rate has now recovered all the ground that it had lost during the recession. Virginia housing market performance was less favorable. Existing home sales and building permit issuance decreased while home price growth slowed. The state continued to trail the nation in growth on most major economic indicators such as employment, personal income, new housing permits, and housing prices.

At the end of fiscal year 2019, the nation's economy had matched the longest period of economic expansion in its history, with 120 straight months of economic growth. Meanwhile, the unemployment was near record lows with inflation remaining below the Federal Reserve 2.0 percent target. Slowing global growth and trade frictions with major trading partners such as China and the European Union have created more economic uncertainty and clouded the business investment outlook. Residential investment activity had also stalled. To counter threats to the economy from these developments and preempt deterioration in other indicators, the Federal Reserve has begun to ease monetary policy. Without additional stimulus and resolution of trade issues, national economic growth is likely to slow in the coming fiscal year with potential knock-on effects for the Virginia economy.

MAJOR INITIATIVES

The CAFR has received unmodified audit opinions from fiscal year 1986 through fiscal year 2018. During this period, the Commonwealth has also received the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting. While we are very proud of these unmodified audit opinions and awards, we must be mindful of the fact that they are not automatic. The successes of the State Comptroller's office are directly attributable to not only the professionalism, experience and integrity of the State Comptroller's technical and accounting personnel, but also to the professionalism, experience and integrity of the financial and accounting personnel throughout the Commonwealth. These major initiatives will support efforts to continue our legacy of quality financial management.

Long-term Financial Planning

In 1992, an amendment to the Constitution of Virginia required the establishment of a Revenue Stabilization Fund. Annually, revenue collections are evaluated to determine whether deposits are required to the Fund. Withdrawals can only occur if the general fund revenues appropriated exceed the revised general fund revenue forecast by more than 2.0 percent of the certified tax revenues collected in the most recently ended fiscal year. Additionally, a withdrawal from the Fund cannot compensate for more than one-half of the difference between the general fund appropriations and revised estimate nor can it exceed more than one-half of the Fund balance. Further, pursuant to the constitutional amendment of Article X, Section 8, effective January 1, 2011, the amount on deposit cannot exceed 15.0 percent of the Commonwealth's average annual tax revenues derived from taxes on income and retail sales for the preceding three fiscal years. This is an increase of the previous limit of 10.0 percent.

During fiscal year 2018, the *Code of Virginia* established the Revenue Reserve Fund to mitigate certain anticipated revenue shortfalls when appropriations based on previous revenue forecasts exceed expected revenues in subsequent forecasts. Annually, revenue collections are evaluated to determine whether deposits are required to the Fund. Withdrawals can only occur if a revised general fund revenue forecast is less than appropriated general fund revenues and the decrease is 2.0 percent or less of general fund revenues collected in the most recently ended fiscal year. Additionally, a withdrawal from the Fund may not exceed more than one-half of the Fund balance. The combined balance of the Revenue Reserve Fund and Revenue Stabilization Fund cannot exceed 15.0 percent of the Commonwealth's average annual tax revenues derived from taxes on income and retail sales for the preceding three fiscal years.

Enterprise Application Project

The Cardinal Project represents a shared vision between the offices of the Secretary of Transportation, Secretary of Finance, Secretary of Administration, and the Virginia Information Technologies Agency to replace aging statewide enterprise applications. This effort began with the effort to replace the Commonwealth's financial system (CARS) and the Virginia Department of Transportation's (VDOT) financial system with a modern, enterprise-wide financial system (base financial system). The base financial system provides a solid foundation for the Commonwealth to expand system functionality and facilitates better integration of key administrative systems across the state. This foundation enables the Commonwealth to re-engineer activities to include taking advantage of shared services, increasing functionality for better fiscal management, and reducing redundant agency financial systems and related cost. This phase of the Cardinal Application Project has been completed. Effective July 1, 2016 (fiscal year 2017), Cardinal became the official general ledger accounting system for the Commonwealth, and CARS was retired.

The next phase of this project involves a partnership between the Department of Accounts (DOA) and the Department of Human Resource Management (DHRM) to replace the existing statewide payroll system (CIPPS), along with the Commonwealth's statewide Personnel Management Information System (PMIS) and Benefits Eligibility System (BES), and integrate these statewide systems into Cardinal. At the present time, we anticipate project completion and implementation by the end of calendar year 2021. I, as State Comptroller, chair the Cardinal Steering Committee, and both DOA and DHRM have assigned full-time resources to this project.

AWARDS AND ACKNOWLEDGMENTS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded the Certificate of Achievement for Excellence in Financial Reporting to the Commonwealth for its CAFR for the fiscal year ended June 30, 2018. The Certificate of Achievement is a prestigious national award that recognizes conformance with the highest standards for preparation of state and local government financial reports. In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report that conforms to program standards. Such reports must satisfy both accounting principles generally accepted in the United States of America and all applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. The Commonwealth has received a Certificate of Achievement for the last 33 consecutive years (fiscal years 1986-2018). I believe that this year's report continues to conform to the Certificate of Achievement program requirements and we are submitting it to GFOA.

This report could not have been prepared without the full cooperation of all state agencies within the Executive Branch, the Legislature, the Judiciary, the Component Units, and especially the dedication and professionalism of the financial reporting staff in the Department of Accounts.

Respectfully submitted,

David A. Von Moll
Comptroller of the Commonwealth of Virginia



Government Finance Officers Association

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Presented to

Commonwealth of Virginia

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

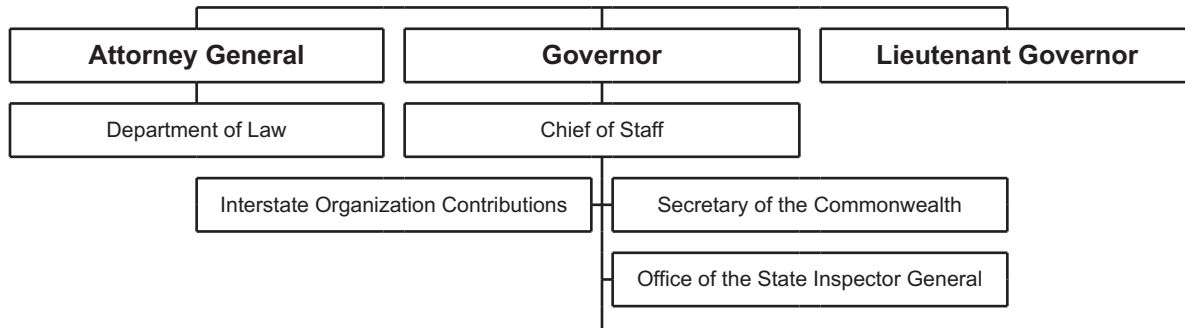
Christopher P. Morrill

Executive Director/CEO

Organization Charts

Organization of Executive Branch of Government

As of June 30, 2019

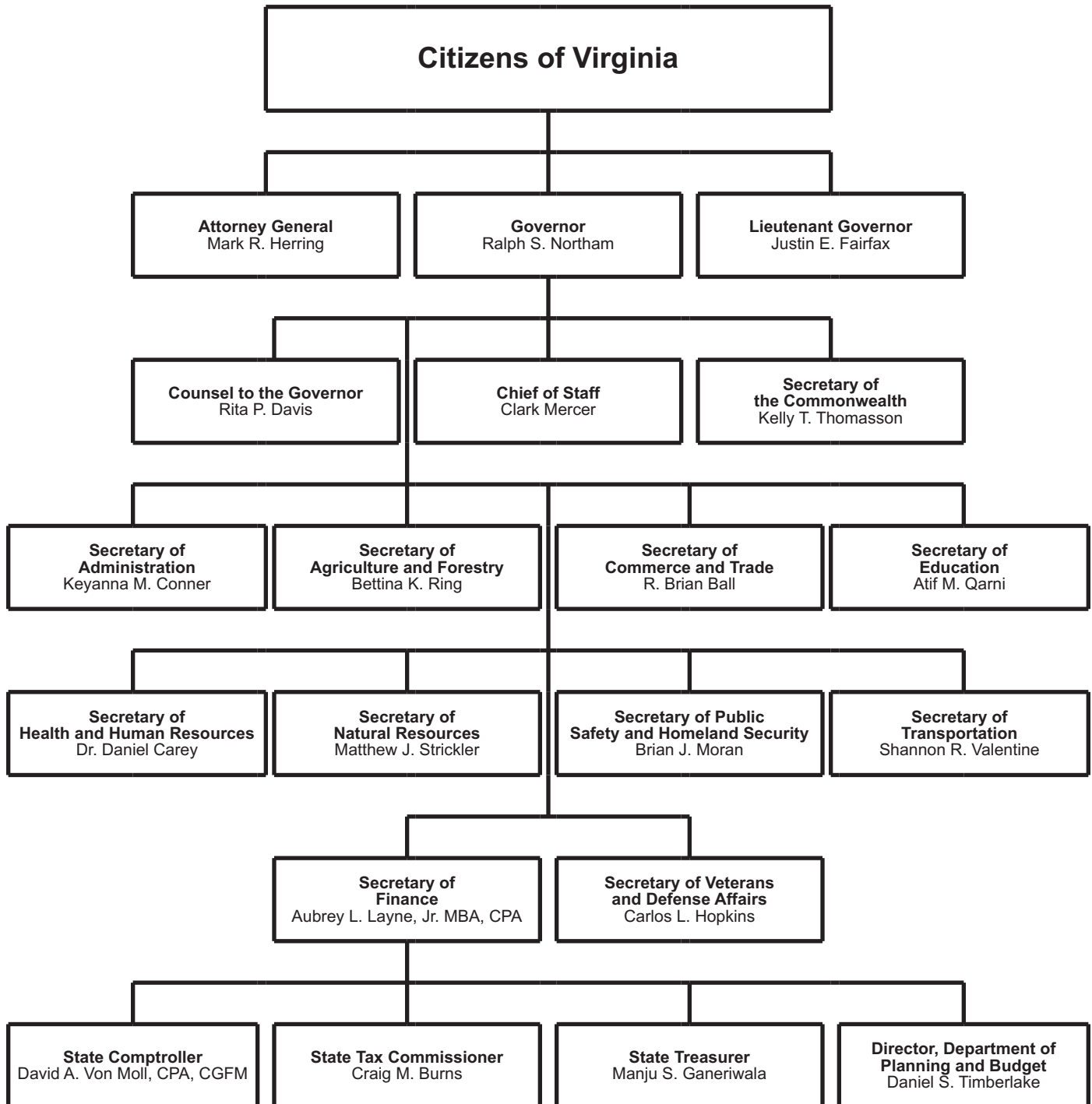


<p>Secretary of Administration Compensation Board Department of General Services Department of Human Resource Management Department of Elections Virginia Information Technologies Agency</p>	<p>Secretary of Education Christopher Newport University Department of Education Frontier Culture Museum of Virginia George Mason University Gunston Hall Institute for Advanced Learning and Research James Madison University Jamestown-Yorktown Foundation Longwood University New College Institute Norfolk State University Old Dominion University Radford University Richard Bland College Roanoke Higher Education Authority Southern Virginia Higher Education Center Southwest Virginia Higher Education Center State Council of Higher Education for Virginia The College of William and Mary The Library of Virginia The Science Museum of Virginia University of Mary Washington University of Virginia Virginia College Building Authority Virginia Commission for the Arts Virginia Commonwealth University Virginia Community College System Virginia Institute of Marine Science Virginia Military Institute Virginia Museum of Fine Arts Virginia Polytechnic Institute and State University Virginia School for the Deaf and the Blind Virginia State University</p>	<p>Secretary of Natural Resources Department of Conservation and Recreation Department of Environmental Quality Department of Game and Inland Fisheries Department of Historic Resources Marine Resources Commission Virginia Museum of Natural History</p>
<p>Secretary of Agriculture and Forestry Virginia Agricultural Council Department of Agriculture and Consumer Services Department of Forestry Virginia Racing Commission</p>		<p>Secretary of Public Safety and Homeland Security Commonwealth Attorneys' Services Council Department of Corrections Department of Criminal Justice Services Department of Emergency Management Department of Fire Programs Department of Forensic Science Department of Juvenile Justice Department of Military Affairs Department of State Police Virginia Alcoholic Beverage Control Authority Virginia Correctional Enterprises Virginia Parole Board</p>
<p>Secretary of Commerce and Trade Board of Accountancy Department of Housing and Community Development Department of Labor and Industry Department of Mines, Minerals and Energy Department of Professional and Occupational Regulation Department of Small Business and Supplier Diversity Tobacco Region Revitalization Commission Virginia Economic Development Partnership Virginia Employment Commission Virginia Tourism Authority Innovation and Entrepreneurship Investment Authority</p>		<p>Secretary of Transportation Department of Aviation Department of Motor Vehicles Department of Rail and Public Transportation Department of Transportation Motor Vehicle Dealer Board Virginia Port Authority</p>
<p>Secretary of Health and Human Resources Office of Children's Services Department for Aging and Rehabilitative Services Department for the Blind and Vision Impaired Department for the Deaf and Hard-of-Hearing Department of Behavioral Health and Developmental Services Department of Health Department of Health Professions Department of Medical Assistance Services Department of Social Services Virginia Board for People with Disabilities Virginia Foundation for Healthy Youth Virginia Rehabilitation Center for the Blind and Vision Impaired Wilson Workforce and Rehabilitation Center</p>	<p>Secretary of Finance Department of Accounts Department of Planning and Budget Department of Taxation Department of the Treasury Treasury Board</p>	<p>Secretary of Veterans and Defense Affairs Department of Veterans Services</p>

Organization of Government

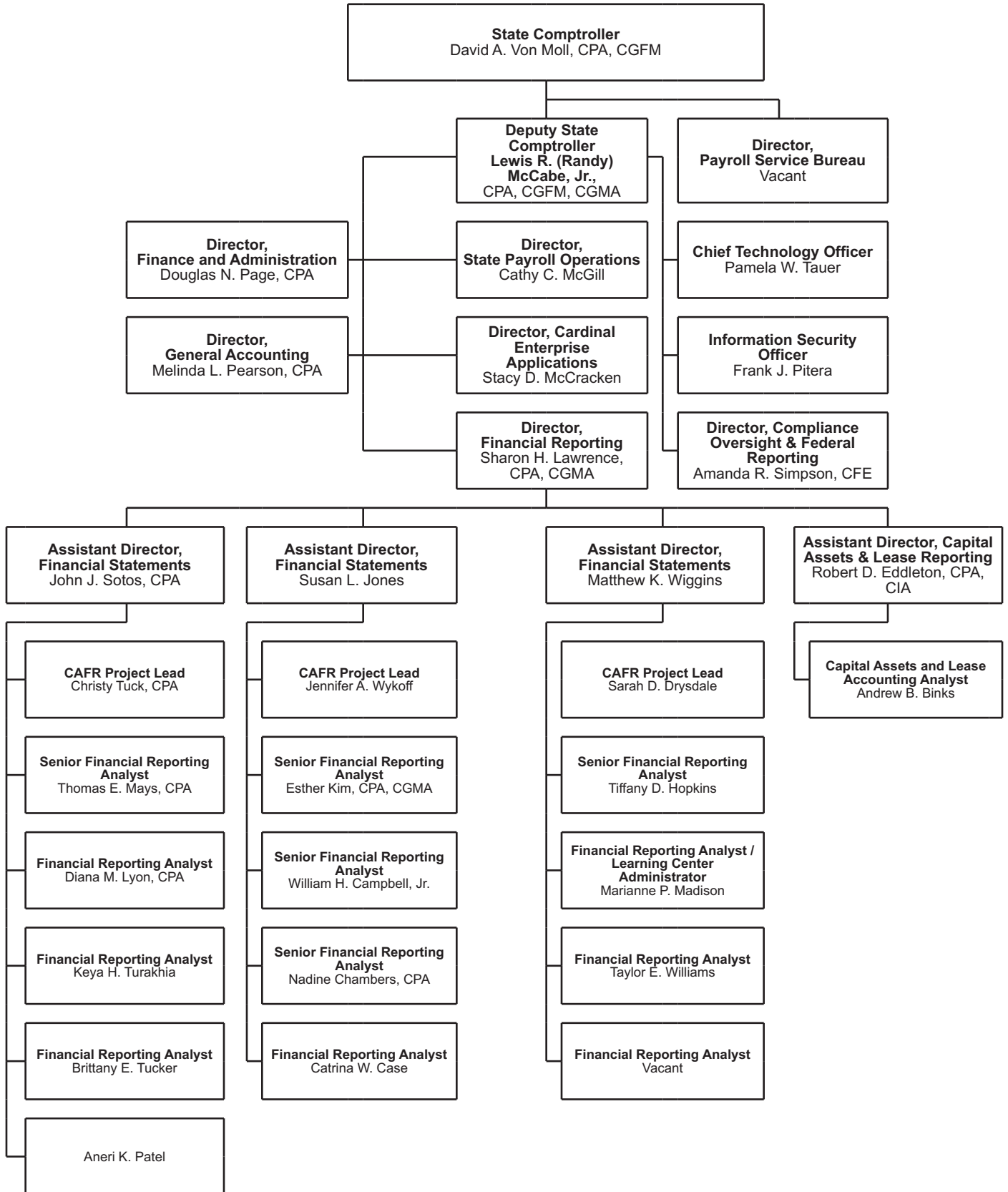
Selected Government Officials - Executive Branch

As of December 13, 2019



Organization of the Department of Accounts

As of December 13, 2019



FINANCIAL SECTION

Independent Auditor's Report
Management's Discussion and Analysis
Basic Financial Statements
Required Supplementary Information
Combining and Individual Fund Statements and Schedules



Commonwealth of Virginia

Auditor of Public Accounts

Martha S. Mavredes, CPA
Auditor of Public Accounts

P.O. Box 1295
Richmond, Virginia 23218

December 13, 2019

The Honorable Ralph S. Northam
Governor of Virginia

The Honorable Thomas K. Norment, Jr.
Chairman, Joint Legislative Audit
and Review Commission

INDEPENDENT AUDITOR'S REPORT

Report on Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth of Virginia, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Commonwealth's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the financial statements of Virginia College Savings Plan (major fund and private purpose trust fund), which is discussed on pages 53 and 262, and certain blended and discretely presented components units of the Commonwealth, which are discussed in Note 1.B. The Virginia College Savings Plan and component units account for the following percentages of total assets and deferred outflows of resources; revenues, additions, and other financing sources; and net position/fund balance of the opinion units affected.

Opinion Unit	Total Assets and Deferred Outflows	Net Position/Fund Balance	Revenues, Additions, and Other Financing Sources
Governmental Activities	2.24%	4.33%	1.90%
Business-type Activities	58.77%	41.64%	6.67%
Virginia College Savings Plan Major Enterprise Fund	100%	100%	100%
Aggregate Remaining Fund Information	5.80%	6.47%	4.12%
Aggregate Discretely Presented Component Units	28.28%	24.11%	9.82%

Those financial statements were audited by other auditors whose reports thereon have been furnished to us, and our opinions, insofar as it relates to the amounts included for the Virginia College Savings Plan and certain blended and discretely presented component units are based on the reports of the other auditors.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The financial statements of the Science Museum of Virginia Foundation, Virginia Museum of Fine Arts Foundation, Library of Virginia Foundation, and Danville Science Center, Inc., which were audited by other auditors upon whose reports we are relying, were audited in accordance with auditing standards generally accepted in the United States of America, but not in accordance with Government Auditing Standards.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall financial statement presentation.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our audit opinions.

Opinion

In our opinion, based on our audit and the reports of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth of Virginia as of June 30, 2019, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

Correction of 2018 Financial Statements

As discussed in Note 2 of the accompanying financial statements, the fiscal year 2018 governmental activities and nonmajor governmental fund statements have been restated to correct misstatements. Our opinion is not modified with respect to these matters.

Change in Reporting Entity

As discussed in Note 2, the government-wide and nonmajor component unit statements have been restated due to a change in reporting entity. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, budgetary comparison schedules, the schedule of changes in employer's net pension liability, schedule of employer contributions for pension plans, schedule of changes in employers' net other postemployment benefit liability (asset), schedule of the Commonwealth's proportionate share of the net other postemployment benefit liability, schedule of employer contributions for other postemployment benefit plans, schedule of changes in employers' total other postemployment benefit liability, and claims development information on pages 27 through 37 and 195 through 222, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Commonwealth of Virginia's basic financial statements. The accompanying supplementary information, such as the combining and individual fund statements and schedules, and other information such as the introductory and statistical sections, are presented for the purpose of additional analysis and is not a required part of the basic financial statements.

The combining and individual non-major fund statements and schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America by us and other auditors. In our opinion, based on our audit, the procedures performed as described above, and the report of the other auditors, the combining and individual non-major fund financial statements and schedules are fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, our report dated December 13, 2019, on our consideration of the Commonwealth's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, and other matters is issued in the Commonwealth of Virginia Single Audit Report. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the Commonwealth's internal control over financial reporting and compliance.

Martha S. Mavredes
MARTHA S. MAVREDES
AUDITOR OF PUBLIC ACCOUNTS

Management's Discussion and Analysis (Unaudited)

The following is a discussion and analysis of the Commonwealth of Virginia's (the Commonwealth) financial performance, including an overview and analysis of the financial activities of the Commonwealth for the fiscal year ended June 30, 2019. Readers should consider this information in conjunction with the transmittal letter, which is located in the Introductory Section of this report, and the Commonwealth's financial statements, including the notes to the financial statements, which are located after this analysis.

Financial Highlights

Government-wide Highlights

The primary government's assets and deferred outflows of resources exceeded its liabilities and deferred inflows of resources at June 30, 2019, by \$27.2 billion. Net position of governmental activities increased by \$2.5 billion and net position of business-type activities increased by \$405.5 million. Component units reported an increase in net position of \$1.8 billion from June 30, 2018.

Fund Highlights

At the end of the fiscal year, the Commonwealth's governmental funds reported a combined ending fund balance of \$6.9 billion, an increase of \$1.5 billion in comparison with the prior year. Of this total fund balance, \$298.8 million represents nonspendable fund balance, \$2.8 billion represents restricted fund balance, \$4.0 billion represents committed fund balance, and \$34.0 million represents assigned fund balance. These amounts are offset by a negative \$326.8 million unassigned fund balance. The Enterprise Funds reported net position at June 30, 2019, of \$2.5 billion, an increase of \$403.3 million during the year which is primarily attributable to the Virginia College Savings Plan and the Unemployment Compensation Funds. See page 33 for additional information.

The General Fund recognized higher fund assets and deferred outflows of resources, as well as revenues, expenditures, liabilities and deferred inflows of resources when compared to fiscal year 2018. See page 34 for additional information.

Long-term Debt

The Commonwealth's total debt declined during the fiscal year to \$46.5 billion, a decrease of \$590.8 million, or 1.3 percent. While the Commonwealth issued new debt in the amount of \$801.6 million and \$2.2 billion for the primary government and component units, respectively, the fiscal year 2019 debt issuances were lower than the prior year. The new debt issuances coupled with debt retirements decreased the total debt balances for the primary government and component units to \$16.0 billion and \$30.5 billion, respectively.

Overview of the Financial Statements

This discussion and analysis is an introduction to the Commonwealth's basic financial statements, which include three components: 1) government-wide financial statements; 2) fund financial statements; and 3) notes to the financial statements. The report also contains additional required supplementary information and other information.

Government-wide Statements

The government-wide financial statements are designed to provide readers with a broad overview of the Commonwealth's finances in a manner similar to a private-sector business. The statements provide both short-term and long-term information about the Commonwealth's financial position which helps readers determine whether the Commonwealth's financial position has improved or deteriorated during the fiscal year. These statements include all non-fiduciary financial activity on the full accrual basis of accounting. This means that all revenue and expenditures are reflected in the financial statements even if the related cash has not been received or paid as of June 30.

The Statement of Net Position (pages 40 and 41) presents information on all of the Commonwealth's assets and deferred outflows of resources, and liabilities and deferred inflows of resources; net position represents the difference between all other elements in a statement of financial position and is displayed in three components – net investment in capital assets; restricted; and unrestricted. Over time, increases or decreases in net position may indicate whether the financial position of the Commonwealth is improving or deteriorating.

The Statement of Activities (pages 42 through 44) presents information showing how the Commonwealth's net position changed during fiscal year 2019. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g., uncollected taxes and earned but unused vacation leave).

Both the Statement of Net Position and Statement of Activities report three separate activities. These activities are described as follows:

Governmental Activities – account for functions of the Commonwealth that are primarily supported by taxes and intergovernmental revenues. The majority of the Commonwealth’s basic services, such as education, individual and family services, transportation, resources and economic development, administration of justice, and general government, fall within this category.

Business-type Activities – account for functions that are intended to recover all or a significant portion of their costs through user fees and charges. The major business-type activities of the Commonwealth include the Virginia Lottery, Virginia College Savings Plan, and Unemployment Compensation Fund.

Discretely Presented Component Units – account for functions of legally separate entities for which the Commonwealth is financially accountable. The Commonwealth has 24 non-higher education component units and 22 higher education institutions that are reported as discretely presented component units. Information regarding the individual financial statements of the component units is presented in the notes to the financial statements.

This report includes two schedules (pages 48 and 52) that reconcile the amounts reported on the governmental fund financial statements (modified accrual accounting) with governmental activities on the appropriate government-wide statements (full accrual accounting). The following indicates some of the reporting differences between the government-wide financial statements and the fund financial statements.

- Capital assets used in governmental activities are not reported on governmental fund statements
- Long-term liabilities, unless due and payable, are not included in the fund financial statements. These liabilities are only included in the government-wide statements.
- Internal service funds are reported as governmental activities in the government-wide statements, but are reported as proprietary funds in the fund financial statements.
- Other long-term assets that are not available to pay for current period expenditures are deferred in the governmental fund statements, but not deferred in the government-wide statements.
- Capital outlay spending results in capital assets on the government-wide statements, but is reported as expenditures in the fund financial statements.
- Bond proceeds provide current financial resources on the fund financial statements, but are recorded as long-term liabilities in the government-wide financial statements.

Fund Financial Statements

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The Commonwealth, like other state and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. All of the Commonwealth’s funds can be divided into three categories: governmental, proprietary, and fiduciary. Each of these categories uses different accounting approaches. Fund financial statements begin on page 46 and provide detailed information about the major individual funds.

- **Governmental funds** – Most of the basic services provided by the Commonwealth are reported in the governmental funds. These statements provide a detailed, short-term view of the functions reported as governmental activities in the government-wide financial statements. The government-wide financial statements are reported using the full accrual basis of accounting, but the governmental fund financial statements are reported using the modified accrual basis of accounting. This allows the reader to focus on assets that can be readily converted to cash and determine whether there are adequate resources to meet the Commonwealth’s current needs.

Because the focus of governmental funds is more limited than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. This comparison can help readers better understand the long-term impact of the Commonwealth’s near-term financing decisions. Both the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balances provide a reconciliation to facilitate this comparison between governmental funds and governmental activities. These reconciliations are presented on the page immediately following each governmental fund financial statement.

The Commonwealth reports 15 individual governmental funds. Information is presented separately in the governmental fund statements for the General, Commonwealth Transportation, Federal Trust, and Literary funds, which are all considered major funds. Data from the other 11 governmental funds are aggregated into a single column on the fund statements. Individual fund data for these nonmajor governmental funds is provided in the combining financial statements immediately following the required supplementary information.

- **Proprietary funds** – The Commonwealth maintains two different types of proprietary funds: enterprise and internal service. These funds report activities that operate more like those of private-sector business and use the full accrual basis of accounting.

Enterprise funds report activities that charge fees for supplies or services to the general public like the Virginia Lottery. Enterprise funds are reported as business-type activities on the government-wide financial statements. The enterprise funds use the full accrual basis of accounting and the only differences between amounts reported on the government-wide statements and the enterprise fund statements are due to internal service fund activity (see reconciliations on pages 54 and 56).

Internal service funds report activities that charge fees for supplies and services to other Commonwealth agencies, like Fleet Management. Internal service funds are reported as governmental activities in the government-wide statements because these types of services predominantly benefit governments rather than business-type functions.

The Commonwealth reports 26 individual proprietary funds. Information is presented separately in the proprietary fund statements for the Virginia Lottery, Virginia College Savings Plan, and Unemployment Compensation Funds, all of which are considered major funds. Data from the other enterprise funds is aggregated into a single column on the fund statements. All internal service funds are aggregated into a single column on the fund statements. Individual fund data for all nonmajor proprietary funds is provided in the combining financial statements immediately following the required supplementary information.

- **Fiduciary funds** – These funds are used to account for resources held for the benefit of parties outside the government and use the full accrual basis of accounting. Fiduciary funds are excluded from the government-wide financial statements because the resources of these funds are restricted and cannot be used to finance the Commonwealth's operations. The Commonwealth's fiduciary activities are reported in separate Statements of Fiduciary Net Position and Changes in Fiduciary Net Position beginning on page 64.

The Commonwealth's fiduciary funds are the:

- Private Purpose Trusts, which reports the activities for six separate funds and accounts for transactions of trust arrangements in which the principal and income benefit individuals, private organizations, or other governments;
- Pension and Other Employee Benefit Trusts, which reports the activities of 13 separate pension and other employment retirement plans for employees;
- Investment Trust, which accounts for the activities of the two external investment pools; and,
- Agency, which accounts for assets held on behalf of others in 18 separate funds.

Individual fund data for all fiduciary funds is provided in the combining financial statements immediately following the required supplementary information.

- **Component Units** – The government-wide financial statements report information for all component units aggregated in a single column. Information is provided separately in the component unit fund statements for the Virginia Housing Development Authority, Virginia Public School Authority, Virginia Resources Authority, and Virginia College Building Authority, all of which are considered major component units. Data from the other component units is aggregated into a single column on the fund statements. Individual fund data for all nonmajor component units is provided in the combining financial statements immediately following the required supplementary information.

Notes to the Financial Statements

The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements. The notes to the financial statements can be found immediately following the component unit fund financial statements.

Required Supplementary Information

The basic financial statements are followed by a section of required supplementary information. This section includes budgetary comparison schedules reconciling the statutory and generally accepted accounting principles fund balances at June 30. It also includes information concerning net pension liability, other postemployment benefit liability plans, and employer contributions for pension and other postemployment benefit plans, as well as trend information for Commonwealth-managed risk pools.

Other Information

The combining statements referred to earlier in connection with nonmajor funds and component units can be found beginning on page 223 of this report. The individual fund information is aggregated into a single total on the combining financial statements, which carries forward to the fund financial statements.

Government-wide Financial Analysis

The primary government's assets and deferred outflows of resources exceeded its liabilities and deferred inflows of resources by \$27.2 billion during the fiscal year. The net position of the governmental activities increased \$2.5 billion, or 11.1 percent, primarily due to increases in assets offset by increases in total liabilities and deferred inflows of resources. Capital assets are discussed further on page 35, the long-term liabilities are discussed further on page 36, and deferred inflows and outflows of resources are discussed in Note 15. Business-type activities had an increase of \$405.5 million, or 19.6 percent, primarily due to increases for the Virginia College Savings Plan and the Unemployment Compensation Funds on page 33. As discussed in Note 2, the government-wide beginning balance was restated for the correction of prior year errors to arrive at a restated beginning balance of \$24.3 billion.

Figure 11
Net Position as of June 30, 2019 and 2018
(Dollars in Thousands)

	Governmental Activities		Business-type Activities		Total	
	2018				2018	
	2019	as restated	2019	2018	2019	as restated
Current and other assets	\$ 16,163,570	\$ 13,163,311	\$ 5,127,572	\$ 4,907,524	\$ 21,291,142	\$ 18,070,835
Capital assets	33,804,048	33,319,215	40,516	33,795	33,844,564	33,353,010
Total Assets	49,967,618	46,482,526	5,168,088	4,941,319	55,135,706	51,423,845
Deferred outflows of resources	768,171	770,090	22,844	21,071	791,015	791,161
Total assets and deferred outflows of resources	50,735,789	47,252,616	5,190,932	4,962,390	55,926,721	52,215,006
Long-term liabilities outstanding	13,673,724	13,860,886	2,286,386	2,444,995	15,960,110	16,305,881
Other liabilities	7,826,129	6,771,756	405,509	430,295	8,231,638	7,202,051
Total Liabilities	21,499,853	20,632,642	2,691,895	2,875,290	24,191,748	23,507,932
Deferred inflows of resources	4,493,029	4,349,086	27,060	20,622	4,520,089	4,369,708
Total liabilities and deferred inflows of resources	25,992,882	24,981,728	2,718,955	2,895,912	28,711,837	27,877,640
Net position:						
Net investment in capital assets	26,031,917	25,524,252	39,998	33,795	26,071,915	25,558,047
Restricted	2,194,477	1,935,406	1,485,125	1,348,816	3,679,602	3,284,222
Unrestricted	(3,483,487)	(5,188,770)	946,854	683,867	(2,536,633)	(4,504,903)
Total net position	\$ 24,742,907	\$ 22,270,888	\$ 2,471,977	\$ 2,066,478	\$ 27,214,884	\$ 24,337,366

The largest portion of the primary government's net position reflects its investment in capital assets (e.g., land, buildings, equipment, infrastructure, construction-in-progress, and intangible assets including water rights, easements and software), less any related outstanding debt and deferred inflows of resources used to acquire those assets. These assets are recorded net of depreciation in the financial statements. The primary government uses these capital assets to provide services to citizens; therefore, these assets are not available for future spending. Although the primary government's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities (**Figure 11**). The governmental activities net investment in capital assets amount exceeds total net position due to a negative unrestricted net position amount unrelated to capital assets.

An additional portion of the primary government's net position represents restricted net position. These resources are subject to external restrictions or constitutional provisions specifying how they may be used. The remaining balance of negative \$2.5 billion is unrestricted net position (**Figure 11**).

Approximately 55.6 percent of the primary government's total revenue came from taxes. While the primary government's expenses cover many services, the largest expenses are for education and individual and family services. General revenues normally fund governmental activities. For fiscal year 2019, program and general revenues exceeded governmental expenses by \$1.6 billion. Program revenues exceeded expenses from business-type activities by \$1.3 billion. The following condensed financial information (**Figure 12**) was derived from the Government-wide Statement of Activities and provides detail regarding the change in net position (see page 42).

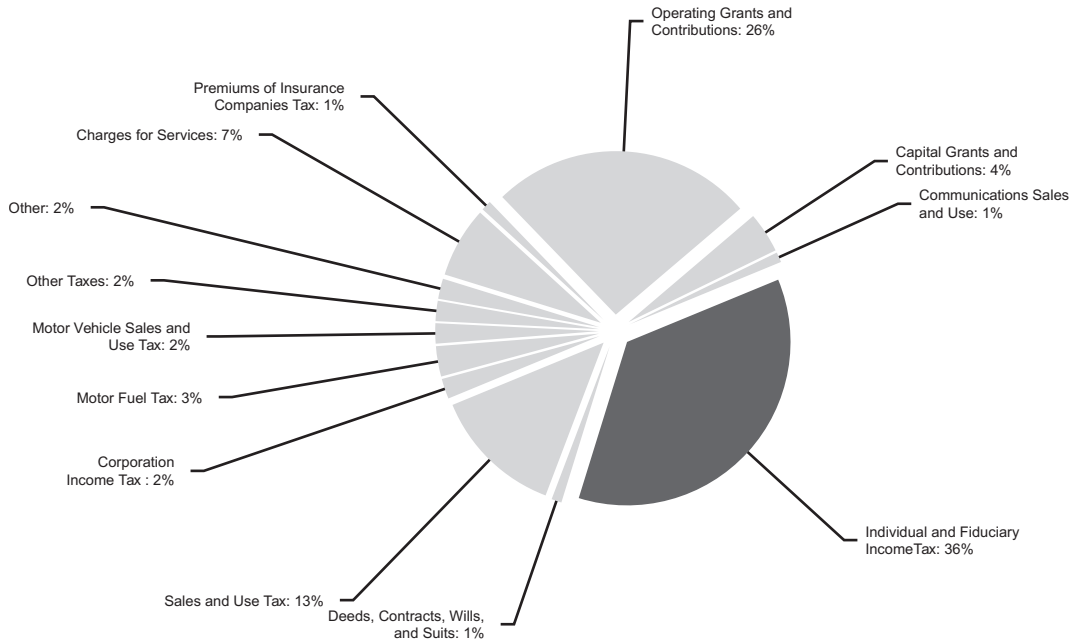
Figure 12
Changes in Net Position for the Fiscal Years Ended June 30, 2019 and 2018
(Dollars in Thousands)

	Governmental Activities		Business-type Activities		Total	
	2018		2019	2018	2018	
	2019	as restated			2019	as restated
Revenues:						
Program Revenues:						
Charges for Services	\$ 2,796,618	\$ 2,747,441	\$ 4,595,496	\$ 4,393,515	\$ 7,392,114	\$ 7,140,956
Operating Grants and Contributions	10,927,233	9,871,386	32	542	10,927,265	9,871,928
Capital Grants and Contributions	1,528,453	1,969,604	—	—	1,528,453	1,969,604
General Revenues:						
Taxes:						
Individual and Fiduciary Income	14,872,136	14,117,735	—	—	14,872,136	14,117,735
Sales and Use	5,457,799	5,266,818	—	—	5,457,799	5,266,818
Corporation Income	923,683	851,603	—	—	923,683	851,603
Motor Fuel	1,083,719	1,031,034	—	—	1,083,719	1,031,034
Motor Vehicle Sales and Use	971,987	935,101	—	—	971,987	935,101
Communications Sales and Use	359,011	383,221	—	—	359,011	383,221
Deeds, Contracts, Wills, and Suits	442,970	505,255	—	—	442,970	505,255
Premiums of Insurance Companies	554,299	516,743	—	—	554,299	516,743
Alcoholic Beverage Sales	174,144	160,910	—	—	174,144	160,910
Tobacco Products	151,287	161,273	—	—	151,287	161,273
Estate	216	454	—	—	216	454
Public Service Corporations	111,996	112,131	—	—	111,996	112,131
Beer and Beverage Excise	41,249	41,394	—	—	41,249	41,394
Wine and Spirits/ABC Liter	29,484	28,946	—	—	29,484	28,946
Bank Stock	29,780	23,870	—	—	29,780	23,870
Other Taxes	518,694	133,674	9,141	9,141	527,835	142,815
Unrestricted Grants and Contributions	60,108	60,695	—	—	60,108	60,695
Investment Earnings	238,588	72,286	1,841	1,151	240,429	73,437
Miscellaneous	368,744	524,761	414	265	369,158	525,026
Total Revenues	41,642,198	39,516,335	4,606,924	4,404,614	46,249,122	43,920,949
Expenses:						
General Government	3,217,820	3,170,832	—	—	3,217,820	3,170,832
Education	11,103,677	10,730,908	—	—	11,103,677	10,730,908
Transportation	4,927,117	5,325,640	—	—	4,927,117	5,325,640
Resources and Economic Development	1,027,271	972,535	—	—	1,027,271	972,535
Individual and Family Services	16,566,424	15,604,202	—	—	16,566,424	15,604,202
Administration of Justice	2,946,304	2,995,238	—	—	2,946,304	2,995,238
Interest and Charges on Long-term Debt	256,962	167,111	—	—	256,962	167,111
Virginia Lottery	—	—	1,642,754	1,521,006	1,642,754	1,521,006
Virginia College Savings Plan	—	—	61,321	294,056	61,321	294,056
Unemployment Compensation	—	—	273,566	323,214	273,566	323,214
Alcoholic Beverage Control	—	—	699,242	665,811	699,242	665,811
Risk Management	—	—	14,894	10,461	14,894	10,461
Local Choice Health Care	—	—	473,076	459,616	473,076	459,616
Line of Duty	—	—	17,836	18,403	17,836	18,403
Virginia Industries for the Blind	—	—	50,158	46,397	50,158	46,397
Consolidated Laboratory	—	—	10,552	10,470	10,552	10,470
eVA Procurement System	—	—	20,797	20,079	20,797	20,079
Department of Environmental Quality Title V	—	—	10,179	10,156	10,179	10,156
Wireless E-911	—	—	44,134	43,227	44,134	43,227
Museum and Library Gift Shops	—	—	7,221	7,695	7,221	7,695
Behavioral Health Canteen and Work Activity	—	—	299	329	299	329
Total Expenses	40,045,575	38,966,466	3,326,029	3,430,920	43,371,604	42,397,386
Excess before transfers	1,596,623	549,869	1,280,895	973,694	2,877,518	1,523,563
Transfers	875,396	826,648	(875,396)	(826,648)	—	—
Increase in net position	2,472,019	1,376,517	405,499	147,046	2,877,518	1,523,563
Net position, July 1, as restated	22,270,888	20,894,371	2,066,478	1,919,432	24,337,366	22,813,803
Net position, June 30	\$ 24,742,907	\$ 22,270,888	\$ 2,471,977	\$ 2,066,478	\$ 27,214,884	\$ 24,337,366

Governmental Activities Revenues

Figure 13 is a graphical representation of the Statement of Activities revenues for governmental activities. Governmental activities revenues increased by \$2.1 billion, or 5.4 percent. The net increase is mainly attributable to increases in the General Fund, which are discussed on page 34.

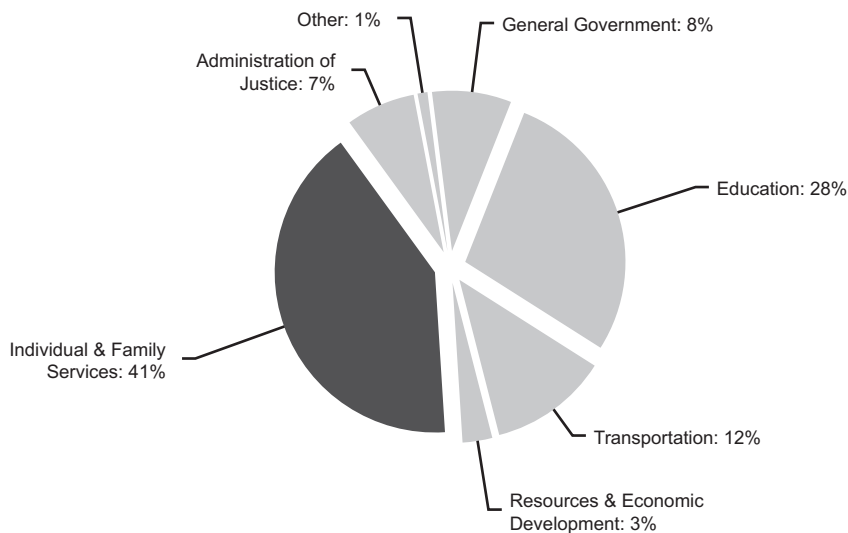
**Figure 13
Revenues by Source – Governmental Activities
Fiscal Year 2019**



Governmental Activities Expenses

Figure 14 is a graphical representation of the Statement of Activities expenses for governmental activities. Governmental activities expenses increased by \$1.1 billion, or 2.8 percent. This change is primarily attributable to increases in all expense types with the exception of transportation and administration of justice. See pages 34 and 35 for additional information.

**Figure 14
Expenses by Type – Governmental Activities
Fiscal Year 2019**



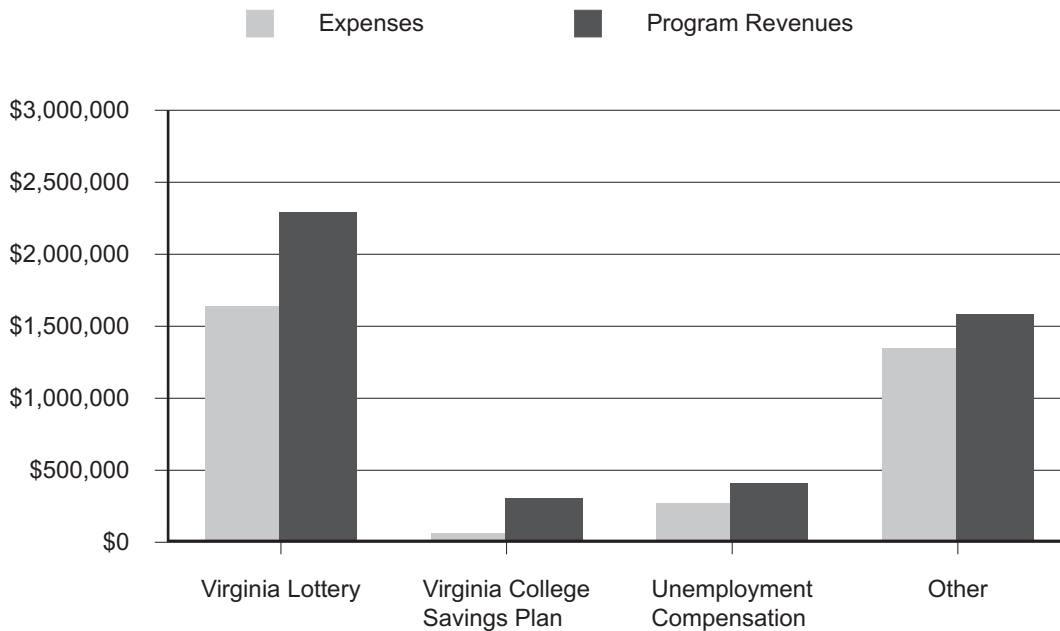
Net Position of Business-type Activities

Net position of business-type activities increased by \$405.5 million during the fiscal year. As shown in **Figure 15**, highlights of the changes in net position for the major enterprise funds were as follows:

- Lottery sales were \$2.3 billion, an increase of \$153.7 million over the prior year. Net income was \$653.5 million, an increase of \$33.2 million (5.4 percent) from fiscal year 2018. Sales of scratch games increased by \$37.3 million (3.1 percent) and online sales increased by \$116.5 million (12.2 percent). Additionally, there is an increase of \$121.8 million (8.0 percent) in total expenses, primarily attributable to the cost of prizes.
- Virginia College Savings Plan's net position increased by \$244.8 million (31.2 percent) during the fiscal year as a result of total revenues exceeding expenses incurred.
- Unemployment Compensation Fund net position increased by \$135.9 million during fiscal year 2019, as a result of a decrease in benefit claims and operating revenue exceeding operating expenses.

Over the one-year period from July 1, 2018, to June 30, 2019, the unemployment rate declined from 3.3 percent to 2.9 percent. Additionally, there were approximately 14,212 fewer initial unemployment claims filed than in the previous year. These declines were accompanied by a decrease in the average benefit duration from 15.6 weeks to 14.4 weeks in fiscal year 2019. These decreases were offset by an increase in the average weekly benefit amounts from approximately \$299.8 million to \$304.7 million in fiscal year 2019. These multiple influences led to a decrease in the total benefit payments of \$49.6 million over the prior year.

Figure 15
Business-type Activities
Program Revenues and Expenses
Fiscal Year 2019
(Dollars in Thousands)



Fund Statements Financial Analysis

As of the end of the fiscal year, the primary government's governmental funds reported combined ending fund balances of \$6.9 billion, including a negative unassigned fund balance of \$326.8 million indicating that restricted and committed amounts exceed the available modified accrual basis fund balance. The remainder of fund balance is nonspendable, restricted or committed to indicate that it is not available for new spending.

General Fund Highlights

At the end of the fiscal year, the General Fund reported a combined ending fund balance of \$1.6 billion, an increase of \$759.2 million in comparison with the prior year. Of this total fund balance, \$102.7 million represents nonspendable fund balance, \$669.5 million represents restricted fund balance, and \$1.1 billion represents committed fund balance. These amounts are offset by a negative \$264.2 million unassigned fund balance.

Fiscal year 2019 General Fund revenues were 3.5 percent, or \$756.5 million, higher than fiscal year 2018 revenues. This revenue change results from increases of \$1.1 billion primarily attributable to individual and fiduciary income taxes (\$694.9 million), interest, dividends, and rents (\$138.8 million), sales and use taxes (\$116.4 million), corporation income taxes (\$44.5 million), premiums of insurance companies taxes (\$43.1 million), and alcoholic beverage sales tax (\$13.2 million), offset by decreases of \$326.9 million primarily attributable to other revenue predominantly related to prior year expenditures refunded in the current fiscal year (\$260.6 million), communications sales and use taxes (\$23.7 million), sales of property and commodities (\$20.8 million), and tobacco product taxes (\$10.3 million).

Fiscal year 2019 expenditures increased by 2.0 percent, or \$433.2 million, when compared to fiscal year 2018. This was primarily attributable to increases in education and administration of justice expenditures of \$339.4 million and \$39.7 million, respectively. Net other financing sources and uses increased by \$90.9 million, which is primarily due to higher transfers in from nongeneral funds and a decrease in transfers out to nongeneral funds.

Budget Highlights

The General Fund began the year with an original revenue budget that was \$895.3 million, or 4.3 percent, higher than the final fiscal year 2018 revenue budget. Additionally, the final revenue budget was slightly higher (\$274.2 million or 1.3 percent) than the original budget. The change between the original and final budget was primarily attributable to increases in the final budget for individual and fiduciary income taxes of \$237.8 million, corporation income taxes of \$100.2 million, and sales and use taxes of \$47.0 million. This was offset by decreases in the final budget for communications sales and use taxes of \$28.5 million, deeds, contracts, wills, and suits taxes of \$29.9 million, tobacco products taxes of \$19.2 million, and other revenue primarily related to prior year expenditures refunded in the current fiscal year of \$70.3 million. Total actual General Fund revenues were higher than final budgeted revenues by \$787.6 million due to stronger actual than anticipated collections.

Total final budget expenditures were higher than original budget expenditures by \$410.2 million, or 1.8 percent. This increase was primarily attributable to budgeted expenditures for individual and family services of \$197.5 million, education of \$118.8 million, and administration of justice of \$44.1 million.

The Commonwealth spent less than planned so actual expenditures were \$508.1 million, or 2.2 percent, lower than final budget expenditures.

Budget Outlook

In order to mitigate the effects of difficult economic conditions over the past several years, the Commonwealth adopted temporary budget solutions such as accelerated sales taxes.

Virginia economic growth remained at a moderate pace in fiscal year 2019. Employment growth slowed slightly compared to the year before but was enough to put continued pressure on state labor markets. The state unemployment rate has recovered what it had lost during the recession and all areas of the state experienced unemployment rate improvements. Virginia housing market performance saw existing home sales and building permits issuance decrease while home price growth slowed. The state continued to trail the nation in growth on most major economic indicators such as employment, personal income, new housing permits, and housing prices. During fiscal year 2019, the two General Fund revenue sources most closely tied to current economic activity - individual income taxes and retail sales taxes - experienced increases when compared to the 2018 collections by \$1.1 billion (7.9 percent) and \$118.6 million (3.4 percent), respectively. The individual income tax collections were more than the estimated revenue by \$804.9 million (5.6 percent) and the retail sales taxes were less than the estimated revenue by \$10.7 million (0.3 percent).

The fiscal year 2019 revenue collections exceeded fiscal year 2018 and exceeded the fiscal year 2019 collections estimate. Based on the most recent General Fund revenue estimate, the fiscal year 2020 revenue is projected to increase 1.2 percent over the fiscal year 2019 revenue collections. This planned increase is a result of continued growth in individual income taxes and retail sales taxes. The Governor will release his amendments to the 2019-2020 biennial budget on December 17, 2019.

Major Special Revenue Fund Highlights

The Commonwealth Transportation Fund ended the fiscal year with a fund balance of \$2.9 billion. Approximately \$6.5 billion is contractually committed for various highways, public transportation, and rail preservation projects; \$978.0 million for individual contracts awarded with a contract value of \$1.0 million or more for operational and tolling services, facilities, and other non-highway construction-type contracts (see Note 22). Additionally, revenues decreased \$54.7 million, or 0.9 percent, and expenditures decreased \$568.4 million, or 9.3 percent. The revenue decrease was primarily due to decreases in other revenue of \$432.4 million, or 74.0 percent, offset by increases in tax collections of \$122.1 million, or 3.3 percent, and in federal income of \$122.9 million, or 12.8 percent. Expenditures decreased mainly for highway maintenance, acquisition, and construction.

The Federal Trust Fund balance increased by \$20.1 million, or 18.7 percent, primarily due to an increase in Federal Grants and Contracts revenue of approximately \$1.3 billion, or 14.0 percent, and a decrease in other revenue of \$229.0 million, or 98.0 percent, offset by a significant increase in expenditures of \$1.0 billion. This change in the Federal Grants and Contracts revenue was mainly attributed to an increase in Medicaid funding (\$1.0 billion). The remaining difference is distributed over many other federal programs. The Other revenue decrease is associated with timing of Medicaid Rebate collections. Expenditures increased primarily due to Medicaid spending. Net other financing sources and uses experienced an increase of \$6.8 million, or 44.9 percent, primarily attributable to lower transfers out to other funds.

The Literary Fund ending balance increased by \$16.8 million, or 1,623.1 percent. Additionally, while expenditures exceeded net receipts by \$115.2 million in fiscal year 2019, this is a significant improvement over the fiscal year 2018 operating results. The loans of \$189.9 million owed to the Virginia Public School Authority (major component unit) decreased by \$6.4 million, or 3.2 percent, and the transfers from other funds decreased by \$47.2 million, or 26.3 percent.

Capital Asset and Long-term Debt

Capital Assets. The primary government's investment in capital assets for its governmental and business-type activities as of June 30, 2019, amounts to \$33.8 billion (net of accumulated depreciation totaling \$14.9 billion). This investment in capital assets includes land, buildings, improvements, equipment, infrastructure, construction-in-progress, and intangible assets including water rights, easements, and software. Infrastructure assets are items that are normally immovable such as roads, bridges, drainage systems, and other similar assets. As noted on page 30, increases in capital assets offset by increases in total liabilities and deferred inflows of resources resulted in an increase in net position of the governmental activities of \$2.5 billion, or 11.1 percent. The increase in the primary government's net investment in capital assets was primarily attributable to increases in infrastructure of \$530.3 million. These changes are primarily attributable to transportation. The primary government reports equipment with a value of \$50,000 or greater and an expected useful life of two or more years. The primary government capitalizes all land, buildings, infrastructure, and intangible assets that have a cost or value greater than \$100,000 and an expected useful life of two or more years. Additional information on the primary government's capital assets can be found in Note 14, Capital Assets.

Figure 16
Capital Assets as of June 30, 2019
(Net of Depreciation)
(Dollars in Thousands)

	Governmental Activities	Business-type Activities	Total
Land	\$ 3,455,082	\$ 1,874	\$ 3,456,956
Buildings	2,734,880	9,923	2,744,803
Equipment	513,794	15,052	528,846
Water Rights/Easements	105,526	—	105,526
Infrastructure	22,734,396	—	22,734,396
Software	490,031	4,654	494,685
Construction-in-Progress	3,770,339	9,013	3,779,352
Total	<u>\$ 33,804,048</u>	<u>\$ 40,516</u>	<u>\$ 33,844,564</u>

Long-term Debt. The Commonwealth is prohibited from issuing general obligation bonds for operating purposes. At the end of the current fiscal year, the Commonwealth had total debt outstanding of \$46.5 billion, including total tax-supported debt of \$21.7 billion and total debt not supported by taxes of \$24.8 billion. Bonds backed by the full faith and credit of the government and tax-supported total \$1.3 billion. Debt is considered tax-supported if Commonwealth tax revenues are used or pledged for debt service payments. An additional \$926.5 million is considered moral obligation debt which is not tax-supported. The Commonwealth has no direct or indirect pledge of tax revenues to fund reserve deficiencies. However, in some cases, the Commonwealth has made a moral obligation pledge to consider funding deficiencies in debt service reserves that may occur. The remainder of the Commonwealth's debt represents bonds secured solely by specified revenue sources (i.e., revenue bonds).

During fiscal year 2019, the Commonwealth issued \$3.0 billion of new debt for various projects. Of this new debt, \$801.6 million was for the primary government and \$2.2 billion for the component units. Additional information on the Commonwealth's outstanding debt can be found in Note 28, Long-Term Liabilities, as well as in the Debt Schedules beginning on page 300. The Commonwealth maintains a "triple A" bond rating for general obligation debt from the three rating agencies: Moody's Investors Service, S & P Global Ratings, and Fitch Ratings.

State statutes limit the amount of general obligation debt the Commonwealth may issue for each specific type of debt. The 9(a) bonds, which may be issued to fund the defense of the Commonwealth, to meet casual deficits in revenue or in anticipation of the collection of revenues, or to redeem previous debt obligations, are limited to 30.0 percent of 1.15 times the annual tax revenues for fiscal year 2019. The 9(b) bonds, which have been authorized by the citizens of Virginia through bond referenda to finance capital projects, are limited to 1.15 times the average of selected tax revenues for fiscal years 2017, 2018, and 2019. The 9(c) bonds, which have been issued to finance capital projects that will generate revenue upon their completion, are limited to 1.15 times the average of selected tax revenues for fiscal years 2017, 2018, and 2019. The current debt limitation for the Commonwealth is shown below for the 9(a), 9 (b), and 9(c) general obligation bond issues. These limits significantly exceed the Commonwealth's outstanding general obligation debt.

Figure 17
Debt Issuance Margin and Outstanding Debt as of June 30, 2019
General Obligation Bonds
(Dollars in Thousands)

	Debt Issuance Margin	Outstanding Debt			
		Primary Government			Component Units
		Governmental Activities	Business-type Activities	Total	
General obligation bonds					
9(a)	\$ 6,802,826	\$ —	\$ —	\$ —	\$ —
9(b)	21,108,294	401,873	—	401,873	—
9(c)	20,602,433	14,628	—	14,628	893,106
Total		\$ 416,501	\$ —	\$ 416,501	\$ 893,106

Economic Factors and Review

During fiscal year 2019, the Commonwealth's economy continued to improve at a similar pace as the prior year. The Commonwealth experienced a lower job growth rate than at the national level (0.9 percent at the state level versus 1.7 percent nationally). Personal income growth reached 4.9 percent during fiscal year 2019, compared to 4.1 percent in fiscal year 2018. However, it lagged behind the national level (5.1 percent), as it has for past several fiscal years. Unemployment in the Commonwealth and at the national level continued to improve during the fiscal year, reaching 2.9 percent and 3.8 percent, respectively. During fiscal year 2019, total taxable sales growth in the Commonwealth mirrored fiscal year 2018, remaining at 1.9 percent. Economic indicators show that during fiscal year 2019, the housing market in the Commonwealth experienced a 1.0 percent decrease compared to an increase of 1.7 percent in fiscal year 2018. Additionally, housing prices in the Commonwealth again showed a positive change for fiscal year 2019, with an increase of approximately 4.4 percent, compared to just over 5.7 percent at the national level. Many major economic indicators show that the Commonwealth's growth was moderately slow during the fiscal year as it has been during most of the economic expansion. The Commonwealth continues to fall behind the nation in most areas, which reflects its reliance on the slower growing federal employment and other less unstable industries.

Requests for Information

This financial report is designed to provide a general overview of the Commonwealth's finances for all those with an interest in the government's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the State Comptroller's Office, Commonwealth of Virginia, P. O. Box 1971, Richmond, Virginia 23218. This report is also available for download at www.doa.virginia.gov.

The Commonwealth's component units issue their own separate financial statements. Contact information regarding each component unit is provided in Note 1.B.



Government-wide Financial Statements

Statement of Net Position

June 30, 2019

(Dollars in Thousands)

	Primary Government			Component Units
	Governmental Activities	Business-type Activities	Total	
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents (Notes 1 and 8)	\$ 5,743,647	\$ 1,813,603	\$ 7,557,250	\$ 2,997,691
Investments (Notes 1 and 8)	3,249,314	2,746,184	5,995,498	12,698,269
Assets Held Pending Distribution (Note 1)	—	112,983	112,983	—
Receivables, Net (Notes 1 and 9)	4,645,524	440,431	5,085,955	15,186,399
Contributions Receivable, Net (Notes 1 and 10)	—	—	—	631,088
Internal Balances (Note 1)	89,117	(89,117)	—	—
Due from Primary Government (Note 11)	—	—	—	30,603
Due from Component Units (Note 11)	31,256	—	31,256	119,255
Due from External Parties (Fiduciary Funds) (Note 11)	66,283	—	66,283	—
Inventory (Note 1)	172,381	94,905	267,286	146,518
Prepaid Items (Note 1)	116,500	3,309	119,809	143,673
Other Assets (Notes 1 and 12)	3,743	207	3,950	107,160
Loans Receivable from Primary Government (Notes 1 and 11)	—	—	—	189,935
Loans Receivable from Component Units (Notes 1 and 11)	4,197	—	4,197	—
Restricted Cash and Cash Equivalents (Notes 8 and 13)	1,572,114	—	1,572,114	2,455,996
Restricted Investments (Notes 8 and 13)	334,896	—	334,896	7,333,018
Other Restricted Assets (Note 13)	134,598	5,067	139,665	379,352
Nondepreciable Capital Assets (Notes 1 and 14)	8,639,167	10,887	8,650,054	3,505,531
Depreciable Capital Assets, Net (Notes 1 and 14)	25,164,881	29,629	25,194,510	18,622,568
Total Assets	49,967,618	5,168,088	55,135,706	64,547,056
Deferred Outflows of Resources (Notes 1, 15, 16, 17, and 19)				
Total Assets and Deferred Outflows of Resources	50,735,789	5,190,932	55,926,721	65,402,485
Liabilities and Deferred Inflows of Resources				
Accounts Payable (Notes 1 and 26)	1,275,893	79,700	1,355,593	1,452,233
Amounts Due to Other Governments	1,133,711	12,411	1,146,122	106,943
Due to Primary Government (Note 11)	—	—	—	31,256
Due to Component Units (Note 11)	30,603	—	30,603	119,255
Due to External Parties (Fiduciary Funds) (Note 11)	29,410	988	30,398	35,547
Unearned Revenue (Note 1)	351,721	5,562	357,283	370,886
Obligations Under Securities Lending (Notes 1 and 8)	641,333	72,548	713,881	67,529
Due to Claimants, Participants, Escrows and Providers (Note 1)	452,159	64,417	516,576	—
Other Liabilities (Notes 1, 16, and 27)	2,837,393	82,025	2,919,418	2,067,249
Loans Payable to Primary Government (Notes 1 and 11)	—	—	—	4,197
Loans Payable to Component Units (Notes 1 and 11)	189,935	—	189,935	—
Claims Payable (Notes 1 and 25):				
Due Within One Year	206,323	59,221	265,544	194,255
Due in More Than One Year	677,648	28,637	706,285	32,999
Long-term Liabilities (Notes 1, 23, 24, and 28):				
Due Within One Year	678,273	303,192	981,465	1,734,655
Due in More Than One Year	12,995,451	1,983,194	14,978,645	28,798,511
Total Liabilities	21,499,853	2,691,895	24,191,748	35,015,515
Deferred Inflows of Resources (Notes 1, 15, 16, 17, 19, and 38)				
Total Liabilities and Deferred Inflows of Resources	25,992,882	2,718,955	28,711,837	35,769,524

The accompanying notes are an integral part of this financial statement.

	Primary Government			Component Units
	Governmental Activities	Business-type Activities	Total	
Net Position				
Net Investment in Capital Assets	26,031,917	39,998	26,071,915	12,057,334
Restricted For:				
Nonexpendable:				
Higher Education	—	—	—	4,408,376
Permanent Funds	39,073	—	39,073	—
Other	—	—	—	171,291
Expendable:				
Agriculture and Forestry	8,949	—	8,949	—
Bond Indenture	—	—	—	3,103,521
Capital Projects/Construction/Capital Acquisition	38,849	—	38,849	1,861,630
Contract and Debt Administration	656	—	656	—
Debt Service	127,747	—	127,747	160,936
Economic and Technological Development	37	—	37	—
Educational and Training Programs	2,746	—	2,746	—
Environmental Quality and Natural Resource Preservation	22,639	—	22,639	—
Gifts and Grants	110,299	—	110,299	135,721
Health and Public Safety	61,949	—	61,949	—
Higher Education	—	—	—	6,706,957
Literary Fund	42,900	—	42,900	—
Lottery Proceeds Fund	37,659	—	37,659	—
Net Other Postemployment Benefit - Virginia Sickness and Disability Program	112,865	4,161	117,026	72,053
Permanent Funds	1,850	—	1,850	—
Revenue Stabilization Fund	629,654	—	629,654	—
Transportation Activities	952,637	—	952,637	—
Unemployment Compensation Trust Fund	—	1,480,964	1,480,964	—
Virginia Pooled Investment Program	—	—	—	7,760
Virginia Water Supply Assistance Grant Fund	2,154	—	2,154	—
Other	1,814	—	1,814	9,107
Unrestricted	(3,483,487)	946,854	(2,536,633)	938,275
Total Net Position	<u>\$ 24,742,907</u>	<u>\$ 2,471,977</u>	<u>\$ 27,214,884</u>	<u>\$ 29,632,961</u>

Statement of Activities

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Functions/Programs	Program Revenues			
	Expenses	Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions
Primary Government				
Governmental Activities				
General Government	\$ 3,217,820	\$ 307,133	\$ 119,151	\$ 17,998
Education	11,103,677	684,332	1,153,240	8,370
Transportation	4,927,117	826,744	58,939	1,467,989
Resources and Economic Development	1,027,271	399,564	188,766	32,509
Individual and Family Services	16,566,424	279,464	9,346,175	144
Administration of Justice	2,946,304	299,381	60,962	1,443
Interest and Charges on Long-term Debt	256,962	—	—	—
Total Governmental Activities	40,045,575	2,796,618	10,927,233	1,528,453
Business-type Activities				
Virginia Lottery	1,642,754	2,293,897	—	—
Virginia College Savings Plan	61,321	306,444	—	—
Unemployment Compensation	273,566	410,995	—	—
Alcoholic Beverage Control	699,242	903,299	32	—
Risk Management	14,894	13,300	—	—
Local Choice Health Care	473,076	482,048	—	—
Line of Duty	17,836	17,840	—	—
Virginia Industries for the Blind	50,158	51,341	—	—
Consolidated Laboratory	10,552	11,685	—	—
eVA Procurement System	20,797	21,437	—	—
Department of Environmental Quality Title V	10,179	11,985	—	—
Wireless E-911	44,134	63,464	—	—
Museum and Library Gift Shops	7,221	7,428	—	—
Behavioral Health Canteen and Work Activity	299	333	—	—
Total Business-type Activities	3,326,029	4,595,496	32	—
Total Primary Government	\$ 43,371,604	\$ 7,392,114	\$ 10,927,265	\$ 1,528,453
Component Units				
Virginia Housing Development Authority	\$ 354,988	\$ 368,588	\$ 113,658	\$ —
Virginia Public School Authority	127,670	125,391	8,143	—
Virginia Resources Authority	158,302	121,842	26,979	90,044
Virginia College Building Authority	727,558	67,414	42,562	3,753
Nonmajor	16,854,152	11,795,112	2,718,998	702,430
Total Component Units	\$ 18,222,670	\$ 12,478,347	\$ 2,910,340	\$ 796,227

The accompanying notes are an integral part of this financial statement.

Net (Expense) Revenue and Changes in Net Position

Primary Government			
Governmental Activities	Business-type Activities	Total	Component Units
\$ (2,773,538)	\$ —	\$ (2,773,538)	\$ —
(9,257,735)	—	(9,257,735)	—
(2,573,445)	—	(2,573,445)	—
(406,432)	—	(406,432)	—
(6,940,641)	—	(6,940,641)	—
(2,584,518)	—	(2,584,518)	—
(256,962)	—	(256,962)	—
(24,793,271)	—	(24,793,271)	—
—	651,143	651,143	—
—	245,123	245,123	—
—	137,429	137,429	—
—	204,089	204,089	—
—	(1,594)	(1,594)	—
—	8,972	8,972	—
—	4	4	—
—	1,183	1,183	—
—	1,133	1,133	—
—	640	640	—
—	1,806	1,806	—
—	19,330	19,330	—
—	207	207	—
—	34	34	—
—	1,269,499	1,269,499	—
(24,793,271)	1,269,499	(23,523,772)	—
—	—	—	127,258
—	—	—	5,864
—	—	—	80,563
—	—	—	(613,829)
—	—	—	(1,637,612)
—	—	—	(2,037,756)

Continued on next page

Statement of Activities (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Net (Expense) Revenue and Changes in Net Position			
	Primary Government			Component Units
	Governmental Activities	Business-type Activities	Total	
General Revenues				
Taxes				
Individual and Fiduciary Income	14,872,136	—	14,872,136	—
Sales and Use	5,457,799	—	5,457,799	—
Corporation Income	923,683	—	923,683	—
Motor Fuel	1,083,719	—	1,083,719	—
Motor Vehicle Sales and Use	971,987	—	971,987	—
Communications Sales and Use	359,011	—	359,011	—
Deeds, Contracts, Wills, and Suits	442,970	—	442,970	—
Premiums of Insurance Companies	554,299	—	554,299	—
Alcoholic Beverage Sales	174,144	—	174,144	—
Tobacco Products	151,287	—	151,287	—
Estate	216	—	216	—
Public Service Corporations	111,996	—	111,996	—
Beer and Beverage Excise	41,249	—	41,249	—
Wine and Spirits/ABC Liter	29,484	—	29,484	—
Bank Stock	29,780	—	29,780	—
Other Taxes	518,694	9,141	527,835	—
Operating Appropriations from Primary Government	—	—	—	2,468,873
Unrestricted Grants and Contributions	60,108	—	60,108	116,904
Investment Earnings	238,588	1,841	240,429	576,875
Miscellaneous	368,744	414	369,158	168,114
Transfers	875,396	(875,396)	—	—
Contributions to Permanent and Term Endowments	—	—	—	491,028
Total General Revenues, Transfers, and Contributions	27,265,290	(864,000)	26,401,290	3,821,794
Change in Net Position	2,472,019	405,499	2,877,518	1,784,038
Net Position, July 1, as restated (Note 2)	22,270,888	2,066,478	24,337,366	27,848,923
Net Position, June 30	\$ 24,742,907	\$ 2,471,977	\$ 27,214,884	\$ 29,632,961

The accompanying notes are an integral part of this financial statement.

Governmental Funds

General Fund

The General Fund accounts for transactions related to resources received and used for those services traditionally provided by a state government, which are not accounted for in any other fund.

Special Revenue Funds

Special Revenue Funds account for specific revenue sources that are restricted or committed to finance particular functions and activities of the Commonwealth.

The Commonwealth Transportation Fund accounts for the revenues and expenditures associated with highway operations, maintenance, construction, and other transportation related activities. Funding for these programs is provided from highway user taxes, fees, and funds received from the federal government.

The Federal Trust Fund accounts for all federal dollars received by the Commonwealth except those received by the Commonwealth Transportation Fund, the Unemployment Compensation Fund, certain Medicaid reimbursements recorded in the General Fund, the Grant Anticipation Revenue Notes and Build America Bond Subsidies reported in the Debt Service Fund, and institutions of higher education. The entire fund is restricted pursuant to federal regulations.

The Literary Fund accounts for revenues from fines, forfeitures, and proceeds from unclaimed property used primarily to support public education in the Commonwealth. This fund provides low interest loans to school divisions for construction, renovations, and expansion of school buildings. The entire fund is constitutionally restricted for public schools.

Nonmajor Governmental Funds include those Special Revenue, Debt Service, Capital Projects, and Permanent Funds listed on page 225 in the Combining and Individual Fund Statements and Schedules section of this report.

Balance Sheet - Governmental Funds

June 30, 2019

(Dollars in Thousands)

	Special Revenue			
	General	Commonwealth Transportation	Federal Trust	Literary
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents (Notes 1 and 8)	\$ 316,430	\$ 3,480,052	\$ 170,171	\$ 108,203
Investments (Notes 1 and 8)	2,986,289	—	—	—
Receivables, Net (Notes 1 and 9)	2,111,585	524,941	1,585,726	135,274
Due from Other Funds (Note 11)	44,048	64,838	171	2,420
Due from External Parties (Fiduciary Funds) (Note 11)	3,773	—	21,537	—
Interfund Receivable (Note 11)	—	—	—	—
Inventory (Note 1)	28,801	95,483	23,813	—
Prepaid Items (Note 1)	73,888	14,453	6,136	—
Other Assets (Notes 1 and 12)	1,217	282	1,607	—
Loans Receivable from Component Units (Notes 1 and 11)	—	—	—	—
Restricted Cash and Cash Equivalents (Notes 8 and 13)	—	432,617	—	—
Total Assets	5,566,031	4,612,666	1,809,161	245,897
Deferred Outflows of Resources (Notes 1 and 15)				
Total Assets and Deferred Outflows of Resources	\$ 5,566,031	\$ 4,612,666	\$ 1,809,161	\$ 245,897
Liabilities, Deferred Inflows of Resources, and Fund Balances				
Accounts Payable (Notes 1 and 26)	\$ 380,257	\$ 511,252	\$ 85,715	\$ 1
Amounts Due to Other Governments	440,485	72,737	424,113	—
Due to Other Funds (Note 11)	40,113	61,829	9,911	—
Due to Component Units (Note 11)	393	—	3,401	—
Due to External Parties (Fiduciary Funds) (Note 11)	19,085	5,156	2,421	—
Interfund Payable (Note 11)	2,535	3,401	25,619	—
Unearned Revenue (Note 1)	70	165,200	51,877	—
Obligations Under Securities Lending Program (Notes 1 and 8)	314,069	230,097	2,508	13,061
Due to Claimants, Participants, Escrows and Providers (Note 1)	—	—	308	—
Other Liabilities (Notes 1 and 27)	1,632,522	1,242	990,608	—
Loans Payable to Component Units (Notes 1 and 11)	—	—	—	189,935
Long-term Liabilities Due Within One Year (Notes 1, 23, and 28)	4,634	440	112	—
Total Liabilities	2,834,163	1,051,354	1,596,593	202,997
Deferred Inflows of Resources (Notes 1, 15, and 28)				
Total Liabilities and Deferred Inflows of Resources	1,129,195	678,594	84,893	25,066
Fund Balances (Note 3):				
Nonspendable	102,685	109,936	29,949	—
Restricted	669,467	501,620	97,726	17,834
Committed	1,094,750	2,271,162	—	—
Assigned	—	—	—	—
Unassigned	(264,229)	—	—	—
Total Fund Balances	1,602,673	2,882,718	127,675	17,834
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	\$ 5,566,031	\$ 4,612,666	\$ 1,809,161	\$ 245,897

The accompanying notes are an integral part of this financial statement.

Nonmajor Governmental Funds	Total Governmental Funds
\$ 1,920,330	\$ 5,995,186
597,921	3,584,210
175,960	4,533,486
47,860	159,337
40,726	66,036
271,152	271,152
7,203	155,300
9,964	104,441
637	3,743
4,197	4,197
—	432,617
3,075,950	15,309,705
—	—
<u>\$ 3,075,950</u>	<u>\$ 15,309,705</u>
\$ 76,641	\$ 1,053,866
6,280	943,615
69,475	181,328
12,802	16,596
2,317	28,979
—	31,555
29,945	247,092
25,745	585,480
451,851	452,159
134,381	2,758,753
—	189,935
266	5,452
809,703	6,494,810
34,791	1,952,539
844,494	8,447,349
56,211	298,781
1,525,862	2,812,509
677,990	4,043,902
34,013	34,013
(62,620)	(326,849)
2,231,456	6,862,356
<u>\$ 3,075,950</u>	<u>\$ 15,309,705</u>

Reconciliation of the Balance Sheet – Governmental Funds to the Government-wide Statement of Net Position

June 30, 2019

(Dollars in Thousands)

Total fund balances - governmental funds (see Balance Sheet - Governmental Funds)	\$ 6,862,356
When the amount employers have paid into an other post-employment benefit (OPEB) plan combined with the plan's assets exceeds the amount that is required to pay the actuarially determined future benefits, the cost of employer contributions are reported as expenditures in the governmental funds. However, the Statement of Net Position includes the Net OPEB asset among the assets of the primary government as a whole.	132,163
When capital assets (land, buildings, equipment, construction-in-progress, intangible assets, and/or infrastructure) that are to be used in governmental activities are purchased or constructed, the costs of those assets are reported as expenditures in governmental funds. However, the Statement of Net Position includes those capital assets among the assets of the primary government as a whole.	
Nondepreciable Capital Assets	8,605,386
Depreciable Capital Assets	25,035,703
Assets to be received for Long-term Debt Service requirements are not reported in the fund statements.	76,502
Deferred outflows associated with pension and other postemployment benefit related costs are long-term in nature and, therefore, not reported in the funds.	684,763
Deferred outflows associated with loss on debt refundings are long-term in nature and, therefore, not reported in the funds.	72,669
Long-term liabilities applicable to the primary government's governmental activities are not due and payable in the current period and, accordingly, are not reported as fund liabilities. All liabilities, both current and long-term, are reported in the Statement of Net Position.	
Pension Liability	(3,740,506)
Net OPEB Liability	(792,177)
Total OPEB Liability	(557,268)
Capital Leases	(16,075)
Installment Purchases	(78,087)
Compensated Absences	(306,477)
Uninsured Employer's Fund	(22,562)
Bonds	(7,978,904)
Accrued Interest Payable	(77,798)
Other Obligations	(31,109)
Pollution Remediation Liability	(10,430)
Internal service funds are used by the primary government to charge costs to individual funds. The assets and deferred outflows, and liabilities and deferred inflows of internal service funds are included in governmental activities in the Statement of Net Position.	(224,371)
Other long-term payables are not due and payable in the current period and, therefore, are not reported in the funds.	(363,264)
Deferred inflows are not available to pay for current period expenditures and, therefore, are not reported in the funds.	1,341,611
Deferred inflows associated with Service Concession Arrangements capital assets are long-term in nature and, therefore, not reported in the funds.	(2,939,560)
Deferred inflows associated with pension and other postemployment benefit related costs are long-term in nature and, therefore, not reported in the funds.	(929,638)
Deferred inflows associated with gain on debt refundings are long-term in nature and, therefore, not reported in the funds.	(20)
Net position of governmental activities (see Government-wide Statement of Net Position)	\$ 24,742,907

The accompanying notes are an integral part of this financial statement.



Statement of Revenues, Expenditures, and Changes in Fund Balances - Governmental Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Special Revenue			
	General	Commonwealth Transportation	Federal Trust	Literary
Revenues				
Taxes	\$ 21,406,963	\$ 3,827,035	\$ —	\$ —
Rights and Privileges	93,508	700,434	134	482
Institutional Revenue	38,720	—	—	—
Interest, Dividends, Rents, and Other Investment Income	185,366	81,463	1,530	14,619
Federal Grants and Contracts	10,173	1,081,561	10,777,508	—
Other (Note 29)	386,202	542,179	5,025	47,419
Total Revenues	22,120,932	6,232,672	10,784,197	62,520
Expenditures				
Current:				
General Government	2,440,560	87,798	123,188	500
Education	9,098,528	2,314	1,139,195	177,176
Transportation	203	5,429,862	20,031	—
Resources and Economic Development	433,707	20,388	180,039	—
Individual and Family Services	7,010,342	—	9,198,176	—
Administration of Justice	2,919,594	10,697	73,551	—
Capital Outlay	2,468	27,267	21,559	—
Debt Service:				
Principal Retirement	—	—	—	—
Interest and Charges	—	—	—	—
Total Expenditures	21,905,402	5,578,326	10,755,739	177,676
Revenues Over (Under) Expenditures	215,530	654,346	28,458	(115,156)
Other Financing Sources (Uses)				
Transfers In (Note 34)	951,729	16,113	1,689	131,955
Transfers Out (Note 34)	(414,827)	(459,940)	(10,022)	—
Notes Issued	2,713	—	—	—
Insurance Recoveries	85	—	17	—
Capital Leases Issued	557	—	—	—
Bonds Issued	—	311,715	—	—
Premium on Debt Issuance	—	29,921	—	—
Refunding Bonds Issued	—	—	—	—
Sale of Capital Assets	3,432	3,285	—	—
Payment to Refunded Bond Escrow Agents	—	—	—	—
Total Other Financing Sources (Uses)	543,689	(98,906)	(8,316)	131,955
Net Change in Fund Balances	759,219	555,440	20,142	16,799
Fund Balance, July 1, as restated (Note 2)	843,454	2,327,278	107,533	1,035
Fund Balance, June 30	\$ 1,602,673	\$ 2,882,718	\$ 127,675	\$ 17,834

The accompanying notes are an integral part of this financial statement.

Nonmajor Governmental Funds	Total Governmental Funds
\$ 441,702	\$ 25,675,700
334,775	1,129,333
171,154	209,874
76,576	359,554
129,804	11,999,046
584,784	1,565,609
<u>1,738,795</u>	<u>40,939,116</u>
122,037	2,774,083
31,011	10,448,224
4,432	5,454,528
380,804	1,014,938
745,005	16,953,523
82,020	3,085,862
564,764	616,058
427,210	427,210
321,144	321,144
<u>2,678,427</u>	<u>41,095,570</u>
(939,632)	(156,454)
887,490	1,988,976
(221,549)	(1,106,338)
16,628	19,341
2,207	2,309
208	765
336,950	648,665
52,845	82,766
43,360	43,360
—	6,717
(49,308)	(49,308)
<u>1,068,831</u>	<u>1,637,253</u>
129,199	1,480,799
2,102,257	5,381,557
<u>\$ 2,231,456</u>	<u>\$ 6,862,356</u>

Reconciliation of the Statement of Revenues, Expenditures, and Changes in Fund Balances – Governmental Funds to the Government-wide Statement of Activities

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Net Change in fund balances - total government funds (See Statement of Revenues, Expenditures, and Changes in Fund Balances - Governmental Funds) \$ 1,480,799

When capital assets that are to be used in governmental activities are purchased or constructed, the resources expended for those assets are reported as expenditures in governmental funds. However, in the Statement of Activities, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. As a result, fund balance decreases by the amount of financial resources expended, whereas net position decreases by the amount of depreciation expense charged for the year.

Nondepreciable Capital Assets Constructed/Acquired	1,752,761
Nondepreciable Capital Assets Disposed	(41,541)
Depreciable Capital Assets Acquired	334,463
Depreciable Capital Assets Disposed	(248,988)
Depreciation Expense	(1,299,166)

Debt proceeds provide current financial resources to governmental funds by issuing debt, which increases long-term debt in the Statement of Net Position

Debt Issuance	(648,665)
Capital Lease Proceeds	(765)
Bond Premiums	(82,766)
Refunding Bonds Issued	(43,360)
Installment Purchase Proceeds	(19,341)

Repayment of debt principal is an expenditure in the governmental funds, but the repayment reduces long-term debt in the Statement of Net Position. 427,210

Payment to Refunded Bond Escrow Agent is an expenditure in the governmental funds, but the refunding reduces long-term debt in the Statement of Net Position. 49,308

Some revenues in the Statement of Activities do not provide current financial resources and, therefore, are deferred inflows of resources in the funds. Also, revenues related to prior periods that became available during the current period are reported in the funds but are eliminated in the Statement of Activities. This amount is the net adjustment. 50,696

Increases/decreases of expenses reported in the Statement of Activities that do not require the use of, or provide, current financial resources and, therefore, are not reported in the governmental funds.

Increase (Decrease) in Net OPEB Asset	8,275
(Increase) Decrease in Net Pension Liability	265,785
(Increase) Decrease in Net OPEB Liability	8,904
(Increase) Decrease in Total OPEB Liability	14,576
(Increase) Decrease in Other Long-term Liabilities	(6,538)
(Increase) Decrease in Compensated Absences	(7,046)
(Increase) Decrease in Interest Expense, Amortization of Long-term Debt premium and discounts, and Accrued Interest Liability	79,257
(Increase) Decrease in Other Liabilities	416

Net (increase) decrease in Due to Component Units for capital and other projects resulting from appropriation reductions or amounts which are not reported as expenditures in the fund statements. 152,268

Net revenue (expenses) of certain activities of internal service funds is reported within governmental activities. 202,750

Deferred inflows and outflows associated with pension and OPEB costs are not included in the funds. (1,740)

Amortization of deferred inflows and/or outflows associated with Service Concession Arrangements capital assets are not included in the funds. 44,467

Change in net position of governmental activities (See Government-wide Statement of Activities) \$ 2,472,019

The accompanying notes are an integral part of this financial statement.

Proprietary Funds

The Proprietary Funds account for operations that are financed and operated in a manner similar to private business enterprises. It is the intent that the cost of providing such goods or services will be recovered through user charges.

Major Enterprise Funds

The Virginia Lottery accounts for all receipts and expenses from the operations of the Virginia Lottery.

The Virginia College Savings Plan (The Plan) administers the Prepaid529 Program, which is a defined benefit program that services contracts for actuarially determined amounts that provide for full future tuition and mandatory fee payments at Virginia's higher education institutions and differing payouts at private or out-of-state institutions. The fund accounts for the actuarially determined contributions and payments for approved expenses. Eide Bailly, LLP, audits the Plan, and a separate report is issued.

The Unemployment Compensation Fund administers the temporary partial income replacement payments to unemployed covered workers.

Nonmajor Enterprise Funds include those operations of state agencies which are listed on page 237 in the Combining and Individual Fund Statements and Schedules section of this report.

Internal Service Funds include those operations of state agencies which are listed on page 253 in the Combining and Individual Fund Statements and Schedules section of this report.

Statement of Fund Net Position - Proprietary Funds

June 30, 2019

(Dollars in Thousands)

Business-type Activities Enterprise Funds

	Virginia Lottery	Virginia College Savings Plan	Unemployment Compensation	Nonmajor
Assets and Deferred Outflows of Resources				
Current Assets:				
Cash and Cash Equivalents (Notes 1 and 8)	\$ 87,173	\$ 67,629	\$ 1,471,053	\$ 187,748
Assets Held Pending Distribution (Note 1)	10,691	—	—	—
Receivables, Net (Notes 1 and 9)	72,486	72,713	77,639	57,958
Due from Other Funds (Note 11)	—	—	816	998
Due from External Parties (Fiduciary Funds) (Note 11)	—	—	—	—
Due from Component Units (Note 11)	—	—	—	—
Inventory (Note 1)	9,456	—	—	85,449
Prepaid Items (Note 1)	500	785	—	2,024
Other Assets (Notes 1 and 12)	1	—	—	206
Total Current Assets	180,307	141,127	1,549,508	334,383
Noncurrent Assets:				
Investments (Notes 1 and 8)	—	2,746,184	—	—
Assets Held Pending Distribution (Note 1)	102,292	—	—	—
Receivables, Net (Notes 1 and 9)	—	159,635	—	—
Other Assets (Notes 1 and 12)	1,015	444	—	3,608
Nondepreciable Capital Assets (Notes 1 and 14)	—	—	—	10,887
Depreciable Capital Assets, Net (Notes 1 and 14)	11,806	1,045	—	16,778
Total Noncurrent Assets	115,113	2,907,308	—	31,273
Total Assets	295,420	3,048,435	1,549,508	365,656
Deferred Outflows of Resources (Notes 1, 15, 16, 17, and 19)				
Total Assets and Deferred Outflows of Resources	299,073	3,050,457	1,549,508	382,825
Liabilities and Deferred Inflows of Resources				
Current Liabilities:				
Accounts Payable (Notes 1 and 26)	18,452	1,004	59	60,185
Amounts Due to Other Governments	—	—	4,486	7,925
Due to Other Funds (Note 11)	29,505	92	318	18,130
Due to External Parties (Fiduciary Funds) (Note 11)	194	83	—	711
Interfund Payable (Note 11)	—	—	—	44,995
Unearned Revenue (Note 1)	1,567	—	—	3,995
Due to Claimants, Participants, Escrows and Providers (Note 1)	—	736	63,681	—
Obligations Under Securities Lending Program (Notes 1 and 8)	59,630	190	—	12,728
Other Liabilities (Notes 1 and 27)	70,036	11,853	—	136
Claims Payable Due Within One Year (Notes 1 and 25)	—	—	—	59,221
Long-term Liabilities Due Within One Year (Notes 1, 23, and 28)	12,280	283,843	—	7,069
Total Current Liabilities	191,664	297,801	68,544	215,095
Noncurrent Liabilities:				
Interfund Payable (Note 11)	—	—	—	—
Claims Payable Due in More Than One Year (Notes 1 and 25)	—	—	—	28,637
Long-term Liabilities Due in More Than One Year (Notes 1, 23, and 28)	134,667	1,721,534	—	126,993
Total Noncurrent Liabilities	134,667	1,721,534	—	155,630
Total Liabilities	326,331	2,019,335	68,544	370,725
Deferred Inflows of Resources (Notes 1, 15, 16, 17, and 19)				
Total Liabilities and Deferred Inflows of Resources	331,319	2,021,093	68,544	391,039
Net Position				
Net Investment in Capital Assets	11,806	1,045	—	27,147
Restricted for Net Other Postemployment Benefit - Virginia Sickness and Disability Program	873	362	—	2,926
Restricted for Unemployment Compensation	—	—	1,480,964	—
Unrestricted	(44,925)	1,027,957	—	(38,287)
Total Net Position (Deficit) (Note 4)	\$ (32,246)	\$ 1,029,364	\$ 1,480,964	\$ (8,214)

Some amounts reported for business-type activities in the Statement of Net Position are different because certain internal service fund assets and liabilities are included in business-type activities.

Net position of business-type activities

The accompanying notes are an integral part of this financial statement.

	Governmental Activities	
Total	Internal Service Funds	
\$ 1,813,603	\$	887,958
10,691		—
280,796		35,536
1,814		70,474
—		247
—		30,391
94,905		17,081
3,309		12,059
207		31,294
2,205,325		1,085,040
2,746,184		—
102,292		—
159,635		—
5,067		2,423
10,887		33,781
29,629		129,178
3,053,694		165,382
5,259,019		1,250,422
22,844		10,739
5,281,863		1,261,161
79,700		93,768
12,411		40
48,045		2,252
988		431
44,995		91,701
5,562		105,211
64,417		—
72,548		55,853
82,025		23
59,221		206,323
303,192		10,445
773,104		566,047
—		102,901
28,637		677,648
1,983,194		123,944
2,011,831		904,493
2,784,935		1,470,540
27,060		12,883
2,811,995		1,483,423
39,998		122,863
4,161		2,011
1,480,964		—
944,745		(347,136)
\$ 2,469,868	\$	(222,262)
2,109		
\$ 2,471,977		

Statement of Revenues, Expenses, and Changes in Fund Net Position - Proprietary Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Business-type Activities Enterprise Funds			
	Virginia Lottery	Virginia College Savings Plan	Unemployment Compensation	Nonmajor
Operating Revenues				
Charges for Sales and Services	\$ 2,293,565	\$ 175,317	\$ 379,007	\$ 1,557,970
Interest, Dividends, Rents, and Other Investment Income	—	131,119	31,795	3
Other (Note 29)	—	—	193	21,991
Total Operating Revenues	2,293,565	306,436	410,995	1,579,964
Operating Expenses				
Cost of Sales and Services	165,372	—	—	544,849
Prizes and Claims (Note 31)	1,399,749	—	273,566	476,936
Tuition Benefits Expense	—	32,089	—	—
Personal Services	30,032	12,370	—	143,839
Contractual Services	40,921	12,733	—	88,683
Supplies and Materials	460	62	—	8,405
Depreciation	3,264	227	—	2,990
Rent, Insurance, and Other Related Charges	2,561	897	—	38,998
Interest Expense	—	—	—	—
Non-recurring Cost Estimate Payments to Providers	—	—	—	42,066
Other (Note 32)	—	2,856	—	3,405
Total Operating Expenses	1,642,359	61,234	273,566	1,350,171
Operating Income	651,206	245,202	137,429	229,793
Nonoperating Revenues (Expenses)				
Interest, Dividends, Rents, and Other Investment Income	2,173	8	—	4,178
Other (Note 33)	82	(34)	—	8,691
Total Nonoperating Revenues (Expenses)	2,255	(26)	—	12,869
Income Before Transfers	653,461	245,176	137,429	242,662
Transfers In (Note 34)	—	—	—	121
Transfers Out (Note 34)	(651,659)	(381)	(1,480)	(221,997)
Change in Net Position	1,802	244,795	135,949	20,786
Total Net Position (Deficit), July 1	(34,048)	784,569	1,345,015	(29,000)
Total Net Position (Deficit), June 30 (Note 4)	\$ (32,246)	\$ 1,029,364	\$ 1,480,964	\$ (8,214)

Some amounts reported for business-type activities in the Statement of Activities are different because the net revenue (expense) of certain internal service funds is reported with business-type activities.

Change in Net Position of business-type activities

The accompanying notes are an integral part of this financial statement.

		Governmental Activities	
Total		Internal Service Funds	
\$ 4,405,859	\$	2,429,579	
162,917		—	
22,184		—	
4,590,960		2,429,579	
710,221		59,207	
2,150,251		1,472,386	
32,089		—	
186,241		54,709	
142,337		502,761	
8,927		8,509	
6,481		25,273	
42,456		98,340	
—		44	
42,066		—	
6,261		10,835	
3,327,330		2,232,064	
1,263,630		197,515	
6,359		16,167	
8,739		(1,523)	
15,098		14,644	
1,278,728		212,159	
121		388	
(875,517)		(7,630)	
403,332		204,917	
2,066,536		(427,179)	
\$ 2,469,868	\$	(222,262)	
2,167			
\$ 405,499			

Statement of Cash Flows - Proprietary Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Business-type Activities			
	Enterprise Funds			
	Virginia Lottery	Virginia College Savings Plan	Unemployment Compensation	Nonmajor
Cash Flows from Operating Activities				
Receipts for Sales and Services	\$ 2,290,189	\$ 158,738	\$ 394,345	\$ 1,561,565
Receipts from Investments	—	—	31,827	—
Internal Activity-Receipts from Other Funds	—	—	2,954	9,737
Internal Activity-Payments to Other Funds	—	(243)	—	(3,202)
Payments to Suppliers for Goods and Services	(164,681)	(665)	—	(609,679)
Payments for Contractual Services	(34,811)	(12,616)	—	(86,219)
Payments for Prizes, Claims, and Loss Control (Note 36)	(1,418,938)	—	(282,473)	(471,856)
Payments for Tuition Benefits	—	(177,248)	—	—
Payments to Employees	(31,806)	(12,650)	—	(150,264)
Payments to Providers for Non-recurring Cost Estimates	—	—	—	(41,486)
Other Operating Revenue (Note 36)	—	—	152	5,206
Other Operating Expense (Note 36)	—	(2,185)	—	(2,265)
Net Cash Provided by (Used for) Operating Activities	639,953	(46,869)	146,805	211,537
Cash Flows from Noncapital Financing Activities				
Transfers In from Other Funds	—	—	—	121
Transfers Out to Other Funds	(634,354)	(381)	(1,293)	(474,662)
Other Noncapital Financing Receipt Activities (Note 36)	399	—	5	306,527
Other Noncapital Financing Disbursement Activities (Note 36)	—	—	—	(40,469)
Net Cash Provided by (Used for) Noncapital Financing Activities	(633,955)	(381)	(1,288)	(208,483)
Cash Flows from Capital and Related Financing Activities				
Acquisition of Capital Assets	(2,135)	(535)	—	(9,584)
Payment of Principal and Interest on Bonds and Notes	—	—	—	(62)
Proceeds from Sale of Capital Assets	7	—	—	—
Net Cash Used for Capital and Related Financing Activities	(2,128)	(535)	—	(9,646)
Cash Flows from Investing Activities				
Purchase of Investments	(2,144)	(857,004)	—	—
Proceeds from Sales or Maturities of Investments	10,755	807,441	—	—
Investment Income on Cash, Cash Equivalents, and Investments	1,856	93,504	—	3,664
Net Cash Provided by Investing Activities	10,467	43,941	—	3,664
Net Increase (Decrease) in Cash and Cash Equivalents	14,337	(3,844)	145,517	(2,928)
Cash and Cash Equivalents, July 1	13,207	71,283	1,325,536	178,154
Cash and Cash Equivalents, June 30	\$ 27,544	\$ 67,439	\$ 1,471,053	\$ 175,226
Reconciliation of Cash and Cash Equivalents				
Per the Statement of Net Position:				
Cash and Cash Equivalents	\$ 87,173	\$ 67,629	\$ 1,471,053	\$ 187,748
Cash and Travel Advances	1	—	—	206
Less:				
Securities Lending Cash Equivalents	(59,630)	(190)	—	(12,728)
Cash and Cash Equivalents per the Statement of Cash Flows	\$ 27,544	\$ 67,439	\$ 1,471,053	\$ 175,226

The accompanying notes are an integral part of this financial statement.

		Governmental Activities	
Total	Internal Service Funds		
\$ 4,404,837	\$ 866,929		
31,827	—		
12,691	1,515,187		
(3,445)	(13,022)		
(775,025)	(163,550)		
(133,646)	(494,729)		
(2,173,267)	(1,513,333)		
(177,248)	—		
(194,720)	(59,615)		
(41,486)	—		
5,358	—		
(4,450)	(10,011)		
951,426	127,856		
121	388		
(1,110,690)	(7,630)		
306,931	155,943		
(40,469)	(98,201)		
(844,107)	50,500		
(12,254)	(7,827)		
(62)	(7,766)		
7	2,059		
(12,309)	(13,534)		
(859,148)	—		
818,196	—		
99,024	14,539		
58,072	14,539		
153,082	179,361		
1,588,180	652,744		
\$ 1,741,262	\$ 832,105		
\$ 1,813,603	\$ 887,958		
207	—		
(72,548)	(55,853)		
\$ 1,741,262	\$ 832,105		

Continued on next page

Statement of Cash Flows - Proprietary Funds (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Business-type Activities			
	Enterprise Funds			
	Virginia Lottery	Virginia College Savings Plan	Unemployment Compensation	Nonmajor
Reconciliation of Operating Income				
To Net Cash Provided by (Used for)				
Operating Activities:				
Operating Income (Loss)	\$ 651,206	\$ 245,202	\$ 137,429	\$ 229,793
Adjustments to Reconcile Operating				
Income to Net Cash Provided by (Used for) Operating Activities:				
Depreciation	3,264	227	—	2,990
Interest, Dividends, Rents, and Other Investment Income	(5,109)	(131,119)	—	—
Miscellaneous Nonoperating Income	—	—	—	—
Other	—	(14)	—	(783)
Change in Assets, Deferred Outflows of Resources, Liabilities, and				
Deferred Inflows of Resources				
(Increase) Decrease in Accounts Receivable	(3,401)	(14,620)	8,636	(5,118)
(Increase) Decrease in Due from Other Funds	—	—	80	(222)
(Increase) Decrease in Due from External Parties (Fiduciary Funds)	—	—	—	—
(Increase) Decrease in Due from Component Units	—	—	—	—
(Increase) Decrease in Other Assets: Due Within One Year	—	—	—	—
(Increase) Decrease in Other Assets: Due in More Than One Year	(72)	(51)	—	(412)
(Increase) Decrease in Inventory	690	—	—	(521)
(Increase) Decrease in Prepaid Items	731	536	—	1,685
(Increase) Decrease in Deferred Outflows of Resources	199	(133)	—	(1,839)
Increase (Decrease) in Accounts Payable	6,370	(1,677)	(12)	(32,110)
Increase (Decrease) in Amounts Due to Other Governments	—	—	(81)	5,493
Increase (Decrease) in Due to Other Funds	(4,569)	(12)	32	1,204
Increase (Decrease) in Due to External Parties (Fiduciary Funds)	5	4	—	(1)
Increase (Decrease) in Interfund Payables: Due Within One Year	—	—	—	5,075
Increase (Decrease) in Unearned Revenue	26	—	—	1,027
Increase (Decrease) in Due to Claimants, Participants, Escrows and Providers	—	(1,407)	721	—
Increase (Decrease) in Other Liabilities	(4,032)	—	—	(83)
Increase (Decrease) in Claims Payable: Due Within One Year	—	—	—	6,556
Increase (Decrease) in Claims Payable: Due in More Than One Year	—	—	—	2,338
Increase (Decrease) in Long-term Liabilities: Due Within One Year	310	1,751	—	1,331
Increase (Decrease) in Long-term Liabilities: Due in More Than One Year	(7,048)	(146,022)	—	(9,454)
Increase (Decrease) in Deferred Inflows of Resources	1,383	466	—	4,588
Net Cash Provided by (Used for) Operating Activities	\$ 639,953	\$ (46,869)	\$ 146,805	\$ 211,537
Noncash Investing, Capital, and Financing Activities:				
The following transactions occurred prior to the Statement of Net Position date:				
Installment Purchases Used to Finance Capital Assets	\$ —	\$ —	\$ —	\$ 570
Change in Fair Value of Investments	—	1,367	—	—
Accounts Payable Increase (Decrease) related to Capital Assets	—	—	—	—
Total Noncash, Investing, Capital, and Financing Activities	\$ —	\$ 1,367	\$ —	\$ 570

The accompanying notes are an integral part of this financial statement.

	Governmental	
	Activities	
Total	Internal Service Funds	
\$ 1,263,630	\$	197,515
6,481		25,273
(136,228)		—
—		22
(797)		83
(14,503)		(13,172)
(142)		(12,188)
—		(15)
—		844
—		(17,070)
(535)		(204)
169		(614)
2,952		(1,643)
(1,773)		(50)
(27,429)		(13,525)
5,412		(89)
(3,345)		421
8		(26)
5,075		—
1,053		(6,889)
(686)		—
(4,115)		(200)
6,556		12,913
2,338		(38,959)
3,392		577
(162,524)		(6,544)
6,437		1,396
<u>\$ 951,426</u>	<u>\$</u>	<u>127,856</u>
\$ 570	\$	6,732
1,367		—
—		(568)
<u>\$ 1,937</u>	<u>\$</u>	<u>6,164</u>



Fiduciary Funds

Private Purpose Trust Funds

Private Purpose Trust Funds are trust arrangements that benefit individuals, private organizations, or other governments.

Pension and Other Employee Benefit Trust Funds

Pension and Other Employee Benefit Trust Funds reflect the activities of the retirement systems and postemployment benefits administered by the Virginia Retirement System or the Department of Human Resource Management.

Investment Trust Funds

Investment Trust Funds reflect the external portion of the Local Government Investment Pool and Local Government Investment Pool Extended Maturity sponsored by the Commonwealth.

Agency Funds

Agency Funds report those funds for which the Commonwealth acts solely in a custodial capacity.

A listing of all Fiduciary Funds is located on pages 262-263 in the Combining and Individual Fund Statements and Schedules section of this report. Combining financial statements for all Fiduciary Funds begin on page 264.

Statement of Fiduciary Net Position - Fiduciary Funds

June 30, 2019

(Dollars in Thousands)

	Private Purpose Trust Funds	Pension and Other Employee Benefit Trust Funds	Investment Trust Funds	Agency Funds
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents (Notes 1 and 8)	\$ 121,234	\$ 452,297	\$ 2,725,874	\$ 364,960
Investments (Notes 1 and 8):				
Bonds and Mortgage Securities	128,257	21,906,203	108,609	—
Stocks	87,289	24,731,315	—	—
Fixed Income Commingled Funds	815,843	1,342,413	—	—
Index and Pooled Funds	1,908,626	11,069,496	—	—
Real Estate	117,013	9,877,199	—	—
Private Equity	—	15,083,638	—	—
Mutual and Money Market Funds	752,114	—	—	—
Short-term Investments	—	4,780,395	2,581,874	—
Hybrid Defined Contribution Investments	—	520,517	—	—
Other	1,182,257	—	—	—
Total Investments	4,991,399	89,311,176	2,690,483	—
Assets Held Pending Distribution (Note 1)	9,875	—	—	459,444
Receivables, Net (Notes 1 and 9):				
Accounts	316	—	—	61,686
Contributions	—	249,372	—	—
Interest and Dividends	3,935	276,679	9,474	—
Security Transactions	—	995,675	—	—
Other Receivables	1,122	130,475	—	—
Total Receivables	5,373	1,652,201	9,474	61,686
Due from Other Funds (Note 11)	—	4,014	10,453	—
Due from Internal Parties (Governmental Funds and Business-type Activities) (Note 11)	—	30,398	—	—
Due from Component Units (Note 11)	—	35,547	—	—
Other Assets (Notes 1 and 12)	3	—	—	35
Furniture and Equipment (Note 1)	—	43,739	—	—
Total Assets	5,127,884	91,529,372	5,436,284	886,125
Deferred Outflows of Resources (Notes 1, 15, 16, 17, and 19)	6	—	—	—
Total Assets and Deferred Outflows of Resources	5,127,890	91,529,372	5,436,284	886,125
Liabilities and Deferred Inflows of Resources				
Accounts Payable (Notes 1 and 26)	369	47,040	—	8,998
Amounts Due to Other Governments	—	—	—	283,329
Due to Other Funds (Note 11)	—	4,014	10,453	—
Due to Internal Parties (Governmental Funds and Business-type Activities) (Note 11)	—	62,265	2	4,016
Obligations Under Securities Lending (Notes 1 and 8)	391	4,667,848	—	2,403
Due to Claimants, Participants, Escrows and Providers (Note 1)	6,449	—	—	46,850
Other Liabilities (Notes 1 and 27)	—	201,408	—	540,156
Retirement Benefits Payable	—	423,016	—	—
Refunds Payable	—	4,467	—	—
Compensated Absences Payable (Notes 1 and 23)	3	2,758	—	—
Insurance Premiums and Claims Payable	—	70,766	—	373
Payable for Security Transactions	2,082	3,179,576	—	—
Net Pension Liability	66	—	—	—
Net Other Postemployment Benefit Liability	12	—	—	—
Total Other Postemployment Benefit Liability	9	—	—	—
Total Liabilities	9,381	8,663,158	10,455	886,125
Deferred Inflows of Resources (Notes 1, 15, 16, 17, and 19)	7	—	—	—
Total Liabilities and Deferred Inflows of Resources	9,388	8,663,158	10,455	886,125
Net Position Restricted for Pensions/ Other Employment Benefits, Pool Participants, and Other Purposes				
	\$ 5,118,502	\$ 82,866,214	\$ 5,425,829	\$ —

The accompanying notes are an integral part of this financial statement.

Statement of Changes in Fiduciary Net Position - Fiduciary Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Private Purpose Trust Funds	Pension and Other Benefit Trust Funds	Investment Trust Funds
Additions:			
Investment Income:			
Interest, Dividends, and Other Investment Income	\$ 275,237	\$ 5,832,684	\$ 85,012
Distributions to Shareholders from Net Investment Income	—	—	(85,012)
Total Investment Income	275,237	5,832,684	—
Less Investment Expenses	4,693	588,829	—
Net Investment Income	270,544	5,243,855	—
Contributions:			
Participants	708,897	—	—
Member	—	1,138,320	—
Employer	—	2,862,462	—
Total Contributions	708,897	4,000,782	—
Shares Sold	—	—	7,805,042
Reinvested Distributions	—	—	84,810
Other Revenue (Note 29)	173	4,107	—
Total Additions	979,614	9,248,744	7,889,852
Deductions:			
Loan Servicing Payments	71	—	—
Educational Expense Benefits	361,582	—	—
Retirement Benefits	—	4,990,801	—
Refunds to Former Members	—	118,059	—
Retiree Health Insurance Credits	—	168,725	—
Insurance Premiums and Claims	1	212,733	—
Trust Payments	1,091	—	—
Administrative Expenses	2,580	52,630	—
Other Expenses (Note 32)	—	11,522	—
Shares Redeemed	33,243	—	6,545,186
Long-term Disability Benefits	—	32,931	—
Total Deductions	398,568	5,587,401	6,545,186
Net Increase	581,046	3,661,343	1,344,666
Net Position Restricted for Pensions/ Other Employment Benefits, Pool Participants, and Other Purposes			
July 1	4,537,456	79,204,871	4,081,163
June 30	\$ 5,118,502	\$ 82,866,214	\$ 5,425,829

The accompanying notes are an integral part of this financial statement.



Component Units

Component Units are organizations that are legally separate from the primary government. Each discrete component unit serves or benefits those outside of the primary government.

The Virginia Housing Development Authority provides investment in and stimulates construction of low to moderate income housing for the citizens of the Commonwealth.

The Virginia Public School Authority provides financing to cities and counties for capital construction of primary and secondary schools.

The Virginia Resources Authority provides financing for the construction of local water supply and wastewater treatment facilities and other local infrastructure projects.

The Virginia College Building Authority provides financing of capital projects and equipment purchases by state-supported colleges and universities.

Nonmajor Component Units include those listed on pages 286-287 in the Combining and Individual Fund Statements and Schedules section of this report.

Statement of Net Position - Component Units

June 30, 2019

(Dollars in Thousands)

	Virginia Housing Development Authority	Virginia Public School Authority	Virginia Resources Authority
Assets and Deferred Outflows of Resources			
Cash and Cash Equivalents (Notes 1 and 8)	\$ 20,754	\$ 26,586	\$ 11,286
Investments (Notes 1 and 8)	3,004	—	18,659
Receivables, Net (Notes 1 and 9)	5,674,626	3,351,388	4,342,991
Contributions Receivable, Net (Notes 1 and 10)	—	—	—
Due from Primary Government (Note 11)	—	—	—
Due from Component Units (Note 11)	—	—	—
Inventory (Note 1)	—	—	—
Prepaid Items (Note 1)	1,439	—	45
Other Assets (Notes 1 and 12)	46,667	—	—
Loans Receivable from Primary Government (Notes 1 and 11)	—	189,935	—
Restricted Cash and Cash Equivalents (Notes 8 and 13)	815,785	166,364	268,077
Restricted Investments (Notes 8 and 13)	614,508	81,398	613,743
Other Restricted Assets (Note 13)	6,885	—	449
Nondepreciable Capital Assets (Notes 1 and 14)	6,199	—	—
Depreciable Capital Assets, Net (Notes 1 and 14)	18,601	—	122
Total Assets	7,208,468	3,815,671	5,255,372
Deferred Outflows of Resources (Notes 1, 15, 16, 17, and 19)	4,711	93,352	63,750
Total Assets and Deferred Outflows of Resources	7,213,179	3,909,023	5,319,122
Liabilities and Deferred Inflows of Resources			
Accounts Payable (Notes 1 and 26)	26,963	71	99
Amounts Due to Other Governments	—	102,560	—
Due to Primary Government (Note 11)	—	—	—
Due to Component Units (Note 11)	—	—	—
Due to External Parties (Fiduciary Funds) (Note 11)	—	—	—
Unearned Revenue (Note 1)	—	—	—
Obligations Under Securities Lending Program (Notes 1 and 8)	—	—	—
Other Liabilities (Notes 1, 16, and 27)	506,674	53,975	28,012
Loans Payable to Primary Government (Notes 1 and 11)	—	—	—
Claims Payable (Notes 1 and 25):			
Due Within One Year	—	—	—
Due in More Than One Year	—	—	—
Long-term Liabilities (Notes 1, 23, and 28):			
Due Within One Year	112,475	314,775	191,116
Due in More Than One Year	3,100,688	3,429,763	3,372,919
Total Liabilities	3,746,800	3,901,144	3,592,146
Deferred Inflows of Resources (Notes 1, 15, 16, 17, 19, and 38)	187	—	31,245
Total Liabilities and Deferred Inflows of Resources	3,746,987	3,901,144	3,623,391
Net Position			
Net Investment in Capital Assets	14,637	—	122
Restricted For:			
Nonexpendable:			
Higher Education	—	—	—
Other	—	—	—
Expendable:			
Bond Indenture	3,103,521	—	—
Capital Projects/Construction/Capital Acquisition	—	—	1,666,282
Debt Service	—	—	—
Gifts and Grants	—	—	—
Higher Education	—	—	—
Net Other Postemployment Benefit - Virginia Sickness and Disability Program	—	—	—
Virginia Pooled Investment Program	—	—	7,760
Other	—	—	—
Unrestricted	348,034	7,879	21,567
Total Net Position (Deficit) (Note 4)	\$ 3,466,192	\$ 7,879	\$ 1,695,731

The accompanying notes are an integral part of this financial statement.

Virginia College Building Authority	Nonmajor Component Units	Total
\$ 747	\$ 2,938,318	\$ 2,997,691
—	12,676,606	12,698,269
24,053	1,793,341	15,186,399
—	631,088	631,088
3,401	27,202	30,603
—	119,255	119,255
—	146,518	146,518
—	142,189	143,673
—	60,493	107,160
—	—	189,935
438,137	767,633	2,455,996
—	6,023,369	7,333,018
—	372,018	379,352
—	3,499,332	3,505,531
—	18,603,845	18,622,568
466,338	47,801,207	64,547,056
30,321	663,295	855,429
496,659	48,464,502	65,402,485
14	1,425,086	1,452,233
—	4,383	106,943
—	31,256	31,256
117,525	1,730	119,255
—	35,547	35,547
—	370,886	370,886
—	67,529	67,529
93,898	1,384,690	2,067,249
—	4,197	4,197
—	194,255	194,255
—	32,999	32,999
295,885	820,404	1,734,655
4,270,887	14,624,254	28,798,511
4,778,209	18,997,216	35,015,515
—	722,577	754,009
4,778,209	19,719,793	35,769,524
—	12,042,575	12,057,334
—	4,408,376	4,408,376
—	171,291	171,291
—	—	3,103,521
—	195,348	1,861,630
—	160,936	160,936
—	135,721	135,721
318,139	6,388,818	6,706,957
—	72,053	72,053
—	—	7,760
—	9,107	9,107
(4,599,689)	5,160,484	938,275
\$ (4,281,550)	\$ 28,744,709	\$ 29,632,961

Statement of Activities - Component Units

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Program Revenues				Net (Expenses) Revenue
	Expenses	Charges for Services	Operating Grants and Contributions (Note 1)	Capital Grants and Contributions	
Virginia Housing Development Authority	\$ 354,988	\$ 368,588	\$ 113,658	\$ —	\$ 127,258
Virginia Public School Authority	127,670	125,391	8,143	—	5,864
Virginia Resources Authority	158,302	121,842	26,979	90,044	80,563
Virginia College Building Authority	727,558	67,414	42,562	3,753	(613,829)
Total Major Component Units	1,368,518	683,235	191,342	93,797	(400,144)
Nonmajor Component Units:					
Higher Education	15,746,120	10,902,216	2,672,910	591,489	(1,579,505)
Other	1,108,032	892,896	46,088	110,941	(58,107)
Total Nonmajor Component Units	16,854,152	11,795,112	2,718,998	702,430	(1,637,612)
Total Component Units	\$ 18,222,670	\$ 12,478,347	\$ 2,910,340	\$ 796,227	\$ (2,037,756)

The accompanying notes are an integral part of this financial statement.

General Revenues				Contributions to Permanent and Term Endowments	Change in Net Position	Net Position (Deficit) July 1 as restated (Note 2)	Net Position (Deficit) June 30 (Note 4)
Operating Appropriations from Primary Government	Unrestricted Grants and Contributions	Investment Earnings	Miscellaneous				
\$ —	\$ —	\$ 55,397	\$ —	\$ —	\$ 182,655	\$ 3,283,537	\$ 3,466,192
—	—	11,986	88	—	17,938	(10,059)	7,879
—	—	—	—	—	80,563	1,615,168	1,695,731
403,152	—	333	—	—	(210,344)	(4,071,206)	(4,281,550)
403,152	—	67,716	88	—	70,812	817,440	888,252
1,942,658	91,777	471,225	155,511	481,118	1,562,784	24,691,781	26,254,565
123,063	25,127	37,934	12,515	9,910	150,442	2,339,702	2,490,144
2,065,721	116,904	509,159	168,026	491,028	1,713,226	27,031,483	28,744,709
\$ 2,468,873	\$ 116,904	\$ 576,875	\$ 168,114	\$ 491,028	\$ 1,784,038	\$ 27,848,923	\$ 29,632,961



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Notes to the Financial Statements

June 30, 2019

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation

The accompanying financial statements have been prepared in conformance with accounting principles generally accepted in the United States of America as prescribed by the Governmental Accounting Standards Board (GASB) and the Financial Accounting Standards Board (FASB).

B. Reporting Entity

For financial reporting purposes, the Commonwealth of Virginia's (the Commonwealth's) reporting entity consists of (1) the primary government, (2) component unit organizations for which the primary government is financially accountable or for which the resources of the component unit primarily benefit the primary government (blended component units), and (3) other component unit organizations for which the nature and significance of their relationship with the primary government is such that exclusion would cause the reporting entity's financial statements to be misleading, and they are financially accountable to the primary government (discrete component units). The funds of all agencies, boards, commissions, foundations, and authorities that have been identified as part of the primary government or a component unit have been included. GASB standards require the inclusion of numerous organizations that raise and hold funds for the direct benefit of the primary government.

Section 2100 of the GASB *Codification of Governmental Accounting and Financial Reporting Standards* (GASB Codification) describes the criteria for determining which organizations, functions, and activities should be considered part of the Commonwealth for financial reporting purposes. The basic criteria include appointing a voting majority of an organization's governing body, and the Commonwealth's ability to impose its will on that organization or the potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the Commonwealth. Additionally, in instances where the voting majority is not appointed, the above benefit/burden criteria apply. If the organization's assets are also held for, or can be accessed by, the Commonwealth, the organization is considered part of the reporting entity.

(1) Primary Government – A primary government consists of all the organizations that make up its legal entity. All funds, organizations, institutions, agencies, and departments are, for financial reporting purposes, part of the primary government.

(2) Blended Component Units – Though legally separate entities, these component units are, in substance, part of the primary government's operations. The blended component units serve or benefit the primary government almost exclusively. Financial information from these units is combined with that of the primary government. The Commonwealth's blended component units are:

Virginia Public Building Authority (nonmajor governmental fund) – The Authority was created as a body politic and corporate and is fiscally independent. A government instrumentality, the Authority finances the acquisition and construction of buildings for the use of the Commonwealth and other approved purposes. The Governor appoints the 7-member board, and the primary government is able to impose its will on the Authority. The Auditor of Public Accounts audits the Authority, and a separate report is issued from the Department of the Treasury, Post Office Box 1879, Richmond, Virginia 23218-1879.

Hampton Roads Transportation Accountability Commission (nonmajor governmental fund) – The Commission is a political subdivision of the Commonwealth of Virginia, created by the Hampton Roads Transportation Accountability Commission Act. The Commission has a 23-member board comprised primarily of representatives from participating localities in Planning District 23. Its primary function is determining how the Hampton Roads Transportation Fund regional sales and use tax and fuel tax monies will be invested in new construction projects to provide the greatest impact on reducing congestion for the greatest number of citizens residing within Planning District 23. Based on the projects that the Commission is presently funding, all capital assets constructed by the Commission are reported as Commonwealth assets by the Virginia Department of Transportation (VDOT) (part of primary government). Accordingly, while the Commonwealth is not obligated to pay the Commission's debt, it would be misleading to exclude the Commission from the Commonwealth's financial statements. The administrative offices of the Commission are located at 723 Woodlake Drive, Chesapeake, VA 23320. The Commission is audited by PB Mares, LLP.

Virginia Alcoholic Beverage Control Authority (nonmajor enterprise fund) – The Authority was created as an independent political subdivision of the Commonwealth, exclusive of the legislative, executive, or judicial branches of state

government. A government instrumentality, the Authority controls the possession, sale, transportation, distribution, and delivery of alcoholic beverages in the Commonwealth. The Governor appoints the 5-member board, and the primary government is able to impose its will on the Authority. Additionally, the Commonwealth receives all net profits. The administrative offices of the Authority are located at 2901 Hermitage Road, Richmond, VA 23220. The Auditor of Public Accounts audits the Authority and a separate report is issued.

- (3) **Discrete Component Units** – Discretely presented component units are reported in a separate column in the government-wide financial statements to emphasize that they are legally separate from the primary government. They are financially accountable to the primary government, or have relationships with the primary government such that exclusion would cause the reporting entity's financial statements to be misleading. These discrete component units serve or benefit those outside of the primary government.

GASB statements generally require any organization that raises and holds economic resources for the direct benefit of the reporting entity to be reported as a component unit, even if the reporting entity is not financially accountable for the organization. The entities are included in the Commonwealth's reporting entity as nonprofit charitable organizations and exist solely to support the Commonwealth's higher education institutions and certain state agencies. The higher education institution nonprofit organizations are included in the applicable higher education institution's column in the accompanying financial statements. In all instances where separate disclosure of these nonprofit organizations is required in the accompanying footnotes, the entities' totals are aggregated and disclosed as "foundations."

The criteria for reporting certain component units as major component units focuses on the nature and significance of the component unit's relationship to the primary government versus other component units.

Discretely presented component units are:

Virginia Housing Development Authority (major) – The Authority was created as a political subdivision and instrumentality of the Commonwealth and is granted both political and corporate powers by the *Code of Virginia*. The Governor appoints a majority of the Authority's board members and the remaining board members are ex-officio. The Commonwealth may make grants to the Authority including, but not limited to, reserve funds, which is a potential financial benefit/burden to the primary government. The Commonwealth is not legally obligated by the debt of the Authority. The Authority was created in the public interest to provide investment in and stimulate construction of low to moderate income

housing which benefits the citizens of the Commonwealth. The administrative offices of the Authority are located at 601 South Belvidere Street, Richmond, Virginia 23220. KPMG, LLP audits the Authority, and a separate report is issued.

Virginia Public School Authority (major) – The Authority was created as a public body corporate, and an agency and instrumentality of the Commonwealth to finance capital projects of city and county school boards. The Governor appoints the board members, who serve at his pleasure. Therefore, the primary government is able to impose its will on the Authority. The Auditor of Public Accounts audits the Authority, and a separate report is issued from the Department of the Treasury, Post Office Box 1879, Richmond, Virginia 23218-1879.

Virginia Resources Authority (major) – The Authority was created as a public body corporate and a political subdivision of the Commonwealth to provide financing of infrastructure projects for water supply, wastewater, storm water, solid waste treatment, airports, public safety, brownfields remediation and redevelopment, and recycling. The Governor appoints the 11-member board and the Executive Director of the Authority. The primary government is able to impose its will on the Authority, and there is a financial benefit/burden to the primary government. The Commonwealth does not guarantee any bonds issued by the Authority. The administrative offices of the Authority are located at 1111 East Main Street, Suite 1920, Richmond, Virginia 23219. Clifton Larson Allen, LLP audits the Authority, and a separate report is issued.

The Authority issued bonds through the Virginia Green Communities Program (VGCP), which uses the Commonwealth's allocation of Qualified Energy Conservation Bonds to provide subsidized financing for energy efficiency, renewable energy, alternative fueling, and other qualified conservation purposes. The Authority is a conduit issuer for public borrowers with a third-party funding source providing financing for eligible projects. The terms of the VGCP bonds stipulate that the Authority does not guarantee repayment of principal and interest to the bondholders. The Authority has elected to show these bonds as liabilities and the associated loans from local borrowers as assets in their separately issued financial statements. Accordingly, the associated assets and liabilities are included in the accompanying financial statements.

Virginia College Building Authority (major) – The Authority was created as a public body corporate, a political subdivision, and an agency and instrumentality of the Commonwealth. The Governor appoints a majority of the board and members serve at his pleasure. Therefore, the primary government is able to impose its will on

the Authority. The Authority finances certain capital projects and equipment purchases of state-supported colleges and universities. The Auditor of Public Accounts audits the Authority, and a separate report is issued from the Department of the Treasury, Post Office Box 1879, Richmond, Virginia 23218-1879.

Only the activity of the Authority that relates to the financing of capital projects and equipment purchases by state-supported colleges and universities is included in the accompanying financial statements. The state-supported colleges and universities reported revenue from the Authority of \$409.6 million as Program Revenue Capital Grants and Contributions for the 21st Century Program and \$84.6 million as Program Revenue Operating Grants and Contributions for equipment. The Authority reported Operating Appropriations from Primary Government of approximately \$403.2 million. In addition, the Authority reported approximately \$30.0 million in payments from the state-supported colleges and universities for 21st Century and Equipment Program debt service costs and approximately \$11.0 million in interest on Build America Bonds.

The Authority assists private institutions of higher education in the financing and refinancing of a broad range of facilities. The Authority is authorized to issue obligations and lend the proceeds to private institutions; however, such financings or refinancings are not obligations of the primary government nor the Authority, but are payable solely from the revenues pledged by the respective private institution. This indebtedness, totaling \$697.5 million, is not included in the accompanying financial statements.

Higher Education Institutions (nonmajor) – The Commonwealth's higher education institutions are granted broad corporate powers by state statutes. The Governor appoints the members of each institution's board of trustees. In addition to the annual appropriations to support the institutions' operations, the Commonwealth provides funding for, and construction of, major academic plant facilities for the institutions. Institutions reported Operating Appropriations from Primary Government of approximately \$1.9 billion. Therefore, there is a financial benefit/burden to the primary government. The higher education institutions are: the University of Virginia, including the University of Virginia Medical Center and the University of Virginia's College at Wise; Virginia Polytechnic Institute and State University; Virginia Commonwealth University, including the Virginia Commonwealth University Health System Authority; the College of William & Mary, including Richard Bland College and the Virginia Institute of Marine Science; Virginia Military Institute; Virginia State University; Norfolk State University; University of Mary Washington; James Madison University; Radford University; Old Dominion University; George Mason University; Virginia

Community College System; Christopher Newport University; and Longwood University. The Southwest Virginia Higher Education Center, Roanoke Higher Education Authority, Institute for Advanced Learning and Research, Southern Virginia Higher Education Center, and New College Institute are also included as higher education institutions. The colleges and universities are funded through state appropriations, tuition, federal grants, and private donations and grants. As previously noted, certain foundations are considered component units of the higher education institutions, and are included in the accompanying financial statements as well as the higher education institutions' separately issued financial statements. The Auditor of Public Accounts (APA) does not audit the Roanoke Higher Education Authority, the Institute for Advanced Learning and Research, and the component units of the higher education institutions, including foundations, but relies on the reports issued by other auditors to render her opinion.

The APA audits the colleges and universities, and individual reports are issued under separate cover. Complete financial statements for each institution may be obtained from their respective administrative offices. The addresses for these institutions may be obtained from the Department of Accounts, 101 North 14th Street, Richmond, Virginia 23219-3638.

Innovation and Entrepreneurship Investment Authority (nonmajor) – The Authority is granted corporate powers by the *Code of Virginia*. The Authority serves to facilitate the marketing, organization, and development of scientific research and technology by the state's institutions of higher education and private industry in the Commonwealth. In addition, the Authority serves to promote the economic development of the Commonwealth by attracting and retaining high technology jobs and businesses in Virginia. The Governor and General Assembly appoint the 17-member board, and there is a financial benefit/burden to the primary government. The Authority's combined financial statements include the accounts of the Center for Innovative Technology (CIT) and subsidiaries after elimination of all significant intercompany balances and transactions. CIT is a non-stock, not-for-profit corporation, which acts as the operating arm of the Authority. The address for the administrative offices of the Authority is CIT Building, Suite 600, 2214 Rock Hill Road, Herndon, Virginia 20170-4228. The Auditor of Public Accounts audits the Authority, and a separate report is issued.

Virginia Economic Development Partnership (nonmajor) – The Partnership was created as a body corporate and operates to encourage, stimulate, and support the development and expansion of both domestic and international commerce in the Commonwealth. The Governor appoints the 17-member board, and there is a

financial benefit/burden to the primary government. The administrative offices are located at 901 East Cary Street, Suite 900, Richmond, Virginia 23219. The Auditor of Public Accounts audits the Partnership, and a separate report is issued.

Virginia Outdoors Foundation (nonmajor) – The Foundation was created as a body politic and is administratively assigned to the Department of Conservation and Recreation (part of primary government) and charged with promoting preservation through the acceptance of donated conservation easements and raising funds for the purchase of preservation land. The Governor appoints the 7-member board of trustees, and the primary government can impose its will on the Foundation. The administrative offices of the Foundation are located at 900 South Main Street, Blacksburg, Virginia 24060. Hicok, Brown & Company CPAs audits the Foundation, and a separate report is issued.

Virginia Port Authority (nonmajor) – The Authority was established as a corporate body and operates to serve the citizens and promote commerce through the harbors and ports of Virginia. The Governor appoints a majority of the 14-member board, and the primary government is able to impose its will on the Authority. There is also a financial benefit/burden to the primary government. The administrative offices of the Authority are located at 1431 Terminal Boulevard, Norfolk, Virginia 23505. PBMares, LLP, audits the Authority, and a separate report is issued.

Virginia Tourism Authority (nonmajor) – The Authority was created as a public body corporate and as a political subdivision of the Commonwealth. The Authority encourages, stimulates, and promotes tourism and film production industries of the Commonwealth. The Governor appoints all of the board members, and there is a financial benefit/burden to the primary government. The administrative offices are located at 901 East Cary Street, Suite 900, Richmond, Virginia 23219. The Auditor of Public Accounts audits the Authority.

Virginia Foundation for Healthy Youth (nonmajor) – The Foundation was created as a body corporate and as a political subdivision of the Commonwealth. The Foundation was established to determine the appropriate recipients of monies in the Virginia Tobacco Settlement Fund and to distribute monies in this fund for such efforts as restricting the use of tobacco products by minors and the enforcement of laws restricting the distribution of tobacco products to minors. The Governor appoints the majority of the board, and there is a financial benefit/burden to the primary government. The administrative offices are located at 701 East Franklin Street, Suite 500, Richmond, Virginia 23219. The Auditor of Public Accounts audits the Foundation.

Tobacco Region Revitalization Commission (nonmajor) – The Commission was created as a body corporate and as a political subdivision of the Commonwealth. The Commission was established to determine the appropriate recipients of the monies in the Tobacco Indemnification and Community Revitalization Fund. This fund is to provide payments to tobacco farmers as compensation for the adverse economic effects resulting from loss of investment in specialized tobacco equipment and barns, as well as lost tobacco production opportunities. It also provides monies to revitalize tobacco dependent communities. The Governor appoints the majority of the board, and there is a financial benefit/burden to the primary government. The administrative offices are located at 701 East Franklin Street, Suite 501, Richmond, Virginia 23219. The Auditor of Public Accounts audits the Commission.

Hampton Roads Sanitation District Commission (nonmajor) – The Commission was established as a political subdivision of the Commonwealth and a government instrumentality. The Commission, which is the governing board of the district, was granted corporate powers by the *Code of Virginia*. The Governor appoints the Commission members, who serve at his pleasure. Therefore, the primary government is able to impose its will on the Commission. The Commonwealth is not obligated by the debt of the Commission. The Commission was established to benefit the inhabitants of the district and operates a sewage system for 18 localities in the Chesapeake Bay area. The address for the administrative offices of the Commission is 1434 Air Rail Avenue, Virginia Beach, Virginia 23455. Cherry Bekaert, LLP, audits the Commission, and a separate report is issued.

Virginia Biotechnology Research Partnership Authority (nonmajor) – The Authority is a legally separate, political subdivision of the Commonwealth created by the General Assembly to assist in the development of a biotechnology research park. The Governor appoints the board members of the Authority, and there is a potential financial benefit/burden to the primary government. The administrative offices of the Authority are located at 800 East Leigh Street, Richmond, Virginia 23219. The Auditor of Public Accounts audits the Authority, and a separate report is issued.

The Authority issued Series 2002 and Series 2013 revenue bonds for specific customers. The Series 2002 revenue bonds were for a facility built specifically for the United Network for Organ Sharing. The Series 2013 revenue bonds were to assist the Institute for Transfusion Medicine (ITxM). The bonds are secured by a letter of credit and are payable solely from the payments made by the borrower under the loan agreement. None of these bonds constitutes a debt or pledge of the

Authority or the Commonwealth. Accordingly, the bonds are not reported as liabilities in the accompanying financial statements.

Virginia Small Business Financing Authority (nonmajor) – Section 2.2-2280 of the *Code of Virginia* established the Authority as a public body corporate and a political subdivision of the Commonwealth. The Governor appoints the 11-member board, and the primary government is able to impose its will on the Authority. The Authority was created to assist small businesses in the Commonwealth in obtaining financing for new businesses or the expansion of existing businesses. The Authority can provide financial assistance to small businesses by providing loans, guarantees, insurance, and other assistance, thereby encouraging the investment of private capital in small businesses in the Commonwealth. The Authority can loan money to local governments as defined by the *Code of Virginia* for economic development purposes. The Authority also guarantees loans made to small businesses by banks. The administrative offices of the Authority are located at 101 North 14th Street, 11th Floor, Richmond, Virginia 23218-0446. The Auditor of Public Accounts audits the Authority.

The Authority has issued Industrial Development Revenue Bonds to provide financial assistance to private sector entities for the acquisition and construction of industrial and commercial facilities deemed to be in the public interest. The bonds are secured by the property financed and are payable solely from payments received on the underlying mortgage loans. Upon repayment of the bonds, ownership of the acquired facilities transfers to the private sector entity served by the bond issuance. Neither the Authority nor the Commonwealth is obligated in any manner for repayment of the bonds. Accordingly, the bonds are not reported as liabilities on the accompanying financial statements.

Virginia School for the Deaf and Blind Foundation (nonmajor) – The Foundation operates as a nonprofit educational and fundraising organization solely in connection with, and exclusively for the benefit of, the Virginia School for the Deaf and Blind (part of primary government). The Foundation uses a December 31 calendar year-end. The administrative offices are located at Post Office Box 2069, Staunton, Virginia 24402.

Science Museum of Virginia Foundation (nonmajor) – The Foundation is a non-stock, nonprofit corporation established to implement and fund programs, projects, and operations that are authorized and approved by the trustees of the Science Museum of Virginia (part of primary government). There is a financial benefit/burden relationship to the primary government, and the economic resources of the Foundation are entirely for the direct benefit of the Commonwealth and its

citizens. The administrative offices of the Foundation are located at 2500 West Broad Street, Richmond, Virginia, 23220. Keiter, CPAs, audits the Foundation, and a separate report is issued.

Virginia Commercial Space Flight Authority (nonmajor) – The Authority is a legally separate political subdivision of the Commonwealth created by the General Assembly to facilitate and coordinate scientific and technological research and development and to promote the industrial and economic development of the Commonwealth. The Governor appoints the 9-member board, and there is a potential financial benefit/burden to the primary government. The Commonwealth approved the conversion of a \$5.0 million interest-free note to repair Pad 0A into a grant in March 2015. During fiscal year 2018, the Authority received \$20.0 million appropriated by the Commonwealth for the construction of Mid-Atlantic Regional Spaceport Facilities. The Commonwealth plans to transfer \$15.8 million to the Authority annually through fiscal year 2024. The administrative offices of the Authority are located at 4111 Monarch Way, Suite 303, Norfolk, Virginia 23508. Brown Edwards & Company, LLP, audits the Authority, and a separate report is issued.

Danville Science Center, Inc. (nonmajor) – The Center is a nonprofit corporation formed for the purpose of implementing and funding those programs, projects and operations which are authorized and approved by the trustees of the Science Museum of Virginia (part of primary government). There is a financial benefit/burden to the primary government, and the economic resources of the Center are entirely for the direct benefit of the Commonwealth and its citizens. The administrative offices of the Center are located at 677 Craghead Street, Danville, Virginia 24541. Harris, Harvey, Neal & Company, LLP, audits the Center, and a separate report is issued.

Virginia Museum of Fine Arts Foundation (nonmajor) – The Foundation operates as a nonprofit corporation under the laws of Virginia to fund exhibitions, programs, and capital asset expansion to ensure that the Virginia Museum of Fine Arts (part of primary government) has the space and resources for art to help improve the quality of life for many. There is a financial benefit/burden to the primary government, and the economic resources of the Foundation are entirely for the direct benefit of the Commonwealth and its citizens. The administrative offices of the Foundation are located at 200 Arthur Ashe Boulevard, Richmond, Virginia 23220. Dixon Hughes Goodman, LLP, audits the Foundation, and a separate report is issued.

A. L. Philpott Manufacturing Extension Partnership (nonmajor) – The Partnership has the mission to foster economic growth by enhancing the competitiveness of Virginia's manufacturers.

The Partnership provides manufacturing firms with fee-based technology consulting services, access to business modernization resources, and support for interfirm collaboration. Further, the Partnership provides direct assistance to increase sales, decrease costs, and improve quality, productivity, and competitiveness. The Partnership has a 23-member board of trustees currently serving. The board consists of the presidents of two public four-year institutions of higher education; three community college presidents; one president of a private four-year institution of higher education; the director of Virginia's Center for Innovative Technology; Virginia's Secretary of Commerce and Trade; and 15 citizen members, representing manufacturing industries, appointed by the Governor. There is also a financial benefit/burden to the primary government. The administrative office is located at 32 Bridge Street South, Suite 200B, Martinsville, Virginia 24112-6216. The Auditor of Public Accounts audits the Partnership.

Fort Monroe Authority (nonmajor) – The Authority is a legally separate, political subdivision of the Commonwealth created by the General Assembly to assist in formulating a reuse plan for Fort Monroe. The Governor appoints a majority of the 14-member board, and there is a potential financial benefit/burden to the primary government. The administrative offices of the Authority are located at 20 Ingalls Road, Fort Monroe, Virginia 23651. Brown Edwards audits the Authority, and a separate report is issued.

Assistive Technology Loan Fund Authority (nonmajor) – The Authority was created as a political subdivision and public body corporate by the *Code of Virginia*. The Governor appoints the board of directors as directed by the *Code* and the primary government is able to impose its will on the Authority. The Authority manages a fund to provide loans to individuals to acquire assistive technology, other equipment, or other authorized purposes designed to help disabled individuals become more independent. The administrative offices are located at 1602 Rolling Hills Drive, Suite 107, Richmond, Virginia 23229. The Auditor of Public Accounts audits the Authority.

Virginia Land Conservation Foundation (nonmajor) – The Foundation was created as a body politic and corporate to serve the Department of Conservation and Recreation (DCR) (part of primary government) by acquiring interests in preservation land and providing grants to other entities to acquire interests in preservation land. The Governor appoints the 19-member board, and the primary government can impose its will on the Foundation. The administrative offices of the Foundation are located at 600 East Main Street, 24th Floor, Richmond, Virginia 23219. The Auditor of Public Accounts audits the Foundation as part of DCR.

Virginia Arts Foundation (nonmajor) – The Foundation was created as a body politic and corporate to serve the Virginia Commission for the Arts (part of primary government) by promoting the arts in the Commonwealth. The Governor appoints the board of trustees for the Virginia Commission for the Arts, which also serves as the board for the Virginia Arts Foundation. The Director of the Virginia Commission for the Arts serves as the board chairman. In addition, the primary government can impose its will on the Foundation. The administrative offices of the Foundation are located at 600 East Main Street, Suite 330, Richmond, Virginia 23219. The Auditor of Public Accounts audits the Foundation as part of the Virginia Commission for the Arts.

Library of Virginia Foundation (nonmajor) – The Foundation was created as a private, nonprofit 501(c)(3) corporation supporting the Library of Virginia (part of primary government). The Foundation was established upon receipt of a major bequest. The articles of incorporation stipulate that the Foundation shall at all times be operated solely in connection with, and exclusively for the benefit of, the Library of Virginia. The Foundation is governed by a separate board of directors, and promotes and supports the Library of Virginia in all activities. The administrative offices of the Foundation are located at 800 East Broad Street, Richmond, Virginia 23219. Frank Barcalow CPA, PLLC, audits the Foundation, and a separate report is issued.

Virginia Health Workforce Development Authority (nonmajor) – The Authority is a legally separate public body corporate and a political subdivision of the Commonwealth created by the General Assembly. The Authority facilitates the development of a statewide health professions pipeline. The Governor appoints a majority of the board members, and the primary government is able to impose its will on the Authority. The administrative offices of the Authority are located at 3831 Westerre Parkway, Suite 2, Henrico, Virginia 23233. The Auditor of Public Accounts audits the Authority.

(4) **Related Organizations** – Organizations for which the primary government appoints a majority of the board, but is not financially accountable, are related organizations. Related organizations are:

Tobacco Settlement Financing Corporation – The Corporation was created by the Tobacco Settlement Financing Corporation Act, Chapters 482 and 488 of the Acts of the General Assembly during the 2002 General Assembly Session. The Corporation is a public body corporate entity and an independent instrumentality of the Commonwealth, managed by a 6-member board, including the State Treasurer. The Corporation purchased all of the future tobacco settlement revenue allocated to the Tobacco Region Revitalization Commission (nonmajor component

unit). Neither the Commonwealth's nor the Virginia Foundation for Healthy Youth's (nonmajor component unit) tobacco revenue was securitized. The administrative offices of the Corporation are located at 101 North 14th Street, 3rd Floor, Post Office Box 1879, Richmond, Virginia 23218-1879. Clifton Larson Allen, LLP, audits the Corporation, and a separate report is issued.

Virginia Recreational Facilities Authority – The Authority was created as a political subdivision and instrumentality of the Commonwealth and given separate corporate powers by the *Code of Virginia*. The Governor appoints 13 members of the board of directors to serve alongside two members of the Senate and four members of the House of Delegates. The Authority operates educational programs, tourism, and commerce in the Roanoke Valley. The address for the administrative offices of the Authority is 5204 Bernard Drive Southwest, Post Office Box 29800, Roanoke, Virginia 24018. Robinson, Farmer, Cox Associates audits the Authority, and a separate report is issued.

Jamestown-Yorktown Educational Trust – The Trust was created as a nonprofit corporation by the *Code of Virginia* to assist the Jamestown-Yorktown Foundation (Foundation). The Trust board consists of six members selected from the Foundation's board of trustees. Several Commonwealth officials serve as ex-officio members of the Foundation's board, and the Governor appoints 12 members. The Trust operates the Jamestown Settlement and Yorktown Victory Centers' gift shops and café. The address for the administrative offices of the Trust is Post Office Box 3605, Williamsburg, Virginia 23187. Keiter Certified Public Accountants audits the Trust, and a separate report is issued.

Virginia Birth-Related Neurological Injury Compensation Program – The Program was created to provide a no-fault alternative for birth-related neurological injuries. The Governor appoints the 9-member board. The administrative offices of the Program are located at 7501 Boulders View Drive, Suite 210, Richmond, Virginia 23225. KPMG, LLP, audits the Program, and a separate report is issued.

Chesapeake Bay Bridge and Tunnel Commission – The Commission was created to establish policy and administer operations of the Chesapeake Bay Bridge Tunnel District. Any of the 11 members of the Commission appointed or reappointed on or after July 1, 1998, shall be appointed by the Governor, subject to confirmation by each house of the General Assembly. The administrative offices of the Commission are located at 32386 Lankford Highway, Cape Charles, Virginia 23310. KPMG, LLP, audits the Commission, and a separate report is issued.

C. Government-wide and Fund Financial Statements

The government-wide financial statements, the Statement of Net Position and the Statement of Activities, report information on all nonfiduciary activities of the primary government and component units. For the most part, the effect of interfund activity has been removed from these statements. Governmental activities, which are normally supported by taxes and intergovernmental revenues, are reported separately from business-type activities, which rely to a significant extent on fees and charges for support. Also, the primary government activity is reported separately from the legally separate component units for which the Commonwealth is financially accountable.

The Statement of Activities demonstrates the degree to which direct expenses of a specific function or segment are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function, segment, or component unit. In addition, to the extent that indirect costs are allocated to the various functions, the program expenses will include both direct and indirect costs. Program revenues include charges to customers who purchase, use, or directly benefit from goods or services provided by a given function, segment, or component unit, as well as investment income generated by operations. Program revenues also include grants, contributions, and investment income that are restricted to meeting the operational or capital requirements of a particular function, segment, or component unit. Taxes and other items properly excluded from program revenues are reported as general revenues.

Fund equity is restricted when constraints are placed on them that are imposed by external parties or constitutional provisions. When both restricted and unrestricted resources are available for use, the Commonwealth's policy is to use the restricted resources first. Some component units may follow a different policy. When committed, assigned, and unassigned resources are available for use, the Commonwealth's policy is to use the committed resources first, assigned resources next, and unassigned resources last.

Separate financial statements are provided for governmental funds, proprietary funds, fiduciary funds, and component units. However, fiduciary funds are not included in the government-wide statements. Major governmental funds, enterprise funds, and component units are reported in separate columns in the fund financial statements, with nonmajor funds being aggregated into a single column.

D. Measurement Focus, Basis of Accounting, and Financial Statement Presentation

Government-wide Financial Statements – The government-wide financial statements are reported using the economic resources measurement focus and the full accrual basis of accounting. Revenues are recorded when earned and expenses are recognized

when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Governmental Fund Financial Statements – The governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the primary government considers revenues to be available if they are collected within 60 days of the end of the current fiscal year (or one year for Medicaid). Significant revenues subject to accrual include federal grants and income and sales taxes. Income tax revenues for tax underpayments are only recognized to the extent of the primary government’s estimated refunds for tax overpayments received. Revenues that the primary government earns by incurring obligations are recognized in the same period as when the obligations are recognized.

Expenditures generally are recorded when a liability is incurred, as under full accrual accounting. However, expenditures related to debt service, compensated absences, and claims and judgments are recorded only when the payment is due.

The primary government reports the following major governmental funds:

General Fund – Accounts for the transactions related to resources received and used for those services traditionally provided by a state government, and which are not accounted for in any other fund. These services include general government, legislative and judicial activities, public safety, health and behavioral health programs, resources and economic development, licensing and regulation, and primary and secondary education.

Commonwealth Transportation Special Revenue Fund – Accounts for the revenues and expenditures associated with highway operations, maintenance, construction, and other transportation related activities. Funding for these programs is received from highway user taxes, fees, and funds received from the federal government.

Federal Trust Special Revenue Fund – Accounts for all federal dollars received by the Commonwealth except those received by the Commonwealth Transportation Fund, the Unemployment Compensation Fund, certain Medicaid reimbursements recorded in the General Fund, the Grant Anticipation Revenue Notes and Build America Bond Subsidies reported in the Debt Service Fund, and component units.

Literary Fund Special Revenue Fund – Accounts for revenues from fines, forfeitures, and proceeds from unclaimed property used primarily to support public education in the Commonwealth. This fund provides low interest loans to school divisions for construction, renovations, and expansion of school buildings.

Proprietary Funds, Fiduciary Funds, and Component Units Financial Statements – The financial statements of the proprietary funds, fiduciary funds, and component units are reported using the economic resources measurement focus and the full accrual basis of accounting. As with the government-wide statements, revenues are recorded when earned and expenses are recognized when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met. Agency funds have no measurement focus since they only report assets and liabilities.

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund’s principal ongoing operations. Revenues and expenses not meeting this definition are reported as nonoperating.

Foundations’ (component units) financial statements are prepared using the economic resources measurement focus and the full accrual basis of accounting. The financial statements are prepared under FASB rather than GASB standards. In some instances, activities of the foundations (component units) are reported separately within the footnotes because of the different reporting standards. Also, some foundations (component units) have a December 31st or March 31st year-end rather than a fiscal year-end. Foundations (component units) with different year-ends are included in these financial statements for the year ending August 31, 2018, December 31, 2018, or March 31, 2019. Significant intrafund activity/balances between each higher education institution and their foundations have been eliminated.

The following amounts could not be eliminated due to the differing year-ends:

- University of Virginia (nonmajor component unit):
 - institution revenue of \$29.1 million
 - foundation assets of \$1.7 million
 - foundation liabilities of \$349,054
 - foundation expenses of \$27.5 million
- Old Dominion University (nonmajor component unit):
 - institution liabilities of \$51.6 million
 - foundation assets of \$42.7 million

The primary government reports the following major enterprise funds:

Virginia Lottery Fund – Accounts for all receipts and expenses of the Virginia Lottery.

Virginia College Savings Plan Fund – Administers the Prepaid529 Program.

Unemployment Compensation Fund – Accounts for receipts from employers and expenses incurred to provide benefits to eligible unemployed workers.

Additionally, the primary government reports the following fund types:

Governmental Fund Types:

Special Revenue Funds – Account for transactions related to resources received and used for restricted, committed, or specific purposes.

Debt Service Funds – Account for transactions related to resources retained and used for the payment of interest and principal on long-term obligations. Additionally, this fund includes the activity of the Hampton Roads Transportation Accountability Commission (blended component unit).

Capital Project Funds – Account for transactions related to resources received and used for the acquisition, construction, or improvement of capital facilities not reported in the other governmental or proprietary funds with the exception of certain VPBA disbursements. The primary resource for these funds is the proceeds of bond issues and energy performance contracts. Principal uses are for construction and improvement of state office buildings, correctional and behavioral health facilities, and parks. Additionally, this fund includes the activity of the Hampton Roads Transportation Accountability Commission (blended component unit) for construction projects related to new or existing highways, bridges or tunnels in the localities comprising Planning District 23.

Permanent Funds – Account for transactions of the Commonwealth Health Research Fund and the Behavioral Health Endowment Funds whose principal must remain intact and whose income is used to benefit the Commonwealth's citizens and behavioral health patients.

Proprietary Fund Types:

Enterprise Funds – Account for transactions related to resources received and used for financing self-supporting activities of the primary government that offer products and services on a user-charge basis to external users.

Internal Service Funds – Account for transactions related to the financing and sale of goods or services provided by the agencies of the primary government to other agencies and institutions of the Commonwealth. Activities include the provision of information technology, manufacturing activities, insurance programs, fleet services, facilities and property management, engineering and payroll services.

Fiduciary Fund Types:

Private Purpose Trust Funds – Account for transactions of all other trust arrangements in which the principal and income benefit individuals, private organizations, or other governments. These trusts include those for the Commonwealth-sponsored educational savings plan and other purposes.

Pension and Other Employee Benefit Trust Funds – Account for transactions of the Commonwealth administered retirement systems and other employment benefits.

Investment Trust Funds – Account for the external portion of the Local Government Investment Pool (LGIP) and the LGIP Extended Maturity that is sponsored by the Commonwealth.

Agency Funds – Account for amounts held in trust by the primary government for others. Agency funds include those funds established to account for the collection of taxes and fees for distribution to localities and other states, employee benefits, deposits of insurance carriers, child support collections and other miscellaneous accounts.

E. Budgetary Process

Budgetary amounts shown in the Required Supplementary Information and Combining and Individual Fund Statements and Schedules sections represent the total of the original budgeted amounts and all supplemental appropriations. The Commonwealth's budget is prepared principally on a cash basis and represents appropriations as authorized by the General Assembly. Unexpended appropriations at the end of the fiscal year generally lapse. However, they may be reappropriated for expenditure in the following fiscal year. The Governor, as required by the *Code of Virginia*, submits a budget composed of all proposed expenditures for the Commonwealth, and of estimated revenues and borrowing for a biennium, to the General Assembly. Budgets are adopted for the General and Special Revenue Funds, except for the Literary (major special revenue) and Unclaimed Property (nonmajor special revenue) Funds. Formal budgetary integration is not employed for the Capital Projects (nonmajor governmental), Debt Service (nonmajor governmental), Permanent (nonmajor governmental), Literary (major special revenue) and Unclaimed Property (nonmajor special revenue) Funds because effective budgetary control is alternatively achieved

through the General Fund and the remaining special revenue funds.

The budget is prepared on a biennial basis; however, the budgets of the General and Special Revenue Funds contain separate appropriations for each year within the biennial budget, as approved by the General Assembly and signed into law by the Governor. For management control purposes, the lowest level of budgetary control is the program level. The Governor may transfer an appropriation within a state agency or from one state agency to another, provided that total fund appropriations, as contained within the budget, are not exceeded without further General Assembly action. Additionally, the Governor may reduce appropriations up to 15.0 percent without further General Assembly action. Increases in General Fund appropriations must be approved by the General Assembly.

Appropriations for programs funded from Special Revenue Funds may allow expenditures in excess of the original appropriations to the extent that revenues of the funds exceed original budget estimates and such additional expenditures are approved by the Governor through supplemental appropriations.

F. Cash, Cash Equivalents, Investments, and Derivatives

Cash

In order to maximize the Commonwealth's earning potential, the majority of the primary government's cash balances are pooled together in the general account for investment purposes. The amounts required for operations are liquidated as needed. Since all amounts not required for operations are held in investment securities, it is possible that the cash balances could be negative due to timing differences in liquidating the investments.

As of June 30, 2019, the General Fund had a negative cash balance of \$6.2 billion. In order to properly reflect the general account position, this negative cash balance has been eliminated in the accompanying statements and offset against the primary government's cash equivalents and investments (see Note 8).

Cash Equivalents

Cash equivalents are investments with an original maturity of 90 days or less.

Investments

Investments are principally comprised of monies held by component units, Pension and Other Employee Benefit Trust Funds, and monies held by the State Treasurer in both the general account and other fiduciary accounts.

The primary government's policy for managing interest rate risk, with the exception of the Virginia College Savings Plan (Virginia529) and the Virginia Retirement

System (the System), uses the segmented time distribution method.

Virginia529, for its investment portfolio reported as Prepaid529 (major enterprise fund) and Invest529 (private purpose trust fund), and the System, for its investment portfolio reported as Pension and Other Employee Benefit Trust Funds, manage the interest rate risk using the effective duration methodology. To be consistent with management practices for each portfolio, the Commonwealth has elected to disclose the interest rate risk exposures, using the segmented time distribution for the primary government (excluding Prepaid529, Invest529, and Pension and Other Employee Benefit Trust Funds) and the effective duration method for Prepaid529, Invest529, and the Pension and Other Employee Benefit Trust Funds. The Commonwealth discloses the component unit's interest rate risk using the segmented time distribution method (see Note 8).

Governmental and proprietary funds, both primary government and component units, report investments in money market and in the Commonwealth sponsored investment pools at amortized cost which approximates fair value. All other investments, including investments in the Commonwealth sponsored Extended Maturity portfolio, are reported at fair value, in accordance with GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*, as amended by GASB Statement No. 72, *Fair Value Measurement and Application*. GASB Statement No. 72 provides guidance for determining fair value measurements using the level of fair value hierarchy and valuation techniques (see Note 8).

Investments administered by the System are reported at fair value, except for certain cash equivalents and other short-term, highly liquid investments are reported at amortized cost. The cost of investments sold is the average cost of the aggregate holding of the specific investment sold. Investments in affiliated organizations are accounted for on the equity method of accounting and the System's share of their earnings (losses) for the period is included in investment income using the equity method.

Derivatives

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indexes (see Note 16).

G. Assets Held Pending Distribution

Assets held pending distribution include various assets that have been placed in safekeeping until final disposition has been determined.

H. Receivables

Receivables in the governmental funds consist primarily of the accrual of taxes, as well as receivables of the primary government's Medicaid program. Additionally, receivables include amounts to be received for debt service payments related to certain bonds. Receivables in the proprietary funds consist primarily of tuition contribution receivables and unemployment compensation. Receivables of fiduciary funds are primarily the accrual of security transactions in the Pension and Other Employee Benefit Trust Funds. Receivables of the component units consist primarily of mortgage receivables, loans receivable, local school bonds receivable, patient receivables, and student receivables. Receivables are recorded net of allowances for doubtful accounts (see Note 9).

I. Contributions Receivable, Net

Contributions Receivable reported by the foundations (component units) represents pledges or unconditional promises to give that have been discounted (see Note 10).

J. Internal Balances

Interfund receivables and payables have been eliminated from the Statement of Net Position, except for the residual amounts due between governmental and business-type activities (see Note 11).

K. Inventory

Inventories consist of materials and supplies and are reported as expenditures when consumed. These assets are classified as nonspendable fund balance. Inventories exceeding \$1.0 million of the General and the Special Revenue Funds are maintained at cost using the first-in, first-out (FIFO) methodology, except for the following:

- Department of Health (VDH)
- Department of State Police (VSP)
- Virginia Department of Transportation (VDOT)

VDH supply inventories are recorded in the General (major), Federal Trust (major special revenue), and Health and Social Services (nonmajor special revenue) Funds using the FIFO methodology and are maintained at either cost or current market cost. VSP inventories are recorded in the General (major) and Other (nonmajor special revenue) Funds using the average cost methodology and are maintained at cost. VDOT inventories are recorded in the Commonwealth Transportation Fund (major special revenue) using the FIFO and average cost methodologies and are maintained at either cost or average cost.

In addition to inventories maintained as stated above, the following agencies reported donated inventory balances on hand as of June 30, 2019:

- Department of Behavioral Health and Developmental Services (DBHDS)
- Department of Health (VDH)
- Department of Juvenile Justice (DJJ)
- Frontier Culture Museum of Virginia (FCMV)

Inventories maintained by the Virginia Lottery (major enterprise fund) and the Virginia Industries for the Blind (nonmajor enterprise fund) are stated at cost using the average cost methodology.

Inventories maintained by the Virginia Museum of Fine Arts (nonmajor enterprise fund), the Science Museum of Virginia (nonmajor enterprise fund), and the Consolidated Laboratory (nonmajor enterprise fund) are stated at cost using FIFO.

Inventories maintained by the Alcoholic Beverage Control (nonmajor enterprise fund) are stated at average cost using the weighted average method.

Inventories maintained by Correctional Enterprises (internal service fund) are stated at the lower of cost or market using FIFO. Inventories maintained by the internal service funds except for Correctional Enterprises are stated at cost using FIFO.

Institutions of higher education (nonmajor component units) use several methods for inventory valuations, including cost using FIFO, the lower of cost or market using FIFO, or weighted average methods. Inventories maintained by the Virginia Port Authority (nonmajor component unit), the Hampton Roads Sanitation District Commission (nonmajor component unit), and the Danville Science Center (nonmajor component unit) are reported using the moving average unit cost methodology. Inventories at the gift shop run by the Library of Virginia Foundation (nonmajor component unit) are stated at lower of cost or market using the average cost methodology.

L. Prepaid Items

Prepaid assets for rent, insurance, and similar items are recognized when purchased and expensed when used.

M. Loans Receivable/Payable

Loans Receivable/Payable represents working capital advances between the primary government and component units (see Note 11).

N. Other Assets

Other Assets include those balances of a miscellaneous nature that are not specifically classified elsewhere. Additionally, it includes the Virginia Sickness and Disability Program Net Other Postemployment Benefit Plan Asset applicable to the proprietary and private purpose funds (see Note 12).

O. Capital Assets

Capital assets of governmental funds are recorded as expenditures at the time of purchase and capitalized in the governmental activities column of the Government-wide Statement of Net Position. Capital assets of the other funds and component units are capitalized in the fund in which they are utilized. All depreciable capital assets are depreciated on the straight-line basis over their useful lives (see Note 14).

Capital assets are stated at historical cost or, in some instances, estimated historical cost. Assets received pursuant to service concession arrangements and donated capital assets from entities external to the reporting entity are stated at acquisition value when they are placed in service or at the time of donation, respectively. Asset transfers or donations from within the reporting entity are recorded at the carrying value of the transferring entity as required by GASB Statement No. 48, *Sales and Pledges of Receivables and Future Revenues and Intra-Entity Transfers of Assets and Future Revenues*. The primary government capitalizes all equipment that has a cost or value greater than \$50,000 and expected useful life of greater than two years. The primary government capitalizes all land, water rights/easements, buildings, infrastructure, and software that have a cost or value greater than \$100,000 and an expected useful life of greater than two years. Selected agencies, business-type entities, and component units utilize a capitalization limit lower or higher than the primary government's established thresholds for various reasons. Accordingly, reported capital assets may include some items that cost less than those thresholds. Infrastructure, including highways, bridges, and rights-of-way, is capitalized using the historical approach and includes any assets acquired prior to fiscal year 1980.

The primary government's capitalization policy regarding works of art/historical treasures is that capitalization is encouraged, but not required, for works of art/historical treasures that meet the following conditions:

- The collection is held for public exhibition, education, or research in furtherance of public service, rather than financial gain;
- The collection is protected, kept unencumbered, cared for and preserved; and,
- The collection is subject to an organizational policy that requires the proceeds from sales of collection items to be used to acquire other items for the collection.

The primary government capitalizes construction-in-progress when project expenditures, including construction of intangible assets, exceed \$100,000. Interest incurred during construction is not capitalized in governmental funds. Interest incurred during the construction of proprietary fund assets is included in the capitalized value of the asset. The total interest cost incurred during the fiscal year was \$1.3 million. None of the interest cost incurred this fiscal year was capitalized.

Expenditures are classified as construction-in-progress if:

- (1) They extend the asset life, improve productivity, or improve the quality of service; and,
- (2) They fall into the planning, acquisition, construction, improvement, renovation, repair, replacement, relocation, or demolition phase of the asset life.

The estimated lives of capital assets are as follows:

	<u>Years</u>
Buildings	10–75
Equipment	2–50
Infrastructure	5–50
Software	5–35

Selected agencies, business-type entities, and component units may utilize estimated lives and policies that differ from the above for various reasons.

P. Deferred Outflows of Resources

Deferred outflows of resources are a consumption of assets by the government that is applicable to a future reporting period. Deferred outflows have a natural debit balance and, therefore increase net position similar to assets (see Notes 15, 16, 17, and 19).

Q. Accounts Payable

Accounts payable represent amounts, including salaries and wages, owed for goods and services received prior to year-end. In accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, accounts payable also includes payments for nonexchange transactions that met eligibility requirements prior to fiscal year-end (see Note 26).

R. Unearned Revenue

Unearned revenue represents monies received or revenues accrued but not earned as of June 30, 2019. The majority of unearned revenue is reported by higher education institutions (nonmajor component units), where it is primarily composed of revenue for student tuition accrued in advance of the semester and advance payments on grants and contracts.

In the special revenue funds, unearned revenue is composed primarily of prepaid toll revenue, contributions from localities and private sectors for highway construction projects, multi-year vehicle registrations recorded in the Commonwealth Transportation Fund (major), and multi-year motor vehicle safety inspections, emission inspections, mining permits, and hunting, fishing, and trapping licenses recorded in the Other and Health and Social Services Funds (nonmajor).

In the enterprise funds, a majority of unearned revenue represents online ticket monies received by the Virginia Lottery (major) for which corresponding drawings have not been held and test kits and certifications from Consolidated Labs (nonmajor) which are paid for prior to shipping and certification being performed.

Unearned revenue in the internal service funds primarily represents unearned premiums in the Risk Management Fund; advanced customer receipts in the Virginia Information Technologies Agency Fund; and prepaid rent and work orders in the Property Management Fund.

Unearned revenues in the other component units consist primarily of fees related to various activities.

S. Unearned Taxes

Unearned taxes represent income taxes related to the period January through June 2019. This amount is the estimate to be refunded (overpayments by taxpayers) reduced by the estimate to be received (underpayments from taxpayers) that will be finalized when income tax returns are filed in subsequent years. Individual income tax estimated overpayments total \$1.0 billion and estimated underpayments total \$1.1 billion. When underpayments exceed overpayments, revenue on the fund statements is only recognized to the extent of estimated overpayments. Since underpayments exceed overpayments for the individual income taxes, the unearned tax amount is zero for the fiscal year.

Corporate income tax estimated overpayments total \$44.1 million and estimated underpayments total \$70.1 million. When underpayments exceed overpayments, revenue on the fund statements is only recognized to the extent of estimated overpayments. Since underpayments exceed overpayments for the corporate income taxes, the unearned tax amount is zero for the fiscal year.

T. Obligations Under Securities Lending Program

In accordance with GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, liabilities resulting from these transactions have been recorded as obligations under securities lending transactions.

U. Due to Claimants, Participants, Escrows and Providers

Due to claimants, participants, escrows and providers represent monies that the Commonwealth is holding on behalf of third parties as of June 30, 2019. In governmental funds, the majority of the amount represents estimated unclaimed and escheat property that the Commonwealth is holding until claimed by the rightful owner.

In the enterprise funds, the amounts represent payments due to benefit claimants and employers for tax overpayments in the Unemployment Compensation

Fund (major) and to participants of the Prepaid529 Program in the Virginia College Savings Plan (major).

In the private purpose trust funds, the amounts represent payments due to participants in the Invest529 Program offered by the Virginia College Savings Plan.

In the agency funds, these amounts represent funds used for employee benefits and child support enforcement, as well as accounts of inmates, residents, and patients of the Commonwealth's correctional, juvenile, veterans, and behavioral health facilities.

V. Other Liabilities

Other liabilities represent amounts owed for various governmental and proprietary activities. Some of these amounts will be paid shortly after fiscal year-end (see Note 27).

W. Claims Payable

Claims payable, reported in the proprietary funds of the primary government, represent both health and liability insurance claims payable as of June 30, 2019. This includes both actual claims submitted, as well as actuarially determined claims incurred but not reported. Claims relating to the primary government's liability insurance programs are reported in the Risk Management – internal service fund and the Risk Management – nonmajor enterprise fund. Also, health insurance claims are reported in the Health Care – internal service fund, the Local Choice Health Care – nonmajor enterprise fund and Line of Duty – internal service fund and nonmajor enterprise fund (see Notes 25.A. and 25.B.). Claims payable reported by the Virginia Commonwealth University Health System Authority (a blended component unit of the Virginia Commonwealth University – nonmajor component unit) represents estimated malpractice, workers' compensation, and medical claims payable amounts.

X. Long-term Liabilities

In the government-wide financial statements, long-term debt and other long-term obligations are reported as liabilities in the applicable governmental activities or business-type activities column. The governmental fund statements reflect the portion of long-term liabilities that will be paid from expendable resources that represent payments to employees for separations that occurred prior to June 30, 2019. The proprietary fund statements and discrete component unit statements reflect total long-term liabilities and distinguish between those portions payable within one year and those payable in future years (see Note 28).

Bond premiums and discounts are amortized over the life of the bond. Bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs, excluding prepaid insurance, are expensed.

Expenditures for principal and interest payments for governmental fund general obligation bonds and revenue bonds are recognized in the Debt Service Fund

(nonmajor) when due. In the fund statements, governmental fund types recognize bond premiums and discounts, as well as bond issuance costs, during the current period. The face amount of debt issued is reported as other financing sources. Premiums received on debt issuances are reported as other financing sources while discounts on debt issuance are reported as other financing uses. Issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures (see Note 28).

Y. Deferred Inflows of Resources

Deferred inflows of resources are an acquisition of assets by the government that is applicable to a future reporting period. Deferred inflows have a natural credit balance and, therefore decrease net position similar to liabilities (see Notes 15, 16, 17, 19, and 38).

Z. Nonspendable Fund Balances

Nonspendable fund balances indicate that portion of fund balance that cannot be spent because it is either not in spendable form or is legally or contractually required to be maintained intact.

AA. Restricted Fund Balances

Restricted fund balances are amounts that have constraints placed on the use of resources that are either (a) externally imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments, or (b) imposed by law through constitutional provisions or enabling legislation.

BB. Committed Fund Balances

Committed fund balance includes amounts that must be spent for specific purposes that have been legislatively mandated by the Governor and General Assembly. Further action by the Governor and the General Assembly would be required to modify these commitments.

CC. Assigned Fund Balances

Assigned fund balances are amounts that are constrained by the government's intent to be used for specific purposes, but are neither restricted nor committed. Assignments are identified by Commonwealth management pursuant to the delegation of authority granted by the General Assembly and Governor specified in the Appropriation Act.

DD. Unassigned Fund Balances

Unassigned fund balance is the amount of fund balance that has not been assigned to other funds and has not been restricted, committed or assigned to specific purposes within the General Fund. The General Fund is the only fund that could potentially report a positive

unassigned fund balance amount. Additionally, accrued liabilities exceed accrued assets on the modified accrual basis for the Unclaimed Property Fund (nonmajor special revenue) by \$62.6 million. As there are no assigned balances in the fund to offset the negative fund balance restricted for specific purposes, the amount is reported as Unassigned Fund Balance.

EE. Cash Management Improvement Act

Included in Amounts Due to Other Governments is the Commonwealth's Cash Management Improvement Act (CMIA) interest liability to the federal government, which is calculated in accordance with the interest calculation and exchange provisions of the Federal Cash Management Improvement Act of 1990. The Commonwealth's interest liability is subject to review and final confirmation by the Bureau of the Fiscal Service (BFS) of the U.S. Treasury. If required, the payment is to be made on March 31 of the following year. Payment will be made from a sum sufficient appropriation authorized for this purpose by the Appropriation Act. The CMIA interest rate of exchange is based by law on the average of the bond equivalent rates of 13-week Treasury Bills auctioned during the annual reporting period as calculated by BFS.

FF. Investment Income

In accordance with GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*, all investment income reported in the accompanying financial statements include changes in the fair value of investments and the amount reported may be negative. Additionally, the Commonwealth's policy is to record all unrealized gains or losses for the State Treasurer's Portfolio in the General Fund.

GG. Intrafund Eliminations

Eliminations have been incorporated into the report to eliminate intrafund transactions within the related fund type. These eliminations prevent overstatement of financial activity.

HH. Interfund Activity

Generally, the effect of interfund activity has been eliminated from the government-wide statements, with the exception of interfund services provided and used between functions. Elimination of these activities would distort the direct costs and program revenues for the functions.

In the fund financial statements, transfers represent the movement of resources between funds. For example, transfers are recorded when a fund receives revenue and subsequently disburses the resources to another fund for expenditure.

2. RESTATEMENT OF BEGINNING BALANCES

The government-wide beginning balance restatements resulted from the following:

Government-wide Activities

Governmental Activities

- The Virginia Department of Transportation (VDOT) misstated deferred outflows of resources related to debt defeasance by \$73.7 million which overstated prior year Net Position.
- Capital Asset balances were restated by a total of \$2.7 million. This resulted primarily from errors by various agencies resulting in a \$38.4 million overstatement of prior year Construction-in-Progress balances, offset by a \$35.7 million understatement of prior year net depreciable capital assets.
- The Debt Service Fund (nonmajor) has been restated by \$17.1 million to include loan receivables related to

selected debt service payments previously omitted by VDOT.

Fund Statements

- The Debt Service Fund (nonmajor governmental) has been restated by \$1.8 million as previously discussed.

Component Units

The government-wide and fund statements were restated for the following.

- The Virginia Commonwealth University (nonmajor) and George Mason University (nonmajor) have restated the beginning balance by \$32.1 million, to include the following discrete component units of the universities: Dentistry@VCU and Mercatus Center, Inc., respectively. Previously, these entities were not considered discrete component units of the universities.

Beginning Balance Restatement

(Dollars in Thousands)

	Balance as of June 30, 2018	Change in Reporting Entity	Correction of Prior Year Errors	Balance as of June 30, 2018, as restated
Government-wide Activities:				
Primary Government:				
Governmental Activities	\$ 22,330,226	\$ —	\$ (59,338)	\$ 22,270,888
Business-type Activities	2,066,478	—	—	2,066,478
Total Primary Government	<u>\$ 24,396,704</u>	<u>\$ —</u>	<u>\$ (59,338)</u>	<u>\$ 24,337,366</u>
Component Units	<u>\$ 27,816,792</u>	<u>\$ 32,131</u>	<u>\$ —</u>	<u>\$ 27,848,923</u>
Fund Statements:				
Governmental Funds				
Major Governmental Funds:				
General	\$ 843,454	\$ —	\$ —	\$ 843,454
Special Revenue Funds:				
Commonwealth Transportation	2,327,278	—	—	2,327,278
Federal Trust	107,533	—	—	107,533
Literary	1,035	—	—	1,035
Nonmajor Governmental Funds	2,100,441	—	1,816	2,102,257
Total Governmental Funds	<u>\$ 5,379,741</u>	<u>\$ —</u>	<u>\$ 1,816</u>	<u>\$ 5,381,557</u>
Component Units:				
Virginia Housing Development Authority	\$ 3,283,537	\$ —	\$ —	\$ 3,283,537
Virginia Public School Authority	(10,059)	—	—	(10,059)
Virginia Resources Authority	1,615,168	—	—	1,615,168
Virginia College Building Authority	(4,071,206)	—	—	(4,071,206)
Nonmajor Component Units	26,999,352	32,131	—	27,031,483
Total Component Units	<u>\$ 27,816,792</u>	<u>\$ 32,131</u>	<u>\$ —</u>	<u>\$ 27,848,923</u>

3. NET POSITION/FUND BALANCE CLASSIFICATIONS

Fund Balance

GASB Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*, improved the reporting of fund balance so that classifications are more easily understood and can be applied consistently between information reported in the government-wide financial statements and the governmental fund financial statements. The governmental fund balance classifications defined in GASB Statement No. 54 are: Nonspendable, Restricted, Committed, Assigned, and Unassigned.

Nonspendable fund balance includes inventories, prepaid items, and the principal of a permanent fund. These funds are not available for expenditure in the current or following period.

Restricted fund balance includes amounts that have constraints placed on the use of resources by the Constitution of Virginia or a party external to the Commonwealth.

Committed fund balance includes amounts that must be spent for specific purposes that have been legislatively mandated by the Governor and General Assembly.

Assigned fund balance represents amounts that the Commonwealth has identified for planned purposes but for which the intended use is not legislatively mandated. The assignments are identified by Commonwealth management pursuant to the delegation of authority granted by the General Assembly and Governor specified in the Appropriation Act. The following schedule includes committed and assigned amounts that share the same purpose and title. The distinction between these classifications results from whether there is a statutory restriction on certain amounts contained within the fund.

Unassigned fund balance for the General Fund (major) is the residual classification. The General Fund is the only fund that could potentially report a positive unassigned fund balance amount. Additionally, a negative amount indicates that restricted and committed amounts exceed the available modified accrual basis fund balance. Unassigned fund balance for the Unclaimed Property Fund (nonmajor special revenue) indicates that the amount restricted for specific purposes exceeds the modified accrual basis fund balance available for these specific purposes.

The governmental fund balance classifications and amounts as of June 30, 2019, are shown in the following table.

Governmental Fund Balance Classifications

(Dollars in Thousands)

	<u>General Fund</u>	<u>Commonwealth Transportation</u>	<u>Federal Trust</u>	<u>Literary</u>	<u>Nonmajor Governmental</u>	<u>Total</u>
Nonspendable						
Inventory	\$ 28,797	\$ 95,483	\$ 23,813	\$ —	\$ 7,174	\$ 155,267
Prepaid Items	73,888	14,453	6,136	—	9,964	104,441
Permanent Funds	—	—	—	—	39,073	39,073
Total Nonspendable	<u>102,685</u>	<u>109,936</u>	<u>29,949</u>	<u>—</u>	<u>56,211</u>	<u>298,781</u>
Restricted						
Agriculture and Forestry	—	—	—	—	9,181	9,181
Capital Projects/Construction/Capital Acquisition	—	—	—	—	1,366,654	1,366,654
Contract and Debt Administration	—	—	—	—	656	656
Debt Service	—	—	—	—	45,694	45,694
Economic and Technological Development	—	—	—	—	37	37
Educational and Training Programs	—	—	—	—	3,480	3,480
Environmental Quality and Natural Resource Preservation	—	—	—	—	22,639	22,639
Gifts and Grants	—	6	97,726	—	2,648	100,380
Government Operations:						
Administrative Services	—	—	—	—	1,814	1,814
Health and Public Safety	—	—	—	—	73,059	73,059
Literary Fund	—	—	—	17,834	—	17,834
Lottery Proceeds Fund	37,659	—	—	—	—	37,659
Revenue Stabilization Fund	629,654	—	—	—	—	629,654
Transportation Activities	—	501,614	—	—	—	501,614
Virginia Water Supply Assistance Grant Fund	2,154	—	—	—	—	2,154
Total Restricted	<u>669,467</u>	<u>501,620</u>	<u>97,726</u>	<u>17,834</u>	<u>1,525,862</u>	<u>2,812,509</u>
Committed						
Agriculture and Forestry	23	—	—	—	24,091	24,114
Amount Required for Mandatory Reappropriation	108,175	—	—	—	—	108,175
Amount Required for Reappropriation of 2019 Unexpended Balances for Capital Outlay and Restoration Projects	6,739	—	—	—	—	6,739
Capital Projects/Construction/Capital Acquisition	1,895	—	—	—	677	2,572
Central Capital Planning Fund	7,023	—	—	—	—	7,023
Commonwealth's Development Opportunity Fund	26,051	—	—	—	—	26,051
Contract and Debt Administration	—	10,554	—	—	805	11,359
Economic and Technological Development	121,911	—	—	—	46,517	168,428
Educational and Training Programs	1,159	1,597	—	—	9,202	11,958
Environmental Quality and Natural Resource Preservation	28,587	—	—	—	106,173	134,760
Government Operations:						
Administrative Services	94	—	—	—	89,851	89,945
Legislative Services	—	—	—	—	228	228
Health and Public Safety	23,066	4,493	—	—	254,187	281,746
Local Government Fiscal Distress	750	—	—	—	—	750
Natural Disaster Sum Sufficient	21,328	—	—	—	—	21,328
Regulatory Oversight	—	—	—	—	141,849	141,849
Revenue Reserve Fund	502,590	—	—	—	—	502,590
Taxpayer Relief Fund	30,684	—	—	—	—	30,684
Transportation Activities	—	2,254,518	—	—	4,410	2,258,928
Virginia Communication Sales and Use Tax	5,940	—	—	—	—	5,940
Virginia Health Care Fund	53,614	—	—	—	—	53,614
Virginia Water Quality Improvement Fund	34,337	—	—	—	—	34,337
Virginia Water Quality Improvement Fund-Part A	87,645	—	—	—	—	87,645
Virginia Water Quality Improvement Fund-Part B	33,139	—	—	—	—	33,139
Total Committed	<u>1,094,750</u>	<u>2,271,162</u>	<u>—</u>	<u>—</u>	<u>677,990</u>	<u>4,043,902</u>
Assigned						
Agriculture and Forestry	—	—	—	—	43	43
Economic and Technological Development	—	—	—	—	2,193	2,193
Educational and Training Programs	—	—	—	—	8,814	8,814
Environmental Quality and Natural Resource Preservation	—	—	—	—	7,604	7,604
Government Operations:						
Administrative Services	—	—	—	—	530	530
Health and Public Safety	—	—	—	—	14,826	14,826
Regulatory Oversight	—	—	—	—	3	3
Total Assigned	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>34,013</u>	<u>34,013</u>
Unassigned						
Total Fund Balance	<u>\$ 1,602,673</u>	<u>\$ 2,882,718</u>	<u>\$ 127,675</u>	<u>\$ 17,834</u>	<u>\$ 2,231,456</u>	<u>\$ 6,862,356</u>

4. DEFICIT FUND BALANCES/NET POSITION

The Unclaimed Property (nonmajor special revenue fund) ended the year with a deficit net position balance of \$62.1 million. This deficit was a result of the accrued liabilities estimated to be paid to claimants exceeding the assets remaining in the fund as of June 30.

The Virginia Lottery (major enterprise fund), Alcoholic Beverage Control (nonmajor enterprise fund), the Virginia Museum of Fine Arts Gift Shop (nonmajor enterprise fund), the Personnel Management Information System Fund (internal service fund), and the Payroll Service Bureau (internal service fund) ended the year with deficit net positions of \$32.2 million, \$90.7 million, \$734,430, \$412,280, and \$2.3 million, respectively. This was solely attributable to the net pension liability resulting from GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, and the other postemployment benefits (OPEB) obligation resulting from GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*.

The Risk Management Fund (nonmajor enterprise fund) ended the year with a deficit net position balance of \$14.7 million. The deficit was a result of previous increases in claims liability for constitutional officers' programs exceeding premiums collected. Further, there are noncurrent liabilities related to net pension liabilities and other postemployment benefit obligations.

The Department of General Services' Consolidated Laboratory Services Fund (nonmajor enterprise fund) ended the year with a deficit net position balance of \$5.1 million. The deficit was a result of increased costs for the Newborn Screening Program and noncurrent liabilities related to net pension liabilities and other post employment benefit obligations.

The Department of Environmental Quality's Title V Air Pollution Permit Fund (nonmajor enterprise fund) ended the year with a deficit net position balance of \$10.2 million. The deficit was a result of accumulated deficits from prior years for decreasing revenues for Title V permits. Further, there are noncurrent liabilities related to net pension liabilities and other postemployment benefit obligations.

The Virginia Information Technologies Agency (internal service fund) ended the year with a deficit net position balance of \$26.3 million. The deficit was a result of accumulated deficits from prior years, additional expenses for the transition from Northrup Grumman to multiple suppliers, and noncurrent liabilities related to net pension liabilities and other postemployment benefit obligations.

The Enterprise Application Fund (internal service fund) ended the year with a deficit net position balance of \$15.2 million. The deficit was a result of working capital advances for the Human Capital Management replacement project and noncurrent liabilities related to net pension liabilities and other postemployment benefit obligations.

The Property Management Fund (internal service fund) ended the year with a deficit net position balance of \$19.9 million. This deficit was the result of the purchase of a leasehold interest in a state-owned building in fiscal year 2006. Also, the Property Management Fund incurred additional capital lease liabilities due to transfers of leases from other state agencies in fiscal year 2009. Additionally, in fiscal year 2012, the Property Management Fund entered into three energy leases where the asset is reported in the governmental fund and the liability is recorded in the internal service fund. In fiscal year 2018, the Property Management Fund entered into a new energy performance contract where the asset is reported in the governmental fund and the liability is recorded in the internal service fund. Further, there are noncurrent liabilities related to net pension liabilities and other postemployment benefit obligations.

The Risk Management Fund (internal service fund) ended the year with a deficit net position balance of \$570.5 million. The deficit was the result of the Worker's Compensation Program having estimated claims payable exceeding the available equity in the fund. Claims are paid on a pay-as-you-go basis. To the extent that claims exceed current resources, they will ultimately become a liability of the fund from which the claim originated. Further, there are noncurrent liabilities related to net pension liabilities and other postemployment benefit obligations.

The Virginia College Building Authority (major component unit) ended the year with a deficit net position balance of \$4.3 billion. This deficit occurs because the Authority issued bonds for the 21st Century College and Equipment programs subject to future appropriations from the General Fund of the Commonwealth without any other security. These future appropriations are not included as assets of the Authority.

The Southern Virginia Higher Education Center (nonmajor component unit) ended the year with a deficit net position balance of \$1.2 million. This deficit is solely attributable to net pension liabilities and other postemployment benefit obligations.

The Virginia Economic Development Partnership (nonmajor component unit) ended the year with a deficit net position balance of \$4.6 million. This deficit is related to net pension liabilities and other postemployment benefit obligations.

The Virginia Tourism Authority (nonmajor component unit) ended the year with a deficit net position balance of \$1.8 million. This deficit is related to net pension liabilities and other postemployment benefit obligations.

5. REVENUE STABILIZATION FUND

In accordance with Article X, Section 8 of the *Constitution of Virginia*, the amount estimated as required for deposit to the Revenue Stabilization Fund must be appropriated for that purpose by the General Assembly.

Under the provisions of Article X, Section 8 of the Constitution of Virginia, a deposit of \$262.9 million is required during fiscal year 2020 based on fiscal year 2018 revenue collections. Further, a deposit of \$77.4 million is required during fiscal year 2021 based on fiscal year 2019 revenue collections reduced by the taxpayer refunds required by Chapter 854. For additional information, see Note 7. Both the \$262.9 million and the \$77.4 million deposits are reported as restricted components of fund balance.

In addition, Chapter 854, 2019 Acts of Assembly, appropriates an additional \$97.5 million to be deposited in fiscal year 2020.

Section 2.2-1829(b) of the *Code of Virginia* requires an additional deposit into the Fund when specific criteria have been met. No such deposit is required since the specified criteria were not met for fiscal year 2019.

The Revenue Stabilization Fund has principal and interest on deposit of \$289.3 million restricted as a part of the General Fund balance. Pursuant to the constitutional amendment of Article X, Section 8, effective January 1, 2011, the amount on deposit cannot exceed 15.0 percent of the Commonwealth's average annual tax revenues derived from taxes on income and retail sales for the preceding three fiscal years. As of June 30, 2019, the Constitutional maximum is \$2.8 billion.

6. REVENUE RESERVE FUND

Section 2.2-1831.2 of the *Code of Virginia* established the Revenue Reserve Fund. As of June 30, 2019, the fund has principal and interest on deposit of \$502.6 million committed as a part of the General Fund balance.

This fund was established to mitigate certain anticipated revenue shortfalls when appropriations based on previous revenue forecasts exceed expected revenues in subsequent forecasts. Annually, revenue collections are evaluated to determine whether deposits are required to the fund. While no statutory deposit is required when there is a constitutionally mandated deposit to the Revenue Stabilization Fund, the Department of Planning and Budget has identified a planned voluntary deposit during fiscal year 2020 of \$270.8 million.

Pursuant to Section 2.2-1831.3 of the *Code of Virginia*, any required annual deposit cannot exceed 1.0 percent of the total general fund revenues for the prior fiscal year. Additionally, the combined balance of the Revenue Reserve Fund and the Revenue Stabilization Fund cannot exceed 15.0 percent of the total Commonwealth's average annual tax revenues derived from taxes on income and retail sales for the preceding three fiscal years. As of June 30, 2019, the calculated maximum balance for the Revenue Reserve Fund is \$2.5 billion.

7. TAXPAYER RELIEF FUND

The Taxpayer Relief Fund was established in accordance with Chapter 854, 2019 Acts of Assembly, Item 3-5.21. The revenues generated by the individual reform provisions of the federal Tax Cuts and Jobs Act that exceed revenue collections reasonably expected due to general economic growth absent the federal policy change, less revenues needed to implement the policy changes, for fiscal years 2019 through 2025, will be reported in this fund. For the fiscal year ended June 30, 2019, \$455.0 million was deposited to the fund. Pursuant to the fourth enactment of Chapters 17 and 18, 2019 Acts of Assembly, certain taxpayers received refunds totaling \$424.3 million subsequent to June 30. This amount is reported as a liability in the accompanying financial statements. The remaining balance of \$30.7 million is committed as part of the General Fund balance.

8. CASH, CASH EQUIVALENTS, AND INVESTMENTS

As of June 30, 2019, the carrying amount of cash for the primary government (including pension and other employee benefit trust funds) was \$5.6 billion and the bank balance was \$372.6 million. The carrying amount of cash for component units was \$2.0 billion and the bank balance was \$841.1 million. Cash equivalents are investments with an original maturity of 90 days or less. Cash and cash equivalents for foundations (component units) totaled \$504.2 million as of year-end. A portion of this amount and some balances during the year exceeded Federal Deposit Insurance Corporation (FDIC) insurance coverage. Foundation investments are disclosed in the Interest Rate Risk section of this note. Note 8 includes investment derivatives for the primary government and excludes derivatives for the component units. For additional information concerning derivative instruments, see Note 16.

For purposes of this note, primary government includes governmental, business-type activities, and fiduciary funds. The deposits of the primary government and the component units, excluding foundations (component units), are secured in accordance with the provisions of the Virginia Security for Public Deposits Act, Section 2.2-4400 et seq. of the *Code of Virginia*. The act requires any public depository that receives or holds public deposits to pledge collateral to the Treasury Board to cover public deposits in excess of Federal deposit insurance. The required collateral percentage is determined by the Treasury Board and ranges from 50.0 percent to 100.0 percent for financial institutions choosing the pooled method of collateralization, and from 105.0 percent to 130.0 percent for financial institutions choosing the dedicated method of collateralization. As stated in Note 1.FF, unrealized gains or losses for the State Treasurer's Portfolio are recorded in the General Fund. Public Depositors are required to secure their deposits pursuant to several applicable provisions of the law.

The Local Government Investment Pool Act, Section 2.2-4600 of the *Code of Virginia*, created the Local Government Investment Pool (Pool) program for the benefit of public entities of the Commonwealth. The Treasury Board of Virginia is granted administration of the Local Government

Investment Pool (LGIP) and Local Government Investment Pool – Extended Maturity (LGIP EM) on behalf of the participating public entities of the Commonwealth. Participation in this pool is voluntary. Both LGIP and LGIP EM offer two professionally managed investment portfolios in accordance with the Investment of Public Funds Act. The LGIP portfolio is a diversified portfolio structured to provide public entities an investment alternative that seeks to minimize the risk of principal loss while offering daily liquidity, a stable Net Asset Value (NAV), and a competitive rate of return. The LGIP is not registered with the Securities Exchange Commission (SEC) as an investment company. The LGIP EM portfolio is a diversified portfolio with fluctuating NAV structured to provide an investment alternative to public entities who wish to invest monies not needed for daily liquidity. The fair value of the Commonwealth’s position in the Pool is the same as the value of the Pool shares for all except for the LGIP EM whose shares fluctuate with changes in the market value of the portfolio.

Certain deposits are held by trustees in accordance with the Trust Subsidiary Act, Section 6.2-1057 of the *Code of Virginia*. The act requires that cash held by trustees while awaiting investment or distribution is not to be used by an affiliate bank of the trustee in the conduct of its business unless the affiliate bank delivers securities to the trust department as collateral that is at least equal to the fair value of the trust funds held on deposit in excess of amounts insured by the FDIC.

The Commonwealth is authorized, in accordance with the guidelines set forth in Section 2.2-4500 et seq. of the *Code of Virginia*, to invest public funds in the following:

- U.S. Treasury and agency securities
- Corporate debt securities
- Asset-backed securities
- Mortgage-backed securities
- Municipal securities
- AAA rated obligations of foreign governments
- Bankers’ acceptances and bank notes
- Negotiable certificates of deposit
- Repurchase agreements
- Money market funds

Permitted investments include agency mortgage-backed securities, corporate or private label mortgage-backed securities, and asset-backed securities which by definition usually expose the investor to prepayment risk. Prepayment risk, or the prepayment option granted the borrower, can create uncertainty concerning cash flows, can affect the price of the security causing negative convexity, and can expose the investor to reinvestment risk. Similarly, many agency and corporate securities are callable after some predetermined date at a predetermined price. The call options in regular agency debentures and some corporate securities can be open ended and may significantly impact cash flows, security pricing, and reinvestment risks of these securities.

As of June 30, 2019, the State Treasurer held no security that was in default as to principal or interest and had no securities that were out of compliance with guidelines.

Public funds held by the Commonwealth, public officers, municipal corporations, political subdivisions, and any other

public body of the Commonwealth shall be held in trust for the citizens of the Commonwealth. Any investment of such funds shall be made solely in the interest of the citizens of the Commonwealth and with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

Certain investments held in trust by the State Treasurer in accordance with bond indentures and resolutions may have more restrictive investment policies. Investment policies of component units are established by the entity’s governing boards.

The information presented for the external investment pools was obtained from audited financial statements. Copies of the LGIP and LGIP EM report may be obtained from the Department of the Treasury website at www.trs.virginia.gov.

The Board of Trustees (the Board) of the Virginia Retirement System (the System) (part of primary government) has full power to invest and reinvest the trust funds in accordance with Section 51.1-124.30 of the *Code of Virginia*, as amended. This section requires the Board to discharge its duties solely in the interests of members, retirees, and beneficiaries. It also requires the Board to invest the assets with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims. The Board must also diversify such investments so as to minimize the risk of large losses, unless under the circumstances, it is clearly prudent not to do so. The Board does not have investment policies that place specific restrictions on investments related to custodial risk, interest rate risk, credit risk, or foreign currency risk. The System’s investment portfolio is intended to be managed through diversification and prudent judgment, rather than through specific policy restrictions.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of a depository bank failure, the Commonwealth may not be able to recover deposits or collateral securities that are in the possession of an outside party. Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty, the Commonwealth may not be able to recover the value of its investment or collateral securities that are in the possession of an outside party.

Policies related to custodial credit risk pertaining to the Commonwealth’s securities lending program are found in the securities lending section of this note.

As of June 30, 2019, the primary government (excluding pension and other employee benefit trust funds) had \$766,124 in bank balances that were uninsured and uncollateralized. There is no deposit policy that addresses custodial credit risk.

As of June 30, 2019, investment securities for the System (excluding cash equivalents and repurchase agreements held as securities lending collateral) were registered and

held in the name of the System for the benefit of the System's trust funds and were not exposed to custodial credit risk. It is the standard practice and policy of the System, through the relevant provisions in its contracts and agreements with third parties, to minimize all known custodial credit risks.

As of June 30, 2019, component units had \$73.6 million in bank balances that were uninsured and uncollateralized, and \$16.2 million in bank balances that were uninsured and collateralized with securities held by the pledging financial institution. In addition, the Virginia Housing Development Authority (major component unit) held \$293.7 million of investments, primarily commercial paper, that were uninsured and held by the counterparty as of June 30, 2019.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates of debt investments will adversely affect the fair value of an investment. As discussed in Note 1.F., the Commonwealth discloses the risk for its debt investments using the segmented time distribution method for the primary government (excluding the Virginia College Savings Plan's Prepaid529 and Invest529 programs, and pension and other employee benefit trust funds) and component units, and the effective duration method for Virginia College Savings Plan (Prepaid529 and Invest529 programs) and the System (pension and other employee benefit trust funds).

The State Treasurer's guidelines limit the following maximum durations for any single security of the following investment types:

<u>Security Type</u>	<u>Maximum Duration</u>
Corporate Security	15 years
Asset-Backed Securities	5 years
Sovereign Government Obligations (excluding U.S.)	5 years
Negotiable Certificates of Deposit and Negotiable Bank Notes	5 years

The State Treasurer's guidelines further describe target durations for the overall general account portfolio of 1.7 years.

The Virginia College Savings Plan (Virginia529) manages the risk for fixed income investment securities held in Prepaid529 and Invest529 programs using the effective duration methodology. Virginia529's Statements of Investment Policy and Guidelines do not limit investment maturities as a mean of managing its exposure to fair value losses arising from increasing interest rates. Although not an explicit requirement, duration of fixed income portfolios, if applicable, is expected to be within 20.0 percent of each portfolio's designated benchmark.

The System also manages the risk within its portfolio using the effective duration methodology. It is widely used in the management of fixed income portfolios in that it quantifies, to a much greater degree, the risk of interest rate changes. The methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending on the degree of change in rates and the slope of the yield curve. All of the System's fixed-income portfolios are managed in accordance with the System's investment guidelines, most of which are specific as to the degree of interest rate risk that can be taken.

As of June 30, 2019, the System's investments included \$2.4 billion, primarily in corporate bonds and notes, U.S. Treasury and agency securities, supranational and non-U.S. Government bonds and notes, municipal securities, and collateralized mortgage obligations, which are highly sensitive to interest rate fluctuations in that they are subject to early payment in a period of declining interest rates and/or because they have an option adjusted duration of greater than ten years. The resulting reduction in expected total cash flows affects the fair value of these securities.

As of June 30, 2019, the Commonwealth's investments subject to interest rate risk had the following maturities and weighted average effective durations.

Primary Government Investments

(Excluding Virginia College Savings Plan and Pension and Other Employee Benefit Trust Funds)

(Dollars in Thousands)

Investment Maturities (in years)

Investment Type	Investment Maturities (in years)				
	June 30, 2019	Less Than 1	1-5	6-10	More Than 10
<u>Debt Securities</u>					
U. S. Treasury and Agency Securities	\$ 803,779	\$ 186,995	\$ 414,067	\$ 122,344	\$ 80,373
Corporate Bonds and Notes	662,746	230,157	255,174	122,077	55,338
Supranational and Non-U.S. Government Bonds and Notes	229,035	226,750	2,285	—	—
Commercial Paper	4,222,646	4,222,646	—	—	—
Negotiable Certificates of Deposit	4,875,634	4,867,122	8,512	—	—
Repurchase Agreements	2,285,067	2,285,067	—	—	—
Municipal Securities	19,224	2,135	3,222	—	13,867
Asset-Backed Securities	210,286	241	93,977	34,566	81,502
Agency Mortgage-Backed Securities	249,263	455	13,839	17,008	217,961
Agency Unsecured Bonds and Notes	3,973,859	2,992,399	924,689	54,304	2,467
Mutual and Money Market Funds (Includes SNAP)	1,263,617	1,263,617	—	—	—
Fixed Income and Commingled Funds	7,598	—	7,598	—	—
Total	<u>\$ 18,802,754</u>	<u>\$ 16,277,584</u>	<u>\$ 1,723,363</u>	<u>\$ 350,299</u>	<u>\$ 451,508</u>

Primary Government - Virginia College Savings Plan Investments

(Dollars in Thousands)

Investment Type	Prepaid529 (Major Enterprise Fund)		Invest529 (Private Purpose Trust Fund)	
	June 30, 2019	Weighted Avg. Effective Duration	June 30, 2019	Weighted Avg. Effective Duration
		(in years)		(in years)
<u>Debt Securities</u>				
U. S. Treasury and Agency Securities	\$ 247	6.3	\$ —	—
Corporate Bonds and Notes	454,950	2.0	117,503	3.9
Convertible Bonds and Notes	117,440	3.3	—	—
Asset Backed Securities	78,136	1.4	10,753	0.1
Agency Mortgage Backed Securities	30,859	1.7	—	—
Mutual and Money Market Funds	64,918	0.1	67,087	<0.1
Guaranteed Investment Contracts	125,734	3.0	1,115,737	3.1
Fixed Income and Commingled Funds*	297,669	1.7	815,843	6.3
International and Emerging Markets Funds	280,961	7.6	243,665	5.7
Total	<u>\$ 1,450,914</u>	<u>3.1</u>	<u>\$ 2,370,588</u>	<u>4.5</u>

*Effective duration is calculated using a methodology that takes into account the duration impact of equity warrants and rate-sensitive instruments.

Primary Government - Virginia Retirement System Investments
(Pension and Other Employee Benefit Trust Funds)
(Dollars in Thousands)

<u>Investment Type</u>	<u>June 30, 2019</u>	<u>Weighted Avg. Effective Duration (in years)</u>
<u>Debt Securities</u>		
U. S. Treasury and Agency Securities	\$ 4,181,473	6.0
Corporate Bonds and Notes	10,532,729	3.4
Collateralized Mortgage Obligations	415,354	2.2
Commercial Mortgages	439,299	3.9
Supranational and Non-U.S. Government Bonds and Notes	2,144,283	6.5
Mutual and Money Market Funds	168,196	4.5
Commercial Paper	1,990,765	0.1
Negotiable Certificates of Deposit	435,576	0.2
Repurchase Agreements	1,401,054	< 0.1
Municipal Securities	138,049	6.2
Asset Backed Securities	907,154	1.8
Agencies	3,494,047	2.0
Fixed Income and Commingled Funds	1,346,297	5.1
Fixed Income Derivatives	12,637	21.8
Time Deposits	116,000	< 0.1
 <u>Debt Securities - No Effective Duration</u>		
Corporate Bonds and Notes	96,090	N/A
Commercial Mortgages	1,972	N/A
Supranational and Non-U.S. Government Bonds and Notes	1,550	N/A
Mutual and Money Market Funds	20,393	N/A
Asset Backed Securities	17,238	N/A
Agencies	46,495	N/A
Fixed Income and Commingled Funds	15	N/A
Fixed Income Derivatives	4,412	N/A
Total	<u>\$ 27,911,078</u>	<u>3.0</u>

Component Unit Investments
(Dollars in Thousands)

<u>Investment Type</u>	<u>Investment Maturities (in years)</u>				
	<u>June 30, 2019</u>	<u>Less Than 1</u>	<u>1-5</u>	<u>6-10</u>	<u>More Than 10</u>
<u>Debt Securities</u>					
U. S. Treasury and Agency Securities	\$ 755,483	\$ 183,299	\$ 230,470	\$ 158,788	\$ 182,926
Supranational and Non-U.S. Government Bonds and Notes	37,262	37,262	—	—	—
Corporate Bonds and Notes	499,534	151,939	323,777	20,937	2,881
Commercial Paper	348,484	348,484	—	—	—
Negotiable Certificates of Deposit	63,246	48,799	14,447	—	—
Repurchase Agreements	402,650	402,650	—	—	—
Municipal Securities	201,967	8,653	61,633	75,547	56,134
Asset-Backed Securities	284,861	17,954	227,695	16,913	22,299
Agency Unsecured Bonds and Notes	337,163	307,777	29,386	—	—
Agency Mortgage-Backed Securities	762,910	9,004	68,654	9,063	676,189
Mutual and Money Market Funds (Includes SNAP)	1,043,500	938,447	101,178	3,875	—
Guaranteed Investment Contracts	36,038	2,520	16,537	15,020	1,961
Fixed Income and Commingled Funds	124,271	7,837	65,241	—	51,193
Other Debt Securities	21,814	21,598	146	70	—
Total	<u>\$ 4,919,183</u>	<u>\$ 2,486,223</u>	<u>\$ 1,139,164</u>	<u>\$ 300,213</u>	<u>\$ 993,583</u>

Foundation Investments
(Dollars in Thousands)

<u>Investment Type</u>	<u>Fair Value</u>
U.S. Treasury and Agency Securities	\$ 856,844
Common & Preferred Stocks	1,049,178
Corporate Bonds and Notes	289,094
Negotiable Certificates of Deposit	21,275
Municipal Securities	16,005
Repurchase Agreements	376,563
Agency Mortgage Backed	18,939
Mutual and Money Market Funds	794,452
Bankers' Acceptance	95,243
Real Estate	505,000
Index Funds	271,908
Hedge Funds	2,369,604
Partnerships	2,782,986
Venture Capital	642,754
Other	5,260,172
Total	<u>\$ 15,350,017</u>

Note: Foundations represent FASB reporting entities defined in Note 1.B. A portion of these amounts is reported at cost rather than fair value because fair value was not available or readily determinable.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The State Treasurer places emphasis on securities of high credit quality and marketability. At the time of purchase, the following limitations are in place:

- Bankers acceptances: P-1, Moody's Investors Service (Moody's) and A-1, Standard & Poor's (S&P)
- Negotiable CDs and bank notes:
 - maturities of one year or less: P-1, Moody's and A-1, S&P
 - maturities over one year: Aa, Moody's and AA, S&P
- Commercial paper: P-1, Moody's and A-1, S&P
- Corporate Notes and Bonds: A3/A- or equivalent by two nationally recognized rating agencies, one of which must be Moody's or S&P. However, each external investment manager may invest up to 10.0 percent of their portfolio in Baa2/BBB rated bonds which, at a minimum, must be rated Baa2/BBB by two nationally recognized rating agencies, one of which must be either Moody's or S&P.
- Municipal Bonds: A3/A- or equivalent by two nationally recognized rating agencies, one of which must be Moody's or S&P

- Asset-backed securities: AAA by two nationally recognized rating agencies, one of which must be Moody's or S&P
- Dollar denominated obligations of sovereign governments: Aaa, Moody's and AAA, S&P
- Commercial Mortgage-Backed Securities (CMBS) and Collateralized Mortgage Obligations (CMOs): AAA by two nationally recognized rating agencies, one of which must be Moody's or S&P

The System's policy for credit risk is based on the concept of a risk budget rather than specific limitations related to the rating of an individual security. The System's risk budget is allocated among the different investment strategies.

Credit risk for derivative instruments held by the Commonwealth results from counterparty risk assumed by the Commonwealth. This is essentially the risk that the borrower will be unable to meet its obligation. Information regarding the Commonwealth's credit risk related to derivatives is found in Note 16.

Policies related to credit risk pertaining to the Commonwealth's securities lending program are found in the Securities Lending section of this note.

The following tables present the credit ratings for the investments of the primary government (excluding pension and other employee benefit trust funds), the System (pension and other employee benefit trust funds), and component units as of June 30, 2019. The ratings presented are using Moody's, S&P, and Fitch rating scales. They are displayed from short-term to long-term.

Primary Government (Excluding Pension and Other Employee Benefit Trust Funds)

(Dollars in Thousands)

Investment Type (1)	P-1 / A-1 / F1	Percent of Portfolio	P-2 / A-2 / F2	Percent of Portfolio	P-3 / A-3 / F3	Percent of Portfolio	Aaa / AAA
Agency Mortgage Backed Securities	\$ —	0.0%	\$ —	0.0%	\$ —	0.0%	\$ 633
Agency Unsecured Bonds and Notes	2,458,636	11.6%	—	0.0%	—	0.0%	8,941
Asset Backed Securities	—	0.0%	—	0.0%	279	0.0%	237,732
Commercial Paper	4,222,646	19.8%	—	0.0%	—	0.0%	—
Convertible Bonds and Notes	—	0.0%	7,433	0.1%	4,102	0.0%	—
Corporate Bonds and Notes	160,467	0.8%	275	0.0%	192	0.0%	5,161
Fixed Income and Commingled Funds	—	0.0%	—	0.0%	—	0.0%	—
Guaranteed Investment Contracts	—	0.0%	—	0.0%	—	0.0%	—
International and Emerging Markets Funds	—	0.0%	—	0.0%	—	0.0%	—
Municipal Securities	—	0.0%	—	0.0%	—	0.0%	629
Mutual and Money Market Funds (Includes SNAP)	—	0.0%	—	0.0%	—	0.0%	1,391,473
Negotiable Certificates of Deposit	4,867,122	22.9%	—	0.0%	—	0.0%	—
Repurchase Agreements	525,000	2.5%	—	0.0%	—	0.0%	—
Supranational and Non-U.S. Government Bonds and Notes	199,777	0.9%	—	0.0%	—	0.0%	29,258
Total	\$ 12,433,648	58.5%	\$ 7,708	0.1%	\$ 4,573	0.0%	\$ 1,673,827

Primary Government – Virginia Retirement System (Pension and Other Employee Benefit Trust Funds)

(Dollars in Thousands)

Investment Type (1)	P-1 / A-1 / F1	Percent of Portfolio	P-2 / A-2 / F2	Percent of Portfolio	Aaa / AAA	Percent of Portfolio	Aa / AA
Corporate Bonds and Notes	\$ 244,718	1.1%	\$ —	0.0%	\$ 38,705	0.2%	\$ 1,341,423
Collateralized Mortgage Obligations	—	0.0%	—	0.0%	168,026	0.7%	84,963
Commercial Mortgages	—	0.0%	—	0.0%	323,589	1.4%	44,176
Supranational and Non-U.S. Government Bonds and Notes	—	0.0%	—	0.0%	167,679	0.7%	59,534
Mutual and Money Market Funds	—	0.0%	—	0.0%	—	0.0%	—
Commercial Paper	444,897	2.0%	1,514,033	6.7%	—	0.0%	—
Negotiable Certificates of Deposit	75,380	0.3%	15,000	0.1%	—	0.0%	25,019
Repurchase Agreements	—	0.0%	—	0.0%	—	0.0%	—
Municipal Securities	—	0.0%	—	0.0%	10,761	0.1%	117,725
Asset Backed Securities	—	0.0%	—	0.0%	350,094	1.6%	182,387
Agencies	—	0.0%	—	0.0%	35,873	0.2%	1,808,835
Fixed Income and Commingled Funds	—	0.0%	—	0.0%	—	0.0%	2,335
Fixed Income Derivatives	—	0.0%	—	0.0%	—	0.0%	—
Time Deposits	—	0.0%	—	0.0%	—	0.0%	—
Total	\$ 764,995	3.4%	\$ 1,529,033	6.8%	\$ 1,094,727	4.9%	\$ 3,666,397

Component Units

(Dollars in Thousands)

Investment Type (1)	P-1 / A-1 / F1	Percent of Portfolio	P-2 / A-2 / F2	Percent of Portfolio	P-3 / A-3 / F3	Percent of Portfolio	Aaa / AAA
Agency Mortgage Backed Securities	\$ 3,685	0.1%	\$ —	0.0%	\$ —	0.0%	\$ 700,755
Agency Unsecured Bonds and Notes	44,812	1.1%	—	0.0%	—	0.0%	292,351
Asset Backed Securities	4,369	0.1%	—	0.0%	149	0.0%	255,431
Commercial Paper	344,696	8.4%	—	0.0%	—	0.0%	—
Corporate Bonds and Notes	6,578	0.2%	9,354	0.2%	6,130	0.2%	25,424
Fixed Income and Commingled Funds	—	0.0%	—	0.0%	—	0.0%	—
Municipal Securities	—	0.0%	—	0.0%	—	0.0%	32,314
Mutual and Money Market Funds (Includes SNAP)	1,338	0.0%	—	0.0%	—	0.0%	872,394
Negotiable Certificates of Deposit	26,470	0.6%	—	0.0%	—	0.0%	—
Other Debt Securities	—	0.0%	—	0.0%	—	0.0%	—
Repurchase Agreements	14,567	0.4%	—	0.0%	—	0.0%	—
Supranational and Non-U.S. Government Bonds and Notes	—	0.0%	—	0.0%	—	0.0%	34,784
Total	\$ 446,515	10.9%	\$ 9,354	0.2%	\$ 6,279	0.2%	\$ 2,213,453

- (1) Excludes investments of \$1.4 billion for primary government (excluding pension and other employee benefit trust funds), \$5.4 billion for the System (pension and other employee benefit trust funds), and \$795.9 million for component units because obligations of the U. S. Government, obligations explicitly guaranteed by the U. S. Government, or repurchase agreements held by the VRS which are collateralized by equity securities but not considered obligations of the U.S. Government are not considered to have credit risk.

Amount by Credit Rating - Moody's / S&P / Fitch

Percent of Portfolio	Aa / AA	Percent of Portfolio	A	Percent of Portfolio	Baa / BBB	Percent of Portfolio	Less Than Investment Grade	Percent of Portfolio	Unrated	Percent of Portfolio	Grand Total
0.0%	\$ 277,497	1.3%	\$ —	0.0%	\$ —	0.0%	\$ —	0.0%	\$ 1,992	0.0%	\$ 280,122
0.0%	1,506,132	7.2%	10	0.0%	67	0.0%	—	0.0%	73	0.0%	3,973,859
1.1%	22,071	0.1%	16,159	0.1%	9,144	0.0%	6,218	0.0%	7,572	0.0%	299,175
0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	4,222,646
0.0%	—	0.0%	17,096	0.1%	29,674	0.1%	3,507	0.0%	55,628	0.3%	117,440
0.0%	79,801	0.4%	264,869	1.3%	188,454	0.9%	527,206	2.5%	8,774	0.0%	1,235,199
0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	1,121,110	5.3%	1,121,110
0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	1,241,471	5.9%	1,241,471
0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	524,626	2.5%	524,626
0.0%	8,196	0.0%	7,498	0.0%	17	0.0%	—	0.0%	2,884	0.0%	19,224
6.7%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	4,149	0.0%	1,395,622
0.0%	8,512	0.1%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	4,875,634
0.0%	900,000	4.2%	—	0.0%	—	0.0%	—	0.0%	260,066	1.2%	1,685,066
0.1%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	229,035
7.9%	\$ 2,802,209	13.3%	\$ 305,632	1.5%	\$ 227,356	1.0%	\$ 536,931	2.5%	\$ 3,228,345	15.2%	\$ 21,220,229

Amount by Credit Rating - Moody's / S&P / Fitch

Percent of Portfolio	A	Percent of Portfolio	Baa / BBB	Percent of Portfolio	Less Than Investment Grade	Percent of Portfolio	Unrated	Percent of Portfolio	Grand Total
6.0%	\$ 3,704,917	16.5%	\$ 2,427,612	10.8%	\$ 1,394,262	6.2%	\$ 1,477,182	6.6%	\$ 10,628,819
0.4%	5,681	0.0%	11,874	0.1%	42,459	0.2%	102,351	0.4%	415,354
0.2%	—	0.0%	6,988	0.0%	43,906	0.2%	22,612	0.1%	441,271
0.3%	207,715	0.9%	510,542	2.3%	1,110,723	4.9%	89,640	0.4%	2,145,833
0.0%	8,247	0.0%	—	0.0%	61,147	0.3%	119,195	0.5%	188,589
0.0%	15,000	0.1%	—	0.0%	—	0.0%	16,835	0.1%	1,990,765
0.1%	65,250	0.3%	—	0.0%	—	0.0%	254,927	1.1%	435,576
0.0%	—	0.0%	—	0.0%	—	0.0%	178,153	0.8%	178,153
0.5%	9,563	0.0%	—	0.0%	—	0.0%	—	0.0%	138,049
0.8%	121,783	0.5%	73,697	0.3%	172,545	0.8%	23,886	0.1%	924,392
8.0%	1,246	0.0%	—	0.0%	—	0.0%	1,694,588	7.5%	3,540,542
0.0%	—	0.0%	—	0.0%	1,564	0.0%	1,342,413	6.0%	1,346,312
0.0%	—	0.0%	—	0.0%	—	0.0%	17,049	0.1%	17,049
0.0%	—	0.0%	—	0.0%	—	0.0%	116,000	0.5%	116,000
16.3%	\$ 4,139,402	18.3%	\$ 3,030,713	13.5%	\$ 2,826,606	12.6%	\$ 5,454,831	24.2%	\$ 22,506,704

Amount by Credit Rating - Moody's / S&P / Fitch

Percent of Portfolio	Aa / AA	Percent of Portfolio	A	Percent of Portfolio	Baa / BBB	Percent of Portfolio	Less Than Investment Grade	Percent of Portfolio	Unrated	Percent of Portfolio	Grand Total
16.9%	\$ 57,454	1.3%	\$ 1,016	0.0%	\$ —	0.0%	\$ —	0.0%	\$ —	0.0%	\$ 762,910
7.1%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	337,163
6.2%	17,328	0.4%	1,437	0.0%	—	0.0%	2,579	0.2%	3,568	0.1%	284,861
0.0%	—	0.0%	—	0.0%	—	0.0%	—	0.0%	3,788	0.1%	348,484
0.6%	134,700	3.3%	282,378	6.9%	34,694	0.8%	276	0.0%	—	0.0%	499,534
0.0%	6,867	0.2%	—	0.0%	1,462	0.0%	—	0.0%	111,522	2.6%	119,851
0.8%	116,306	2.9%	47,928	1.2%	2,132	0.1%	3,282	0.1%	5	0.0%	201,967
21.1%	99,976	2.5%	89	0.0%	—	0.0%	—	0.0%	69,703	1.7%	1,043,500
0.0%	16,012	0.3%	—	0.0%	—	0.0%	—	0.0%	20,764	0.5%	63,246
0.0%	60	0.0%	156	0.0%	—	0.0%	—	0.0%	21,598	0.5%	21,814
0.0%	—	0.0%	—	0.0%	365,000	8.9%	—	0.0%	23,083	0.6%	402,650
0.7%	—	0.0%	2,478	0.1%	—	0.0%	—	0.0%	—	0.0%	37,262
53.4%	\$ 448,703	10.9%	\$ 335,482	8.2%	\$ 403,288	9.8%	\$ 6,137	0.3%	\$ 254,031	6.1%	\$ 4,123,242

Concentration of Credit Risk

Primary Government

Concentration of credit risk is related to the risk of loss that may be attributed to the magnitude of a government's investment in a single issuer. The State Treasury and the System have individual investment policies limiting the amounts that may be invested in any single issuer.

It is the State Treasurer's policy that each portfolio will be diversified with no more than 4.0 percent of the value of the fund invested in the securities of any single issuer. This limitation shall not apply to the U.S. Government, or agency thereof, or U.S. Government sponsored corporation securities and fully insured and/or collateralized certificates of deposit. Certain portfolios are limited to amounts less than 4.0 percent of the value of the fund invested in the securities of any single issuer. As of June 30, 2019, more than 5.0 percent of the Commonwealth's governmental fund investments were in the Federal Home Loan Bank, Federal Farm Credit Bank, and Federal Home Loan Mortgage Corporation. These investments totaled \$1.6 billion, \$355.1 million, and \$298.9 million, respectively. Since these securities are exempted from the State Treasury investment policies, all investments are compliant with investment policies.

The System's investment guidelines for each specific portfolio also limit investments in any corporate entity to no more than 5.0 percent of the market value of the account for both the internally and externally managed portfolios. The System has no investments in any commercial or industrial organization whose fair value equals 5.0 percent or more of the System's fiduciary net position.

Foreign Currency Risk

Primary Government

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. All primary government investments exposed to foreign currency risk were part of the System, the Virginia College Savings Plan's (Virginia529) Prepaid529 program (major enterprise fund), and the Unclaimed Property portfolios as of June 30, 2019. There is no investment policy related to foreign currency risk for the Unclaimed Property portfolio. Virginia529 has direct exposure to foreign currency risk through investments managed by Advent Capital Management, LLC, which uses currency forward contracts to hedge risks associated with currency fluctuations pursuant to a formal exception to Virginia529's investment policy.

The System's foreign currency risk exposures, or exchange rate risk, primarily exist in the international and global equity investment holdings. The Commonwealth's exposure to foreign currency risk as of June 30, 2019 is highlighted in the following tables.

Component Units

All nonmajor component unit investments exposed to foreign currency risk were part of James Madison University and the Virginia Economic Development Partnership as of June 30, 2019. None of these entities have investment policies related to foreign currency risk.

Foreign Currency Exposures by Asset Class - Primary Government

(Excluding Pension and Other Employee Benefit Trust Funds)

(Dollars in Thousands)

Currency	Deposits	Common and Preferred Stocks	Equity Index and Pooled Funds	Corporate Bonds	Total
Euro Currency Unit	\$ 8	\$ 126	\$ —	\$ 19,143	\$ 19,277
Hong Kong Dollar	—	4	—	8,571	8,575
Japanese Yen	2	—	—	4,745	4,747
Swiss Franc	186	10	—	4,447	4,643
British Pound Sterling	—	52	—	1,493	1,545
Canadian Dollar	—	1,429	—	—	1,429
US Dollar	—	—	1,335	—	1,335
Chinese Yuan	—	—	—	1,157	1,157
Mexican Peso	—	1	—	—	1
Total	\$ 196	\$ 1,622	\$ 1,335	\$ 39,556	\$ 42,709

Foreign Currency Exposures by Asset Class
Primary Government - Virginia Retirement System
(Pension and Other Employee Benefit Trust Funds)
(Dollars in Thousands)

Currency	Cash and Short-term Investments	Equity	Fixed Income	Private Equity	Real Assets	International Funds	Forward Contracts	Total
U.S. Dollar	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 1,923,144	\$ —	\$ 1,923,144
Euro Currency Unit	132,496	2,133,693	52,877	771,932	340,555	—	(1,535,035)	1,896,518
Japanese Yen	18,704	1,884,573	(29)	—	2,619	246,997	(772,978)	1,379,886
Hong Kong Dollar	8,746	1,058,015	—	—	3,712	—	(144,382)	926,091
Pound Sterling	5,535	1,154,114	1,084	—	90,586	—	(736,940)	514,379
South Korean Won	3,596	404,648	—	—	808	—	(17,780)	391,272
Swiss Franc	27,178	596,807	—	—	754	—	(264,511)	360,228
New Zealand Dollar	238	17,749	—	—	1,279	—	333,422	352,688
Canadian Dollar	22,513	808,123	—	—	24,126	—	(518,788)	335,974
Brazil Real	2,925	169,228	81,253	—	5,457	—	5,037	263,900
Australian Dollar	7,809	592,176	—	—	5,229	—	(348,580)	256,634
Indian Rupee	1,096	223,835	5,093	—	—	—	10,676	240,700
South African Rand	1,940	138,199	67,646	—	524	—	(19,921)	188,388
New Taiwan Dollar	2,226	180,385	—	—	—	—	(4,240)	178,371
Thailand Baht	2,204	98,200	24,831	—	—	—	8,948	134,183
Swedish Krona	2,226	217,102	—	—	1,781	—	(107,413)	113,696
Indonesian Rupiah	2,337	50,418	75,442	—	—	—	(17,418)	110,779
Mexican Peso	1,009	47,995	26,089	—	1,017	—	29,887	105,997
Turkish Lira	607	75,051	17,219	—	267	—	3,976	97,120
Polish Zloty	685	29,607	40,996	—	1,326	—	16,101	88,715
Russian Ruble (New)	562	21,052	62,891	—	—	—	(11,059)	73,446
Malaysian Ringgit	1,438	36,014	29,081	—	—	—	6,291	72,824
Danish Krone	2,436	118,473	—	—	875	—	(63,282)	58,502
Colombian Peso	542	2,889	29,838	—	—	—	18,618	51,887
Peruvian Sol	176	—	55,302	—	—	—	(7,030)	48,448
Czech Koruna	899	1,939	1,180	—	—	—	35,543	39,561
Hungarian Forint	360	11,379	29,103	—	—	—	(4,359)	36,483
Chinese Yuan Renminbi	547	72,490	—	—	—	—	(46,327)	26,710
Israeli Shekel	42	43,125	701	—	2,620	—	(21,688)	24,800
Chilean Peso	505	19,764	7,070	—	—	—	(5,330)	22,009
Nigerian Naira	12,598	—	—	—	—	—	9,082	21,680
Egyptian Pound	5,189	6,029	—	—	—	—	8,727	19,945
Philippines Peso	229	8,575	1,327	—	—	—	3,440	13,571
Dominican Republic Peso	—	—	11,983	—	—	—	—	11,983
UAE Dirham	(159)	9,591	—	—	—	—	1,697	11,129
Argentine Peso	537	—	6,552	—	—	—	719	7,808
Kazakhstan Tenge	—	—	6,370	—	—	—	331	6,701
Qatari Riyal	390	4,537	—	—	—	—	—	4,927
Uruguayan Peso	—	—	3,534	—	—	—	—	3,534
Ukraine Hryvnia	748	—	—	—	—	—	1,180	1,928
Romanian Leu	108	—	5,006	—	—	—	(4,437)	677
Sri Lanka Rupee	—	—	599	—	—	—	—	599
Chinese R Yuan HK	—	—	—	—	—	—	189	189
Moroccan Dirham	1	—	—	—	—	—	—	1
Saudi Arabian Riyal	—	—	(83)	—	—	—	—	(83)
Omani Rial	—	—	—	—	—	—	(5,080)	(5,080)
Singapore Dollar	2,834	199,276	—	—	—	—	(332,684)	(130,574)
Norwegian Krone	2,761	102,505	—	—	362	—	(308,403)	(202,775)
Total	\$ 276,813	\$ 10,537,556	\$ 642,955	\$ 771,932	\$ 483,897	\$ 2,170,141	\$ (4,803,801)	\$ 10,079,493

Foreign Currency Exposures by Asset Class - Component Units
(Dollars in Thousands)

Currency	Deposits
British Pound Sterling	\$ 1,076
Euro Currency Unit	2,461
Chinese RMB	5
Total	\$ 3,542

Fair Value Measurements

Primary Government

GASB Statement No. 72, *Fair Value Measurement and Application*, requires disclosures to be made about fair value measurements, the level of fair value hierarchy, and valuation techniques. The fair value hierarchy is based on the valuation inputs used to measure the fair value of assets.

- Level 1 inputs are quoted prices in active markets for identical assets;
- Level 2 inputs are significant other observable inputs and may include quoted prices for similar assets in active markets, quoted prices for identical or similar assets in inactive markets, or model-driven valuations;
- Level 3 inputs are derived using valuation techniques that have significant unobservable inputs.

Investments that do not have a readily determinable fair value are excluded from the fair value hierarchy and instead are valued by using the net asset value (NAV) per share (or its equivalent). In instances where inputs used to measure fair value fall into different levels in the fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant in the valuation.

The following tables summarize recurring fair value measurements for the cash equivalents and investments reported by the primary government (excluding pension and other employee benefit trust funds) and the System (pension and other employee benefit trust funds) as of June 30, 2019.

Fair Value Measurements - Primary Government (Excluding Pension and Other Employee Benefit Trust Funds) (Dollars in Thousands)

Fair Value Measured Using Fair Value Hierarchy	Fair Value	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<u>Debt Securities (1)</u>				
U. S. Treasury and Agency Securities	\$ 604,402	\$ 526,960	\$ 77,442	\$ —
Corporate Bonds and Notes	1,153,296	1,337	1,151,959	—
Supranational and Non-U.S. Government Bonds and Notes	229,035	—	229,035	—
Commercial Paper	2,140,836	—	2,140,836	—
Convertible Bonds and Notes	117,440	—	117,440	—
Negotiable Certificates of Deposit	2,698,309	—	2,698,309	—
Municipal Securities	19,225	2,901	16,219	105
Asset Backed Securities	299,176	359	298,817	—
Agency Mortgage Backed Securities	280,122	—	280,122	—
Agency Unsecured Bonds and Notes	2,182,363	8,941	2,173,422	—
Mutual and Money Market Funds (Includes SNAP)	3,638	3,638	—	—
Fixed Income and Commingled Funds	823,442	823,442	—	—
International and Emerging Markets Funds	326,332	326,332	—	—
Total Debt Securities	<u>10,877,616</u>	<u>1,693,910</u>	<u>9,183,601</u>	<u>105</u>
<u>Equity Securities (2)</u>				
Common and Preferred Stocks	474,237	467,646	6,590	1
Foreign Currencies	1,622	1,622	—	—
Equity Index and Pooled Funds	83,509	83,499	—	10
Index Funds	2,081,306	2,081,306	—	—
Real Estate	9,026	1,176	—	7,850
International and Emerging Markets Funds	867,940	867,940	—	—
Other Equity Securities	73,369	73,369	—	—
Total Equity Securities	<u>3,591,009</u>	<u>3,576,558</u>	<u>6,590</u>	<u>7,861</u>
Total by Fair Value Level	<u>14,468,625</u>	<u>\$ 5,270,468</u>	<u>\$ 9,190,191</u>	<u>\$ 7,966</u>
Total Fair Value Established Using the Net Asset Value (NAV) (3)	1,123,373			
Total Fair Value	<u>\$ 15,591,998</u>			

- (1) Debt securities are classified as follows:
- Level 1 - valued using unadjusted quoted prices in active markets for those securities.
 - Level 2 - valued using a matrix pricing model and observable prices using dealer quotes for similar securities traded in active markets.
- (2) Equity securities are classified as follows:
- Level 1 - valued using unadjusted quoted prices in active markets for those securities.
 - Level 2 - valued using dealer quotes for similar securities traded in active markets.
 - Level 3 - valued using independent appraisals.
- (3) Investments reported at fair value established using the NAV were all part of the Virginia College Savings Plan's (Virginia529) Prepaid529 and Invest529 programs. The following tables (dollars in thousands) summarizes Prepaid529 and Invest529's investments measured at the NAV and related disclosures as of June 30, 2019. Additional information is available in the Virginia529 individually published financial statements, which may be obtained at www.virginia529.com.

Description of Prepaid529 Investments Measured at the NAV:

Investments Measured at NAV	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Hedge Funds				
Blackstone - Hedge Fund of Funds	\$ 137,873	\$ —	Semi-Annual	95 Days
Equity Real Estate				
UBS Realty Investors	51,406	—	Quarterly	60 Days
Private Debt & Private Equity Funds of Funds				
Golub Capital	21,000	14,000		
Private Advisors	35,537	8,883		
Adams Street Partners	146,641	66,086		
LGT Capital Partners	4,268	6,480		
Neuberger Berman	19,922	14,804		
Aether Investment Partners	26,652	21,848		
Common fund	18,381	2,670		
Horseley Bridge Partners	1,296	18,552		
Common Trust Funds & Other				
Wellington Management	198,294	—	Monthly	10 Days
State Street Global Advisors	135,367	—	Daily	2 Days
Ferox Capital	78,144	—	Daily	2 Days
Black Rock	84,158	—	Daily	3 Days
Sands Capital	47,421	—	Monthly	10 Days
Total Investments Measured at the NAV	<u>\$ 1,006,360</u>			

- **Hedge Funds** – This investment type includes one hedge fund. The Blackstone Partners Offshore Fund is diversified, multi-strategy hedge fund of funds. Underlying investment strategies include a range of asset classes and the funds are not restricted from participating in any market, strategy or investment. The fair value of investments in this type has been determined using the NAV per share of the investments.
- **Equity Real Estate** – This investment type includes one limited partnership. The UBS Trumbull Property Fund's investment strategy is to invest primarily through direct equity-owned real estate assets. The fund also has flexibility to invest in joint venture and debt investments. Investments are generally acquired on an all-cash basis, however debt may be used where UBS determines leverage is prudent and is expected to enhance total return without undue risk. The fair values of investments in this type have been determined using the NAV per share of Virginia529's ownership of the partnership.
- **Private Debt and Private Equity Funds of Funds** – This investment type includes private equity funds of funds managed by seven managers and one private debt fund. These investments cannot be redeemed from the fund. Capital is generally expected to be called during the initial 4 to 5 years and is expected to be returned through liquidations of underlying fund investments during the 3rd through 15th years. Secondaries funds of funds may have an accelerated capital call and return of capital profile. Virginia529 invests in multiple funds with three of its private equity investment managers and is also diversified by vintage year with respect to these investments. The fair values of investments in this type have been determined using the March 31, 2019 NAV of Virginia529's ownership of the partnership, adjusted for cash flows (capital calls) through June 30, 2019.
- **Common Trust Funds & Other** – This investment type includes four common trust funds and one limited partnership. The fair value of investments in this type have been determined using the NAV per share of the investments.

Description of Invest529 Investments Measured at the NAV:

Investments Measured at NAV	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Equity Real Estate				
UBS Realty Investors	\$ 69,318	\$ —	Quarterly	60 Days
Blackstone Property Partners	47,695	—	Quarterly	90 Days
Total Investments Measured at the NAV	<u>\$ 117,013</u>			

- Equity Real Estate** – This investment type includes two limited partnerships. The UBS Trumbull Property Fund's investment strategy is to invest primarily through direct equity-owned real estate assets. The fund also has flexibility to invest in joint venture and debt investments. Investments are generally acquired on an all-cash basis, however debt may be used where UBS determines leverage is prudent and is expected to enhance total return without undue risk. Blackstone Property Partners is an open ended commingled fund seeking core plus real estate investments in the U.S. and Canada. The fair values of investments in this type have been determined using the NAV per share of Virginia529's ownership of the partnership.

Fair Value Measurements Primary Government - Virginia Retirement System (Pension and Other Employee Benefit Trust Funds) (Dollars in Thousands)

	Fair Value	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Fair Value Measured Using Fair Value Hierarchy				
<u>Debt Securities (1)</u>				
U. S. Treasury and Agency Securities	\$ 4,102,838	\$ 3,359,846	\$ 742,992	\$ —
Corporate Bonds and Notes	7,505,553	—	7,505,553	—
Collateralized Mortgage Obligations	415,354	—	415,354	—
Commercial Mortgages	441,271	—	441,271	—
Supranational and Non-U.S. Government Bonds and Notes	2,136,551	—	2,136,551	—
Mutual and Money Market Funds	168,196	168,196	—	—
Negotiable Certificates of Deposit	107,746	—	107,746	—
Municipal Securities	138,049	—	138,049	—
Asset Backed Securities	924,392	—	924,392	—
Agencies	3,540,542	—	3,540,542	—
Fixed Income and Commingled Funds	20,323	—	—	20,323
Fixed Income Derivatives	17,049	8,301	8,748	—
Total Debt Securities	<u>19,517,864</u>	<u>3,536,343</u>	<u>15,961,198</u>	<u>20,323</u>
<u>Equity Securities (2)</u>				
Common and Preferred Stocks	24,697,438	24,588,461	107,770	1,207
Equity Index and Pooled Funds	26,229	—	—	26,229
Real Assets	823,559	—	—	823,559
Equity Futures and Sw aps	25,545	17,896	7,649	—
Private Equity	4,143	—	—	4,143
Total Equity Securities	<u>25,576,914</u>	<u>24,606,357</u>	<u>115,419</u>	<u>855,138</u>
Total by Fair Value Level	<u>45,094,778</u>	<u>\$ 28,142,700</u>	<u>\$ 16,076,617</u>	<u>\$ 875,461</u>
Total Fair Value Established Using the Net Asset Value (NAV) (3)	<u>37,036,480</u>			
Total Fair Value	<u>\$ 82,131,258</u>			

(1) Debt securities are classified as follows:

- Level 1 - valued using unadjusted quoted prices in active markets for those securities.
- Level 2 - valued using a proprietary matrix pricing technique. This pricing technique defines a primary source and secondary sources to be used if the primary pricing source does not provide a value. Typically, these securities are valued using bid evaluations. The valuation techniques may include market participants' assumptions, quoted prices for similar assets, benchmark yield curves, market corroborated inputs, and other data inputs.
- Level 3 - valued using proprietary information.

(2) Equity securities are classified as follows:

- Level 1 - valued using unadjusted quoted prices in active markets for those securities.
- Level 2 - valued using quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; or model-driven valuations in which all significant inputs are observable.
- Level 3 - valued using proprietary information. When observable inputs are not available, this results in using one or more valuation techniques, such as the market approach, the income approach, and/or the cost approach, for which sufficient and reliable data is available. Within this level, the use of the market approach generally consists of using comparable market transactions or other data, while the use of the income approach generally consists of the net present value of estimated future cash flows. The cost approach is often based on the amount that would currently be required to replace an asset with one of comparable utility.

(3) The following table (dollars in thousands) summarizes the System's investments measured at the NAV per share (or its equivalent) and related disclosures as of June 30, 2019. It excludes \$537,987 (dollars in thousands) related to Defined Contribution Plan investments for which the System has limited administrative and investment responsibility. Additional information is available in the System's separately issued financial statements, which may be obtained at www.varetire.org.

Description of Investments Measured at the NAV:

	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Hedge funds				
Equity long/short funds	\$ 4,495,242	\$ —	Monthly, quarterly, semi-annually, annually	45-90 days
Equity long only funds	1,774,781	—	Daily, quarterly, annually	14-90 days
Credit funds	765,672	—	Quarterly, annually	45-90 days
Multi-strategy funds	1,800,099	—	Monthly, quarterly, semi-annually	30-90 days
Total hedge funds	<u>8,835,794</u>	<u>—</u>		
Credit strategies funds				
Bank loan and direct lending funds	1,846,954	1,397,660		
Distressed debt funds	695,018	636,531		
Mezzanine debt funds	429,050	465,024		
Multi-strategy funds	1,085,684	1,595,625		
Opportunistic funds	1,501,383	232,487		
Total credit strategies funds	<u>5,558,089</u>	<u>4,327,327</u>		
Private equity funds				
Buyout funds	5,023,821	2,590,662		
Energy funds	701,245	255,246		
Growth funds	1,055,431	751,653		
International buyout funds	1,200,400	810,058		
Special situations funds	935,717	862,472		
Subordinated debt funds	76,655	265,319		
Turnaround funds	469,383	193,567		
Venture capital funds	58,755	15,754		
Total private equity funds	<u>9,521,407</u>	<u>5,744,731</u>		
Equity international commingled funds	2,080,203	—		
Fixed-income commingled funds	1,322,090	—		
Real estate and real asset funds				
Infrastructure funds	1,750,510	590,367		
Natural resources funds	1,328,116	551,870		
Private investment real estate funds	5,761,136	822,172		
Private real estate investment trusts	213,878	—		
Total real estate and real asset funds	<u>9,053,640</u>	<u>1,964,409</u>		
U. S. Equity commingled funds	127,270	—		
Total investments measured at the NAV	<u>\$ 36,498,493</u>	<u>\$ 12,036,467</u>		

- **Equity Long/Short Hedge Funds** – This type included investments in eleven hedge funds as of June 30, 2019, which invest in global long and short equity positions. Management of each hedge fund has the ability to invest from value to growth strategies, from small to large capitalization stocks and may vary net exposure considerably. The fair values of the investments in this type have been determined using the NAV per share of the investments. Investments representing approximately 66.0 percent of the value of the investments in this type of fund cannot be redeemed because the investments include restrictions that do not allow redemption in the first 12 to 60 months after acquisition. The remaining restriction period for these investments was less than 12 months as of June 30, 2019.

- **Equity Long-Only Hedge Funds** – This type included an investment in four hedge funds as of June 30, 2019, which invest in global long-only equity positions. These hedge funds are generally fully invested and only very occasionally may take short positions for hedging purposes. The fair value of the investment in this type has been determined using the NAV per share of the investments. Investments representing approximately 67.0 percent of the value of the investments in this type of fund cannot be redeemed because the investments include restrictions that do not allow redemption in the first 12 to 48 months after acquisition. The remaining restriction period for these investments was less than 12 months as of June 30, 2019.
- **Credit Hedge Funds** – This type included investments in two hedge funds as of June 30, 2019, which invest in event-driven, distressed and special situation credit opportunities. The fair values of the investments in this type have been determined using the NAV per share of the investments. Investments representing approximately 12.0 percent of the value of the investments in this type of fund cannot be redeemed because the investments include restrictions that do not allow redemption in the next 12 months. The restriction period for redemptions in regard to 88.0 percent of investments in this type was less than 12 months as of June 30, 2019.
- **Multi-Strategy Hedge Funds** – This type included investments in six hedge funds as of June 30, 2019, which invest in multiple asset classes, combining exposure to balance risks. Such exposure can include traditional and alternative investments. The fair values of the investments in this type have been determined using the NAV per share of the investments. Investments representing approximately 33.0 percent of the value of the investments in this type of fund cannot be redeemed because the investments include restrictions that do not allow redemption in the first 60 months after acquisition. The remaining restriction period for these investments was 1 to 12 months as of June 30, 2019.
- **Credit Strategies Funds** – This type consists of many fund categories, including bank loan and direct lending funds, distressed debt funds, mezzanine debt funds, multi-strategy funds, and opportunistic funds. The fair value of the investments in these funds have been determined using the NAV per share of the investments. The nature of the investments in this type is that distributions are received through the liquidation of the underlying assets in the fund. If these investments were held, it is expected that the underlying assets in the fund would be liquidated over 3 to 5 years.
- **Private Equity Funds** – This type consists of many fund categories including Venture Capital, Buyout, Subordinated Debt, Growth Capital, Turnaround, Energy and Special Situations. The fair value of the investments in these funds have been determined using the NAV per share of the investments. The nature of the investments involves receiving distributions through liquidation of the underlying fund assets. It is expected that hold periods for the underlying fund assets will range from 3 to 8 years.
- **Equity International Commingled Funds** – This type includes investments in ten institutional investment funds as of June 30, 2019, which invest in international equities. These funds employ a variety of investment strategies in global developed and emerging markets. The fair values of the investments in these funds have been determined using the NAV per share of the investments. Redemptions can be made from these funds, given the appropriate notice, any regular trading day on the NYSE.
- **Fixed Income Commingled Funds** – This type consists of nine institutional investment funds that invest in U.S. and multi-national fixed income markets. The fair values of the investments in these funds have been determined using the NAV per share of the investments.
- **U.S. Equity Commingled Funds** - This type includes investments in five institutional investment funds as of June 30, 2019, which invest in domestic equities. These funds employ a variety of investment strategies in small-, mid-, and large- cap U.S. stocks. The fair values of the investments in these funds have been determined using the NAV per share of the investments. Redemptions can be made from these funds, given the appropriate notice, any regular trading day on the NYSE.
- **Real Assets** – This type includes investments in many fund categories including Private Investment Real Estate, Private Real Estate Investment Trusts, Infrastructure and Natural Resources. The fair value of the investments in these funds have been determined using the NAV per share of the investments. The nature of the investments in this type is that distributions are received through income as well as the liquidation of the underlying assets in the fund. If these investments were held, it is expected that the underlying assets of the funds would be liquidated over 1 to 14 years.

Component Units

The following table summarizes fair value measurements for the cash equivalents and investments reported by the component units as of June 30, 2019. The table excludes cash equivalents and investments measured at fair value by the foundations that follow FASB standards.

Fair Value Measurements - Component Units (Dollars in Thousands)

	Fair Value	Quoted Prices In Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Fair Value Measured Using Fair Value Hierarchy				
<u>Debt Securities (1)</u>				
U. S. Treasury and Agency Securities	\$ 517,859	\$ 341,898	\$ 175,961	\$ —
Corporate Bonds and Notes	499,535	30,361	469,174	—
Supranational and Non-U.S. Government Bonds and Notes	2,478	2,478	—	—
Commercial Paper	25,595	5,847	19,748	—
Negotiable Certificates of Deposit	63,246	17,320	45,926	—
Repurchase Agreements	37,650	—	37,650	—
Municipal Securities	201,967	284	201,683	—
Asset-Backed Securities	284,860	7,660	277,200	—
Agency Mortgage-Backed Securities	762,910	31,863	731,047	—
Agency Unsecured Bonds and Notes	247,667	55,986	191,681	—
Mutual and Money Market Funds	331,579	328,964	2,615	—
Fixed Income and Commingled Funds	36,476	36,476	—	—
Other Debt Securities	92,705	92,291	414	—
Total Debt Securities	3,104,527	951,428	2,153,099	—
<u>Equity Securities (2)</u>				
Common and Preferred Stocks	43,650	43,650	—	—
Equity Index and Pooled Funds	163,593	163,593	—	—
Index Funds	9,580	9,580	—	—
Real Estate	3,074	3,040	—	34
Other Equity Securities	3,921	618	3,295	8
Total Equity Securities	223,818	220,481	3,295	42
Total by Fair Value Level	3,328,345	\$ 1,171,909	\$ 2,156,394	\$ 42
Fair Value Established Using the Net Asset Value (NAV) (3)				
Fixed Income and Commingled Funds	87,794			
Other Debt Securities	20,343			
Equity Index and Pooled Funds	101,122			
Index Funds	6,952			
Real Estate	960			
Other Equity Securities	1,197,419			
Total Fair Value Established Using the NAV	1,414,590			
Total Fair Value	\$ 4,742,935			

(1) Debt securities are classified as follows:

- Level 1 - valued using unadjusted quoted prices in active markets for those securities.
- Level 2 - valued based on quoted prices for similar securities in active markets or quoted prices for identical or similar securities in markets that are not active.

(2) Equity securities are classified as follows:

- Level 1 - valued using unadjusted quoted prices in active markets for those securities.
- Level 2 - valued using significant other observable inputs.
- Level 3 - valued using unobservable inputs and may include assumptions of management.

(3) The following nonmajor component units reported investments at fair value established using the NAV: Old Dominion University, Virginia Commonwealth University (VCU), Virginia Commonwealth University Health System Authority (blended component unit of VCU), College of William and Mary, Virginia Military Institute, Virginia State University, Virginia Biotechnology Research Partnership Authority, Virginia Outdoors Foundation, and Virginia Polytechnic Institute and State University. Additional information is available in the separately issued financial statements.

Securities Lending

The State Treasury's securities lending program is managed by Deutsche Bank AG, New York (Deutsche Bank), under a contract dated March 28, 2014. The enabling legislation for the securities lending program is Section 2.2-4506 of the *Code of Virginia*. No violations of legal or contractual provisions were noted during the year.

All securities lending loans are on an open-ended or one-day basis and may be terminated by the State Treasury with a 24-hour notice or are term loans with the right of substitution. While all securities may be recalled on a daily basis, securities are often on loan for much longer periods. Generally cash reinvestments security maturities do not match the maturities of loans. Per the contract with Deutsche Bank, all cash collateral reinvestment securities attributable to loans made on the Commonwealth's behalf shall be maintained by Deutsche Bank, and the State Treasury cannot pledge or sell such collateral absent a default.

The State Treasury's contract with Deutsche Bank provides for loss indemnification against insolvency default with respect to lending transactions and in the case of reverse transactions (Repurchase Agreements) as defined in the applicable Agency Securities Lending and Repurchase Agreement. In March, 2018 Deutsche Bank announced it put in place a custom insurance solution written by a (AA-rated by S&P) specialty casualty insurer that backstops Deutsche Bank's indemnification obligation. Additionally, Deutsche Bank AG is liable for any losses experienced from reinvestment of cash collateral in investments not authorized by the provisions of the investment guidelines for the Commonwealth of Virginia agreed upon by both parties and made a part of the Agency Securities Lending and Repurchase Agreement. There were no realized losses resulting from default during this reporting period.

When securities are loaned, the collateral received is at least 100.0 percent of fair value of the securities loaned and must be maintained at 100.0 percent or greater. There are no stated restrictions on the amount of securities that may be loaned, but the basic composition of the general account portfolio effectively restricts the maximum percentage of the portfolio that may be loaned. During the last fiscal year, approximately 9.7 percent of the general account securities were on loan.

During the past year, a combination of U.S. Treasury, agency, agency mortgage and corporate securities have been loaned, with the majority of the loaned securities being U.S. Treasury and agency securities. As of June 30, 2019, all collateral received was in the form of cash.

Securities loaned for the State Treasurer's cash collateral reinvestment pool, which consisted of 92.6 percent general account funds and 7.4 percent Virginia Lottery funds as of June 30, 2019, had a carrying value of \$734.9 million and a fair value of \$776.0 million. The fair value of the collateral received was \$784.2 million providing for coverage of 101.1 percent. At year-end, the State Treasury's securities lending program had no credit risk exposure to borrowers because the amounts it owed the borrowers exceeded the amounts the borrowers owed Treasury's securities lending program. All securities are marked to market daily. The carrying value of the cash collateral reinvestment pool received was \$785.1 million and the cost of the investments purchased with the cash collateral was \$785.1 million. As of June 30, 2019, the State Treasurer's cash collateral reinvestment pool

had an unrealized gain of \$863,000, and is recorded in the General Fund as stated in Note 1.FF. This amount is included in the total State Treasurer's Portfolio discussed earlier in this note.

Cash collateral reinvestment guidelines were amended effective April 16, 2014. Approved investment instruments include Indemnified Repurchase Agreements marked to market daily and preapproved Government Money Market Funds. Term repurchase agreements are limited to 93 days. As of June 30, 2019, 100.0 percent of cash collateral reinvestments were in indemnified repurchase agreements.

As of June 30, 2019, the cash collateral reinvestment portfolio had a weighted average maturity to reset date of one day. Using the expected maturity date, the weighted average maturity was 26 days and using the final maturity date, which assumes no pay downs on any asset-backed or mortgage-backed securities, the weighted average maturity was 26 days.

As of June 30, 2019, the cash collateral reinvestment portfolio was in compliance with the State Treasury's current cash collateral reinvestment guidelines.

Under authorization of the Board, the System lends its fixed income and equity securities to various broker-dealers on a temporary basis. This program is administered through an agreement with the System's custodial agent bank. All security loan agreements are collateralized by cash, securities, or an irrevocable letter of credit issued by a major bank, and have a fair value equal to at least 102.0 percent of the fair value for domestic securities and 105.0 percent for international securities. Securities received as collateral cannot be pledged or sold by the System unless the borrower defaults. Contracts require the lending agents to indemnify the System if the borrowers fail to return the securities lent and related distributions and if the collateral is inadequate to replace the securities lent. All securities loans can be terminated on demand by either the System or the borrowers. The majority of loans are open loans, meaning the rebate is set daily. This results in a maturity of one or two days on average, although securities are often on loan for longer periods. The maturity of loans generally does not match the maturity of collateral investments, which averages 18 days. At year-end, the System had no credit risk exposure to borrowers because the amounts it owes the borrowers exceeded the amounts the borrowers owe the System. All securities are marked to market daily and carried at fair value. The fair value of securities on loan as of June 30, 2019, was \$8.6 billion. The June 30, 2019, balance was composed of U.S. Government and agency securities of \$2.7 billion, corporate and other bonds of \$1.2 billion, common and preferred stocks of \$4.6 billion and supranational and non-U.S. government bonds of \$113.0 million. The value of collateral (cash and non-cash) as of June 30, 2019, was \$9.0 billion.

As of June 30, 2019, the invested cash collateral had a cost of \$4.7 billion and was composed of negotiable certificates of deposit of \$60.4 million, floating rate notes of \$3.1 billion, commercial paper of \$92.1 million, and repurchase agreements of \$1.4 billion.



9. RECEIVABLES

The following schedule (dollars in thousands) details the accounts, loans, local school bonds, interest, taxes, prepaid tuition contributions, security transactions, and other receivables presented in the major funds, aggregated nonmajor funds by type, internal service funds, fiduciary funds, major component units, and aggregated nonmajor component units, as of June 30, 2019.

	Accounts Receivable	Loans / Mortgage Receivable	Local School Bonds Receivable	Interest Receivable	Taxes Receivable
Primary Government:					
General (1)	\$ 1,237,559	\$ 191	\$ —	\$ 443,306	\$ 2,099,223
Major Special Revenue Funds:					
Commonwealth Transportation (2)	170,488	189,750	—	451	205,240
Federal Trust	1,589,810	787	—	—	—
Literary	298,067	98,829	—	45,608	—
Nonmajor Governmental Funds (2)	234,889	7,379	—	21,054	8,436
Major Enterprise Funds:					
Virginia Lottery	72,486	—	—	—	—
Virginia College Savings Plan	12,370	—	—	5,768	—
Unemployment Compensation	96,798	—	—	—	—
Nonmajor Enterprise Funds	59,698	—	—	—	—
Internal Service Funds	35,692	—	—	—	—
Private Purpose Trust Funds	316	—	—	3,935	—
Pension and Other Employee Benefit Trust Funds (3)	249,372	—	—	276,679	—
Investment Trust Fund	—	—	—	9,474	—
Agency Funds	674	—	—	—	116,463
Total Primary Government (4)	<u>\$ 4,058,219</u>	<u>\$ 296,936</u>	<u>\$ —</u>	<u>\$ 806,275</u>	<u>\$ 2,429,362</u>
Discrete Component Units:					
Virginia Housing Development Authority (5)	\$ —	\$ 5,807,362	\$ —	\$ 26,587	\$ —
Virginia Public School Authority (6)	—	—	3,293,365	58,023	—
Virginia Resources Authority	—	4,307,341	—	29,777	—
Virginia College Building Authority	—	—	—	24,053	—
Nonmajor Component Units (7)	1,908,400	146,308	—	8,659	7,058
Total Component Units	<u>\$ 1,908,400</u>	<u>\$ 10,261,011</u>	<u>\$ 3,293,365</u>	<u>\$ 147,099</u>	<u>\$ 7,058</u>

Note (1): The General Fund (major) reports pending investment transactions of \$41,566 (dollars in thousands) as Other Receivables.

Note (2): The loans receivable in the Commonwealth Transportation Fund (major) includes \$156.0 million from the Virginia Infrastructure Bank as discussed in Note 22.D. In the nonmajor governmental funds, it represents the amounts to be received for current debt service requirements. The amount to be received for long-term debt service requirements of \$76.5 million is included in the government-wide statements but excluded from the above amounts.

Note (3): In the Pension and Other Employee Benefit Trust Funds, Interest Receivable of \$276,679 (dollars in thousands) also includes dividends receivable. Additionally, Other Receivables of \$130,475 (dollars in thousands) are made up of \$98,893 (dollars in thousands) in pending investment transactions, which includes \$79,003 (dollars in thousands) in futures margins receivable, \$17,897 (dollars in thousands) in futures contracts receivable, and \$1,993 (dollars in thousands) in securities lending; and \$31,582 (dollars in thousands) in other receivables related to benefit plans.

Note (4): Fiduciary net receivables in the amount of \$1,728,734 (dollars in thousands) are not included in the Government-wide Statement of Net Position.

Note (5): The Virginia Housing Development Authority (major component unit) reports \$5,470,456 (dollars in thousands) as Restricted Loans/Mortgage Receivable, \$24,153 (dollars in thousands) as Restricted Interest Receivable, and \$18,869 as Restricted Other Receivables.

Note (6): The Virginia Public School Authority (major component unit) reports \$3,293,365 (dollars in thousands) as Local School Bonds Receivable. This amount will be used to repay the Authority's bonds.

Note (7): Other Receivables of the nonmajor component units are primarily comprised of pledges receivable of \$115,744 (dollars in thousands) reported by the University of Virginia; premium receivables of \$165,327 (dollars in thousands) and third-party settlements and non-patient receivables of \$127,022 (dollars in thousands) reported by Virginia Commonwealth University Health System Authority (blended component unit of Virginia Commonwealth University); \$60,025 (dollars in thousands) reported by foundations of the higher education institutions representing FASB reporting entities defined in Note 1.B.; and \$82,476 (dollars in thousands) reported by the Virginia Port Authority, \$13,255 (dollars in thousands) reported by the Virginia Biotechnology Research Partnership Authority.

Prepaid Tuition Contributions Receivable	Security Transactions	Other Receivables	Allowance for Doubtful Accounts	Net Accounts Receivable	Amounts to be Collected Greater than One Year
\$ —	\$ —	\$ 41,566	\$ (1,710,260)	\$ 2,111,585	\$ 514,314
—	—	—	(40,988)	524,941	190,757
—	—	—	(4,871)	1,585,726	22,079
—	—	—	(307,230)	135,274	87,443
—	—	87	(95,885)	175,960	571
—	—	—	—	72,486	—
209,669	—	4,541	—	232,348	159,635
—	—	—	(19,159)	77,639	—
—	—	—	(1,740)	57,958	—
—	—	—	(156)	35,536	—
—	—	1,122	—	5,373	—
—	995,675	130,475	—	1,652,201	—
—	—	—	—	9,474	—
—	—	—	(55,451)	61,686	10,290
<u>\$ 209,669</u>	<u>\$ 995,675</u>	<u>\$ 177,791</u>	<u>\$ (2,235,740)</u>	<u>\$ 6,738,187</u>	<u>\$ 985,089</u>
\$ —	\$ —	\$ 19,319	\$ (178,642)	\$ 5,674,626	\$ 5,446,197
—	—	—	—	3,351,388	3,140,991
—	—	6,559	(686)	4,342,991	4,023,694
—	—	—	—	24,053	—
—	—	581,432	(858,516)	1,793,341	260,575
<u>\$ —</u>	<u>\$ —</u>	<u>\$ 607,310</u>	<u>\$ (1,037,844)</u>	<u>\$ 15,186,399</u>	<u>\$ 12,871,457</u>

10. CONTRIBUTIONS RECEIVABLE, NET

The following schedule details the contributions receivable for foundations(1) included with the nonmajor component units, as of June 30, 2019. The major component units reported no contributions receivable for fiscal year 2019.

(Dollars in Thousands)

	Due in Less Than One Year	Due Between One and Five Years	Due in More Than Five Years	Subtotal	Present Value Discount (2)	Allowance for Doubtful Accounts	Contributions Receivable, Net
Discrete Component Units:							
Nonmajor Component Units	\$ 229,453	\$ 342,394	\$ 155,671	\$ 727,518	\$ (67,579)	\$ (28,851)	\$ 631,088
Total Component Units	\$ 229,453	\$ 342,394	\$ 155,671	\$ 727,518	\$ (67,579)	\$ (28,851)	\$ 631,088

Note (1): Foundations represent FASB reporting entities defined in Note 1.B.

Note (2): The discount rate used to determine present value ranges from 0.1 percent to 7.0 percent.

11. INTERFUND AND INTER-ENTITY ASSETS / LIABILITIES

Due from/to Other Funds

Due from Other Funds are amounts to be received from one fund by another fund for goods sold or services rendered. Due to Other Funds are amounts owed by one fund to another fund for goods purchased or services obtained.

The following line items are included in the category "Due from Other Funds":

- Due from Other Funds
- Due from Internal Parties (Governmental Funds and Business-type Activities)
- Due from External Parties (Fiduciary Funds)

The following line items are included in the category "Due to Other Funds":

- Due to Other Funds
- Due to Internal Parties (Governmental Funds and Business-type Activities)
- Due to External Parties (Fiduciary Funds)

The following schedule shows the Due from/to Other Funds as of June 30, 2019.

Schedule of Due from/to Other Funds

June 30, 2019

(Dollars in Thousands)

Due From	Amount	Due To	Amount
Primary Government		Primary Government	
General Fund	\$ 44,048	Major Special Revenue Funds:	
		Commonwealth Transportation	\$ 2,044
		Federal Trust	349
		Nonmajor Governmental Funds	51
		Major Enterprise Funds:	
		Virginia Lottery	26,868
		Nonmajor Enterprise Funds	13,484
		Internal Service Funds	1,252
Major Special Revenue Funds:			
Commonwealth Transportation	64,838	Nonmajor Governmental Funds	64,838
Federal Trust	171	General Fund	3
		Major Enterprise Funds:	
		Unemployment Compensation	168
Literary	2,420	Major Enterprise Funds:	
		Virginia Lottery	2,420
Nonmajor Governmental Funds	47,860	General Fund	1,103
		Major Special Revenue Funds:	
		Commonwealth Transportation	44,231
		Federal Trust	1,642
		Major Enterprise Funds:	
		Unemployment Compensation	150
		Nonmajor Enterprise Funds	709
		Internal Service Funds	25
Major Enterprise Funds:			
Unemployment Compensation	816	General Fund	590
		Major Special Revenue Funds:	
		Commonwealth Transportation	20
		Federal Trust	151
		Nonmajor Governmental Funds	27
		Major Enterprise Funds:	
		Virginia Lottery	2
		Nonmajor Enterprise Funds	14
		Internal Service Funds	12
Nonmajor Enterprise Funds	998	General Fund	162
		Major Special Revenue Funds:	
		Commonwealth Transportation	543
		Federal Trust	213
		Nonmajor Governmental Funds	61
		Nonmajor Enterprise Funds	19
Internal Service Funds	70,474	General Fund	38,255
		Major Special Revenue Funds:	
		Commonwealth Transportation	14,991
		Federal Trust	7,556
		Nonmajor Governmental Funds	4,498
		Major Enterprise Funds:	
		Virginia Lottery	215
		Virginia College Savings Plan	92
		Nonmajor Enterprise Funds	3,904
		Internal Service Funds	963
Pension and Other Employee Benefit Trust Funds	4,014	Pension and Other Employee Benefit Trust Funds	4,014
Investment Trust Funds	10,453	Investment Trust Funds	10,453
Total Primary Government	<u><u>\$ 246,092</u></u>	Total Primary Government	<u><u>\$ 246,092</u></u>

Schedule of Due from/to Internal/External Parties

June 30, 2019

(Dollars in Thousands)

Due From	Amount	Due To	Amount
Primary Government		Primary Government	
General Fund	\$ 3,773	Investment Trust Funds	\$ 2
		Agency Funds	3,771
Major Special Revenue Funds:			
Federal Trust	21,537	Pension and Other Employee Benefit Trust Funds	21,537
Nonmajor Governmental Funds	40,726	Pension and Other Employee Benefit Trust Funds	40,481
		Agency Funds	245
Internal Service Funds	247	Pension and Other Employee Benefit Trust Funds	247
Pension and Other Employee Benefit Trust Funds	30,398	General Fund	19,085
		Major Special Revenue Funds:	
		Commonwealth Transportation	5,156
		Federal Trust	2,421
		Nonmajor Governmental Funds	2,317
		Major Enterprise Funds:	
		Virginia Lottery	194
		Virginia College Savings Plan	83
		Nonmajor Enterprise Funds	711
		Internal Service Funds	431
Total Primary Government	<u>\$ 96,681</u>	Total Primary Government	<u>\$ 96,681</u>

Interfund Receivables/Payables

Interfund Receivables/Payables are loans made by one fund to another.

The following schedule shows the Interfund Receivables/Payables for the primary government as of June 30, 2019. There were no Interfund Receivables/Payables for the component units as of June 30, 2019.

Interfund Receivables/Payables

June 30, 2019

(Dollars in Thousands)

Receivable From	Amount	Payable To	Amount
Primary Government		Primary Government	
Nonmajor Government Funds	\$ 271,152	General Fund	\$ 2,535
		Major Special Revenue Funds:	
		Commonwealth Transportation	3,401
		Federal Trust	25,619
		Nonmajor Enterprise Funds	44,995
		Internal Service Funds	194,602
Total Primary Government	<u>\$ 271,152</u>	Total Primary Government	<u>\$ 271,152</u>

Due from/to Primary Government and Component Units

Included in this category is activity between the Commonwealth and its component units, as well as activity between component units.

A due from primary government amount that is due from the Federal Trust Fund (major special revenue) to the Virginia College Building Authority (major component unit) of \$3.4 million is for interest on Build America Bonds (BABs).

A \$14.4 million due from primary government amount that is due from the General Fund (major governmental) to the higher education institutions (nonmajor component units) is for payments awaiting disbursements and appropriations available for capital projects and other programs. The General Fund reports \$392,510 in the fund financial statements and an additional \$14.0 million in the government-wide financial statements.

A \$27,402 due from primary government amount represents an amount due from a nonmajor governmental fund related to the Department of the Treasury's reimbursement programs to George Mason University and the Virginia Community College System (nonmajor component units).

A due from primary government amount that is due from the Virginia Public Building Authority (capital projects fund) to the Virginia Port Authority (nonmajor component unit) of \$12.8 million represents bond revenue to be used for capital projects.

A \$30.4 million due from component units in the Health Care Fund (internal service fund) represents amounts due from the nonmajor component units.

An \$865,011 due from component units represents monies owed for administrative and project expenses from the Science Museum of Virginia Foundation (nonmajor component unit) to a nonmajor governmental fund. The entire nonmajor governmental amount is reported in the government-wide financial statements.

The \$117.5 million due from component units amount represents amounts due from the Virginia College Building Authority (major component unit) for the Department of the Treasury's reimbursement programs to higher education institutions (nonmajor component units). There is a due to component units of \$1.7 million from a foundation of Old Dominion University (nonmajor component unit) to the Virginia Commercial Space Flight Authority (nonmajor component unit).

Due from/to Component Units and Fiduciary Funds

A \$35.5 million due from component units in the Pension and Other Employee Benefit Trust Funds (fiduciary funds) represents amounts due from nonmajor component units.

Loans Receivable/Payable Between Primary Government and Component Units

The College of William and Mary (nonmajor component unit) loans of \$796,803 were used to fund a capital project until bonds were issued. Virginia Community College System (nonmajor component unit) loans of \$3.4 million were used to primarily advance fund federally-funded programs. These amounts are due to a nonmajor governmental fund.

The \$189.9 million in loans receivable from primary government represents loans from the Virginia Public School Authority (VPSA) (major component unit) to the Literary Special Revenue Fund (major governmental fund). The VPSA makes grants to local school divisions to finance the purchase of educational technology and security equipment. The VPSA makes these grants using the proceeds of notes issued for that purpose, which will be repaid from appropriations to be made by the Virginia General Assembly from the Literary Special Revenue Fund (major governmental fund).

12. OTHER ASSETS

The following table summarizes Other Assets as of June 30, 2019.

(Dollars in Thousands)

	Cash and Travel Advances	Net OPEB Asset (1)	Other Assets	Total Other Assets
Primary Government:				
General	\$ 1,217	\$ —	\$ —	\$ 1,217
Major Special Revenue Funds:				
Commonwealth Transportation	282	—	—	282
Federal Trust	1,607	—	—	1,607
Nonmajor Governmental Funds	637	—	—	637
Major Enterprise Funds:				
Virginia Lottery	1	1,015	—	1,016
Virginia College Savings Plan	—	444	—	444
Nonmajor Enterprise Funds	206	3,608	—	3,814
Internal Service Funds (2)	—	2,423	31,294	33,717
Private Purpose	—	3	—	3
Agency Funds (3)	—	—	35	35
Total Primary Government	<u>\$ 3,950</u>	<u>\$ 7,493</u>	<u>\$ 31,329</u>	<u>\$ 42,772</u>
Discrete Component Units:				
Virginia Housing Development Authority (4)	\$ —	\$ —	\$ 46,667	\$ 46,667
Nonmajor Component Units (5)	610	—	59,883	60,493
Total Component Units	<u>\$ 610</u>	<u>\$ —</u>	<u>\$ 106,550</u>	<u>\$ 107,160</u>

Notes (1) Other noncurrent assets in the proprietary and fiduciary funds represent the Virginia Sickness and Disability Program Net OPEB Asset applicable to the respective fund. The proprietary fund amounts are reclassified to Other Restricted Assets in the Government-wide Statement of Net Position. The Private Purpose amount is not included in the Government-wide Statement of Net Position.

Notes (2) Of the \$31,294 (dollars in thousands) shown above, \$29,733 (dollars in thousands) and \$1,561 (dollars in thousands) represent Virginia Information Technologies Agency and Virginia Correctional Enterprises, respectively, amounts due from various governmental funds that will not be received within 60 days. These amounts are reclassified to an internal balance on the Government-wide Statement of Net Position.

Notes (3) Other Assets of the Agency Funds represent prepaid expenses and advances to third party agents. The \$34,887 shown above is not included in the Government-wide Statement of Net Position.

Notes (4) Other Assets of the Virginia Housing Development Authority are comprised of mortgage servicing rights of \$46,667 (dollars in thousands).

Notes (5) Other Assets of the nonmajor component units are primarily comprised of miscellaneous items spread among the higher education institutions and related foundations.

13. RESTRICTED ASSETS

Restricted assets represent monies or other resources that must be used for specific legal or contractual requirements. The Commonwealth Transportation Fund (major special revenue), Debt Service Fund (nonmajor governmental), and Capital Project Fund (nonmajor governmental) reported \$1.9 billion in restricted cash, cash equivalents, and investments primarily related to bond agreements. The governmental and business-type activities funds reported other restricted assets of \$134.6 million and \$5.1 million, respectively, for the Virginia Sickness and Disability Program Net OPEB Asset. See Note 12, Other Assets, for more information related to the Enterprise and Internal Service Funds.

The Virginia Housing Development Authority, the Virginia Public School Authority, and the Virginia College Building Authority (all major component units) reported restricted assets totaling \$1.4 billion, \$247.8 million, and \$438.1 million, respectively. These major component units' assets are restricted for debt service under a bond indenture or other agreement, or for construction and equipment.

The Virginia Resources Authority (major component unit) reported restricted assets of \$882.3 million. Of this amount, \$874.5 million is restricted for loans to local governments, bond indentures, or federal and state regulations for various revolving funds, and \$7.8 million is restricted for the Operating Reserve Fund for the Virginia Pooled Financing Program.

The Virginia Port Authority (nonmajor component unit) reported restricted assets of \$136.0 million primarily for debt service under bond agreements, construction and other project funds.

The Tobacco Region Revitalization Commission (nonmajor component unit) reported restricted assets of \$193.0 million to be used for financial aid to tobacco growers and to foster community economic growth. This includes Other Restricted Assets of \$48,000 for the Virginia Sickness and Disability Program Net OPEB asset.

The Hampton Roads Sanitation District Commission (nonmajor component unit) reported restricted assets of \$42.9 million to be used for debt service.

The Virginia Small Business Financing Authority (nonmajor component unit) reported restricted assets of \$41.7 million for gifts and grants. This includes Other Restricted Assets of \$24,420 for the Virginia Sickness and Disability Program Net OPEB asset.

The higher education institutions (nonmajor component units) reported restricted assets totaling approximately \$6.5 billion primarily for endowment and other contractual obligations. Included in this amount is approximately \$5.7 billion of foundations' restricted assets. This includes Other Restricted Assets of \$84.6 million for the Virginia Sickness and Disability Program Net OPEB asset. The Virginia Commonwealth University Health System Authority (Authority) (a blended component unit of Virginia Commonwealth University—nonmajor component unit) includes \$18.6 million for a beneficial trust and \$4.3 million for an equity interest in a foundation as Other Restricted Assets. These Authority assets are classified as Level 3 of the fair value hierarchy. For additional information, see the Authority's separately issued financial statements.

The two museum foundations, the Virginia Museum of Fine Arts Foundation (nonmajor component unit) and the Science Museum of Virginia Foundation (nonmajor component unit) had restricted assets of \$239.5 million and \$20.6 million, respectively, primarily for donor-imposed restricted endowments.

The remaining \$8.8 million is spread among the following nonmajor component units: the Virginia Outdoors Foundation, the Danville Science Center, the Fort Monroe Authority, the Virginia Arts Foundation, the Virginia Biotechnology Research Partnership Authority, the Virginia Economic Development Partnership, the Virginia Tourism Authority, the Virginia Foundation for Healthy Youth, and the Library of Virginia Foundation. Included in this amount is approximately \$930,000 for the Virginia Sickness and Disability Program Net OPEB asset.

14. CAPITAL ASSETS

The following schedule presents the changes in the Capital Assets as of June 30, 2019 (dollars in thousands).

Schedule of Changes in Capital Assets Governmental Activities

(Dollars in Thousands)

	Balance July 1 as restated (1)	Increases	Decreases	Balance June 30
Nondepreciable Capital Assets:				
Land	\$ 3,351,771	\$ 136,766	\$ (33,455)	\$ 3,455,082
Water Rights and/or Easements	95,968	9,558	—	105,526
Infrastructure	1,308,220	—	—	1,308,220
Construction-in-Progress	4,171,613	1,608,382	(2,009,656)	3,770,339
Total Nondepreciable Capital Assets	<u>8,927,572</u>	<u>1,754,706</u>	<u>(2,043,111)</u>	<u>8,639,167</u>
Depreciable Capital Assets:				
Buildings (2)	4,237,017	231,444	(13,448)	4,455,013
Equipment	1,326,769	61,300	(41,420)	1,346,649
Infrastructure	31,946,548	1,855,174	(581,160)	33,220,562
Software	739,653	200,160	(659)	939,154
Total Capital Assets being Depreciated	<u>38,249,987</u>	<u>2,348,078</u>	<u>(636,687)</u>	<u>39,961,378</u>
Less Accumulated Depreciation for:				
Buildings	1,627,154	104,275	(11,296)	1,720,133
Equipment	798,021	72,736	(37,902)	832,855
Infrastructure	11,050,691	1,080,550	(336,855)	11,794,386
Software	382,478	66,878	(233)	449,123
Total Accumulated Depreciation	<u>13,858,344</u>	<u>1,324,439</u>	<u>(386,286)</u>	<u>14,796,497</u>
Total Depreciable Capital Assets, Net	<u>24,391,643</u>	<u>1,023,639</u>	<u>(250,401)</u>	<u>25,164,881</u>
Total Capital Assets, Net	<u>\$ 33,319,215</u>	<u>\$ 2,778,345</u>	<u>\$ (2,293,512)</u>	<u>\$ 33,804,048</u>

Note (1): Beginning balances have been restated by \$2.7 million as discussed in Note 2.

Note (2): Includes temporarily impaired assets with a carrying value of \$1.0 million.

Depreciation Expense Charged to Functions of the Primary Government June 30, 2019

(Dollars in Thousands)

Governmental Activities:	
General Government	\$ 30,441
Education	8,694
Transportation	1,120,674
Resources and Economic Development	30,564
Individual and Family Services	57,474
Administration of Justice	51,319
Capital Assets held by the Internal Service	
Funds are charged to various functions	25,273
Total	<u>\$ 1,324,439</u>

**Schedule of Changes in Capital Assets
Business-type Activities**

(Dollars in Thousands)

	Balance July 1	Increases	Decreases	Balance June 30
Nondepreciable Capital Assets				
Land	\$ 1,874	\$ —	\$ —	\$ 1,874
Construction-in-Progress	1,461	7,688	(136)	9,013
Total Nondepreciable Capital Assets	<u>3,335</u>	<u>7,688</u>	<u>(136)</u>	<u>10,887</u>
Depreciable Capital Assets:				
Buildings	22,801	411	—	23,212
Equipment	62,560	2,879	(905)	64,534
Software	13,146	2,393	(26)	15,513
Total Capital Assets being Depreciated	<u>98,507</u>	<u>5,683</u>	<u>(931)</u>	<u>103,259</u>
Less Accumulated Depreciation for:				
Buildings	12,890	399	—	13,289
Equipment	46,092	4,264	(874)	49,482
Software	9,065	1,818	(24)	10,859
Total Accumulated Depreciation	<u>68,047</u>	<u>6,481</u>	<u>(898)</u>	<u>73,630</u>
Total Depreciable Capital Assets, Net	<u>30,460</u>	<u>(798)</u>	<u>(33)</u>	<u>29,629</u>
Total Capital Assets, Net	<u>\$ 33,795</u>	<u>\$ 6,890</u>	<u>\$ (169)</u>	<u>\$ 40,516</u>

**Schedule of Changes in Capital Assets
Component Units**

(Dollars in Thousands)

	Balance July 1	Increases	Decreases	Subtotal June 30	Foundations (1)	Total June 30
Nondepreciable Capital Assets:						
Land	\$ 656,947	\$ 26,051	\$ (5,411)	\$ 677,587	\$ 342,067	\$ 1,019,654
Construction-in-Progress	1,606,937	1,610,443	(924,929)	2,292,451	91,181	2,383,632
Inexhaustible Works of Art/Historical Treasures	81,526	3,971	(72)	85,425	15,215	100,640
Livestock	3,340	—	(3,019)	321	1,284	1,605
Total Nondepreciable Capital Assets	<u>2,348,750</u>	<u>1,640,465</u>	<u>(933,431)</u>	<u>3,055,784</u>	<u>449,747</u>	<u>3,505,531</u>
Depreciable Capital Assets:						
Buildings	17,635,505	642,178	(56,276)	18,221,407	1,323,763	19,545,170
Infrastructure	3,900,953	109,387	(3,901)	4,006,439	11,918	4,018,357
Equipment	3,850,812	350,741	(112,928)	4,088,625	178,345	4,266,970
Improvements Other Than Buildings	576,274	25,493	(24,334)	577,433	99,796	677,229
Library Books	748,629	14,843	(13,260)	750,212	—	750,212
Software	2,691,116	60,694	(20,735)	2,731,075	—	2,731,075
Other Intangible Assets	2,000	—	—	2,000	—	2,000
Total Capital Assets being Depreciated	<u>29,405,289</u>	<u>1,203,336</u>	<u>(231,434)</u>	<u>30,377,191</u>	<u>1,613,822</u>	<u>31,991,013</u>
Less Accumulated Depreciation for:						
Buildings	5,977,378	498,720	(45,714)	6,430,384	401,505	6,831,889
Infrastructure	1,795,733	108,253	(2,966)	1,901,020	4,366	1,905,386
Equipment	2,669,582	278,824	(104,961)	2,843,445	128,671	2,972,116
Improvements Other Than Buildings	361,644	26,273	(3,691)	384,226	60,072	444,298
Library Books	656,412	26,314	(12,865)	669,861	—	669,861
Software	490,790	69,706	(17,601)	542,895	—	542,895
Other Intangible Assets	1,866	134	—	2,000	—	2,000
Total Accumulated Depreciation	<u>11,953,405</u>	<u>1,008,224</u>	<u>(187,798)</u>	<u>12,773,831</u>	<u>594,614</u>	<u>13,368,445</u>
Total Depreciable Capital Assets, Net	<u>17,451,884</u>	<u>195,112</u>	<u>(43,636)</u>	<u>17,603,360</u>	<u>1,019,208</u>	<u>18,622,568</u>
Total Capital Assets, Net	<u>\$ 19,800,634</u>	<u>\$ 1,835,577</u>	<u>\$ (977,067)</u>	<u>\$ 20,659,144</u>	<u>\$ 1,468,955</u>	<u>\$ 22,128,099</u>

Note (1) Foundations represent FASB reporting entities defined in Note 1.B. Since foundations follow FASB rather than GASB reporting requirements, no amounts are reported in the software and other intangible assets categories for foundations.

15. DEFERRED OUTFLOWS AND DEFERRED INFLOWS OF RESOURCES

GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*, requires certain items to be classified as either deferred outflows or deferred inflows of resources. Additionally, deferred outflows or deferred inflows of resources are also required by other GASB statements. While all deferred outflows or deferred inflows of resources applicable to the Commonwealth are listed below, see Notes 16, 17, 19, and 38 for additional information regarding these items.

Deferred Outflows

Deferred outflows of resources are a consumption of assets by the government that is applicable to a future reporting period.

Deferred Inflows

Deferred inflows of resources are an acquisition of assets by the government that is applicable to a future reporting period.

The following tables summarize deferred outflows and deferred inflows of resources as of June 30, 2019.

Government-wide Statements

(Dollars in Thousands)

	Primary Government			Total Component Units
	Governmental Activities	Business-type Activities	Total	
Deferred Outflows of Resources				
Effective Hedges in a Loss Position	\$ —	\$ —	\$ —	\$ 3,147
Loss on Refunding of Debt	72,669	—	72,669	343,188
Government Acquisition-Goodwill	—	—	—	15,568
Pension Related	524,860	17,305	542,165	340,257
Other Postemployment Benefit Related	170,642	5,539	176,181	153,269
Total Deferred Outflows of Resources	<u>\$ 768,171</u>	<u>\$ 22,844</u>	<u>\$ 791,015</u>	<u>\$ 855,429</u>
Deferred Inflows of Resources				
Service Concession Arrangements	\$ 3,550,488	\$ —	\$ 3,550,488	\$ 47,695
Gain on Refunding of Debt	20	—	20	39,783
Pension Related	476,659	12,215	488,874	277,870
Other Postemployment Benefit Related	465,862	14,845	480,707	373,779
Irrevocable Split-Interest Agreements Related	—	—	—	14,882
Total Deferred Inflows of Resources	<u>\$ 4,493,029</u>	<u>\$ 27,060</u>	<u>\$ 4,520,089</u>	<u>\$ 754,009</u>

Fund Statements

(Dollars in Thousands)

	Primary Government - Governmental Funds					
	General	Commonwealth Transportation	Federal Trust	Literary	Nonmajor Governmental Funds	Total Governmental Funds
Deferred Outflows of Resources						
Total Deferred Outflows of Resources	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Deferred Inflows of Resources						
Service Concession Arrangements	\$ —	\$ 610,928	\$ —	\$ —	\$ —	\$ 610,928
Revenues Considered Unavailable	1,129,195	67,666	84,893	25,066	34,791	1,341,611
Total Deferred Inflows of Resources	<u>\$ 1,129,195</u>	<u>\$ 678,594</u>	<u>\$ 84,893</u>	<u>\$ 25,066</u>	<u>\$ 34,791</u>	<u>\$ 1,952,539</u>

(Continued on next page)

Fund Statements (continued from previous page)

(Dollars in Thousands)	Business-type Activities					
	Enterprise Funds					
	Virginia Lottery	Virginia College Savings Plan	Nonmajor	Total Business- type Activities	Internal Service Funds	Private Purpose Trust Funds
Deferred Outflows of Resources						
Pension Related	\$ 2,798	\$ 1,601	\$ 12,906	\$ 17,305	\$ 8,468	\$ 5
Other Postemployment Benefit Related	855	421	4,263	5,539	2,271	1
Total Deferred Outflows of Resources	\$ 3,653	\$ 2,022	\$ 17,169	\$ 22,844	\$ 10,739	\$ 6
Deferred Inflows of Resources						
Pension Related	\$ 2,526	\$ 879	\$ 8,810	\$ 12,215	\$ 6,885	\$ 4
Other Postemployment Benefit Related	2,462	879	11,504	14,845	5,998	3
Total Deferred Outflows of Resources	\$ 4,988	\$ 1,758	\$ 20,314	\$ 27,060	\$ 12,883	\$ 7

(Dollars in Thousands)	Component Units					
	Virginia Housing Development Authority	Virginia Public School Authority	Virginia Resources Authority	Virginia College Building Authority	Nonmajor Component Units	Total Component Units
	Deferred Outflows of Resources					
Effective Hedges in a Loss Position	\$ —	\$ —	\$ —	\$ —	\$ 3,147	\$ 3,147
Loss on Refunding of Debt	—	93,352	63,647	30,321	155,868	343,188
Government Acquisition-Goodwill	—	—	—	—	15,568	15,568
Pension Related	—	—	90	—	340,167	340,257
Other Postemployment Benefit Related	4,711	—	13	—	148,545	153,269
Total Deferred Inflows of Resources	\$ 4,711	\$ 93,352	\$ 63,750	\$ 30,321	\$ 663,295	\$ 855,429
Deferred Inflows of Resources						
Service Concession Arrangements	\$ —	\$ —	\$ —	\$ —	\$ 47,695	\$ 47,695
Gain on Refunding of Debt	—	—	31,099	—	8,684	39,783
Pension Related	—	—	129	—	277,741	277,870
Other Postemployment Benefit Related	187	—	17	—	373,575	373,779
Irrevocable Split-Interest Agreements Related	—	—	—	—	14,882	14,882
Total Deferred Inflows of Resources	\$ 187	\$ —	\$ 31,245	\$ —	\$ 722,577	\$ 754,009

16. DERIVATIVES

GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, requires additional reporting and disclosures for derivative instruments.

Primary Government

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates or financial indexes. They include futures, forwards, options and swap contracts. Some traditional securities, such as structured notes, can have derivative-like characteristics. In this case, the return may be linked to one or more indexes and asset-backed securities, such as collateralized mortgage obligations (CMOs), which are sensitive to changes in interest rates and pre-payments. Futures, forwards, options and swaps generally are not recorded on the financial statements, whereas structured notes and asset-backed investments generally are recorded.

Virginia College Savings Plan (Virginia529)

GASB Statement No. 53 defines stable value investment vehicles as synthetic guaranteed investment contracts. Stable value funds are invested in a high quality, diversified, intermediate term, fixed income portfolio that is protected against interest rate volatility by wrap or investment contracts from banks and insurance companies that guarantee the payment of benefits at book value (cost plus accrued interest), which enables the entire investment to be carried at its book value. The Virginia529 utilizes stable value investments in both the Prepaid529 Program (major enterprise fund) and Invest529 Program (Private Purpose Trust Fund). Virginia529's stable value investments meet the definition of fully benefit-responsive synthetic guaranteed investment contracts and are reported at contract value. As of June 30, 2019, Virginia529 had the following stable value investments outstanding (dollars in thousands) in the respective programs as shown in the table below.

Stable Value Investments

Fund	Wrap Provider	Notional	Effective	Maturity Date	Credit Rate	June 30, 2019	June 30, 2018
		Amount	Date			Fair Value	Fair Value
Enterprise	American General Life	\$ 25,116	2/21/2014	Open ended	2.4%	\$ 127,845	\$ 134,489
	Nationwide Life Insurance	23,929	4/19/2018	Open ended	2.5%		
	RGA	25,384	6/22/2016	Open ended	2.5%		
	State Street Bank	25,373	5/1/2002	Open ended	2.9%		
	Voya Retirement and Annuity	25,930	12/3/2002	Open ended	2.9%		
Private Purpose	American General Life	\$ 185,912	1/16/2014	Open ended	2.5%	\$ 1,131,010	\$ 989,144
	Nationwide Life Insurance	186,103	1/29/2018	Open ended	3.0%		
	Prudential Retirement Insurance & Annuity	186,018	1/30/2014	Open ended	2.7%		
	RGA	185,895	8/28/2015	Open ended	2.6%		
	State Street Bank	185,904	5/1/2002	Open ended	2.6%		
	Voya Retirement And Annuity	185,906	10/5/2012	Open ended	2.5%		

The following table (dollars in thousands) contains information relating to fair value, changes in fair value, and notional value for U.S. Treasury Futures Contracts.

Investment Derivatives - U.S. Treasury Futures Contracts					
Fund	Changes in Fair Value		Fair Value at June 30, 2019		Notional Amount
	Classification	Amount	Classification	Amount	
Enterprise	Revenue	\$ (161)	Investment	\$ 247	\$ 18,246

Pursuant to its investment management agreement, Advent Capital Management, LLC (Advent) may invest in derivatives for hedging purposes or for efficient portfolio management. Synthetic positions are not allowed and the use of derivatives should not be considered as an alpha generator. Advent primarily uses forward foreign exchange contracts to hedge the value of investments denominated in non-U.S. dollar currencies. Credit risk of exchange traded currency contracts lies with the clearinghouse of the exchange at which the contracts are traded, while credit risk of currency contracts traded over the counter lies with the counterparty. Counterparty risk exposure is generally equal to the unrealized gain on in-the-money contracts. The following table (dollars in thousands) contains a breakdown of these forward contracts by currency.

Prepaid529 Currency Forwards				
Currency	Cost	Foreign Exchange Purchases	Foreign Exchange Sales	Market Value
British Pound Sterling	\$ (1,494)	\$ —	\$ (1,495)	\$ (1,495)
Euro	(18,918)	246	(19,470)	(19,224)
Hong Kong Dollar	(8,482)	—	(8,511)	(8,511)
Japanese Yen	(4,660)	2,571	(7,281)	(4,710)
Swiss Franc	(4,407)	—	(4,550)	(4,550)
U.S. Dollar	37,961	40,726	(2,765)	37,961
Total	\$ —	\$ 43,543	\$ (44,072)	\$ (529)

Additional information is available in the Virginia529 separately issued financial statements, which may be obtained at www.virginia529.com.

Virginia Retirement System

All derivatives held by the Virginia Retirement System (the System) are considered investments. The fair value of all derivative financial instruments is reported on a net basis on the Statement of Fiduciary Net Position. The derivative instruments are either subject to an enforceable master netting arrangement or similar agreement. The master netting arrangements allow the System to net applicable liabilities or payment obligations to counterparties to the derivative contracts against amounts owed to the System by the counterparties.

The System holds investments in swaps, options and futures and enters into forward foreign currency exchange contracts. Futures, currency forwards and options contracts provide the System with the opportunity to build passive benchmark positions, manage portfolio duration in relation to various benchmarks, adjust portfolio yield curve exposure and gain market exposure to various indexes in a more efficient way and at lower transaction costs. Derivatives that

are exchange-traded are not subject to credit risk, but all over-the-counter derivatives, such as swaps and currency forwards, do expose the System to counterparty credit risk. Counterparty credit risk for the System's investments in derivatives instruments is summarized in the table on page 130. Market risks arise from adverse changes in market prices, interest rates and foreign exchange rates. The System's level of exposure to interest rate risk through derivative instruments and the System's investments in derivative instruments as of June 30, 2019, are summarized in the tables below (dollars in thousands).

Derivative Investments Summary				
Investment	Net Appreciation/ (Depreciation) in Fair Value for the Fiscal Year Ended June 30, 2019	Classification	Fair Value June 30, 2019	Notional (Dollars)
Derivatives (by Type)	Amount		Amount	Notional (Dollars)
Commodity Futures Long	\$ 208	Equity Securities	\$ 208	\$ 2,403
Commodity Futures Short	(66)	Equity Securities	—	—
Credit Default Swaps Bought	56	Debt Securities	1,403	35,447
Credit Default Swaps Written	2,420	Debt Securities	197	45,200
Fixed-Income Futures Long	27,735	Debt Securities	30,607	1,804,401
Fixed-Income Futures Short	(18,921)	Debt Securities	(21,957)	(1,500,781)
Foreign Currency Futures Short	(348)	Debt Securities	(348)	(33,596)
Foreign Currency Options Written	134	Equity Securities	(59)	(5,600)
FX Forwards	(18,142)	Investment Sales/Purchases	6,242	4,554,076
Index Futures Long	44,032	Equity Securities	18,510	935,970
Index Futures Short	(1,009)	Equity Securities	(823)	(58,572)
Pay Fixed Foreign Currency Swaps	—	Debt Securities	—	1,455
Receive Fixed Foreign Currency Swaps	3,099	Debt Securities	3,099	3,099
Pay Fixed-Interest Rate Swaps	(10,540)	Debt Securities	(8,396)	577,373
Receive Fixed-Interest Rate Swaps	16,108	Debt Securities	12,445	513,273
Swaptions Written	2	Equity Securities	(3)	(21,400)
Total Return Bond Index Swaps	1,304	Equity Securities	949	80,522
Total Return Equity Index Swaps	5,686	Equity Securities	6,700	111,857
Total	\$ 51,758		\$ 48,774	

Derivative Instruments Subject to Interest Rate Risk					
Investment Type	Fair Value June 30, 2019	Investment Maturities (in years)			
		Under 1	1-5	6-10	Greater than 10
Credit Default Swaps Bought	\$ 1,403	\$ —	\$ 1,403	\$ —	\$ —
Credit Default Swaps Written	197	(4)	201	—	—
Receive Fixed Foreign Currency Swaps	3,099	—	3,099	—	—
Pay Fixed Interest Rate Swaps	(8,396)	(603)	(3,673)	(4,120)	—
Receive Fixed Interest Rate Swaps	12,445	(271)	8,306	4,351	59
Total	\$ 8,748	\$ (878)	\$ 9,336	\$ 231	\$ 59

Futures Contracts

Futures contracts are contracts to deliver or receive securities at a specified future date and at a specified price or yield. Futures contracts are traded on organized exchanges (exchange-traded) and require an initial margin (collateral) in the form of cash or marketable securities. The net change in the futures contract value is settled daily, in cash, with the exchanges. The net gains or losses resulting from the daily settlements are included in the Statement of Changes in Fiduciary Net Position. Holders of futures contracts look to the exchange for performance under the contract and not to the entity holding the offsetting futures position. Accordingly, the amount at risk posed by nonperformance of counterparties to futures contracts is minimal. Information on the System's investments in fixed income, foreign currency, commodities, and equity index futures as of June 30, 2019, is shown in the Summary table on the previous page (dollars in thousands).

Currency Forwards

Currency forwards represent foreign exchange contracts and are used by the System to effect settlements and to protect the base currency (\$U.S.) value of portfolio assets denominated in foreign currencies against fluctuations in the exchange rates of those currencies. A forward foreign currency exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated price. The credit risk of currency contracts that are exchange-traded lies with the clearinghouse of the exchange where the contracts are traded. The credit risk of currency contracts traded over the counter lies with the counterparty, and exposure usually is equal to the unrealized profit on in-the-money contracts. The market risk in foreign currency contracts is related to adverse movements in currency exchange rates. The gain or loss arising from the difference between the original contracts and the closing of such contracts is included in the net realized gains or losses on foreign currency-related transactions in the Statement of Changes in Fiduciary Net Position. Information on the System's currency forward contracts as of June 30, 2019, is shown in the following table and in the Summary table on the previous page.

Currency Forwards

as of June 30

(Dollars in Thousands)

Currency	Cost	Pending Foreign Exchange Purchases	Pending Foreign Exchange Sales	Fair Value 2019	Fair Value 2018
Argentine Peso	\$ 337	\$ 42,093	\$ (41,374)	\$ 719	(1,580)
Australian Dollar	(323,869)	174,732	(497,553)	(322,821)	49,207
Brazilian Real	4,652	27,501	(22,418)	5,083	(44,240)
British Pound Sterling	(748,028)	189,325	(935,320)	(745,995)	(613,241)
Canadian Dollar	(475,215)	291,808	(767,996)	(476,188)	(239,768)
Chilean Peso	(5,242)	20,129	(25,459)	(5,330)	6,205
Chinese Yuan Renminbi	(45,785)	5,844	(52,053)	(46,209)	(46,367)
Chinese Yuan Renminbi HK	1,232	35,177	(34,988)	189	(14,282)
Colombian Peso	18,058	25,688	(7,070)	18,618	9,451
Czech Koruna	34,377	45,647	(10,104)	35,543	53,882
Danish Krone	(60,522)	11,789	(72,397)	(60,608)	(71,218)
Egyptian Pound	7,963	16,807	(8,080)	8,727	8,427
Euro Currency Unit	(1,493,896)	546,622	(2,046,534)	(1,499,912)	(1,816,748)
Hong Kong Dollar	(170,681)	15,229	(185,717)	(170,488)	(181,446)
Hungarian Forint	(4,985)	9,491	(14,489)	(4,998)	(12,192)
Indian Rupee	10,595	11,970	(1,294)	10,676	(6,011)
Indonesian Rupiah	(17,096)	11,436	(28,517)	(17,081)	3,515
Israeli Shekel	(21,630)	7,693	(29,381)	(21,688)	(25,389)
Japanese Yen	(668,515)	395,550	(1,059,969)	(664,419)	(1,150,961)
Kazakhstan Tenge	269	4,658	(4,327)	331	2,578
Malaysian Ringgit	6,314	14,630	(8,338)	6,292	(787)
Mexican Peso	29,159	52,873	(23,680)	29,193	40,960
New Taiwan Dollar	(4,165)	6,354	(10,594)	(4,240)	(2,128)
New Zealand Dollar	326,332	420,384	(86,962)	333,422	86,033
Nigerian Naira	8,768	11,467	(2,385)	9,082	6,427
Norwegian Krone	(295,788)	74,063	(373,707)	(299,644)	(222,461)
Omani Rial	(5,062)	—	(5,080)	(5,080)	(1,384)
Peruvian Sol	(7,021)	29,602	(36,632)	(7,030)	(3,454)
Philippine Peso	3,390	7,657	(4,216)	3,441	(8,199)
Polish Zloty	15,936	25,206	(9,105)	16,101	7,160
Romanian Leu	(4,388)	5,154	(9,591)	(4,437)	(9,681)
Russian Ruble (New)	(10,663)	11,793	(22,852)	(11,059)	12,888
Saudi Arabia Riyal	1	1,373	(1,373)	—	(1,373)
Singapore Dollar	(318,065)	29,061	(349,629)	(320,568)	(253,348)
South African Rand	(20,044)	20,844	(41,127)	(20,283)	(21,367)
South Korean Won	(17,579)	6,619	(24,399)	(17,780)	(5,234)
Swedish Krona	(88,869)	196,733	(283,915)	(87,182)	(289,244)
Swiss Franc	(256,704)	79,773	(335,051)	(255,278)	(266,256)
Thai Baht	8,519	20,052	(11,104)	8,948	23,590
Turkish Lira	4,578	10,923	(6,205)	4,718	30,073
Ukrainian Hryvnia	1,035	5,798	(4,618)	1,180	—
U.S. Dollar	4,582,297	7,371,710	(2,789,413)	4,582,297	4,992,352
Total Forwards Subject to Foreign Currency Risk				<u>\$ 6,242</u>	<u>\$ 24,389</u>

Options Contracts

Options may be either exchange-traded or negotiated directly between two counterparties over the counter. Options grant the holder the right, but not the obligation, to purchase (call) or sell (put) a financial instrument at a specified price and within a specified period of time from the writer of the option.

As a purchaser of options, the System typically pays a premium at the outset. This premium is reflected as an asset on the financial statements. The System then retains the right, but not the obligation, to exercise the options and purchase the underlying financial instrument. Should the option not be exercised, it expires worthless, and the premium is recorded as a loss.

A writer of options assumes the obligation to deliver or receive the underlying financial instrument on exercise of the option. Certain option contracts may involve cash settlements based on specified indexes such as stock indexes. As a writer of options, the System receives a premium at the outset. This premium is reflected as a liability on the financial statements, and the System bears the risk of an unfavorable change in the price of the financial instrument underlying the option. Information on the System's investments in foreign currency options as of June 30, 2019, is shown in the Summary table on page 123.

Swap Agreements

Swaps are negotiated contracts between two counterparties for the exchange of payments at certain intervals over a predetermined timeframe. The payments are based on a notional principal amount and calculated using either fixed or floating interest rates or total returns from certain instruments or indexes. Swaps are used to manage risk and enhance returns. To reduce the risk of counterparty nonperformance, the System generally requires collateral on any material gains from these transactions. During fiscal year 2019, the System had activity in credit default, foreign currency, interest rate and total return swaps. Gains and losses on swaps are determined based on fair values and are recorded in the Statement of Changes in Fiduciary Net Position. Information on the System's swap balances as of June 30, 2019, is shown in the Summary table on page 123, and the terms, fair values and notional values of the System's investments in swap agreements that are highly sensitive to interest rate changes are disclosed in the following tables (dollars in thousands).

Derivatives Instruments Highly Sensitive to Interest Rate Changes

Investment Type	Reference Rate	Fair Value June 30, 2019	Notional Amount
Foreign Currency Swaps	Receive Fixed Turkish Lira 20.79%, Pay Variable 3-month LIBOR USD	\$ 403	\$ 403
Foreign Currency Swaps	Receive Fixed Turkish Lira 22.38%, Pay Variable 3-month LIBOR USD	2,696	2,696
Foreign Currency Swaps	Receive Variable 3-month LIBOR USD, Pay Fixed Turkish Lira 23.67%	—	1,455
Subtotal Foreign Currency Swaps		3,099	4,554

Investment Type	Reference Rate	Fair Value June 30, 2019	Notional Amount
Interest Rate Swaps	Receive Fixed 1.81%, Pay Variable Israel 3-month TELBOR	220	5,271
Interest Rate Swaps	Receive Variable Israel 3-month TELBOR, Pay Fixed 0.26%	2	27,618
Interest Rate Swaps	Receive Fixed 1.05%, Pay Variable Israel 3-month TELBOR	81	5,271
Interest Rate Swaps	Receive Fixed 7.407%, Pay Variable 28-day MTIIE	14	1,827
Interest Rate Swaps	Receive Fixed 8.58%, Pay Variable 28-day MTIIE	34	2,866
Interest Rate Swaps	Receive Fixed 8.83%, Pay Variable 28-day MTIIE	75	4,996
Interest Rate Swaps	Receive Fixed 8.67%, Pay Variable 28-day MTIIE	32	2,477
Interest Rate Swaps	Receive Fixed 7.97%, Pay Variable 28-day MTIIE	33	5,742
Interest Rate Swaps	Receive Fixed 7.51%, Pay Variable 28-day MTIIE	27	7,696
Interest Rate Swaps	Receive Variable Chilean Peso 1-day CLICP, Pay Fixed 3.95%	(54)	898
Interest Rate Swaps	Receive Variable Chilean Peso 1-day CLICP, Pay Fixed 3.95%	(54)	898
Interest Rate Swaps	Receive Fixed 5.17%, Pay Variable 1-day Colombia IBR	19	692
Interest Rate Swaps	Receive Fixed 5.83%, Pay Variable 1-day Colombia IBR	54	1,165
Interest Rate Swaps	Receive Fixed 7.42%, Pay Variable Brazil 1-day CDI	122	6,001
Interest Rate Swaps	Receive Fixed 7.71%, Pay Variable Brazil 1-day CDI	21	776
Interest Rate Swaps	Receive Fixed 7.265%, Pay Variable Brazil 1-day CDI	—	879
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 6.25%	(42)	42,425
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 6.93%	—	14,507
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 7.05%	(7)	444
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 8.635%	(526)	8,923
Interest Rate Swaps	Receive Fixed 6.26%, Pay Variable Brazil 1-day CDI	—	2,192
Interest Rate Swaps	Receive Fixed 6.93%, Pay Variable Brazil 1-day CDI	7	470
Interest Rate Swaps	Receive Fixed 7.42%, Pay Variable Brazil 1-day CDI	161	6,601
Interest Rate Swaps	Receive Fixed 7.48%, Pay Variable Brazil 1-day CDI	69	3,575
Interest Rate Swaps	Receive Fixed 7.80%, Pay Variable Brazil 1-day CDI	109	4,357
Interest Rate Swaps	Receive Fixed 8.64%, Pay Variable Brazil 1-day CDI	141	2,374
Interest Rate Swaps	Receive Fixed 1.50%, Pay Variable Czech Krona 6-month PRIBOR	(123)	18,350
Interest Rate Swaps	Receive Fixed 2.00%, Pay Variable Czech Krona 6-month PRIBOR	(136)	3,983
Interest Rate Swaps	Receive Fixed 1.78%, Pay Variable Czech Krona 6-month PRIBOR	8	2,014
Interest Rate Swaps	Receive Fixed 2.25%, Pay Variable Czech Krona 6-month PRIBOR	185	34,485
Interest Rate Swaps	Receive Fixed 2.25%, Pay Variable 6-month Hungary BUBOR	322	6,457
Interest Rate Swaps	Receive Fixed 2.00%, Pay Variable 6-month Hungary BUBOR	141	3,503
Interest Rate Swaps	Receive Fixed 1.20%, Pay Variable 6-month Hungary BUBOR	155	13,086
Interest Rate Swaps	Receive Fixed 8.32%, Pay Variable 28-day MTIIE	142	2,655
Interest Rate Swaps	Receive Fixed 6.71%, Pay Variable 28-day MTIIE	(147)	2,275
Interest Rate Swaps	Receive Fixed 8.28%, Pay Variable 28-day MTIIE	59	1,291
Interest Rate Swaps	Receive Fixed 8.31%, Pay Variable 28-day MTIIE	140	2,858
Interest Rate Swaps	Receive Fixed 8.01%, Pay Variable 28-day MTIIE	157	4,778
Interest Rate Swaps	Receive Fixed 8.34%, Pay Variable 28-day MTIIE	46	1,166
Interest Rate Swaps	Receive Fixed 8.81%, Pay Variable 28-day MTIIE	817	14,090
Interest Rate Swaps	Receive Fixed 8.80%, Pay Variable 28-day MTIIE	334	5,731
Interest Rate Swaps	Receive Fixed 8.97%, Pay Variable 28-day MTIIE	363	5,606
Interest Rate Swaps	Receive Fixed 8.61%, Pay Variable 28-day MTIIE	217	2,863
Interest Rate Swaps	Receive Fixed 8.00%, Pay Variable 28-day MTIIE	429	12,690
Interest Rate Swaps	Receive Fixed 7.99%, Pay Variable 28-day MTIIE	53	1,598
Interest Rate Swaps	Receive Fixed 8.24%, Pay Variable 28-day MTIIE	103	2,082
Interest Rate Swaps	Receive Fixed 8.54%, Pay Variable 28-day MTIIE	103	1,400
Interest Rate Swaps	Receive Fixed 8.38%, Pay Variable 28-day MTIIE	24	8,151
Interest Rate Swaps	Receive Fixed 7.68%, Pay Variable 28-day MTIIE	13	1,624
Interest Rate Swaps	Receive Fixed 7.89%, Pay Variable 28-day MTIIE	5	2,103
Interest Rate Swaps	Receive Fixed 2.25%, Pay Variable Poland 6-month WIBOR	(165)	37,005
Interest Rate Swaps	Receive Fixed 3.25%, Pay Variable Poland 6-month WIBOR	108	1,126
Interest Rate Swaps	Receive Fixed 3.00%, Pay Variable Poland 6-month WIBOR	14	188
Interest Rate Swaps	Receive Fixed 2.25%, Pay Variable Poland 6-month WIBOR	112	6,194
Interest Rate Swaps	Receive Fixed 2.25%, Pay Variable Poland 6-month WIBOR	44	2,387
Interest Rate Swaps	Receive Fixed 2.00%, Pay Variable Poland 6-month WIBOR	98	14,695
Interest Rate Swaps	Receive Fixed 1.50%, Pay Variable 3-month LIBOR	(192)	6,700
Interest Rate Swaps	Receive Fixed 1.75%, Pay Variable 3-month LIBOR	(259)	2,500
Interest Rate Swaps	Receive Fixed 2.50%, Pay Variable 3-month LIBOR	17	290
Interest Rate Swaps	Receive Fixed 3.00%, Pay Variable 3-month LIBOR	124	1,350

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Derivatives Instruments Highly Sensitive to Interest Rate Changes
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Investment Type	Reference Rate	Fair Value June 30, 2019	Notional Amount
Interest Rate Swaps	Receive Fixed 3.00%, Pay Variable 3-month LIBOR	278	4,710
Interest Rate Swaps	Receive Fixed 7.75%, Pay Variable 3-month JIBAR	60	4,829
Interest Rate Swaps	Receive Fixed 7.25%, Pay Variable 3-month JIBAR	11	915
Interest Rate Swaps	Receive Fixed 8.75%, Pay Variable 3-month JIBAR	298	3,936
Interest Rate Swaps	Receive Variable Czech Krona 6-month PRIBOR, Pay Fixed 2.00%	(28)	1,244
Interest Rate Swaps	Receive Variable 6-month Hungary BUBOR, Pay Fixed 1.25%	(84)	9,765
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 9.05%	(1,205)	11,384
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 9.21%	(138)	1,171
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 9.08%	(383)	3,529
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 9.09%	(231)	2,113
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 8.55%	(150)	2,092
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 8.54%	(122)	1,718
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 8.43%	(123)	1,952
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 8.49%	(22)	1,905
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 7.73%	(286)	19,202
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 7.75%	(125)	8,016
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 7.9%	(71)	2,800
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 8.26%	(14)	8,151
Interest Rate Swaps	Receive Variable Poland 6-month WIBOR, Pay Fixed 1.94%	(13)	3,003
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.75%	(256)	5,930
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 3.00%	(461)	49,960
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 9.50%	(101)	844
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 8.50%	(28)	440
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 8.25%	(1)	28
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 7.75%	(87)	2,908
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 7.52%	(36)	1,752
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 8.00%	(36)	1,610
Interest Rate Swaps	Receive Fixed 12.25%, Pay Variable Brazil 1-day CDI	312	1,696
Interest Rate Swaps	Receive Fixed 9.76%, Pay Variable Brazil 1-day CDI	203	2,087
Interest Rate Swaps	Receive Fixed 10.30%, Pay Variable Brazil 1-day CDI	190	1,670
Interest Rate Swaps	Receive Fixed 9.98%, Pay Variable Brazil 1-day CDI	223	4,253
Interest Rate Swaps	Receive Fixed 10.33%, Pay Variable Brazil 1-day CDI	1,309	11,402
Interest Rate Swaps	Receive Fixed 9.60%, Pay Variable Brazil 1-day CDI	453	4,696
Interest Rate Swaps	Receive Fixed 11.35%, Pay Variable Brazil 1-day CDI	122	783
Interest Rate Swaps	Receive Fixed 8.79%, Pay Variable Brazil 1-day CDI	481	12,785
Interest Rate Swaps	Receive Fixed 10.30%, Pay Variable Brazil 1-day CDI	32	261
Interest Rate Swaps	Receive Fixed 6.80%, Pay Variable Brazil 1-day CDI	(1)	5,323
Interest Rate Swaps	Receive Fixed 7.83%, Pay Variable Brazil 1-day CDI	332	12,994
Interest Rate Swaps	Receive Fixed 7.19%, Pay Variable Brazil 1-day CDI	28	1,383
Interest Rate Swaps	Receive Fixed 7.22%, Pay Variable Brazil 1-day CDI	25	1,435
Interest Rate Swaps	Receive Fixed 7.18%, Pay Variable Brazil 1-day CDI	14	809
Interest Rate Swaps	Receive Fixed 7.21%, Pay Variable Brazil 1-day CDI	132	7,514
Interest Rate Swaps	Receive Fixed 7.22%, Pay Variable Brazil 1-day CDI	41	2,322
Interest Rate Swaps	Receive Fixed 8.48%, Pay Variable Brazil 1-day CDI	170	3,157
Interest Rate Swaps	Receive Fixed 8.68%, Pay Variable Brazil 1-day CDI	351	5,792
Interest Rate Swaps	Receive Fixed 6.92%, Pay Variable Brazil 1-day CDI	80	5,792
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 9.64%	(71)	4,227
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 10.46%	(601)	4,723
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 7.06%	(40)	8,375
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 9.97%	(37)	720
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 11.03%	(140)	1,252
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 10.42%	(848)	8,689
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 10.09%	(323)	2,844
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 8.70%	(221)	3,575
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 6.98%	(103)	6,993
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 6.86%	(278)	21,265
Interest Rate Swaps	Receive Variable Brazil 1-day CDI, Pay Fixed 6.4075%	29	119,656
Interest Rate Swaps	Receive Fixed 12.23%, Pay Variable Brazil 1-day CDI	(49)	626
Interest Rate Swaps	Receive Fixed 7.53%, Pay Variable 28-day MTIIE	25	3,308
Interest Rate Swaps	Receive Fixed 8.71%, Pay Variable 28-day MTIIE	14	1,084
Interest Rate Swaps	Receive Fixed 8.71%, Pay Variable 28-day MTIIE	23	1,806
Interest Rate Swaps	Receive Variable 28-day MTIIE, Pay Fixed 5.25%	(4)	573
Interest Rate Swaps	Receive Fixed 3.41%, Pay Variable 6-month Thai Baht fixing rate	5	163

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Derivatives Instruments Highly Sensitive to Interest Rate Changes
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Investment Type	Reference Rate	Fair Value June 30, 2019	Notional Amount
Interest Rate Swaps	Receive Fixed 3.41%, Pay Variable 6-month Thai Baht fixing rate	5	163
Interest Rate Swaps	Receive Fixed 5.29%, Pay Variable 1-day Colombia IBR	3	1,257
Interest Rate Swaps	Receive Fixed 6.12%, Pay Variable 1-day Colombia IBR	53	742
Interest Rate Swaps	Receive Fixed 5.00%, Pay Variable 28-day MTIE	(10)	994
Interest Rate Swaps	Receive Fixed 2.58%, Pay Variable 6-month Thai Baht fixing rate	17	372
Interest Rate Swaps	Receive Fixed 5.32%, Pay Variable 1-day Colombia IBR	2	187
Interest Rate Swaps	Receive Fixed 2.02%, Pay Variable 6-month Thai Baht fixing rate	3	620
Interest Rate Swaps	Receive Fixed 2.58%, Pay Variable 6-month Thai Baht fixing rate	25	496
Interest Rate Swaps	Receive Fixed 1.93%, Pay Variable 6-month Thai Baht fixing rate	8	1,271
Interest Rate Swaps	Receive Variable Israel 3-month TELBOR, Pay Fixed 0.26%	1	34,515
Interest Rate Swaps	Receive Fixed 1.81%, Pay Variable Israel 3-month TELBOR	100	2,383
Interest Rate Swaps	Receive Variable 1-day Colombia IBR, Pay Fixed 4.65%	(12)	3,060
Interest Rate Swaps	Receive Fixed 4.95%, Pay Variable 1-day Colombia IBR	31	2,085
Interest Rate Swaps	Receive Fixed 4.81%, Pay Variable 1-day Colombia IBR	292	22,509
Interest Rate Swaps	Receive Variable 1-day Colombia IBR, Pay Fixed 4.89%	(282)	19,021
Interest Rate Swaps	Receive Variable Israel 3-month TELBOR, Pay Fixed 0.59%	(20)	6,028
Interest Rate Swaps	Receive Fixed 5.83%, Pay Variable 1-day Colombia IBR	4	98
Interest Rate Swaps	Receive Fixed 1.92%, Pay Variable 6-month Thai Baht fixing rate	8	740
Interest Rate Swaps	Receive Fixed 5.88%, Pay Variable 1-day Colombia IBR	47	945
Interest Rate Swaps	Receive Fixed 7.97%, Pay Variable 28-day MTIE	6	1,139
Interest Rate Swaps	Receive Fixed 3.54%, Pay Variable Chilean Peso 6-month CLICP	124	3,913
Interest Rate Swaps	Receive Variable Malaysian Ringgit 3-month KLIBOR, Pay Fixed 3.77%	(33)	3,097
Interest Rate Swaps	Receive Variable Malaysian Ringgit 3-month KLIBOR, Pay Fixed 3.74%	(10)	968
Interest Rate Swaps	Receive Variable Malaysian Ringgit 3-month KLIBOR, Pay Fixed 3.76%	(18)	1,694
Interest Rate Swaps	Receive Variable Chilean Peso 6-month CLICP, Pay Fixed 3.57%	(8)	220
Interest Rate Swaps	Receive Fixed 3.54%, Pay Variable Chilean Peso 6-month CLICP	50	1,462
Interest Rate Swaps	Receive Variable Israel 3-month TELBOR, Pay Fixed 0.22%	9	35,553
Interest Rate Swaps	Receive Fixed 1.72%, Pay Variable Israel 3-month TELBOR	217	6,421
Interest Rate Swaps	Receive Fixed 4.96%, Pay Variable 1-day Colombia IBR	288	19,021
Interest Rate Swaps	Receive Variable 1-day Colombia IBR, Pay Fixed 4.64%	(85)	8,450
Interest Rate Swaps	Receive Variable 1-day Colombia IBR, Pay Fixed 4.65%	(131)	12,957
Interest Rate Swaps	Receive Fixed 6.57%, Pay Variable 1-day Colombia IBR	216	1,965
Interest Rate Swaps	Receive Fixed 4.28%, Pay Variable Chilean Peso 6-month CLICP	112	1,321
Interest Rate Swaps	Receive Fixed 5.31%, Pay Variable 1-day Colombia IBR	105	2,908
Interest Rate Swaps	Receive Fixed 2.10%, Pay Variable 6-month Thai Baht fixing rate	57	4,187
Interest Rate Swaps	Receive Fixed 4.04%, Pay Variable Chilean Peso 6-month CLICP	210	3,210
Interest Rate Swaps	Receive Fixed 0.97%, Pay Variable Israel 3-month TELBOR	62	5,524
Interest Rate Swaps	Receive Variable Israel 3-month TELBOR, Pay Fixed 0.45%	(11)	6,897
Interest Rate Swaps	Receive Variable 1-day Colombia IBR, Pay Fixed 4.49%	(299)	9,355
Interest Rate Swaps	Receive Fixed 5.83%, Pay Variable 1-day Colombia IBR	462	9,978
Interest Rate Swaps	Receive Fixed 1.94%, Pay Variable 6-month Thai Baht fixing rate	12	1,043
Interest Rate Swaps	Receive Fixed 2.18%, Pay Variable 6-month Thai Baht fixing rate	1	46
Interest Rate Swaps	Receive Variable Israel 3-month TELBOR, Pay Fixed 0.95%	(50)	5,215
Interest Rate Swaps	Receive Variable Israel 3-month TELBOR, Pay Fixed 0.96%	(52)	5,159
Interest Rate Swaps	Receive Fixed 3.33%, Pay Variable Malaysian Ringgit 3-month KLIBOR	(1)	653
Interest Rate Swaps	Receive Variable 1-day Colombia IBR, Pay Fixed 4.88%	(62)	4,303
Interest Rate Swaps	Receive Fixed 3.27%, Pay Variable Chilean Peso 6-month CLICP	(2)	1,053
Interest Rate Swaps	Receive Fixed 6.2%, Pay Variable 1-day Colombia IBR	16	221
Interest Rate Swaps	Receive Fixed 2.505%, Pay Variable 6-month Thai Baht fixing rate	23	525
Interest Rate Swaps	Receive Fixed 2.04%, Pay Variable 6-month Thai Baht fixing rate	14	2,446
Interest Rate Swaps	Receive Fixed 2.55%, Pay Variable 6-month Thai Baht fixing rate	55	1,011
Interest Rate Swaps	Receive Fixed 1.99%, Pay Variable 6-month Thai Baht fixing rate	86	6,564
Interest Rate Swaps	Receive Fixed 1.18%, Pay Variable Israel 3-month TELBOR	33	1,542
Interest Rate Swaps	Receive Variable 6-month Thai Baht fixing rate, Pay Fixed 2.1%	(15)	760
Interest Rate Swaps	Receive Fixed 2.20%, Pay Variable 6-month Thai Baht fixing rate	10	346
Interest Rate Swaps	Receive Fixed 1.93%, Pay Variable 6-month Thai Baht fixing rate	1	108
Interest Rate Swaps	Receive Fixed 1.84%, Pay Variable 6-month Thai Baht fixing rate	3	920
Interest Rate Swaps	Receive Fixed 1.96%, Pay Variable 6-month Thai Baht fixing rate	6	854
Subtotal Interest Rate Swaps		4,049	1,090,650

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Derivatives Instruments Highly Sensitive to Interest Rate Changes
(Continued from previous page)

Investment Type	Reference Rate	Fair Value June 30, 2019	Notional Amount
Total Return Bond Index Swaps	Receive Variable IBOXHY Index/ Pay Variable 3-month LIBOR	418	30,522
Total Return Bond Index Swaps	Receive Variable Barclays Capital US Aggregate Index/ Pay Variable 1-month LIBOR + 15 bps	531	50,000
Total Return Equity Index Swaps	Receive Variable BCMSIMHC Index/ Pay Variable 3-month LIBOR + 16 bps	122	2,385
Total Return Equity Index Swaps	Receive Variable BCMSIMHC Index/ Pay Variable 3-month LIBOR + 16 bps	181	4,114
Total Return Equity Index Swaps	Receive Variable MSCI ACWI IMI Index/ Pay Variable 3-month LIBOR + 31.7 bps	3,178	155
Total Return Equity Index Swaps	Receive Variable MSCI ACWI IMI Index/ Pay Variable 3-month LIBOR + 31.7 bps	805	39
Total Return Equity Index Swaps	Receive Variable MSCI ACWI IMI Index/ Pay Variable 3-month LIBOR + 31.7 bps	1,140	56
Total Return Equity Index Swaps	Receive Variable MSCI ACWI IMI Index/ Pay Variable 3-month LIBOR + 31.7 bps	596	29
Total Return Equity Index Swaps	Receive Variable MSCI ACWI IMI Index/ Pay Variable 3-month LIBOR + 31.7 bps	370	18
Total Return Equity Index Swaps	Receive Variable MIMUJPN Index/ Pay Variable 3-month LIBOR + 8 bps	6	13,757
Total Return Equity Index Swaps	Receive Variable MIMUUKGN Index/ Pay Variable 3-month LIBOR + 10 bps	9	9,910
Total Return Equity Index Swaps	Receive Variable MIMUUSAG Index/ Pay Variable 3-month LIBOR + 10 bps	299	8,866
Total Return Equity Index Swaps	Receive Variable NDUEEGF Index/ Pay Variable 3-month LIBOR + 6 bps	(7)	19,997
Total Return Equity Index Swaps	Receive Variable MIMUUSAG Index/ Pay Variable 3-month LIBOR + 23 bps	—	8,866
Total Return Equity Index Swaps	Receive Variable NDUEEGF Index/ Pay Variable 3-month LIBOR + 17 bps	—	19,997
Total Return Equity Index Swaps	Receive Variable MIMUUKGN Index/ Pay Variable 3-month LIBOR + 20 bps	—	9,910
Total Return Equity Index Swaps	Receive Variable MIMUJPN Index/ Pay Variable 3-month LIBOR - 15 bps	—	13,757
Subtotal Total Return Swaps		7,648	192,378
TOTAL		\$ 14,796	\$ 1,287,582

Derivative Instruments Subject to Counterparty Credit Risk

Counterparty	Percentage of Net	Moody's Ratings	S & P Ratings	Fitch Ratings
Goldman Sachs International	39.2%	A1	A+	A
Goldman Sachs Bank USA/New York NY	17.7%	A1	A+	A+
Barclays Bank PLC	12.8%	A2	A	A+
Deutsche Bank AG/London	10.3%	—	BBB+	BBB
Morgan Stanley Capital Services LLC	8.7%	A1	A+	—
Chicago Mercantile Exchange Inc.	5.5%	—	—	—
HSBC Bank USA NA/New York NY	3.6%	Aa2	AA-	AA-
Morgan Stanley & Co International PLC	1.3%	A1	A+	—
HSBC Securities Inc.	0.6%	—	AA-	—
Barclays Capital, Inc.	0.1%	—	A	—
Citigroup Global Markets Ltd.	0.1%	A1	A+	A
Citibank NA	0.1%	Aa3	A+	A+
Total	100.0%			

Derivative instruments are classified as Level 1 and Level 2 in the fair value hierarchy. Derivative instruments classified as Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. The derivative instruments in Level 1 consist of futures contracts on commodities, eurodollars, U.S. Treasury bonds and notes, non-U.S. government bonds, and U.S. and non-U.S. equity indexes. Derivative instruments classified as Level 2 of the fair value hierarchy are valued using a number of modeling approaches that take into account observable market levels, benchmark rates, and foreign exchange rates.

Additional information is available in the System's separately issued financial statements, which may be obtained from www.varetire.org.

Component Units

Investment Derivative Instruments

The Virginia Housing Development Authority (major component unit) enters into forward sales contracts for the delivery of GNMA and FNMA securities in order to lock in the sales price for the securitization of certain single-family mortgage loans. The contracts offset changes in interest rates between the time of the loan reservations and the securitization of such loans into GNMA and FNMA securities. These contracts are considered investment derivative instruments, such that their change in fair value is reported as investment derivative gains or losses in the accompanying financial statements. Fair values of the forwards are based on observable market prices for similar instruments traded on the secondary mortgage loan markets. The Authority's portfolio of investment derivatives is classified as Level 2 in the fair value hierarchy. The outstanding forward contracts, summarized by counterparty rating as of June 30, 2019, were as follows:

Counterparty Rating	Par	Concentration	Notional Amount	Market Value	Fair Value Asset (Liability)
A-1+/AA+	\$ 154,000,000	36.4%	\$ 158,107,305	\$ 158,738,438	\$ (631,133)
A-1/A+	135,500,000	32.0%	139,088,301	139,985,078	(896,777)
A-1/A+	92,000,000	21.7%	94,262,344	94,756,406	(494,062)
A-1/A	16,000,000	3.8%	16,347,969	16,393,750	(45,781)
Baa2/BBB	26,000,000	6.1%	26,733,594	26,884,063	(150,469)
	<u>\$ 423,500,000</u>	<u>100.0%</u>	<u>\$ 434,539,513</u>	<u>\$ 436,757,735</u>	<u>\$ (2,218,222)</u>

Investment Derivative Instruments – Ineffective Hedges

During fiscal year 2015, the University of Virginia (UVA) (nonmajor) refunded the Series 2003A bonds and the commercial paper associated with the fixed-payer interest rate swaps which terminated hedge accounting. The fixed-payer interest rate swaps were no longer effective hedges. As of June 30, 2019, the negative fair value of the swaps of \$35.1 million is included in other liabilities and the change in fair value of negative \$9.9 million was reported as investment earnings in the accompanying financial statements. During fiscal year 2015, UVA established two fixed-receiver interest rate swaps with a total notional amount of \$128.0 million to provide a hedge against fixed interest rates on Series 2015B bonds. These swaps were reevaluated as of June 30, 2016, and determined to no longer be effective hedges. As of June 30, 2019, the positive fair value of the fixed-receiver interest rate swaps of \$140,265 is included in other assets and the change in fair value of positive \$2.9 million is included

in investment earnings in the accompanying financial statements. The derivative instruments are classified as Level 2 of the fair value hierarchy. Additional information regarding the institution's derivative instruments is available at www.virginia.edu.

Hedging Derivative Instruments

At the beginning of the fiscal year, the Virginia Commonwealth University (VCU) (nonmajor) had two fixed-payer interest rate swaps with a notional amount of \$51.8 million, which declines to \$4.8 million at the termination date of November 1, 2030. The swaps were used as cash flow hedges by VCU in order to provide a hedge against changes in interest rates on a similar amount of VCU variable rate debt. The fair value of the swaps was calculated by Deutsche Bank using undisclosed proprietary methods. The swaps were entered into at a zero market value and no payments were made or received when they were initiated. In November 2018, VCU refunded its Series 2012A and 2012B bonds associated with the two fixed-payer interest rate swaps. At that time, the hedging relationship between the interest rate swap agreement and the bonds were terminated. At the time of termination, the fair market value of the swaps was \$4.2 million. New bonds were issued to finance the termination payments of the two interest rate swaps associated with these bonds.

As of June 30, 2019 the Medical College of Virginia Hospitals (MCVH), which is a division of the Virginia Commonwealth University Health System Authority (a blended component unit of VCU), had two interest rate swap agreements with a notional amount of \$115.8 million and another interest rate swap agreement with a notional amount of \$61.3 million. The swaps are used as cash flow hedges by MCVH in order to provide a hedge against changes in interest rates on variable rate Series 2013A and 2013B bonds. The Series 2013A and 2013B bonds refunded prior Series 2005 and 2008 bonds that resulted in the termination of the prior hedging relationship between the interest rate swaps and the Series 2005 and 2008 bonds. At the time of the refunding in June 2013, the accumulated change in fair value of the interest rate swaps was negative \$42.1 million and was included in the calculation of the deferred loss on refunding. There was also a reestablishment of hedge accounting on the new debt. As of June 30, 2019, the negative fair value of MCVH's swaps of \$45.2 million is included in other liabilities and the cumulative change in fair value of MCVH's swaps of \$3.1 million is included in deferred outflows of resources in the accompanying financial statements. The derivative instruments are classified as Level 2 of the fair value hierarchy. Additional information is available in the separately issued financial statements of the higher education institution.

Various foundations of higher education institutions have derivative instruments. The foundations follow FASB rather than GASB reporting requirements. Disclosures for the foundations' derivatives can be found in the separately issued financial statements of the foundations.

17. RETIREMENT AND PENSION SYSTEMS

A separately issued financial report that includes financial statements and required supplemental information for each of the individual plans discussed below is publicly available. Copies may be obtained from the Virginia Retirement System website at www.varetire.org.

A. Administration

The Virginia Retirement System (the System) is an independent agency of the Commonwealth that administers pension plans, other employee benefit plans, and other funds for Commonwealth employees, teachers, political subdivision employees, and other qualifying employees. The Board of Trustees is responsible for the general administration and operation of the plans. The Board consists of five members appointed by the Governor and four members appointed by the Joint Rules Committee, all subject to confirmation by the General Assembly. The Board of Trustees appoints a director to serve as the chief administrative officer of the System and a chief investment officer to direct, manage, and administer the investment of the System's funds. The Board of Trustees has appointed BNY Mellon as the custodian of designated assets of the System.

The System administers four pension trust funds: the Virginia Retirement System (VRS); State Police Officers' Retirement System (SPORS); Virginia Law Officers' Retirement System (VaLORS); and the Judicial Retirement System (JRS). In addition to the pension plans, the System administers five Other Employee Benefit Plans: Group Life Insurance Fund; Retiree Health Insurance Credit Fund; the Virginia Sickness and Disability Program (VSDP); the Line of Duty Act Trust Fund; and the Virginia Local Disability Program (VLDP).

B. Summary of Significant Accounting Policies (Virginia Retirement System)

Basis of Accounting

The financial statements of the pension and other employee benefit trust funds are prepared using the flow of economic resources measurement focus and the accrual basis of accounting consistent with the plans. Employee and employer contributions are recognized when due, pursuant to formal commitments, as well as statutory or contractual requirements. Investment income is recognized as earned by the plans. Benefits and refunds are recognized when due and payable in accordance with the terms of the plans.

Method Used to Value Investments

Investments are reported at fair value as determined by the System's master custodian, BNY Mellon, from its Global Pricing System. This pricing system assigns a price source, based on asset type and the vendor pricing products to which the master custodian subscribes, for every security held immediately following its acquisition. Prices supplied by these sources are monitored on a daily basis by the master custodian.

When a pricing source is unable to provide a price, quotes are sought from major investment brokers and market-making dealers; or internal calculations are applied if feasible. As a last resort, the master custodian will contact investment managers for a price. The master custodian prices commingled funds, partnerships, and real estate assets from statements received from the funds, partnerships, or investment managers.

The pricing sources utilized by the master custodian provide daily prices for equity securities, corporate, government and mortgage-backed fixed income securities, private placement securities, futures and options on futures, open-ended funds, and foreign exchange rates. Depending on the vendor, collateralized mortgage obligations (CMOs), adjustable rate mortgages (ARMs) and asset-backed securities are priced daily, weekly or twice a month and at month-end. Municipal fixed income securities and options on Treasury/Government National Mortgage Association securities are priced at month-end.

The System's investment guidelines for each specific portfolio limits investments in any corporate entity to no more than 5.0 percent of the market value of the account for both the internally and externally managed portfolios. There is no concentration of investments in any one organization that represents 5.0 percent or more of plan net position available for benefits.

C. Plan Description

The Virginia Retirement System (VRS) is a qualified governmental retirement plan that administers three retirement benefit structures: Plan 1, Plan 2, and Hybrid Plan, for state employees, public school board employees, employees of participating political subdivisions, and other qualifying employees. VRS is a combination of mixed-agent and cost-sharing, multiple-employer retirement plans. Each plan's accumulated assets may legally be used to pay all the plan benefits provided to any of the plan's members, retirees, and beneficiaries. Contributions for fiscal year 2019 were \$3.4 billion with a reserve balance available for benefits of \$77.4 billion. As of June 30, 2019, the VRS had 833 contributing employers.

The Commonwealth also administers the following single-employer retirement plans and benefit structures:

- State Police Officers' Retirement System (SPORS) – Plan 1 and Plan 2
- Virginia Law Officers' Retirement System (VaLORS) – Plan 1 and Plan 2
- Judicial Retirement System (JRS) – Plan 1, Plan 2, and Hybrid Plan

All full-time, salaried permanent employees of VRS participating employers are automatically covered under VRS, SPORS, VaLORS or JRS with the following exceptions: (1) certain full-time faculty and administrative staff of public colleges and universities; and (2) eligible classified employees of the two state teaching hospitals. These employees have the option to elect not to participate in the Virginia Retirement

System. Benefit provisions and all other requirements are established by Title 51.1 of the *Code of Virginia*.

Benefits vest for all plans after five years of service credit. Vested VRS members in the VRS Plan 1 are eligible for an unreduced retirement benefit at age 65 with at least five years of service credit or age 50 with at least 30 years of service credit as elected by the employer. Vested VRS members in the VRS Plan 2 and the Hybrid Plan are eligible for unreduced retirement benefits at normal social security retirement age with at least five years of service credit or when age and service credit equal 90. Vested SPORS and VaLORS members in both the VRS Plan 1 and the VRS Plan 2 are eligible for an unreduced benefit at age 60 with at least five years of hazardous duty service credit or age 50 with at least 25 years of total service credit.

Annual retirement benefits are payable monthly for life in an amount equal to 1.7 percent of eligible members' average final compensation (AFC) for each year of service credit. Under the VRS Plan 2, the multiplier for general employees was reduced to 1.65 percent beginning January 1, 2013. Under the Hybrid Plan, the multiplier for the defined benefit component is 1.0 percent. AFC is the average of the member's 36 consecutive months of highest creditable compensation for members under the VRS Plan 1. Under the VRS Plan 2 and the Hybrid Plan, a member's AFC is the average of the member's 60 consecutive months of highest creditable compensation. The benefit for members of SPORS is calculated using a 1.85 percent multiplier. Members of SPORS also are eligible for a hazardous duty supplement, paid monthly, until they reach full Social Security retirement age.

Members of VaLORS hired before July 1, 2001, were allowed to make a one-time election to increase the multiplier from 1.7 to 2.0 percent instead of receiving a monthly hazardous duty supplement. VaLORS members who elected to retain the 1.7 percent multiplier are eligible for the supplement until age 65. Members of VaLORS hired after June 20, 2001, have their benefit computed using the 2.0 percent multiplier and are not eligible for the supplement.

Members of JRS receive weighted years of service credit for each year of actual service under JRS. VRS, SPORS, VaLORS, and JRS also provide death and disability benefits.

A cost-of-living allowance (COLA), based on changes in the Consumer Price Index and limited to 5.0 percent per year for VRS Plan 1 and 3.0 percent for VRS Plan 2 and Hybrid Plan, is granted on July 1 of the second calendar year after retirement and is effective each July 1 thereafter. Beginning January 2013, a member who retires with less than 20 years of service must receive an allowance for one full calendar year after reaching unreduced retirement age to be eligible for a COLA. Members within five years of eligibility for an unreduced benefit as of January 1, 2013 were grandfathered.

Benefits for all vested members are actuarially reduced if they retire before becoming eligible for an unreduced

retirement benefit, provided they meet age requirements for a reduced retirement benefit.

As required by Title 51.1 of the *Code of Virginia*, members contribute 5.0 percent of their annual compensation to the retirement plans. If a member leaves covered employment, the accumulated contributions plus earned interest may be refunded to the member. Each participating employer is required by state statute to contribute the remaining amounts necessary to fund the retirement plans using the entry age normal actuarial cost method adopted by the Board of Trustees. Contributions for fiscal year 2019 were \$37.8 million, \$27.5 million, and \$93.2 million, and reserved balances available for benefits were \$865.3 million, \$563.5 million, and \$1.5 billion, for SPORS, JRS, and VaLORS, respectively. State statute may be amended only by the General Assembly. To the extent that the employer's long-term obligation to provide pension benefits (total pension liability) is larger than the value of the assets available in the plan to pay these benefits (fiduciary net position), there is a net pension liability which is reported in the accompanying financial statements as a component of Long-term Liabilities Due in More than One Year.

Further information about the benefits provided in these retirement plans and their different benefit structures can be found in the Virginia Retirement System's Comprehensive Annual Financial Report.

The following table provides participant information.

	VRS	SPORS	VaLORS	JRS	2019 Total
Retirees and Beneficiaries					
Receiving Benefits	58,797	1,410	4,991	530	65,728
Terminated Employees					
Entitled to Benefits but not Receiving Them	11,707	143	771	7	12,628
Total	70,504	1,553	5,762	537	78,356
Active Members:					
Vested	52,123	1,579	4,806	348	58,856
Non-Vested	24,887	333	3,928	109	29,257
Total	77,010	1,912	8,734	457	88,113

D. Funding Policy

The funding policy of the retirement plans provides for periodic employer contributions at actuarially determined rates, which will remain relatively level over time as a percentage of payroll and will accumulate sufficient assets to meet the cost of all basic benefits when due. Contribution rates are developed using the entry age normal cost method for both normal cost and amortization of the unfunded actuarial accrued liability. Gains and losses are reflected in the unfunded actuarial accrued liability that is being amortized as a level percentage of payroll within 30 years or less.

The System's actuary, Cavanaugh MacDonald Consulting, LLC, computed the amount of contributions to be provided by state agency employers, state police and other Virginia law employers. The contribution rates

for fiscal year 2019 were based on the actuary's valuation as of June 30, 2017. Employer contributions by the Commonwealth to VRS, SPORS, VaLORS, and JRS were 13.5 percent, 24.9 percent, 21.6 percent, and 34.4 percent, respectively.

In addition to determining contribution requirements, the actuarial computations present an estimate of the discounted present value of the prospective accrued liability contributions that employers will have to pay in the future so that such contributions, together with the assets on hand, the normal contributions to be made in the future by employers and members and the income earned by investing funds, will be sufficient to provide all benefits to be paid to present members in the future as well as the annuitants and their designated beneficiaries.

E. Changes in Net Pension Liability

The total pension liability was determined based on the actuarial valuation as of June 30, 2017, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018. The following tables (dollars in thousands) show the Commonwealth's total pension liability, plan fiduciary net position, and net pension liability in total and individually for the VRS, SPORS, JRS, and VaLORS for the current and prior year.

Primary Government

	Totals (1)			VRS			SPORS		
	Increase (Decrease)			Increase (Decrease)			Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2018	\$ 16,625,511	\$ 12,407,133	\$ 4,218,378	\$ 13,091,321	\$ 9,861,078	\$ 3,230,243	\$ 1,047,402	\$ 796,073	\$ 251,329
Changes for the year									
Service cost	287,906	—	287,906	209,055	—	209,055	18,187	—	18,187
Interest	1,133,490	—	1,133,490	893,442	—	893,442	71,251	—	71,251
Differences between actual and expected experience	(228,970)	—	(228,970)	(181,988)	—	(181,988)	(7,248)	—	(7,248)
Assumption changes	—	—	—	—	—	—	—	—	—
Contributions - employer	—	436,385	(436,385)	—	304,802	(304,802)	—	35,806	(35,806)
Contributions - member	—	137,866	(137,866)	—	112,277	(112,277)	—	6,311	(6,311)
Net investment income	—	909,872	(909,872)	—	724,109	(724,109)	—	58,148	(58,148)
Benefit payments, including refunds	(902,389)	(911,179)	8,790	(696,805)	(706,944)	10,139	(59,064)	(59,064)	—
Administrative expense	—	(8,009)	8,009	—	(6,384)	6,384	—	(509)	509
Other changes	(78)	15,441	(15,519)	—	15,848	(15,848)	—	(63)	63
Net changes	289,959	580,376	(290,417)	223,704	443,708	(220,004)	23,126	40,629	(17,503)
Balances at June 30, 2019	\$ 16,915,470	\$ 12,987,509	\$ 3,927,961	\$ 13,315,025	\$ 10,304,786	\$ 3,010,239	\$ 1,070,528	\$ 836,702	\$ 233,826

	JRS			VaLORS		
	Increase (Decrease)			Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2018	\$ 646,275	\$ 512,749	\$ 133,526	\$ 1,840,435	\$ 1,237,158	\$ 603,277
Changes for the year						
Service cost	19,228	—	19,228	41,436	—	41,436
Interest	43,799	—	43,799	124,998	—	124,998
Differences between actual and expected experience	(15,786)	—	(15,786)	(23,948)	—	(23,948)
Assumption changes	—	—	—	—	—	—
Contributions - employer	—	28,096	(28,096)	—	67,681	(67,681)
Contributions - member	—	3,231	(3,231)	—	16,047	(16,047)
Net investment income	—	37,466	(37,466)	—	90,149	(90,149)
Benefit payments, including refunds	(41,165)	(41,165)	—	(105,355)	(104,006)	(1,349)
Administrative expense	—	(326)	326	—	(790)	790
Other changes	—	(42)	42	—	(227)	227
Net changes	6,076	27,260	(21,184)	37,131	68,854	(31,723)
Balances at June 30, 2019	<u>\$ 652,351</u>	<u>\$ 540,009</u>	<u>\$ 112,342</u>	<u>\$ 1,877,566</u>	<u>\$ 1,306,012</u>	<u>\$ 571,554</u>

Component Units

	Totals		
	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2018	\$ 10,687,840	\$ 8,037,539	\$ 2,650,301
Changes for the year			
Service cost	170,653	—	170,653
Interest	724,621	—	724,621
Differences between actual and expected experience	(147,464)	—	(147,464)
Assumption changes	—	—	—
Contributions - employer	—	249,468	(249,468)
Contributions - member	—	91,092	(91,092)
Net investment income	—	586,275	(586,275)
Benefit payments, including refunds	(635,259)	(626,469)	(8,790)
Administrative expense	—	(5,168)	5,168
Other changes	—	12,634	(12,634)
Net changes	112,551	307,832	(195,281)
Balances at June 30, 2019	<u>\$ 10,800,391</u>	<u>\$ 8,345,371</u>	<u>\$ 2,455,020</u>

	VRS			VaLORS		
	Increase (Decrease)			Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2018	\$ 10,526,091	\$ 7,928,810	\$ 2,597,281	\$ 161,749	\$ 108,729	\$ 53,020
Changes for the year						
Service cost	166,910	—	166,910	3,743	—	3,743
Interest	713,330	—	713,330	11,291	—	11,291
Differences between actual and expected experience	(145,301)	—	(145,301)	(2,163)	—	(2,163)
Assumption changes	—	—	—	—	—	—
Contributions - employer	—	243,356	(243,356)	—	6,112	(6,112)
Contributions - member	—	89,643	(89,643)	—	1,449	(1,449)
Net investment income	—	578,132	(578,132)	—	8,143	(8,143)
Benefit payments, including refunds	(630,234)	(620,095)	(10,139)	(5,025)	(6,374)	1,349
Administrative expense	—	(5,097)	5,097	—	(71)	71
Other changes	—	12,654	(12,654)	—	(20)	20
Net changes	104,705	298,593	(193,888)	7,846	9,239	(1,393)
Balances at June 30, 2019	\$ 10,630,796	\$ 8,227,403	\$ 2,403,393	\$ 169,595	\$ 117,968	\$ 51,627

The amounts in the previous tables include governmental, business-type, and component unit activity for the Commonwealth's VRS State Plan and the fiduciary net pension liability of \$65,845. All component unit tables exclude the non-VRS State Plan net pension liability of \$35.8 million for all component units.

The 2017 actuarial valuations were prepared using the entry age normal cost method. The actuarial assumptions included (a) 7.0 percent investment rate of return, per year compounded annually; (b) projected salary increases ranging from 3.5 percent to 6.0 percent, including a 2.5 percent inflation component and (c) COLA of 2.5 percent for Plan 1 and 2.3 percent for Plan 2. The actuarial assumption for mortality rates was based on the RP-2014 mortality table projected with Scale BB to 2020. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations.

For more detailed actuarial information, refer to the Virginia Retirement System's financial statements, including mortality rates shown in the "Actuarial Assumptions and Methods – Pension Plans" schedule.

F. Changes to and Sensitivity of Discount Rate

The discount rate used to measure the total pension liability was 7.0 percent. The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be based on the actuarially determined rates based on the Board's funding policy, which certifies the required rates under Title 51.1 of the *Code of Virginia*. Beginning on July 1, 2018, all agencies are assumed to contribute 100.0 percent of the actuarially determined contribution rates. Based on those assumptions, the fiduciary net position was projected to be available to make all of the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of the projected benefit payments to determine the total pension liability. In accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans – an amendment of GASB Statement No. 25*, regarding the disclosure of the sensitivity of the net pension liability to changes in the discount rate, the table below presents the employers' net pension liability for each of the plans calculated using the discount rate of 7.0 percent, as well as what the employers' net pension liability would be if it were calculated using a discount rate that is 1.0 percent lower (6.0 percent) or 1.0 percent higher (8.0 percent) than the current rate. The following table (dollars in thousands) shows the Commonwealth's changes in the discount rate.

Primary Government

VRS		
Net Pension Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 4,557,668	\$ 3,010,239	\$ 1,707,649

JRS		
Net Pension Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 171,387	\$ 112,342	\$ 61,007

SPORS		
Net Pension Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 359,387	\$ 233,826	\$ 127,959

VaLORS		
Net Pension Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 811,088	\$ 571,554	\$ 373,283

Component Units

VRS		
Net Pension Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 3,638,869	\$ 2,403,393	\$ 1,363,397

VaLORS		
Net Pension Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 73,263	\$ 51,627	\$ 33,718

The long-term expected rate of return on the System's investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocations are based on the Strategic Asset Allocation Implementation Schedule and Allowable Ranges document, which was approved by the VRS Board of Trustees on June 7, 2016. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation are summarized in the following table.

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	40.0%	4.5%	1.8%
Fixed Income	15.0%	0.7%	0.1%
Credit Strategies	15.0%	4.0%	0.6%
Real Estate	15.0%	5.8%	0.9%
Private Equity	15.0%	9.5%	1.4%
Total	<u>100.0%</u>		<u>4.8%</u>
	Inflation		<u>2.5%</u>
	Expected arithmetic nominal return		<u>7.3%</u>

The allocation in the previous table provides a one-year expected return of 7.3 percent. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the pension system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.8 percent, including expected inflation of 2.5 percent.

G. Pension Related Deferred Outflows and Deferred Inflows

GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, requires certain pension related items to be reported as either deferred outflows or deferred inflows of resources. The following tables (dollars in thousands) summarize these amounts as of June 30, 2019, in total and by individual plan.

Primary Government (1)

	Totals (2)	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 383	\$ 236,256
Changes of assumptions	27,857	68,271
Net difference between projected and actual earnings on plan investments	—	97,907
Changes in proportion and difference between employer contributions and proportionate share of contributions	92,608	86,444
Employer contributions subsequent to the Measurement Date	421,322	—
Total	\$ 542,170	\$ 488,878

	VRS		SPORS	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ —	\$ 182,002	\$ —	\$ 17,933
Changes of assumptions	20,157	—	—	48,229
Net difference between projected and actual earnings on plan investments	—	78,615	—	5,832
Changes in proportion and difference between employer contributions and proportionate share of contributions	78,876	70,639	—	—
Employer contributions subsequent to the Measurement Date	297,719	—	31,469	—
Total	\$ 396,752	\$ 331,256	\$ 31,469	\$ 71,994

	JRS		VaLORS	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ —	\$ 20,221	\$ 354	\$ 16,096
Changes of assumptions	7,700	—	—	20,038
Net difference between projected and actual earnings on plan investment	—	4,045	—	9,414
Changes in proportion and difference between employer contributions and proportionate share of contributions	—	—	13,732	15,805
Employer contributions subsequent to the Measurement Date	22,899	—	69,200	—
Total	\$ 30,599	\$ 24,266	\$ 83,286	\$ 61,353

Component Units (1) (3)

	Totals	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 29	\$ 146,721
Changes of assumptions	16,086	1,807
Net difference between projected and actual earnings on plan investments	—	63,617
Changes in proportion and difference between employer contributions and proportionate share of contributions	48,882	55,046
Employer contributions subsequent to the Measurement Date	255,194	—
Total	<u>\$ 320,191</u>	<u>\$ 267,191</u>

	VRS		VaLORS	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ —	\$ 145,271	\$ 29	\$ 1,450
Changes of assumptions	16,086	—	—	1,807
Net difference between projected and actual earnings on plan investments	—	62,766	—	851
Changes in proportion and difference between employer contributions and proportionate share of contributions	46,129	54,366	2,753	680
Employer contributions subsequent to the Measurement Date	248,760	—	6,434	—
Total	<u>\$ 310,975</u>	<u>\$ 262,403</u>	<u>\$ 9,216</u>	<u>\$ 4,788</u>

- (1) During fiscal year 2019, the Commonwealth recognized pension expense for the primary government and component units of \$152,150 (dollars in thousands) and \$103,122 (dollars in thousands), respectively. The recognized pension expense by plan for the primary government was as follows (dollars in thousands): VRS \$111,767, SPORS \$5,524, JRS \$10,088, and VaLORS \$24,771. The recognized pension expense by plan for component units was as follows (dollars in thousands): VRS \$98,487, and VaLORS \$4,635.
- (2) This table includes deferred outflows of resources and deferred inflows of resources of \$64,054 and \$9,289, respectively, for the Hampton Roads Transportation Accountability Commission (nonmajor governmental), not related to the VRS State Plan.
- (3) The component unit amounts exclude deferred outflows of resources and deferred inflows of resources of \$20,066 (dollars in thousands) and \$10,679 (dollars in thousands), respectively, not related to the VRS State Plan.

Deferred Amounts to be Recognized in Fiscal Years Following Reporting Date

The following tables (dollars in thousands) provide the net estimated amount of the deferred inflows and deferred outflows of resources that will be recognized in the Commonwealth's pension expense for each of the next five fiscal years. These amounts exclude employer contributions made subsequent to the measurement date as those contributions will reduce the fiscal year 2020 net pension liability.

Primary Government

	VRS	SPORS	JRS	VaLORS
2020	\$ (37,679)	\$ (12,061)	\$ (3,667)	\$ (24,168)
2021	(53,642)	(15,499)	(4,266)	(9,435)
2022	(132,792)	(22,185)	(8,246)	(12,744)
2023	(8,110)	(12,760)	(387)	(920)
2024	—	(8,955)	—	—
Thereafter	—	(534)	—	—

Component Units

	VRS	VaLORS
2020	\$ (32,481)	\$ (1,026)
2021	(46,243)	(400)
2022	(114,473)	(541)
2023	(6,991)	(39)
2024	—	—

H. Defined Contribution Plan for Political Appointees

Officers appointed by the Governor, officers elected by popular vote or the General Assembly, and executive branch chief deputies and confidential assistants may participate in the deferred contribution plan for Political Appointees, rather than the VRS. This optional retirement plan is authorized by the *Code of Virginia* and offered through the ICMA-RC. This is a defined contribution plan where the retirement benefits are based upon the Commonwealth's 12.3 percent and the employee's (5.0 percent) contributions, plus interest and dividends. The Commonwealth pays the required employee contributions. During the year ended June 30, 2019, the total contributions to this plan were \$1.5 million. As of June 30, 2019, the amount to be paid to participants upon retirement is \$17.1 million. Additionally, no assets are accumulated for this plan in a GASB-compliant trust.

The summary of significant accounting policies for the plan is in accordance with those discussed in Note 17.B.

I. Defined Contribution Plan for Public School Superintendents

The Public School Superintendent Plan is a defined contribution pension plan that provides optional postemployment benefits for school superintendents. This plan is authorized by the *Code of Virginia*. The Board of Trustees of the System manages the investments of the fund as custodian. School boards may elect to offer this plan as an option to the standard VRS plan that is available for school board members. Contributions are provided by the school board for credit to the member. As of June 30, 2019, there were two

participants in this plan. There were no contributions to the plan for fiscal year 2019.

J. Virginia Supplemental Retirement Plan

The Public School Teacher Supplemental Retirement Plan is a defined contribution pension plan established by the Department of Education to provide an optional postemployment benefit plan for turnaround specialists in the public school system. This plan is utilized as an incentive to attract highly skilled teachers for participating public schools pursuant to Title 51.1-617 of the *Code of Virginia*. The Board of Trustees of the System manages the investments of the fund as custodian. School boards may elect to offer this plan as an option to the standard VRS plan that is available for school board members. Contributions are provided by the school boards for credit to the members. As of June 30, 2019, there were two participants in this plan. There were no contributions to the plan for fiscal year 2019.

K. Higher Education (Nonmajor Component Units)

The Commonwealth's colleges and universities participate in the retirement plans administered by VRS. In addition, full-time faculty and certain administrative staff of the Commonwealth's colleges and universities may participate in optional retirement plans as authorized by Section 51.1-126 of the *Code of Virginia* rather than the VRS retirement plans. These optional retirement plans are defined contribution plans offered through the Teachers Insurance and Annuity Association (TIAA), Fidelity Investments, and DCP. There are two defined contribution plans. Plan 1 is for employees hired prior to July 1, 2010, and retirement benefits received are based upon the employer's 10.4 percent contributions, plus net investment gains. Plan 2 is for employees hired on or after July 1, 2010, and retirement benefits received are based upon the employer's contribution, not to exceed 8.9 percent, and the employee's 5.0 percent contribution, plus net investment gains. For Plan 2, the employer contributions for fiscal year 2019 were 8.5 percent except for the University of Virginia (nonmajor) which were 8.9 percent. Vesting is full and immediate for both employer and employee contributions, except UVA employees hired after July 1, 2014 are fully vested in the UVA contributions after two years of continuous employment. For fiscal year 2019, total pension expense recognized was \$164.5 million and contributions were calculated using the base salary amount of \$1.7 billion. As of June 30, 2019, the Commonwealth's colleges and universities had accrued \$10.7 million in employer liabilities related to these plans.

University of Virginia Medical Center (part of the University of Virginia – nonmajor) employees hired after July 1, 1999, cannot participate in Plan 1 or Plan 2 noted above but have the option of participating in the Medical Center's Optional Retirement Plan. For information regarding this plan, see the institution's separately issued financial statements.

Certain employees of Virginia Commonwealth University (nonmajor) are participating in The Select Plan, which is a 401(a) defined contribution plan. Participation is limited to executives by invitation. For information regarding this plan, see the University's website at www.vcu.edu.

Prior to July 1, 1997, certain employees of the Virginia Commonwealth University Health System Authority (Authority) (a blended component unit of Virginia Commonwealth University – nonmajor) were eligible to participate in the VRS defined benefit pension plan. Effective July 1, 1997, the Authority established the Virginia Commonwealth University Health System Authority Defined Contribution Plan (VCUHS 401(a) Plan) and the Virginia Commonwealth University Health System Authority Health Care Providers Defined Contribution Plan (HCP Plan). The Authority and component units, MCV Associated Physicians (MCVAP), VCU Community Memorial Hospital (CMH), and the Children's Hospital (Children's), participate in the VCUHS 401(a) as well as sponsor the VCUHS Savings Plan (VCUHS 457(b) Plan). Healthcare providers hired between July 1, 1993 and July 1, 1997, are eligible to participate in the HCP Plan. MCVAP also sponsors the MCVAP 401(a) Retirement Plan. VA Premier (a component of the Authority) adopted a 401(k) Plan. For information regarding these plans, see the Authority's separately issued financial statements.

The Center for Innovative Technology (CIT) is a blended component unit of the Innovation and Entrepreneurship Investment Authority (nonmajor). The CIT has a defined contribution retirement plan covering substantially all employees. Under the plan, CIT makes contributions fixed at a percentage of each employee's compensation to pay premiums for individual retirement annuity contracts written by the Teachers Insurance and Annuity Association (TIAA) and the College Retirement Equities Fund (CREF). For information regarding this plan, see the Authority's separately issued financial statements.

L. Other Component Units

Note 1.B. outlines the component units included in the Commonwealth's reporting entity. The Virginia Public Building Authority (blended - primary government), the Virginia Public School Authority (major), the Virginia College Building Authority (major), and the Virginia School for the Deaf and Blind Foundation (nonmajor) have no employees. Virginia Resources Authority (major) and the following nonmajor component units participate in the retirement plans administered by VRS: the Virginia Economic Development Partnership, the Virginia Small Business Financing Authority, the Hampton Roads Sanitation District Commission, the Virginia Biotechnology Research Partnership Authority, the Virginia Tourism Authority, the Tobacco Region Revitalization Commission, the Virginia Foundation for Healthy Youth, and the Fort Monroe Authority.

The Virginia Housing Development Authority (major) has three defined contribution plans. For additional information regarding these plans, see the Authority's website at www.vhda.com.

The Virginia Outdoors Foundation (nonmajor) maintains a 401(k) contribution plan and provides an employer contribution match up to 6.0 percent. For information regarding this plan, see the Foundation's website at www.virginiaoutdoorsfoundation.org.

The Virginia Commercial Space Flight Authority (nonmajor) maintains a 401(a) contribution plan and provides an employer contribution to all eligible employees of 11.0 percent of their base salary. For information regarding this plan, see the Authority's separately issued financial statements.

The Virginia Port Authority (VPA) (nonmajor) maintains two defined benefit plans for its employees. Employees of record on July 1, 1997, had the option of continuing to maintain their benefit status as a State employee, and their benefits maintained under the VRS, or elect to be covered under a newly created pension plan (the VPA Defined Benefit Plan). The VPA Defined Benefit Plan covers all employees hired between July 1, 1997 and February 1, 2014. Employees hired after February 1, 2014, are eligible for a defined contribution plan only. On January 1, 2015, the plan was amended to add certain employees who transferred from the Virginia International Terminals (VIT) (referred to as "Legacy VIT Participants") to VPA. VIT (a blended component unit of VPA – nonmajor) has the Virginia International Terminals, LLC Pension Plan that is a single employer, noncontributory defined benefit pension plan administered by VIT. A stand-alone financial report is issued by VITPP and is available upon request from VPA's administrative offices. For information regarding these plans, see the Authority's website at www.portofvirginia.com.

Employees of the Virginia Museum of Fine Arts Foundation (nonmajor) who are age 21 or older are eligible to participate in the Employee's Savings Plan, a 401(k) defined contribution profit sharing plan. Also, the Foundation entered into a supplemental retirement agreement to pay a key employee of the Museum upon retirement the difference between the amount accrued under the VRS retirement plan, based on salary, and the amount based on the supplemental salary. For additional information regarding these plans, see the Foundation's separately issued financial statements.

The Science Museum of Virginia Foundation (nonmajor) has a 403(b) defined contribution pension plan through the TIAA-CREF Retirement Plan for employees meeting age and service requirements. For additional information regarding this plan, see the Foundation's separately issued financial statements.

18. OTHER EMPLOYMENT BENEFITS

In addition to the pension plans, the Commonwealth participates in two other employment benefit plans, Group Life Insurance and the Virginia Sickness and Disability Program, which are administered by the Virginia Retirement System (the System). The System administers a third other employment benefit plan, the Volunteer Firefighters' and Rescue Squad Workers' Fund, in which the Commonwealth does not participate, but may provide funding. The

significant accounting policies for all three plans are the same as those described in Note 17 for pension plans. A separately issued financial report that includes financial statements for the Group Life Insurance and Virginia Sickness and Disability Program is publicly available. Copies may be obtained from the Virginia Retirement System website at www.varetire.org.

Group Life Insurance

The Group Life Insurance Plan was established for Commonwealth employees, teachers, employees of political subdivisions participating in the VRS, state police officers, other state law enforcement and correctional officers, judges, and other qualifying employees. The program provides life insurance for natural death coverage equal to a member's annual compensation rounded to the next highest \$1,000 and then doubled. Accidental death coverage is double the natural death benefit. The program also provides coverage for accidental dismemberment and accidental blindness, a safety belt benefit, a repatriation benefit, a felonious assault benefit and an accelerated death benefit for terminal conditions. Approximately 369,831 members participate in the program as of June 30, 2019.

Participating employers and their covered employees are required by Title 51.1 of the *Code of Virginia* to contribute to the cost of group life insurance benefits. Employers may assume the employees' contributions.

An optional Group Life Insurance Fund was established for members covered under the group life program as a supplement to that plan. Members may purchase optional life insurance coverage for themselves, their spouses and/or their dependent children. The optional program provides natural death coverage equal to one, two, three or four times the member's annual compensation rounded to the next highest \$1,000, up to a maximum of \$750,000. Spouse coverage is available for up to one-half of the member's optional insurance amount. Minor children who are at least 15 days old can be insured for \$10,000, \$20,000 or \$30,000, depending on the option chosen by the member. An additional accidental death and dismemberment benefit is payable for death or bodily injuries. Approximately 70,903 members were covered under this program as of June 30, 2019.

Optional group life insurance coverage ends for members when they retire or terminate their employment, or when their basic coverage ends. Optional life insurance amounts begin to reduce by 25.0 percent based on the retiree's age, beginning with the retiree's normal retirement age under his or her plan ending at age 80. Retirees may elect to continue coverage within 31 days of retirement. Spouse coverage terminates should a couple divorce or when the member leaves employment. Children's coverage ends with the termination of the member's coverage or when the child marries or turns 21 years of age (25 years of age for full-time college students).

Employers of members who elect optional life insurance coverage deduct the premiums from the members' paychecks, as required by Title 51.1 of the *Code of Virginia*. Premiums are based on the member's age and determined by the Board of Trustees. Because optional life insurance is an insured product, the carrier bills each employer directly,

and the employer makes the contribution payments to the carrier. Any differences and adjustments are settled between the employer and the carrier.

Virginia Sickness and Disability Program

The System administers the Virginia Sickness and Disability Program (VSDP) to provide income protection in the event of a disability for eligible state employees hired on or after January 1, 1999. State agencies are required by Title 51.1 of the *Code of Virginia* to contribute to the cost of providing long-term disability benefits and administering the program.

VSDP benefits include sick, family and personal leave and short-term and long-term disability benefits. After a seven-calendar day waiting period following the first day of disability, eligible employees receive short-term disability benefits from 60.0 percent to 100.0 percent of their compensation. After 125 work days of short-term disability, eligible employees receive long-term disability benefits equal to 60.0 percent of their compensation. If the employee's condition becomes catastrophic, income replacement increases to 80.0 percent until the condition is no longer catastrophic. Long-term disability benefits continue until employees return to work, retire or reach age 65 (age 60 for state police officers and other state law enforcement and correctional officers) or die.

Full-time permanent salaried state employees, including state police officers and other Virginia law and correctional officers, are automatically enrolled in the VSDP. Part-time permanent salaried state employees who work at least 20 hours a week and accrue leave also are automatically enrolled. Teaching, administrative and research faculty of Virginia public colleges and universities who elect VRS as their retirement plan must make an irrevocable election to participate in either the VSDP or the institution's disability program. If there is no institution program, the faculty member is covered under VSDP.

Eligible state employees and state police officers employed before January 1, 1999, had the option to elect to participate in the VSDP or remain under the Commonwealth's existing sick leave program and retain their eligibility for disability retirement benefits under VRS and SPORS. (Members of VaLORS have been automatically enrolled in the VSDP since October 1, 1999, when VaLORS was created.) Eligible employees enrolled in the VSDP are not eligible for disability retirement benefits under VRS, SPORS, or VaLORS. Employees hired or rehired on or after July 1, 2009, must satisfy eligibility periods before becoming eligible for non-work related short-term disability coverage and certain income replacement levels. Approximately 79,269 members were covered under the program as of June 30, 2019.

Volunteer Firefighters' and Rescue Squad Workers' Fund

Volunteer firefighters and rescue squad workers may participate in an optional employment benefit plan. This optional plan is authorized by the *Code of Virginia*. The Board of Trustees of the System manages the investments of the fund as custodian. Members of the plan contribute \$30 per quarter. The Commonwealth will contribute an amount determined by the Board and appropriated by the

General Assembly, if such funds are appropriated, for a period not to exceed 20 years. For fiscal year 2019, there was \$185,000 appropriated for administration of the program. As of June 30, 2019, there were 1,814 workers participating in the fund.

19. OTHER POSTEMPLOYMENT BENEFITS (OPEB)

A. Virginia Retirement System (System-administered) OPEB Plans

1) Administration and Significant Accounting Policies

The System-administered defined benefit OPEB plans mentioned below have a trust that meets the requirements in GASB Statement No. 75. In addition, the net OPEB liability for these plans have a measurement date of June 30, 2018. As previously mentioned, a separately issued financial report that includes financial statements, notes and required supplementary information for each of the System-administered plans discussed below is publicly available. Copies may be obtained from the Virginia Retirement System website at www.varetire.org.

The administration and significant accounting policies for the System-administered OPEB plans are the same as those described in Note 17 for pension plans.

2) Plan Descriptions

Retiree Health Insurance Credit Program

The Retiree Health Insurance Credit Program is composed of a single-employer plan for state employees; a cost-sharing multiple-employer plan for teachers; three cost-sharing, multiple-employer plans for constitutional officers, social services employees and registrars; and an agent, multiple-employer plan for political subdivisions electing coverage. This note and the required supplementary information in this report is for the single-employer plan for state employees and also includes the state-funded noncontributing employer portion for constitutional officers, registrars, and their employees, as well as local social service employees.

The Retiree Health Insurance Credit (RHIC) for state employees provides benefits for retired state employees, state police officers, other state law enforcement, correctional officers, and judges who have at least 15 years of service credit under the retirement plans. Members of JRS receive weighted years of service credit for each year of actual service under JRS. VRS, SPORS, VaLORS, and JRS also provide death and disability benefits. The program provides a credit reimbursement of \$4 per month per year of service credit against the monthly health insurance premiums of eligible retirees. There is

no cap on the credit. Certain eligible employees who retire on disability or go on long-term disability under the Virginia Sickness and Disability Program are eligible for a credit not to exceed \$120.

The following is the approximate number of employees covered by the RHIC plan for state employees on the measurement date of June 30, 2018:

	RHIC for State Employees
Inactive employees currently receiving benefit payments	46,289
Inactive employees entitled to but not yet receiving benefit payments	1,715
Active employees	108,027
Total	156,031

The health insurance credit plan for general registrars, constitutional officers, and their employees as well as local social service employees (RHIC Non-State) provides \$1.50 per month per year of service with a maximum monthly credit of \$45. The Commonwealth funds this credit. Benefit provisions and eligibility requirements are established by Title 51.1 of the *Code of Virginia*. The amount required to fund all credits is financed by the employers based on contribution rates determined by the System's actuary.

Virginia Sickness and Disability Program

The Virginia Sickness and Disability Program (VSDP) is a single-employer plan. It is also known as the Disability Insurance Trust Fund. The Commonwealth provides OPEB disability insurance benefits, in accordance with state statutes, to eligible retired and terminated employees. Eligible employees include state employees hired before January 1, 1999, who elected to transfer to VSDP rather than retain their eligibility to be considered for VRS disability retirement and full-time and part-time, salaried state employees covered under VRS, SPORS, and VaLORS. State agencies are required by Title 51.1 of the *Code of Virginia* to contribute to the cost of providing long-term disability benefits and administering the program. The following is the approximate number of employees covered by this plan on the measurement date of June 30, 2018:

	VSDP
Inactive employees currently receiving benefit payments	4,808
Inactive employees entitled to but not yet receiving benefit payments	—
Active employees	73,620
Total	78,428

Group Life Insurance Program

The Group Life Insurance Program (GLI) is a cost-sharing, multiple employer plan. Members whose employers participate in the Group Life Insurance Program are covered automatically under the Basic Group Life Insurance Program upon employment. This program was established July 1, 1960, for state employees, teachers and employees of political subdivisions that elect the program, including certain employers that do not participate in VRS for retirement. At retirement or termination, accidental death benefits cease and natural death coverage reduces at a rate equal to 25.0 percent on January 1 of the first full calendar year following retirement or termination and on January 1 of each year thereafter, until it reaches 25.0 percent of its original value. These group life insurance benefit provisions and requirements are established by Title 51.1 of the *Code of Virginia*. Participating employers and covered employees are required to contribute to the cost of group life insurance benefits. Employers may assume employees' contributions. A portion of the premium contributions collected during members' active careers is placed in an advance premium deposit reserve. This reserve is to fund the claims for eligible retired and deferred members.

Line of Duty Act Program

The Line of Duty Act Program (LODA) is a cost-sharing, multiple employer plan. It provides death and health insurance reimbursement benefits to eligible state employees and local government employees, including volunteers, who die or become disabled as a result of the performance of their duties as a public safety officer. Benefit provisions and eligibility requirements are established by Title 9.1 of the *Code of Virginia*. The System is responsible for managing the assets of the program. Participating employers made contributions to the program beginning in fiscal year 2012. The employer contribution rate was determined by the System's actuary using the anticipated costs and the number of covered individuals associated with all participating employers. Additionally, beginning in fiscal year 2018, the Department of Human Resource Management administered the benefits and payment of claims under this program. The System manages the death benefit payments.

3) Funding

The contribution requirements are governed by the *Code of Virginia*, but may be impacted as a result of funding provided to state agencies by the Virginia General Assembly. Employer contributions by the Commonwealth for the RHIC and VSDP were 1.2 percent and 0.6 percent, respectively, of covered employee compensation. In addition, the contributions by the Commonwealth for the RHIC: Non-State for general registrars, constitutional officers, and their employees, and local social service employees were approximately 0.4 percent.

The total contribution rate for the GLI was 1.3 percent allocated into an employee and an employer component using a 60/40 split. The employee component was 0.8 percent and the employer component was 0.5 percent. Each employer's contractually required employer contribution rate for the year ended June 30, 2019, was 0.5 percent of covered employee compensation. Each employer's contractually required employer contribution rate for the LODA for the year ended June 30, 2019, was \$705.8 per covered full-time-equivalent employee.

All rates were based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. For RHIC and GLI, the actuarially determined rate was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. For VSDP, the actuarially determined rate was expected to finance the costs of benefits payable during the year, with an adjustment to amortize the accrued OPEB assets. For the LODA, the rate represents a pay-as-you-go funding rate and not the full actuarial cost of benefits under the program. The actuarially determined pay-as-you-go rate was expected to finance the costs and related expenses of benefits payable during the year.

Employer contributions by the Commonwealth to the RHIC, VSDP, GLI, LODA, and the RHIC Non-State plans were \$80.1 million, \$25.3 million, \$30.9 million, \$8.0 million, and \$3.8 million, respectively, for the year ended June 30, 2019.

4) Changes in Net OPEB Liability and Proportionate Share of Net OPEB Liability

The total OPEB liability for each plan was determined based on the actuarial valuation as of June 30, 2017, using updated actuarial assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018. The following tables (dollars in thousands) show the Commonwealth's total OPEB liability, plan fiduciary net position, and net OPEB liability (asset) for the RHIC and VSDP for the current and prior year, and the Commonwealth's proportionate share of the net OPEB liability for GLI, LODA, and RHIC Non-State plans. Since the VSDP has a net OPEB asset rather than a net OPEB liability, the net OPEB asset amount is not included in the total balance amount. The Commonwealth's Proportion for the GLI, LODA, and RHIC Non-State plans represents the percentage of the Commonwealth's share of Net OPEB Liability amount compared to the Net OPEB Liability amount for all employers of \$1.5 billion, \$313.5 million and \$39.8 million, respectively.

Primary Government

	RHIC			VSDP		
	Increase (Decrease)			Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (Asset) (1) (a)-(b)
Balances at June 30, 2018	\$ 416,438	\$ 33,446	\$ 382,992	\$ 146,657	\$ 273,702	\$ (127,045)
Changes for the year						
Service cost	8,204	—	8,204	17,068	—	17,068
Interest	27,930	—	27,930	9,613	—	9,613
Benefit changes	—	—	—	—	—	—
Differences between actual and expected experience	311	—	311	—	—	—
Assumption changes	—	—	—	(6,968)	—	(6,968)
Contributions - employer	—	33,163	(33,163)	—	16,903	(16,903)
Contributions - member	—	—	—	—	—	—
Net investment income	—	2,383	(2,383)	—	19,887	(19,887)
Benefit payments	(31,874)	(29,104)	(2,770)	(18,962)	(18,696)	(266)
Third-party administrator charges	—	—	—	—	(4,115)	4,115
Administrative expense	—	(62)	62	—	(596)	596
Other changes	—	224	(224)	—	(22)	22
Net changes	4,571	6,604	(2,033)	751	13,361	(12,610)
Balances at June 30, 2019	\$ 421,009	\$ 40,050	\$ 380,959	\$ 147,408	\$ 287,063	\$ (139,655)

	Other Plans	
	Commonwealth's Proportion	Proportionate Share of Net OPEB Liability
Group Life Insurance	14.8%	\$ 225,142
Line of Duty Act	56.9%	178,469
Retiree Health Insurance Credit: Non-State	100.0%	39,753
Balance at June 30, 2019		\$ 443,364
Total balance at June 30, 2019: (excludes VSDP net OPEB asset) (1) (2)		\$ 824,323

Component Units

	RHIC			VSDP		
	Increase (Decrease)			Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a)-(b)	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (Asset) (1) (a)-(b)
Balances at June 30, 2018	\$ 573,590	\$ 46,070	\$ 527,520	\$ 90,356	\$ 168,632	\$ (78,276)
Changes for the year						
Service cost	11,441	—	11,441	10,459	—	10,459
Interest	38,953	—	38,953	5,890	—	5,890
Benefit changes	—	—	—	—	—	—
Differences between actual and expected experience	434	—	434	—	—	—
Assumption changes	—	—	—	(4,269)	—	(4,269)
Contributions - employer	—	46,253	(46,253)	—	10,357	(10,357)
Contributions - member	—	—	—	—	—	—
Net investment income	—	3,323	(3,323)	—	12,186	(12,186)
Benefit payments	(37,243)	(40,013)	2,770	(12,111)	(12,377)	266
Third-party administrator charges	—	—	—	—	(2,522)	2,522
Administrative expense	—	(87)	87	—	(365)	365
Other changes	—	312	(312)	—	(13)	13
Net changes	13,585	9,788	3,797	(31)	7,266	(7,297)
Balances at June 30, 2019	\$ 587,175	\$ 55,858	\$ 531,317	\$ 90,325	\$ 175,898	\$ (85,573)

	Other Plans	
	Commonwealth's Proportion	Proportionate Share of Net OPEB Liability
Group Life Insurance	15.7%	\$ 238,645
Line of Duty Act	3.0%	9,400
Balance at June 30, 2019		\$ 248,045
Total balance at June 30, 2019: (excludes VSDP net OPEB asset) (1) (3)		\$ 779,362

- (1) The VSDP net OPEB asset is included in Other Restricted Assets in the accompanying government-wide financial statements.
- (2) The primary government's aggregate OPEB liability is \$1,409,822 (dollars in thousands) as of June 30, 2019. This includes amounts for both the VRS-administered and DHRM-administered plans.
- (3) The component unit's aggregate OPEB liability is \$1,278,414 (dollars in thousands) as of June 30, 2019. This includes amounts for both the VRS-administered and DHRM-administered plans as well as other OPEB plans.

The amounts in the previous tables include governmental, business-type, and component unit activity for the Commonwealth's VRS OPEB plans. The table excludes other net OPEB liability amounts of \$19.7 million for all other component units and includes the fiduciary net OPEB liability of \$12,134.

The net OPEB liabilities were based on an actuarial valuation as of June 30, 2017, using the entry age normal actuarial cost method. The actuarial assumptions included the following: (a) investment rate of return, net of OPEB plan investment expenses, including inflation: 7.0 percent for RHIC, VSDP, and GLI, and 3.9 percent for LODA; and (b) projected salary increases, including a 2.5 percent inflation component, ranging from 3.5 percent to 6.0 percent for VRS state, JRS, SPORS, and VaLORS employees, and teachers and political subdivision employees. For these OPEB plans, the teachers and political subdivision employees are not Commonwealth employees and, therefore, are excluded from the accompanying tables.

For more detailed actuarial information, refer to the Virginia Retirement System's financial statements, including the "Actuarial Assumptions and Methods – Other Post-Employment Benefit Plan Funds" schedule.

5) Changes to and Sensitivity of Discount Rate

The discount rate used to measure the total OPEB liability was 7.0 percent for the prefunded plans. These include the Group Life Insurance Program, the Retiree Health Insurance Credit Program, and the Disability Insurance Program.

The projection of cash flows used to determine the discount rate assumed that contributions from participating employers will be based on the actuarially determined rates based on the Board's funding policy, which certifies the required rates under Title 51.1 of the *Code of Virginia*. Based on those assumptions, the fiduciary net position was projected to be available to make all of the projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of the projected benefit payments to determine the total OPEB liability. In accordance with GASB Statement No. 75 regarding the disclosure of the sensitivity of the net OPEB liability to changes in the discount rate, the following table (dollars in thousands) presents the employers' net OPEB liability for each of the plans calculated using the discount rate of 7.0 percent, as well as what the employers' net OPEB liability would be if it were calculated using a discount rate that is 1.0 percent lower (6.0 percent) or 1.0 percent higher (8.0 percent) than the current rate.

The Line of Duty Act Program is funded on a pay-as-you-go basis. As a result, the liabilities are valued using a discount rate of 3.9 percent, which approximates the risk-free rate of return. The following table (dollars in thousands) shows the Commonwealth's changes in the discount rate and the healthcare trend rate.

Primary Government

Changes in Discount Rate					
RHIC			VSDP		
Net OPEB Liability			Net OPEB Liability (Asset) (1)		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)	1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 421,295	\$ 380,959	\$ 346,252	\$ (134,622)	\$ (139,655)	\$ (143,961)
GLI			LODA		
Proportionate Share of Net OPEB Liability			Proportionate Share of Net OPEB Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)	1.0% Decrease (2.9%)	Current Discount Rate (3.9%)	1.0% Increase (4.9%)
\$ 294,254	\$ 225,142	\$ 169,059	\$ 204,489	\$ 178,469	\$ 157,520
Changes in Discount Rate			Changes in Healthcare Cost Trend Rates		
RHIC: Non-State			LODA		
Proportionate Share of Net OPEB Liability			Proportionate Share of Net OPEB Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)	1.0% Decrease (6.8% decreasing to 4.0%)	Healthcare Cost Trend Rates (7.8% decreasing to 5.0%)	1.0% Decrease (8.8% decreasing to 6.0%)
\$ 44,352	\$ 39,753	\$ 35,828	\$ 152,062	\$ 178,469	\$ 211,378

Component Units

Changes in Discount Rate					
RHIC			VSDP		
Net OPEB Liability			Net OPEB Liability (Asset) (1)		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)	1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)
\$ 587,574	\$ 531,317	\$ 482,911	\$ (82,490)	\$ (85,573)	\$ (88,212)
GLI			LODA		
Proportionate Share of Net OPEB Liability			Proportionate Share of Net OPEB Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)	1.0% Decrease (2.9%)	Current Discount Rate (3.9%)	1.0% Increase (4.9%)
\$ 311,902	\$ 238,645	\$ 179,198	\$ 10,771	\$ 9,400	\$ 8,297
Changes in Discount Rate			Changes in Healthcare Cost Trend Rates		
RHIC: Non-State			LODA		
Proportionate Share of Net OPEB Liability			Proportionate Share of Net OPEB Liability		
1.0% Decrease (6.0%)	Current Discount Rate (7.0%)	1.0% Increase (8.0%)	1.0% Decrease (6.8% decreasing to 4.0%)	Healthcare Cost Trend Rates (7.8% decreasing to 5.0%)	1.0% Increase (8.8% decreasing to 6.0%)
\$ 8,009	\$ 9,400	\$ 11,133	\$ 8,009	\$ 9,400	\$ 11,133

(1) The VSDP net OPEB asset is included in Other Restricted Assets in the accompanying government-wide financial statements.

The long-term expected rate of return on the System's investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocations are based on the Strategic Asset Allocation Implementation Schedule and Allowable Ranges document, which was approved by the VRS Board of Trustees on June 7, 2016. Best estimates of arithmetic real rates of return for each major asset class included in the System's target asset allocation are summarized in the following table.

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	40.0%	4.5%	1.8%
Fixed Income	15.0%	0.7%	0.1%
Credit Strategies	15.0%	4.0%	0.6%
Real Assets	15.0%	5.8%	0.9%
Private Equity	15.0%	9.5%	1.4%
Total	<u>100.0%</u>		<u>4.8%</u>
	Inflation		<u>2.5%</u>
	Expected arithmetic nominal return		<u>7.3%</u>

The allocation in the previous table provides a one-year expected return of 7.3 percent. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the pension system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.8 percent, including expected inflation of 2.5 percent.

The long-term expected rate of return on the LODA OPEB Program's investments was set at 3.9 percent for this valuation. Since LODA is funded on a current-disbursement basis, it is not able to use the VRS Pooled Investments 7.0 percent assumption. Instead, the assumed annual rate of return of 3.9 percent was used since it approximates the risk-free rate of return. This Single Equivalent Interest Rate (SEIR) is the applicable municipal bond index rate based on the Bond Buyer General Obligation 20-year Municipal Bond Index as of June 30, 2018.

6) OPEB Related Deferred Outflows and Deferred Inflows

GASB Statement No. 75 requires certain OPEB related items to be reported as either deferred outflows or deferred inflows of resources. The following tables (dollars in thousands) summarize these amounts as of June 30, 2019, in total and by individual plan.

Primary Government (3)

	Totals (1)	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 37,526	\$ 128,025
Changes of assumptions	—	276,341
Net difference between projected and actual earnings on plan investments	—	16,694
Changes in proportion and difference between employer contributions and proportionate share of contributions	39,324	59,650
Employer contributions subsequent to the Measurement Date	75,259	—
Amounts associated with transactions subsequent to the Measurement Date	24,073	—
Total	\$ 176,182	\$ 480,710

	RHIC		VSDP	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 263	\$ —	\$ —	\$ 5,931
Changes of assumptions	—	3,467	—	8,236
Net difference between projected and actual earnings on plan investments	—	621	—	8,238
Changes in proportion and difference between employer contributions and proportionate share of contributions	6,610	14,174	2,769	2,990
Employer contributions subsequent to the Measurement Date	33,385	—	15,583	—
Total	\$ 40,258	\$ 18,262	\$ 18,352	\$ 25,395

	GLI		LODA	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 11,001	\$ 4,034	\$ 25,621	\$ 4
Changes of assumptions	—	9,385	—	20,552
Net difference between projected and actual earnings on plan investments	—	7,324	—	456
Changes in proportion and difference between employer contributions and proportionate share of contributions	5,376	8,288	6,671	7,531
Employer contributions subsequent to the Measurement Date	14,794	—	7,656	—
Total	\$ 31,171	\$ 29,031	\$ 39,948	\$ 28,543

	RHIC: Non-State	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 641	\$ —
Changes of assumptions	—	524
Net difference between projected and actual earnings on plan investments	—	55
Changes in proportion and difference between employer contributions and proportionate share of contributions	951	951
Employer contributions subsequent to the Measurement Date	3,841	—
Total	\$ 5,433	\$ 1,530

Component Units (2) (3)

	Totals (1)	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 13,373	\$ 92,634
Changes of assumptions	—	188,932
Net difference between projected and actual earnings on plan investments	—	13,698
Changes in proportion and difference between employer contributions and proportionate share of contributions	41,383	22,860
Employer contributions subsequent to the Measurement Date	72,859	—
Amounts associated with transactions subsequent to the Measurement Date	17,273	—
Total	\$ 144,888	\$ 318,124

	RHIC		VSDP	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 361	\$ —	\$ —	\$ 3,636
Changes of assumptions	—	4,824	—	5,051
Net difference between projected and actual earnings on plan investments	—	865	—	5,054
Changes in proportion and difference between employer contributions and proportionate share of contributions	15,254	7,690	1,624	1,403
Employer contributions subsequent to the Measurement Date	46,699	—	9,699	—
Total	\$ 62,314	\$ 13,379	\$ 11,323	\$ 15,144

	GLI		LODA	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 11,665	\$ 4,286	\$ 1,347	\$ 2
Changes of assumptions	—	9,942	—	1,084
Net difference between projected and actual earnings on plan investments	—	7,757	—	22
Changes in proportion and difference between employer contributions and proportionate share of contributions	5,433	3,736	761	489
Employer contributions subsequent to the Measurement Date	16,075	—	386	—
Total	\$ 33,173	\$ 25,721	\$ 2,494	\$ 1,597

- (1) These tables aggregate the deferred inflows of resources and deferred outflows of resources for both the VRS-administered and DHRM-administered plans.
- (2) The component unit amounts in the accompanying financial statements include deferred outflows of resources and deferred inflows of resources of \$8,333 (dollars in thousands) and \$2,725 (dollars in thousands), respectively, for other OPEB plans.
- (3) Additionally, during fiscal year 2019, the Commonwealth recognized OPEB expense for the primary government and component units of \$43,800 (dollars in thousands) and \$54,351 (dollars in thousands), respectively, for the VRS-administered OPEB plans. The recognized OPEB expense by plan for the primary government was as follows (dollars in thousands): RHIC \$30,805; VSDP \$7,426; GLI \$885; LODA \$1,171; and RHIC: Non-State \$3,513. The recognized OPEB expense by plan for component units was as follows (dollars in thousands): RHIC \$47,037; VSDP \$4,564; GLI \$1,952; and LODA \$798.

Deferred Amounts to be Recognized in Fiscal Years Following Reporting Date

The following tables (dollars in thousands) provide the net estimated amount of the deferred inflows and deferred outflows of resources that will be recognized in the Commonwealth's OPEB expense for each of the next five fiscal years and thereafter. These amounts exclude employer contributions made subsequent to the measurement date as those contributions will reduce the fiscal year 2020 net OPEB liability (asset).

Primary Government

	<u>RHIC</u>	<u>VSDP</u>	<u>GLI</u>	<u>LODA</u>
2020	\$ (2,935)	\$ (5,077)	\$ (4,322)	\$ 375
2021	(2,935)	(5,077)	(4,322)	375
2022	(2,934)	(5,078)	(4,322)	374
2023	(2,242)	(2,557)	(1,594)	425
2024	(366)	(2,367)	896	480
Thereafter	23	(2,470)	1,010	1,720

	<u>RHIC: Non-State</u>
2020	\$ (19)
2021	(19)
2022	(19)
2023	6
2024	40
Thereafter	73

Component Units

	<u>RHIC</u>	<u>VSDP</u>	<u>GLI</u>	<u>LODA</u>
2020	\$ 576	\$ (3,034)	\$ (2,945)	\$ 51
2021	576	(3,034)	(2,945)	51
2022	576	(3,035)	(2,945)	51
2023	440	(1,528)	(1,087)	58
2024	72	(1,415)	610	65
Thereafter	(4)	(1,474)	689	235

B. Department of Human Resource Management (DHRM-administered) OPEB Plan

1) Administration

The DHRM-administered defined benefit OPEB plan mentioned below does not have a trust that meets the requirements of GASB Statement No. 75. In addition, the total OPEB liability for this plan has a measurement date of June 30, 2018. A separately issued financial report for this DHRM-administered OPEB plan is not available.

2) Plan Description

The Commonwealth provides a Pre-Medicare Retiree Healthcare (PMRH) plan established by Title 2.2 of the *Code of Virginia* for retirees who

are not yet eligible to participate in Medicare. It is the same health insurance program offered to active employees and managed by DHRM. After retirement, the Commonwealth of Virginia no longer subsidizes the retiree's premium; however, since both active employees and retirees are included in the same pool for purposes of determining health insurance rates, retiree rates are effectively lower than what might otherwise be available outside of this benefit. Following are eligibility requirements for Virginia Retirement System (VRS) retirees:

- Retiring state employee who is eligible for a monthly retirement benefit from VRS;
- Start receiving (do not defer) retirement benefit immediately upon retirement;
- Last employer before retirement was the Commonwealth of Virginia;
- Eligible for (even if not enrolled) coverage as an active employee in the State Health Benefits Program until retirement date (not including Extended Coverage/COBRA); and
- Enroll no later than 31 days from retirement date.

Effective January 1, 2017, are the following eligibility requirements for Optional Retirement Plan retirees:

- Terminating state employee who participates in one of the qualified Optional Retirement Plans;
- Last employer before termination was the Commonwealth of Virginia;
- Eligible for (even if not enrolled) coverage in the State Employee Health Benefits Program for active employees at the time of termination;
- Meet age and service requirements for an immediate retirement benefit under the non-ORP VRS plan that the retiree would have been eligible for on the date of hire had the retiree not elected the ORP; and
- Enroll in the State Retiree Health Benefits Program no later than 31 days from the date the retiree loses coverage (or loses eligibility for coverage) in the State Health Benefits Program for active employees due to termination of employment.

Eligibility for Optional Retirement Plan retirees who terminated prior to January 1, 2017, would be based on the policy in place at the time of their termination.

This fund is reported as part of the Commonwealth's Health Care Internal Service Fund. Benefit payments are recognized when due and payable in accordance with the benefit

terms. Pre-Medicare Retiree Healthcare is a single-employer defined benefit OPEB plan that is treated like a cost-sharing plan for financial reporting purposes, and is administered by the Department of Human Resource Management. There were approximately 5,200 retirees and 91,800 active employees in the program in fiscal year 2018. There are no inactive employees entitled to future benefits who are not currently receiving benefits. There are no assets accumulated in a trust to pay benefits.

3) Funding

The employer does not pay a portion of the retirees' healthcare premium; however, since both active employees and retirees are included in the same pool for purposes of determining health insurance rates, this generally results in a higher rate for active employees. Therefore, the employer effectively subsidizes the costs of the participating retirees' healthcare through payment of the employer's portion of the premiums for active employees.

4) Changes in Total OPEB Liability

The PMRH total OPEB liability of \$1.0 billion as of June 30, 2019, was measured as of June 30, 2018, and was determined by an actuarial valuation as of June 30, 2018. The following tables (dollars in thousands) show the Commonwealth's total OPEB liability for the current and prior year:

Primary Government

	<u>PMRH</u>
	<u>Increase (Decrease)</u>
	<u>Total</u>
	<u>OPEB Liability</u>
Balances at June 30, 2018	\$ 760,551
Changes for the year	
Service cost	55,115
Interest cost	28,691
Changes of benefit terms	—
Differences between expected and actual experience	(111,203)
Changes of assumptions	(123,291)
Benefit payments	(24,364)
Net change	<u>(175,052)</u>
Balances at June 30, 2019	<u>\$ 585,499</u>

Component Units

	<u>PMRH</u>
	<u>Increase (Decrease)</u>
	<u>Total</u>
	<u>OPEB Liability</u>
Balances at June 30, 2018	\$ 538,353
Changes for the year	
Service cost	39,550
Interest cost	20,588
Changes of benefit terms	—
Differences between expected and actual experience	(79,797)
Changes of assumptions	(88,471)
Benefit payments	(10,082)
Net change	<u>(118,212)</u>
Balances at June 30, 2019	<u>\$ 420,141</u>

The amounts in the previous tables include governmental, business-type, and component unit activity for the DHRM-administered OPEB plan. The table excludes the non-DHRM OPEB plans' total OPEB liability of \$59.2 million for all other component units and includes the fiduciary OPEB liability of \$8,855.

The PMRH total OPEB liability was based on an actuarial valuation with a valuation date of June 30, 2018. The Department of Human Resource Management selected the economic, demographic and healthcare claim cost assumptions. The actuary provided guidance with respect to these assumptions. Initial healthcare costs trend rates used were 8.2 percent for medical and pharmacy and 4.0 percent for dental. The ultimate trend rates used were 5.0 percent for medical and pharmacy and 4.0 percent for dental.

Actuarial Assumptions and Methods

Valuation Date of June 30, 2018

Measurement Date	June 30, 2018 (one year prior to the end of the fiscal year)
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level dollar, Closed
Effective Amortization Period	6.19 years
Discount Rate	3.9%
Projected Salary Increases	4.0%
Medical Trend Under 65	Medical & Rx: 8.2% to 5.0% Dental: 4.0% Before reflecting excise tax
Year of Ultimate Trend	2025
Mortality	Mortality rates vary by participant status
Pre-Retirement	RP-2014 Employee Rates projected with Scale BB to 2020; males setback 1 year, 85.0% of rates; females setback 1 year
Post-Retirement	RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males and females setback 1 year
Post-Disablement:	RP-2014 Disabled Mortality Rates projected with Scale BB to 2020; males 115.0% of rates; females 130.0% of rates

The discount rate was based on the Bond Buyers GO 20 Municipal Bond Index as of the measurement date which is June 30, 2018. The inflation rate used was 2.3 percent per year and there were no ad hoc postemployment benefit changes used to measure the total OPEB liability.

Changes of Assumptions

The following actuarial assumptions were updated since the June 30, 2017 valuation based on recent experience:

- Spousal coverage - reduced the rate from 50.0 percent to 35.0 percent
- Retiree participation - reduced the rate from 70.0 percent to 60.0 percent

Spousal coverage and retiree participation were both reduced based on a blend of recent experience and the prior year assumptions. The mortality assumption was modified slightly to reflect mortality improvement projection scale BB to 2020. Additionally, the discount rate was increased from 3.6 percent to 3.9 percent based on the Bond Buyers GO 20 Municipal Bond Index.

5) Changes to and Sensitivity of Discount Rate

The following table (dollars in thousands) shows the Commonwealth's changes in discount rate and the healthcare cost trend rates.

Primary Government

Changes in Discount Rate		
PMRH		
Total OPEB Liability		
1.0% Decrease (2.9%)	Current Discount Rate (3.9%)	1.0% Increase (4.9%)
\$ 626,467	\$ 585,499	\$ 546,541

Changes in Healthcare Cost Trend Rates		
PMRH		
Total OPEB Liability		
1.0% Decrease	Healthcare Cost Trend Rates	1.0% Increase
(7.2% decreasing to 4.0%)	(8.2% decreasing to 5.0%)	(9.2% decreasing to 6.0%)
\$ 522,228	\$ 585,499	\$ 659,871

Component Units

Changes in Discount Rate		
PMRH		
Total OPEB Liability		
1.0% Decrease (2.9%)	Current Discount Rate (3.9%)	1.0% Increase (4.9%)
\$ 449,540	\$ 420,141	\$ 392,187

Changes in Healthcare Cost Trend Rates		
PMRH		
Total OPEB Liability		
1.0% Decrease	Healthcare Cost Trend Rates	1.0% Increase
(7.2% decreasing to 4.0%)	(8.2% decreasing to 5.0%)	(9.2% decreasing to 6.0%)
\$ 374,739	\$ 420,141	\$ 473,509

6) OPEB Related Deferred Outflows and Deferred Inflows

The following tables (dollars in thousands) summarize the OPEB related items reported as deferred outflows or deferred inflows of resources:

Primary Government (2)

	PMRH	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ —	\$ 118,056
Changes of assumptions	—	234,177
Changes in proportion	16,947	25,716
Amounts associated with transactions subsequent to the Measurement Date	24,073	—
Total	\$ 41,020	\$ 377,949

Component Units (1) (2)

	PMRH	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ —	\$ 84,710
Changes of assumptions	—	168,031
Changes in proportion	18,311	9,542
Amounts associated with transactions subsequent to the Measurement Date	17,273	—
Total	\$ 35,584	\$ 262,283

- (1) The component unit amounts exclude deferred outflows of resources and deferred inflows of resources of \$48,181 and \$52,930 (dollars in thousands), respectively, for other OPEB plans.
- (2) Additionally, during fiscal year 2019, the Commonwealth recognized OPEB expense for the primary government and component units of \$8,966 (dollars in thousands) and \$9,577 (dollars in thousands), respectively, for the DHRM-administered OPEB plan.

Deferred Amounts to be Recognized in Fiscal Years Following Reporting Date

The following tables (dollars in thousands) provide the net estimated amount of the deferred inflows and deferred outflows of resources that will be recognized in the Commonwealth's OPEB expense for each of the next five fiscal years and thereafter. These amounts exclude amounts associated with transactions subsequent to the measurement date as those will reduce the fiscal year 2020 total OPEB liability.

Primary Government

	PMRH
2020	\$ (74,829)
2021	(74,829)
2022	(74,829)
2023	(74,829)
2024	(54,308)
Thereafter	(7,378)

Component Units

	PMRH
2020	\$ (50,571)
2021	(50,571)
2022	(50,571)
2023	(50,571)
2024	(36,702)
Thereafter	(4,986)

7) Other OPEB Plans

Higher Education

The University of Virginia (nonmajor component unit) has a Retiree Health Plan that covers employees who retire before becoming eligible for Medicare. In addition, an Optional Retirement Life Insurance Plan is offered to University faculty and Medical Center employees who participate in the Optional Retirement Plans. For these OPEB plans, the University reported a total OPEB liability of \$58.3 million, deferred outflows of resources of \$13,192, and deferred inflows of resources of \$52.5 million as of June 30, 2019. Additional information on these plans can be found at the University's website at www.virginia.edu.

Other Component Units

The Virginia Housing Development Authority (major component unit) offers a medical, dental, and vision benefit plan, and reports deferred outflows of resources of \$4.7 million and deferred inflows of resources of \$186,913 as of June 30, 2019.

The Virginia Resources Authority (major component unit) offers an optional Retirement Life Insurance Plan for those employees who choose to participate. The Authority reports a net OPEB liability of \$205,649, deferred outflows of resources of \$13,322, and deferred inflows of resources of \$17,000 as of June 30, 2019.

The Virginia Port Authority (nonmajor component unit) offers medical and dental benefits for retirees. The Authority reports a total OPEB liability of \$910,998, deferred outflows of \$34,989 and deferred inflows of resources of \$428,347 as of June 30, 2019.

Hampton Roads Sanitation District (nonmajor component unit) offers a health and dental benefit plan for those employees who choose to participate. The District reports a net OPEB liability of \$18.7 million, deferred inflows of resources of \$2.5 million and deferred outflows of resources of \$3.6 million as of June 30, 2019.

The Virginia Biotechnology Research Partnership Authority (nonmajor component unit) offers an Optional Retirement Life Insurance Plan for those employees who choose to participate. The Authority reports a net OPEB liability of \$52,055, deferred outflows of resources of \$8,490, and deferred inflows of resources of \$4,162 as of June 30, 2019.

20. DEFERRED COMPENSATION PLANS

The Commonwealth offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457(b). The Virginia Retirement System (the System) administers the deferred compensation plan, pursuant to the Government Employees Deferred Compensation Plan Act, Section 51.1 of the *Code of Virginia*. The System contracts with private corporations or institutions subject to the standards set forth in the Code to provide investment products as well as any other goods and services related to the administration of the deferred compensation plan. The Department of Accounts is responsible for the accounting, reconciliation, payment to the plan through payroll deductions, and timely transfer of withheld funds to the trustee designated by the System for investment. The plan provides a number of investment options and is designed so that each participant retains investment control of his/her individual account. The plan, available to all state employees, permits them to defer a portion of their salary until future years. The deferred compensation is held in trust for the exclusive benefit of plan participants and their beneficiaries and is not available to employees until termination, retirement, death, unforeseeable emergency, or an in-service distribution at age 70½ or later. Since the System has no fiduciary relationship with plan participants, plan assets as of June 30, 2019, of \$2.9 billion are not included in the accompanying financial statements.

In addition, the Commonwealth provides a cash match under Internal Revenue Code Section 401(a) for employees participating in the deferred compensation plan. The match amount for an employee was established at 50.0 percent of the voluntary contributions to the deferred compensation plan. During the current fiscal year, the maximum match was \$20 per pay period or \$40 per month. The fair value of assets in the cash match savings plan as of June 30, 2019, was \$479.3 million, which is also excluded from the accompanying financial statements.

Most employees of the Commonwealth's colleges and universities may participate in the Commonwealth's deferred compensation plan in accordance with Internal Revenue Code Section 457(b) and/or the institution's deferred compensation plan in accordance with Internal Revenue Code Section 403(b). Under either plan, the

institution's cash match under the Internal Revenue Code Section 401(a) during fiscal year 2019 was a maximum match up to \$20 per pay period or \$40 per month. This employer match is for either plan but not both plans. Employer contributions under these plans were approximately \$13.4 million for fiscal year 2019.

The deferred compensation plan for the University of Virginia Medical Center (part of the University of Virginia – nonmajor component unit) employees hired on or after September 30, 2002, allows employee contributions up to 4.0 percent of their salary and the employer match is 50.0 percent of the 4.0 percent deferral not to exceed 2.0 percent of the employees' salary. Employer contributions under this plan were approximately \$4.6 million for fiscal year 2019. The University of Virginia provides executive deferred compensation retirement benefits for certain officers and executives of the University and the University Medical Center. The University makes contributions on behalf of each participant each plan year as determined by the Board of Visitors. The University contributed \$1.9 million to these accounts for fiscal year 2019.

The Virginia Housing Development Authority (major component unit) and the Virginia Resources Authority (major component unit) have deferred compensation plans available to all employees created in accordance with Internal Revenue Section 457(b). The plan permits participants to defer a portion of their salary or wages until future years. The deferred compensation is not available to employees until termination, retirement, or death. The assets of the plan are in an irrevocable trust with an external trustee and, accordingly, no assets or liabilities are reflected in the accompanying financial statements.

The Virginia Port Authority (VPA) (nonmajor component unit) offers three deferred compensation plans and two matching savings plans under Internal Revenue Code Sections 457 and 401(a), respectively. For additional information, please see the Authority's website at www.portofvirginia.com.

The Assistive Technology Loan Fund Authority (nonmajor component unit) employees contribute an amount of their choosing into Deferred Compensation Plans administered by the Virginia Retirement System and into a qualified 403(b) plan.

21. STATE NON-ARBITRAGE POOL

The Commonwealth sponsors the Virginia State Non-Arbitrage Program (SNAP) for use by the Commonwealth and local governments to invest bond proceeds. The Treasury Board is responsible for the oversight of SNAP, procuring the following services: investment management, program administration, arbitrage rebate and calculation, and custodial and depository services. The Commonwealth does not have fiduciary responsibility for SNAP.

The SNAP fund is a local government investment pool. PFM Asset Management LLC serves as the investment adviser of the SNAP fund. The SNAP individual investment portfolios are the responsibility of the SNAP investment manager and the governments investing

proceeds in the portfolios. These investments are held solely in the SNAP participants' names. Since the Commonwealth has no fiduciary relationship with local governmental entities participating in the plan, these assets of \$2.9 billion are not included in the financial statements.

22. COMMITMENTS

A. Construction Projects

Primary Government

Highway Projects

As of June 30, 2019, the Department of Transportation had contractual commitments of approximately \$6.2 billion for construction of various highway projects. Funding for these expenditures is expected to be provided as follows: (1) Federal funds—approximately 13.6 percent or \$842.0 million, (2) State funds – approximately 70.5 percent or \$4.4 billion, and (3) Proceeds from Bonds – approximately 15.9 percent or \$977.0 million.

Mass Transit Projects

As of June 30, 2019, the Department of Rail and Public Transportation had contractual commitments of approximately \$324.0 million for various public transportation, rail preservation, and rail enhancement projects. Funding of the future expenditures is expected to be as follows: 1) State funds – approximately 92.3 percent or \$299.2 million, and 2) Federal funds – approximately 7.7 percent or \$24.8 million.

Wastewater Treatment Projects

As of June 30, 2019, the Department of Environmental Quality was committed to grant contracts with localities to reimburse a portion of construction costs for nutrient reduction facilities at wastewater treatment plants totaling \$7.3 million provided by bond proceeds and the Water Quality Improvement Fund.

Other Construction Projects

As of June 30, 2019, the Department of General Services had construction commitments of approximately \$22.9 million.

As of June 30, 2019, the Department of Behavioral Health and Developmental Services had construction contractual commitments of approximately \$113.7 million.

As of June 30, 2019, the Department of Military Affairs had construction contractual commitments of approximately \$19.1 million.

As of June 30, 2019, the Department of Forensic Science had contractual commitments of approximately \$6.4 million and non-contractual commitments of \$5.6 million for construction projects.

As of June 30, 2019, the Department of Corrections had construction commitments of approximately \$21.1 million.

As of June 30, 2019, the Department of Veterans Services had contractual commitments of \$12.6 million and non-contractual commitments of \$118.6 million for construction projects.

As of June 30, 2019, the Department of Conservation and Recreation had contractual commitments of \$5.6 million for construction projects.

Component Units

Port Projects

As of June 30, 2019, the Virginia Port Authority (nonmajor) was committed to construction contracts totaling \$534.4 million.

Wallops Island Project

As of June 30, 2019, the Virginia Commercial Space Flight Authority (nonmajor) was committed to construction programs totaling \$14.1 million, approximately \$7.3 million of which will be reimbursable under separate private and federal contract agreements and approximately \$1.7 million of which are funded by the Commonwealth.

Treatment Plant

As of June 30, 2019, the Hampton Roads Sanitation District Commission (nonmajor) was committed to construction contracts totaling \$167.2 million.

Higher Education Institutions

Colleges and universities (nonmajor) had contractual commitments as of June 30, 2019, of approximately \$1.8 billion. Higher education foundations' commitments total approximately \$98.7 million. These are primarily for construction contracts.

B. Operating Leases

The Commonwealth has entered into numerous agreements to lease land, buildings, and equipment. Most of the operating leases contain the provision that the Commonwealth may renew the operating leases at the expiration date of the lease on a month-to-month basis. In most cases, management expects that in the normal course of business, leases will be renewed or replaced by other leases of a similar nature. Rental expense for the primary government under these operating leases for the year ended June 30, 2019, was \$78.8 million for governmental activities (including internal service funds) and \$29.7 million for business-type activities. Rental expense for the discrete component units (excluding foundations) for the year ended June 30, 2019, was \$129.6 million. The Commonwealth has, as of June 30, 2019, the following minimum rental payments due under the above leases (dollars in thousands):

	Primary Government		
	Governmental Activities	Business-type Activities	Component Units (1)
2020	\$ 78,252	\$ 28,592	\$ 84,861
2021	68,431	25,379	67,757
2022	59,299	20,598	56,588
2023	43,820	15,628	47,413
2024	35,568	11,626	37,182
2025-2029	80,895	19,997	94,809
2030-2034	6,924	—	7,103
2035-2039	263	—	1,119
2040-2044	25	—	925
2045-2049	30	—	925
2050-2054	—	—	925
2055-2059	—	—	295
2060-2064	—	—	25
2065-2069	—	—	20
Total	\$ 373,507	\$ 121,820	\$ 399,947

Note (1): The above amounts exclude operating lease obligations of foundations.

Foundations (2)	
2020	\$ 7,722
2021	7,406
2022	6,917
2023	6,105
2024	5,767
Thereafter	36,646
Total	\$ 70,563

Note (2): Foundations represent FASB reporting entities defined in Note 1.B. Rental expense for the year ended June 30, 2019, was approximately \$7.8 million.

Lease agreements are for various terms and contain nonappropriation clauses indicating that continuation of the lease is subject to funding by the General Assembly.

C. Investment Commitments – Virginia Retirement System

The Virginia Retirement System extends investment commitments in the normal course of business, which, as of June 30, 2019, amounted to \$15.3 billion.

D. Virginia Transportation Infrastructure Bank

Section 33.2-1500 of the *Code of Virginia* states the Virginia Transportation Infrastructure Bank is intended to help alleviate a critical financing need for present and future highways within the Commonwealth. This includes toll facilities; mass transit; freight, passenger, and commuter rail; and port, airport and other transportation facilities.

As of June 30, 2019, \$156.0 million included as Loans Receivable in the accompanying statements represents loans to the City of Chesapeake for the Dominion Boulevard Project and Loudoun County for the Pacific Boulevard Project. Additionally, loans have been approved for the Chesapeake Bay Bridge and Tunnel District for the Parallel Thimble Shoal Tunnel, the City of Alexandria for the Potomac Yard Metrorail Station, and 95 Express Lanes LLC for the 395 Express Lanes Northern Extension, but no disbursements were made as of June 30, 2019. A disbursement of \$44.6 million was made for the 395 Express Lanes Northern Extension in July 2019. All loans are coordinated through the Virginia Resources Authority (major component unit).

E. Tobacco Grants

The Tobacco Region Revitalization Commission (nonmajor component unit) had \$41.8 million in grant award commitments not reflected in the accompanying financial statements since eligibility requirements were not met as of June 30, 2019, in accordance with GASB Statement No. 33.

F. Other Commitments

Primary Government

As of June 30, 2019, the Department of Behavioral Health and Developmental Services had contractual commitments of approximately \$127.1 million.

As of June 30, 2019, the Department of Corrections had contractual commitments of approximately \$227.2 million and non-contractual commitments of approximately \$20.3 million for detention services and medical care.

As of June 30, 2019, the Virginia Department of Health had commitments of approximately \$40.0 million to localities, trauma centers, grants to rescue squads, and water supply assistance grants.

As of June 30, 2019, the Department of Motor Vehicles had contractual commitments of approximately \$32.8 million for security technology services.

As of June 30, 2019, the Virginia Department of Transportation had contractual commitments of approximately \$978.0 million for individual contracts awarded with a contract value of \$1.0 million or more for operational services, facilities, tolling services and other non-highway construction type contracts.

As of June 30, 2019, the Virginia Employment Commission had contractual commitments of approximately \$8.8 million for information systems modernization projects and approximately \$6.2 million for other non-contractual commitments.

As of June 30, 2019, the Enterprise Applications (internal service fund) had \$40.6 million in contractually obligated commitments for the Human Capital Management replacement project.

As of June 30, 2019, the Property Management (internal service fund) had a signed lease agreement for a build to suit building for the Department of Corrections with total lease payments of \$5.6 million.

The Virginia College Savings Plan (major enterprise fund) administers the Prepaid529 Program. As of June 30, 2019, the Program had \$153.3 million in private equity commitments.

The Virginia Wireless E-911 (nonmajor enterprise fund) had \$4.5 million in outstanding grants awarded but not yet disbursed to localities as of June 30, 2019, since all of the eligibility criteria have not been met in accordance with GASB Statement No. 33.

Component Units

The Virginia Housing Development Authority (major) and Virginia Resources Authority (major) had \$1.1 billion and \$215.0 million, respectively, in commitments to fund new loans not reflected in the accompanying financial statements since eligibility requirements were not met as of June 30, 2019, in accordance with GASB Statement No. 33.

The Virginia Small Business Financing Authority (nonmajor) had \$6.2 million in loan commitments to banks and borrowers not reflected in the accompanying financial statements since eligibility requirements were not met as of June 30, 2019, in accordance with GASB Statement No. 33.

23. ACCRUED LIABILITY FOR COMPENSATED ABSENCES

Employees accrue annual leave at a rate of four to nine hours semimonthly, depending on their length of service. The maximum leave accumulation is dependent upon years of service, but in no case may it exceed 432 hours at the end of the leave year. The maximum compensation for annual leave balances is also dependent upon years of service, but in no case may an employee be compensated for more than 336 hours upon separation.

All employees hired after January 1, 1999, are required to enroll in the Virginia Sickness and Disability Program (VSDP) (see Note 18). Under the VSDP, employees receive a specified number of sick and personal leave hours, depending on their length of service, and any balances at the end of the leave year revert. Individuals employed at January 1, 1999, had the option of converting to the VSDP or remaining in the traditional sick leave plan. If converting, the employee's sick leave balance could be used to purchase retirement credits or be converted to disability credits. If an employee opted to remain in the traditional sick leave program, sick leave accrues at a rate of five hours semimonthly. Employees who leave state service after a minimum of five years employment receive the lesser of 25.0 percent of the value of their disability credits or accumulated sick leave at their current earnings rate or \$5,000. All employees leaving state service are paid for accrued annual leave up to the maximum leave year limit at their current earnings rate.

In conformance with Section C60 of the GASB Codification, the monetary value of accumulated vacation, compensatory, overtime, recognition, and sick leave payable upon termination is included in the accompanying financial statements and is reported as Compensated Absences. In the government-wide statements, proprietary fund statements, and discrete component unit fund statements, compensated absence amounts are segregated into two components – the amount due within one year and the amount due in more than one year. Compensated absences due within one year consist of an estimate of the amount that will be used by active employees for paid time off and/or paid upon termination, plus the actual amount paid after June 30 for employees terminating on or before June 30. In the governmental fund statements, amounts to be paid from expendable resources are recognized as fund liabilities in the applicable governmental fund types as long-term liabilities and represent payments to employees for separations that occurred on or before June 30. Amounts not payable from expendable resources are reflected in the governmental activities column in the Government-wide Statement of Net Position (see Note 28). All amounts related to the fiduciary funds are recognized in those funds.

The liability as of June 30, 2019, was computed using salary rates effective at that date, and represents vacation, compensatory, overtime, recognition, and sick leave earned, or disability credits held by employees, up to the allowable ceilings.

24. POLLUTION REMEDIATION OBLIGATIONS

The Commonwealth has pollution remediation obligations of \$10.4 million, of which \$1.9 million is due within one year. With the exception of the Department of Environmental Quality (DEQ), agencies estimated future obligations based on professional consultant estimates and/or historical project expenses of similar projects; however, there is the potential for change in estimates due to price increases or reductions, technology, or applicable laws and regulations. Remediations for DEQ are not estimates but contractual obligations between the Commonwealth and the U.S. Environmental Protection Agency (EPA), and any change due to a reconciliation of incurred costs requires mutual consent and contract amendment.

The estimated Commonwealth pollution remediation liability relates to the anticipated cost of hazardous waste removal, cleanup relating to leakage of underground storage tanks, soil and groundwater contaminations, dump site cleanups, asbestos, lead contamination, mold remediation and remediation relating to superfund state contracts.

Agencies involved in remediation include:

- Department of Conservation and Recreation (DCR)
- Department of Corrections (DOC)
- Department of Emergency Management (VDEM)
- Department of Environmental Quality (DEQ)
- Department of Juvenile Justice (DJJ)
- Department of Transportation (VDOT)

A Facility Lead Agreement was signed between the EPA and VDOT to resolve an issue concerning the storage of lab wastewater in an outdoor lined surface impoundment that operated between 1979 and 1983 for which contamination is present in soil and groundwater. DOC was fined by the EPA in September/October 2003. DOC proposed to conduct a Supplemental Environmental Project (SEP) which included the formation of the Pollution Prevention Section of the Environmental Services Unit, disclosure of all environmental deficiencies to both the EPA and DEQ and corrections of those deficiencies.

The following pollution remediation outlays could not reasonably be estimated as of June 30, 2019:

- VDEM relating to cleanup of an emergency fuel storage facility
- DJJ relating to petroleum storage tank removal
- VDOT relating to groundwater contamination

25. INSURANCE

A. Self-Insurance

The Commonwealth maintains three types of self-insurance plans. The first type of self-insurance is a health care plan administered by the Department of Human Resource Management for Commonwealth employees. The plan is accounted for in the Health Care Internal Service Fund. Interfund premiums are accounted for as internal activity receipts from other funds. As of June 30, 2019, \$131.4 million is reported as the estimated claims payable for this fund, which is undiscounted as nearly all healthcare claims are current in nature. The estimated liability is based upon actual claims that have been submitted as well as actuarially determined claims incurred but not reported as described in Note 1.W. Changes in the balances of claims liabilities (dollars in thousands) during the current and prior fiscal years are as follows:

	Balance July 1,	Current Year Claims and Changes in Estimates	Claim Payments	Balance June 30, (1)
2018-2019	\$ 116,172	\$ 1,448,334	\$ (1,433,122)	\$ 131,384
2017-2018	\$ 112,029	\$ 1,322,571	\$ (1,318,428)	\$ 116,172

(1) The entire ending balance shown above is due within one year.

The second type of plan, Risk Management, is administered by the Department of the Treasury, Division of Risk Management and the Department of Human Resource Management, Worker's Compensation Program. These plans are accounted for in the Risk Management Internal Service Fund. The Department of the Treasury administers risk management programs providing property, general (tort) liability, medical malpractice, automobile and surety bond exposures for the Commonwealth of Virginia as provided in Sections 2.2-1834 through 1838 and Section 2.2-1840 of the *Code of Virginia*. Established subject to the approval of the Governor, risk management plans provide state agencies with protection through purchased insurance, self-insurance or a combination thereof. Interfund premiums for the fund are accounted for as internal activity receipts from other funds. The claims payable is an estimated liability based upon actual claims that have been submitted as well as actuarially determined claims incurred but not reported. As of June 30, 2019, \$752.0 million is reported as the estimated claims payable for the risk management plan. This amount is discounted to present value at a rate of 1.9 percent. Undiscounted claims payable as of June 30, 2019, is \$997.1 million. The estimated losses are based upon actual claims that have been submitted, as well as claims incurred but not reported. Changes in the balances of claims liabilities (dollars in thousands) during the current and prior fiscal years are as follows:

	Balance July 1,	Current Year Claims and Changes in Estimates	Claim Payments	Balance June 30, (1)
2018-2019	\$ 793,359	\$ 32,341	\$ (73,731)	\$ 751,969
2017-2018	\$ 797,637	\$ 72,097	\$ (76,375)	\$ 793,359

(1) Of the balance shown above, \$74.3 million is due within one year.

For workers' compensation, the Commonwealth assumes the full risk of claims filed. For tort and automobile, liability is assumed at a maximum of \$2.0 million per occurrence. Medical malpractice is assumed at the maximum per occurrence recovery limited as stated in Section 8.01-581.15 of the *Code of Virginia*. Risk Management purchases commercial insurance to protect state-owned property with deductibles as stated in the insurance policies.

The third type of plan, Line of Duty, is administered by the Department of Human Resource Management for Line of Duty recipients. Per the amended Line of Duty Act Section 9.1-401 of the *Code of Virginia*, the Department of Human Resource Management is responsible for administration of the premium-free health benefits provided to eligible Line of Duty recipients. The plan is accounted for in the Line of Duty Internal Service Fund. All eligible employees, former employees, and eligible family members will be covered under one program, the Line of Duty Health Benefit Plans. Participating or non-participating refers to whether the employer participates in the Line of Duty Death and Health Benefits Trust Fund, administered by VRS. All state agencies are participating employers, but localities can be either participating or non-participating. As of June 30, 2019, \$617,818 is reported as the claims payable for the fund for state employees and participating localities, which is undiscounted as nearly all healthcare claims are current in nature. Changes in the balances of claims liabilities (dollars in thousands) during the current and prior fiscal years are as follows:

	Balance July 1,	Current Year Claims and Changes in Estimates	Claim Payments	Balance June 30, (1)
2018-2019	\$ 485	\$ 7,200	\$ (7,067)	\$ 618
2017-2018	\$ —	\$ 3,729	\$ (3,244)	\$ 485

(1) The entire ending balance shown above is due within one year.

The Commonwealth has not had any insurance settlements exceed the coverage during the past three years.

University of Virginia employees have the option to participate in the University's self-funded, comprehensive medical care benefits program. The cost of medical care is paid out of employee and employer contributions. Claims and expenses are reported when it is probable that a loss has occurred, and the amount of the loss can be reasonably estimated. Those losses include an estimate of claims that have been incurred but not reported and

the future costs of handling claims. The estimated liability for outstanding claims on June 30, 2019, was \$14.4 million. The University has contracted with several third-party claims administrators: Aetna, for its medical claims, United Concordia for its dental claims, and OptumRx for its pharmacy claims.

As of June 30, 2019, the Virginia Commonwealth University Health System Authority (Authority) (a blended component unit of the Virginia Commonwealth University – nonmajor component unit) reports the following claims payable amounts: estimated workers' compensation claims of \$13.1 million and estimated losses on malpractice claims of \$2.9 million. Aries Insurance Captive (component unit of the Authority) reports claims payable of \$22.0 million for estimated losses on malpractice claims. Virginia Premier Health Plan (component unit of the Authority) reports claims payable of \$174.8 million for estimated medical claims payable. Additional information on claims payable can be found in the Authority's separately issued financial statements.

Virginia International Terminals, LLC (VIT) (a blended component unit of the Virginia Port Authority – nonmajor) is partially self-insured for certain workers' compensation claims. The Authority maintains insurance coverage of \$5.0 million per claim, but is obligated to pay the first \$1.0 million of any individual's claims per incident. The Authority bears some self-insurance risk for claims cost in excess of employee premiums/contributions received. Pursuant to a joint arrangement with the Virginia Port Authority, (VPA) (nonmajor) the entity carries stop loss insurance to mitigate exposure to significant claims. The stop loss policy is on a calendar year basis, with renewals effective each January 1. During the calendar year 2018 and 2019, the individual claim cost limit (deductible) under the policy for the Authority was \$125,000. The aggregate deductible for VIT and VPA combined claims in excess of the \$125,000 individual limit was \$6.4 million for calendar year 2019 and \$9.5 million for calendar year 2018.

B. Public Entity Risk Pools

The Commonwealth administers three types of public entity risk pools for the benefit of local governmental units: healthcare, risk management, and line of duty insurance. The Local Choice Health Care plan was established to make comprehensive healthcare insurance available to localities and political subdivisions at affordable rates and with stable premiums. During the fiscal year, there were 441 local government units participating in the pool. This includes 67 school districts, 37 counties, 130 cities/towns, and 207 other subdivisions. This program is accounted for in the Local Choice Health Care Enterprise Fund (nonmajor).

The Department of Human Resource Management, under Section 2.2-1204 of the *Code of Virginia*, has the authority to design, set rates, and administer the Local Choice Health Care fund. The pool's standard contract period is one year. However, a member

group may withdraw on the last day of any month with three month's written notice. Contributions are based on the current necessary contribution and the amortization of experience adjustments in the pool. As of June 30, 2019, \$46.8 million is reported as the actuarially determined estimated claims payable for this fund based on claims incurred but not reported.

The actuarial liability is determined for the membership pool in total and then adjusted for each locality based on individual historic and demographic data. If the pool's assets were to be exhausted, the program participants would share the responsibility for any liabilities or deficits.

The Department of the Treasury, Division of Risk Management administers the VARisk and VARisk2 risk management programs for political subdivisions, constitutional officers and others in accordance with Section 2.2-1839 of the *Code of Virginia*. These pools were established to provide an economical, low-cost alternative to the commercial insurance market for the Commonwealth's political subdivisions. These risk programs are accounted for in the Risk Management Enterprise Fund (nonmajor). The pool is established subject to approval by the Governor. It may be insurance, self-insurance, or any combination thereof, and must provide protection and legal defense against liability. Participation is voluntary and open to those identified in Section 2.2-1839 of the *Code of Virginia*. As of June 30, 2019, there were 508 units of local government in the pool, including 16 towns and 25 counties. The remaining 467 units include a large variety of boards, commissions, authorities, and special districts.

The VARisk program is comprised of constitutional officers and regional jails, and participation is not mandated by the *Code of Virginia*. However, the Compensation Board (part of the primary government) requires participation by all constitutional officers.

The VARisk2 program is comprised of local governments and has a minimum membership period of one year. However, a member group can cancel membership and withdraw from the plan on their coverage anniversary date or at the end of the fiscal year with 30 days' notice.

No excess insurance or reinsurance is provided. The risk assumed by the VARisk and VARisk2 pool for liability is \$1.0 million per occurrence, with the exception of sheriffs and their deputies, which is \$1.5 million per occurrence.

As of June 30, 2019, \$35.5 million and \$4.0 million is reported as estimated claims payable for the VARisk and the VARisk2 programs, respectively. These figures are actuarially determined for the funds in total and are reported at gross. They are based on the estimated ultimate cost of settling the claims, including the effects of inflation and other societal and economic factors. They do not reflect possible reimbursements for insurance recoveries.

Per the amended Line of Duty Act Section 9.1-401 of the *Code of Virginia*, the Virginia Department of Human Resource Management (DHRM) is responsible for administration of the premium-free health benefits provided to eligible LODA recipients. All eligible employees, former employees, and eligible family members will be covered under one program, the LODA Health Benefits Plans. As of June 30, 2019, \$1.5 million is reported as the actuarially determined estimated claims payable for the non-participating localities reported in this fund based on claims incurred but not reported.

The following schedule (dollars in thousands) shows the changes in claims liabilities for the past two fiscal years.

	Local Choice Health Care		Risk Management		Line of Duty	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Unpaid Claims and Claim						
Adjustment Expenses at Beginning of Fiscal Year	\$ 40,601	\$ 38,046	\$ 36,156	\$ 37,568	\$ 2,208	\$ —
Incurred Claims and Claim Adjustment Expenses:						
Provision for Insured Events of the Current Fiscal Year	450,166	424,357	14,151	14,210	16,607	16,987
Changes in Provision for Insured Events of Prior Fiscal Years	—	—	(951)	(6,885)	—	—
Total Incurred Claims and Adjustment Expenses	450,166	424,357	13,200	7,325	16,607	16,987
Payments:						
Claims and Claim Adjustment Expenses Attributable to Insured Events of the Current Fiscal Year	443,931	421,802	1,075	1,979	17,302	14,779
Claims and Claim Adjustment Expenses Attributable to Insured Events of the Prior Fiscal Year	—	—	9,302	7,281	—	—
Total Payments	443,931	421,802	10,377	9,260	17,302	14,779
Change in Provision for Discounts	—	—	530	523	—	—
Total Unpaid Claims and Claim Adjustment Expenses at End of the Fiscal Year (Discounted) (1) (2) (3) (4)	\$ 46,836	\$ 40,601	\$ 39,509	\$ 36,156	\$ 1,513	\$ 2,208
Total Unpaid Claims and Claim Adjustment Expenses at End of the Fiscal Year (Undiscounted)	\$ 46,836	\$ 40,601	\$ 41,375	\$ 37,855	\$ 1,513	\$ 2,208

Note (1): The entire balance for Local Choice Health Care, \$46,836 (dollars in thousands) is due within one year.

Note (2): Of the balance shown above for Risk Management, \$10,872 (dollars in thousands) is due within one year.

Note (3): The entire balance for Line of Duty, \$1,513 (dollars in thousands) is due within one year.

Note (4): The interest rate used for discounting is 1.9 percent.

26. ACCOUNTS PAYABLE

The following table (dollars in thousands) summarizes Accounts Payable as of June 30, 2019.

	<u>Vendor</u>	<u>Salary / Wage</u>	<u>Retainage</u>	<u>Other</u>	<u>Foundations (1)</u>	<u>Total</u>
Primary Government:						
General	\$ 270,747	\$ 109,496	\$ 14	\$ —	\$ —	\$ 380,257
Major Special Revenue Funds:						
Commonwealth Transportation	473,611	35,012	2,629	—	—	511,252
Federal Trust	67,873	16,723	1,119	—	—	85,715
Literary	1	—	—	—	—	1
Nonmajor Governmental Funds	54,698	15,842	5,803	298	—	76,641
Major Enterprise Funds:						
Virginia Lottery (2)	11,065	1,875	—	5,512	—	18,452
Virginia College Savings Plan	214	590	—	200	—	1,004
Unemployment Compensation	59	—	—	—	—	59
Nonmajor Enterprise Funds	52,320	7,292	570	3	—	60,185
Internal Service Funds	90,121	3,157	490	—	—	93,768
Private Purpose Trust Funds	—	1	—	368	—	369
Pension and Other Employee Benefit Trust Funds (3)	3,468	2,728	—	40,844	—	47,040
Agency Funds	3,153	—	—	5,845	—	8,998
Total Primary Government (4)	<u>\$ 1,027,330</u>	<u>\$ 192,716</u>	<u>\$ 10,625</u>	<u>\$ 53,070</u>	<u>\$ —</u>	<u>\$ 1,283,741</u>
Discrete Component Units:						
Virginia Housing Development Authority	\$ 1,388	\$ 5,560	\$ —	\$ 20,015	\$ —	\$ 26,963
Virginia Public School Authority	71	—	—	—	—	71
Virginia Resources Authority	95	4	—	—	—	99
Virginia College Building Authority	14	—	—	—	—	14
Nonmajor Component Units	725,121	501,970	62,323	5,641	130,031	1,425,086
Total Component Units	<u>\$ 726,689</u>	<u>\$ 507,534</u>	<u>\$ 62,323</u>	<u>\$ 25,656</u>	<u>\$ 130,031</u>	<u>\$ 1,452,233</u>

Note (1): Foundations represent FASB reporting entities defined in Note 1.B.

Note (2): Other Accounts Payable for the Virginia Lottery primarily represents unclaimed prizes attributable to multi-state games and player subscription wallets.

Note (3): Other Accounts Payable for the Pension and Other Employee Benefit Trust Fund consists of \$23,978 (dollars in thousands) in investment management fees and \$16,866 (dollars in thousands) in program benefit liabilities.

Note (4): Fiduciary liabilities of \$56,407 (dollars in thousands) are not included in the Government-wide Statement of Net Position. In addition, governmental fund liabilities of \$128,259 (dollars in thousands) are included in the Government-wide Statement of Net Position, but excluded from the above amounts.

27. OTHER LIABILITIES

The following tables (dollars in thousands) summarize Other Liabilities as of June 30, 2019.

	Primary Government					Virginia College Savings Plan (1)
	General	Commonwealth Transportation	Federal Trust	Nonmajor Governmental Funds	Virginia Lottery	
Lottery Prizes Payable	\$ —	\$ —	\$ —	\$ —	\$ 70,036	\$ —
Medicaid Payable	469,505	—	963,696	128,690	—	—
Family Access to Medical Insurance Security Payable	3,810	—	26,904	—	—	—
Tax Refunds Payable	892,370	—	—	—	—	—
Insurance Carrier Surety Deposit	—	—	—	—	—	—
Deposits Pending Distribution	3,651	1,239	1	5,027	—	—
Car Tax Payable	263,025	—	—	—	—	—
Other Liabilities	161	3	7	664	—	11,853
Total Other Liabilities	\$ 1,632,522	\$ 1,242	\$ 990,608	\$ 134,381	\$ 70,036	\$ 11,853

	Primary Government				Total Primary Government (3)
	Nonmajor Enterprise Funds	Internal Service Funds	Pension and Other Employee Benefit Trust Funds (2)	Agency Funds	
Lottery Prizes Payable	\$ —	\$ —	\$ —	\$ —	\$ 70,036
Medicaid Payable	—	—	—	—	1,561,891
Family Access to Medical Insurance Security Payable	—	—	—	—	30,714
Tax Refunds Payable	—	—	—	—	892,370
Insurance Carrier Surety Deposit	—	—	—	450,702	450,702
Deposits Pending Distribution	136	23	—	87,539	97,616
Car Tax Refund Payable	—	—	—	—	263,025
Other Liabilities	—	—	201,408	1,915	216,011
Total Other Liabilities	\$ 136	\$ 23	\$ 201,408	\$ 540,156	\$ 3,582,365

Note (1): Other Liabilities of \$11,853 (dollars in thousands) reported by the Virginia College Savings Plan represent amounts associated with pending investment trades and program distributions payable.

Note (2): Other Liabilities of \$201,408 (dollars in thousands) reported in Pension and Other Employee Benefit Trust Funds are made up of \$115,851 (dollars in thousands) in other funds managed by the System; \$80,925 (dollars in thousands) in pending investment transactions, including \$69,700 (dollars in thousands) in net foreign exchange contracts payable, and \$7,626 (dollars in thousands) in other investment payables; \$2,635 (dollars in thousands) in foreign taxes payables related to the System benefit plans; \$964,000 in dividends payable related to the System benefit plans; and \$4,632 (dollars in thousands) in other payables related to the System benefit plans.

Note (3): Fiduciary liabilities of \$741,564 (dollars in thousands) are not included in the Government-wide Statement of Net Position. Governmental fund liabilities of \$78,617 (dollars in thousands) are included in the Government-wide Statement of Net Position, but excluded from the above amounts.

	Component Units					Total Component Units
	Virginia Housing Development Authority	Virginia Public School Authority	Virginia Resources Authority	Virginia College Building Authority	Nonmajor Component Units (4)	
Accrued Interest Payable	\$ 27,742	\$ 53,975	\$ 26,825	\$ 91,456	\$ 94,781	\$ 294,779
Deposits Pending Distribution	—	—	—	—	560,889	560,889
Short-term Debt	445,300	—	—	—	403,079	848,379
Grants Payable	—	—	—	—	7,727	7,727
Other Liabilities	33,632	—	1,187	2,442	318,214	355,475
Total Other Liabilities	\$ 506,674	\$ 53,975	\$ 28,012	\$ 93,898	\$ 1,384,690	\$ 2,067,249

Note (4): Other Liabilities of nonmajor component units are predominantly comprised of derivative instruments reported by the following: University of Virginia of \$35,068 (dollars in thousands), Virginia Commonwealth University Health System Authority (blended component unit of Virginia Commonwealth University) of \$45,200 (dollars in thousands), and foundations of higher education institutions of \$51,478 (dollars in thousands). Other Liabilities also includes a reserve for medical malpractice reported by a foundation of the University of Virginia of \$71,561 (dollars in thousands).

Medicaid Payable

Medicaid Payable represents services rendered but not billed by providers and potential liability resulting from cost reports not settled as of year-end. Providers subject to cost settlement are paid in the interim based on established per diem or diagnosis related group rates for services.

The Department of Medical Assistance Services (DMAS) estimates, based on past experience, the total amount of Medicaid claims that will be paid from the Medicaid program in the future which relate to services provided before year-end. As of June 30, 2019, the estimated liability related to Medicaid claims totaled \$1.6 billion. Of this amount, \$469.5 million is reflected in the General Fund (major governmental), \$963.7 million in the Federal Trust Special Revenue Fund (major governmental), and \$128.7 million in the Health and Social Services Fund (nonmajor special revenue).

Family Access to Medical Insurance Security Payable

DMAS estimates the total amount of claims that will be paid from the Family Access to Medical Insurance Security program in the future which relate to services provided before year-end. As of June 30, 2019, the estimated liability related to claims totaled \$30.7 million. Of this amount, \$3.8 million is reflected in the General Fund (major governmental) and \$26.9 million in the Federal Trust Special Revenue Fund (major governmental).

Tax Refunds Payable

Tax refunds payable represent refunds due on individual tax returns filed for the calendar year ended on or before December 31, 2018, and on business tax returns filed for corporate fiscal years ending on or before June 30, 2019. The individual tax return filing deadline is May 1 of each year for the preceding calendar year. The corporate tax return filing deadline is the 15th day of the fourth month following the close of the corporate fiscal year. Additionally, as of June 30, 2019, \$424.3 million represents taxpayer refunds provided pursuant to Chapter 854 (see Note 7).

Car Tax Refund Payable

During the year ended June 30, 1998, the General Assembly passed the Personal Property Tax Relief Act. Under the terms of this legislation, the Commonwealth assumed financial responsibility for a portion, ranging from 12.5 percent to 70.0 percent, of the personal property taxes assessed by localities.

During 2004, the General Assembly modified this legislation. Chapter 1 of Special Session 1 (2004) established a \$950.0 million limit on the amount the Commonwealth would appropriate for personal property tax relief, beginning in tax year 2006. It further established that each county, city, and town would receive a fixed percentage of the \$950.0 million, with payments to begin on or after July 1, 2006 (fiscal year 2007). The accrued liability amount of \$263.0 million reflects payments owed to localities as of June 30 and paid in July.

Termination Benefits

During fiscal year 2019, the Commonwealth laid off 274 employees. The affected employees had the option of volunteering for enhanced retirement benefits or severance benefits. The enhanced retirement benefits option was elected by 44 employees, and the remaining 230 employees elected severance benefits. The severance benefits include salary payments based on years of service and insurance premium payments for health and life insurance. All severance benefits were initiated during fiscal year 2019 and will end no later than June 30, 2020. The benefit cost expended and the outstanding liability as of June 30, 2019 for governmental funds, are \$3.7 million and \$1.2 million, respectively. Since the severance benefits last for a maximum of 12 months, discounting of future cash flows is unnecessary. Additionally, the estimated payments are calculated using the Department of Human Resources' Termination Benefits Calculator and actual costs.

Short-term Debt

Short-term debt results from borrowings from anticipation notes, lines of credit, and similar loans with parties external to the primary government. The primary government's policy is to disclose activity related to short-term borrowings occurring during the fiscal year. For fiscal year 2019, the primary government's agencies did not participate in short-term borrowings with external parties.

The Commonwealth implemented GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, effective for fiscal year 2019. This statement requires the disclosure of any unused lines of credit for fiscal year 2019. The primary government does not have any unused lines of credit at June 30, 2019.

The Virginia Housing Development Authority (major component unit) has a direct borrowing from a line of credit of \$445.3 million. University of Virginia (nonmajor component unit) has commercial paper of \$243.9 million primarily used to bridge finance capital projects and, from time to time, fund operations. Virginia Commonwealth University and Virginia Polytechnic Institute and State University (nonmajor component units) have commercial paper of \$54.9 million primarily for capital projects. Various higher education institution foundations (nonmajor component units) have lines of credit of \$92.4 million primarily for construction or property acquisition. The Virginia Museum of Fine Arts Foundation (nonmajor component unit) has borrowings from lines of credit totaling \$11.6 million. Additionally, Fort Monroe Authority (nonmajor component unit) has short-term debt of \$260,784 and the Library of Virginia Foundation (nonmajor component unit) has a \$18,500 note with a related party. The balance of Other Liabilities is spread among various other funds.

The Virginia Housing Development Authority (major component unit) has an unused line of credit of \$100.0 million. The University of Virginia, Virginia Polytechnic Institute and State University, Virginia Commonwealth University Health System Authority (blended component unit of Virginia Commonwealth University), the Hampton Roads Sanitation District Commission, Virginia Port Authority, and the Fort Monroe Authority (nonmajor component units) have unused lines of credit of \$500.0 million, \$190.0 million, \$50.0 million, \$1.0 million, \$1.0 million, and \$500,000, respectively. For the University of Virginia, in the event of default under revolving credit agreements, any outstanding advances, interest, and the value of the promissory note would be due and payable to the various banking institutions.

28. LONG-TERM LIABILITIES

Commonwealth bonds are issued pursuant to Section 9 of Article X of the Constitution of Virginia. Section 9(a) bonds have been issued to redeem previous debt obligations. Section 9(b) bonds have been authorized by the citizens of Virginia through bond referenda to finance capital projects. These bonds are retired through the use of state appropriations. Section 9(c) bonds are issued to finance capital projects which, when completed, will generate revenue to repay the debt. Section 9(a), 9(b), and 9(c) bonds are tax-supported general obligation bonds and are backed by the full faith and credit of the Commonwealth. No other long-term debt obligations are backed by the full faith and credit of the Commonwealth.

Section 9(d) bonds are revenue bonds that are not backed by the full faith and credit of the Commonwealth. These bonds are not general obligation bonds and are not deemed to constitute a legal liability of the Commonwealth. However, this debt may be supported by state appropriations in whole or in part, such as certain debt of the Commonwealth Transportation Board (primary government) and the Virginia Port Authority (nonmajor component unit). Other 9(d) revenue bonds are payable from general revenues of the component units, or from revenues of specific revenue-producing capital projects, such as the teaching hospitals, dormitories, student centers, and dining halls at the various colleges and universities (nonmajor component units).

Certain 9(d) bonds are considered, along with 9(a), 9(b), and 9(c) bonds, to be tax-supported debt of the Commonwealth. Tax-supported debt includes all bonds and short-term debt for which debt service payments are made or are ultimately pledged to be made from tax revenues (net of sinking fund requirements).

Other 9(d) revenue bonds are considered debt not supported by taxes. For this debt, the Commonwealth has no direct or indirect pledge of tax revenues. In certain limited cases, the Commonwealth has made a moral obligation pledge. A government's moral obligation pledge provides a deficiency make-up for bondholders in the event pledged revenues prove to be insufficient. If a revenue deficiency exists, monies held in a debt service reserve fund are used to pay bondholders. The issuer then requests that the legislative body provide an appropriation to replenish the reserve fund before subsequent debt service is due. The legislative body may, but is not legally required to, replenish the reserve fund.

GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, requires disclosures related to unused lines of credit (see Note 27), direct borrowings and placement debt, and specific disclosures related to debt default. Direct borrowings and placements have terms with an investor or lender and are not offered for public sale.

The following schedule presents the total long-term liabilities of the Commonwealth, and the portion of these amounts which are due within one year, as reported on the Government-wide Statement of Net Position.

Total Long-term Liabilities

June 30, 2019

<i>(Dollars in Thousands)</i>	Balance At June 30	Amount Due Within One Year
Primary Government:		
Governmental Activities:(1)		
General Obligation Bonds: (2)		
9(b) Public Facilities (3)	\$ 401,873	\$ 48,140
9(c) Parking Facilities (3)	8,567	785
9(c) Transportation Facilities (3)	6,061	2,685
Total General Obligation Bonds	<u>416,501</u>	<u>51,610</u>
Nongeneral Obligation Bonds - 9(d):		
Transportation Debt (3) (4)	4,118,431	199,728
Virginia Public Building Authority (3)	2,863,660	164,670
Total Nongeneral Obligation Bonds	<u>6,982,091</u>	<u>364,398</u>
Other Long-term Obligations:		
Net Pension Liability (6)	3,799,890	—
Net OPEB Liability (7)	802,012	6,177
Total OPEB Liability (7)	565,448	23,248
Compensated Absences	317,540	196,445
Capital Lease Obligations	30,882	6,140
Pollution Remediation Obligations	10,430	1,879
Installment Purchase Obligations from Direct Borrowings	114,931	15,125
Economic Development Authority Obligations (3)	23,366	6,795
Hampton Roads Transportation Accountability Commission (3) (5)	580,311	—
Other Liabilities	30,322	6,456
Total Other Long-term Obligations	<u>6,275,132</u>	<u>262,265</u>
Total Governmental Activities (3)	<u>13,673,724</u>	<u>678,273</u>
Business-type Activities: (1) (5)		
Other Long-term Obligations:		
Net Pension Liability	128,005	—
Net OPEB Liability	22,299	63
Total OPEB Liability	20,042	825
Compensated Absences	11,070	8,427
Installment Purchase Obligations from Direct Borrowings	518	109
Tuition Benefits Payable	1,991,469	283,077
Lottery Prizes Payable	112,983	10,691
Total Other Long-term Obligations	<u>2,286,386</u>	<u>303,192</u>
Total Business-type Activities	<u>2,286,386</u>	<u>303,192</u>
Total Primary Government	<u>15,960,110</u>	<u>981,465</u>

Continued on next page

Total Long-term Liabilities
June 30, 2019
(Continued from previous page)

<i>(Dollars in Thousands)</i>	Balance At June 30	Amount Due Within One Year
Component Units:		
General Obligation Bonds: (2)		
Higher Education Fund - 9(c) Bonds (3)	893,106	56,260
Nongeneral Obligation Bonds:		
Higher Education Institutions - 9(d) (3) (5)	2,667,541	21,961
Higher Education Institutions - 9(d) from Direct Placements (3) (5)	177,115	3,160
Virginia College Building Authority (3)	4,566,772	295,885
Virginia Port Authority - 9(d) (3) (8)	519,896	15,830
Virginia Housing Development Authority - 9(d) (3) (5)	2,798,010	105,775
Virginia Housing Development Authority from Direct Placements - 9(d) (3) (5)	244,050	6,700
Virginia Resources Authority - 9(d) (3) (9)	3,479,670	185,207
Virginia Public School Authority - 9(d) (3) (5)	3,548,437	251,750
Virginia Public School Authority from Direct Placements - 9(d) (3) (5)	6,166	—
Hampton Roads Sanitation District Commission (3) (5)	891,629	84,951
Virginia Biotechnology Research Partnership Authority (3)	14,220	4,200
Foundations (5) (10)	1,082,349	141,655
Total Nongeneral Obligation Bonds	<u>19,995,855</u>	<u>1,117,074</u>
Other Long-term Obligations:		
Net Pension Liability (11)	2,490,864	—
Net OPEB Liability (12)	799,030	330
Total OPEB Liability (13)	479,384	17,273
Compensated Absences	349,246	263,432
Capital Lease Obligations (14)	2,312,999	4,091
Notes Payable (5)	2,011,982	187,100
Notes Payable from Direct Borrowings (5)	177,906	9,716
Installment Purchase Obligations from Direct Borrowings	55,259	8,136
Trust and Annuity Obligations (5) (15)	65,116	—
Other Liabilities (5)	272,372	9,596
Total Other Long-term Obligations (Excluding Foundations)	<u>9,014,158</u>	<u>499,674</u>
Other Long-term Obligations (Foundations): (5) (10)		
Compensated Absences	16,708	13,606
Capital Lease Obligations	472	192
Notes Payable	269,662	30,833
Trust and Annuity Obligations (15)	73,198	1,908
Other Liabilities	270,007	15,108
Total Other Long-term Obligations - Foundations	<u>630,047</u>	<u>61,647</u>
Total Other Long-term Obligations	<u>9,644,205</u>	<u>561,321</u>
Total Component Units	<u>30,533,166</u>	<u>1,734,655</u>
Total Long-term Liabilities	<u>\$ 46,493,276</u>	<u>\$ 2,716,120</u>

1. Pursuant to GASB Statement No. 34, governmental activities include internal service funds. Business-type activities are considered enterprise funds.
2. Total general obligation debt of the Commonwealth is \$1.3 billion.
3. Amounts are net of any unamortized discounts and premiums.
4. This debt includes \$1.2 billion that is not supported by taxes.
5. This debt is not supported by taxes.
6. This does not include net pension liabilities from fiduciary funds of \$65,845.
7. This does not include Net OPEB obligations of \$12,134 or Total OPEB obligations of \$8,855 from fiduciary funds.
8. This debt includes \$285.8 million for bonds that is not supported by taxes.
9. This debt is not supported by taxes; however, \$926.5 million is considered moral obligation debt.
10. Foundations represent FASB reporting entities defined in Note 1.B.
11. This includes net pension liabilities that do not relate to the Virginia Retirement System's State Plan from the Hampton Roads Sanitation District Commission and the Virginia Port Authority of \$20.3 million and \$15.5 million, respectively. This debt is not supported by taxes.
12. This includes OPEB obligations that do not relate to the Virginia Retirement System's State Plan from the Hampton Roads Sanitation District, Virginia Port Authority, Virginia Resources Authority, Roanoke Higher Education Authority, and Virginia Biotechnology Research Partnership Authority of \$18.7 million, \$576,000, \$205,649, \$90,383, and \$52,055, respectively. This debt is not supported by taxes.
13. This includes OPEB obligations that do not relate to the Department of Human Resource Management from the University of Virginia of \$58.3 million and Virginia Port Authority of \$910,998. This debt is not supported by taxes.
14. This includes \$7.5 million that is supported by taxes.
15. These generally represent split-interest agreements that represent donor contributed assets with the requirement that an annual distribution be made to the donor or specified beneficiary. The annual distributions are usually for a fixed dollar amount or a fixed percentage of the trust's fair market value. The present value of these commitments is reported as Trust and Annuity Obligations.

Primary Government

Transportation Facilities Debt

Transportation Facilities Bonds include \$6.1 million of Section 9(c) general obligation bonds and \$4.1 billion of Transportation Facilities Section 9(d) debt. The Section 9(d) debt includes \$2.9 billion of Section 9(d) revenue bonds and \$1.2 billion of Grant Anticipation Revenue Notes (GARVEES) in addition to the outstanding Section 9(d) revenue bonds. Section 9(c) principal and interest requirements for the current year totaled \$3.0 million. Section 9(d) principal and interest requirements for the current year totaled \$376.0 million. The Section 9(c) Transportation Facilities Bonds were issued to fund the construction and improvement of the George P. Coleman Bridge. The Section 9(d) Transportation Facilities Bonds were issued to fund the construction of State Route 28, U.S. Route 58, the Northern Virginia Transportation District Program, the Oak Grove Connector (Chesapeake), and costs of certain transportation projects in the Commonwealth. The GARVEES were issued to finance various Federal Aid Transportation projects throughout the Commonwealth. The interest rates for these bonds range from 1.0 percent to 5.4 percent and the issuance dates range from October 10, 2002 to May 16, 2019.

On December 5, 2018, the Commonwealth Transportation Board issued \$75.8 million of Commonwealth of Virginia Federal Transportation Grant Anticipation Revenue Notes, Series 2018. Series 2018 will be maturing in semi-annual installments on March 15 and September 15 in the years 2019 to 2033 and interest is payable on March 15 and September 15 at rates varying from 4.0 to 5.0 percent. The net proceeds of the Series 2018 bonds will be used to pay for the costs of certain transportation projects in the Commonwealth and certain costs related to the issuance of the 2018 bonds.

On April 23, 2019, the Commonwealth Transportation Board issued \$236.0 million of Commonwealth of Virginia Transportation Capital Projects Revenue Bonds, Series 2019. Series 2019 Refunding Revenue Bonds will be maturing in annual installments on May 15 in the years 2020 to 2043 and interest is payable semi-annually on May 15 and November 15 at rates varying from 3.0 to 5.0 percent. The net proceeds of the Series 2019 bonds will be used to pay for the costs of certain transportation projects in the Commonwealth and certain costs related to the issuance of the 2019 bonds.

On May 16, 2019, the Commonwealth Transportation Board issued \$43.4 million of Commonwealth of Virginia Transportation Revenue Refunding Bonds, Series 2019A. Series 2019A Refunding Revenue Bonds will be maturing in annual installments on May 15 in the years 2020 to 2034 and interest is payable on May 15 and November 15 at rates varying from 3.0 to 5.0 percent. The 2019A Series bonds were issued to advance refund the outstanding Series 2009A-2 bonds.

The following schedules detail the annual funding requirements necessary to amortize Transportation Facilities 9(c) bonds and 9(d) debt. Pursuant to the American Recovery and Reinvestment Act, the Commonwealth expects to receive an interest subsidy to reimburse interest payments of \$61.1 million for Build America Bonds (BABs) issued. The BABs are applicable to Commonwealth of Virginia Transportation Series 2010A Capital Project Revenue Bonds. Additionally, the Commonwealth will receive the amounts required to pay the debt service on outstanding Series 2002 and Series 2012 bonds from the Route 28 Transportation Improvement District, annually. The Commonwealth will also receive a portion of the debt service amount for Oak Grove and the Northern Virginia Transportation District from the localities where the projects are located, annually.

9(c) TRANSPORTATION FACILITIES BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 2,685,000	\$ 275,000	\$ 2,960,000
2021	2,815,000	140,750	2,955,750
Add:			
Unamortized Premium	561,270	—	561,270
Total	<u>\$ 6,061,270</u>	<u>\$ 415,750</u>	<u>\$ 6,477,020</u>

9(d) TRANSPORTATION FACILITIES DEBT
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 199,728,337	\$ 166,025,707	\$ 365,754,044
2021	204,035,956	155,773,456	359,809,412
2022	197,670,226	145,870,579	343,540,805
2023	206,090,351	136,281,106	342,371,457
2024	214,630,602	126,374,876	341,005,478
2025-2029	1,042,039,315	474,986,876	1,517,026,191
2030-2034	891,005,000	241,710,911	1,132,715,911
2035-2039	526,945,000	78,913,883	605,858,883
2040-2044	167,030,000	13,177,000	180,207,000
Less:			
Unamortized Discount	(76,377)	—	(76,377)
Add:			
Accretion on Capital Appreciation Bonds	29,503,423	—	29,503,423
Unamortized Premium	439,828,921	—	439,828,921
Total	<u>\$ 4,118,430,754</u>	<u>\$ 1,539,114,394</u>	<u>\$ 5,657,545,148</u>

Fairfax Economic Development Authority Obligations

In fiscal year 2006, the Fairfax County Economic Development Authority (EDA) issued Section 9(d) revenue bonds to pay for the Commonwealth's (VDOT) costs of the planning, design and construction of a transportation infrastructure and related public safety operations complex to be developed on the contiguous sites in the county commonly referred to as "Camp 30" for the joint use of VDOT and the county. In fiscal year 2014, Fairfax County EDA issued a series of revenue refunding bonds, which refunded Series 2006 revenue bonds. The Commonwealth's obligation is set out in a payment agreement between Fairfax County EDA and the Commonwealth of Virginia, Department of Transportation, in which the Commonwealth agrees to make payments equal to the debt service from amounts appropriated by the General Assembly. The interest rates for these bonds range from 1.0 percent to 5.0 percent and the issue date was March 26, 2014. The principal and interest

requirements for the current year totaled \$7.8 million. The following schedule details the annual funding requirements necessary to repay these bonds.

FAIRFAX COUNTY ECONOMIC DEVELOPMENT AUTHORITY Debt Service Requirements to Maturity			
Maturity	Principal	Interest	Total
2020	\$ 6,795,000	\$ 1,032,250	\$ 7,827,250
2021	7,135,000	692,500	7,827,500
2022	6,715,000	335,750	7,050,750
Add:			
Unamortized Premium	2,721,356	—	2,721,356
Total	\$ 23,366,356	\$ 2,060,500	\$ 25,426,856

Public Facilities Bonds

Section 9(b) general obligation bonds consist of Public Facilities Bonds, Series 2009D Refunding, Series 2009E, Series 2012A Refunding, Series 2013B Refunding, Series 2015B Refunding, and Series 2016B Refunding. Bonds were issued to fund construction projects for higher educational institutions, behavioral health, and/or park facilities. The Series 2009D bonds were issued to advance refund outstanding Series 2004A, Series 2005A, and Series 2006B bonds. The Series 2012A bonds were issued to advance refund outstanding Series 2002, Series 2003A, Series 2004A, and Series 2005A bonds. The Series 2013B bonds were issued to advance refund outstanding Series 2005A, Series 2006B, Series 2007A, and Series 2007B. The Series 2015B bonds were issued to advance refund certain maturities of outstanding Series 2007B, Series 2008A, and Series 2008B bonds. The Series 2016B bonds were issued to advance refund certain maturities of outstanding Series 2009A bonds. Principal and interest requirements for the current year totaled \$66.9 million. The interest rates for all bonds range from 2.0 percent to 5.0 percent and the issuance dates range from October 21, 2009, to November 10, 2016. The following schedule details the annual funding requirements necessary to repay these bonds. Pursuant to the American Recovery and Reinvestment Act, the Commonwealth expects to receive an interest subsidy to reimburse interest payments of \$2.1 million for Build America Bonds (BABs) issued. The BABs are applicable to Series 2009E Public Facilities Revenue Bonds.

9(b) PUBLIC FACILITIES BONDS Debt Service Requirements to Maturity			
Maturity	Principal	Interest	Total
2020	\$ 48,140,000	\$ 16,562,795	\$ 64,702,795
2021	48,140,000	14,270,895	62,410,895
2022	48,260,000	11,885,225	60,145,225
2023	48,200,000	9,610,635	57,810,635
2024	45,690,000	7,373,245	53,063,245
2025-2029	117,340,000	12,212,220	129,552,220
Add:			
Unamortized Premium	46,102,747	—	46,102,747
Total	\$ 401,872,747	\$ 71,915,015	\$ 473,787,762

Parking Facilities Bonds

Section 9(c) general obligation bonds consist of Parking Facilities Bonds, Series 2009D Refunding, 2012A Refunding, and Series 2016B Refunding. The Series 2009D Refunding bonds were issued to advance refund outstanding Series 2004A bonds. The Series 2012A Refunding bonds were issued to advance refund outstanding Series 2002 Refunding and Series 2004A bonds. The Series 2016B Refunding bonds were issued to advance refund certain maturities of outstanding Series 2009B bonds. The interest rate for these bonds range from 2.0 percent to 5.0 percent, and the issuance dates range from October 21, 2009, to November 10, 2016. Current year principal and interest requirements totaled \$1.4 million. The following schedule details the annual funding requirements necessary to repay these bonds.

9(c) PARKING FACILITIES BONDS Debt Service Requirements to Maturity			
Maturity	Principal	Interest	Total
2020	\$ 785,000	\$ 343,310	\$ 1,128,310
2021	825,000	304,060	1,129,060
2022	865,000	262,810	1,127,810
2023	906,257	223,652	1,129,909
2024	952,789	178,339	1,131,128
2025-2029	3,145,000	371,550	3,516,550
Add:			
Unamortized Premium	1,088,157	—	1,088,157
Total	\$ 8,567,203	\$ 1,683,721	\$ 10,250,924

Virginia Public Building Authority

Virginia Public Building Authority Section 9(d) bonds consist of 2005D, 2009A, 2009B, 2009C, 2009D Refunding, 2010A, 2010B-2, 2010B-3 Refunding, 2011A, 2011B, 2012A Refunding, 2013A, 2013B Refunding, 2014A, 2014B, 2014C Refunding, 2015A, 2015B Refunding, 2016A, 2016B Refunding, 2016C (AMT), 2016D (Taxable), 2017A Refunding, 2018A, and 2018B (Taxable), 2019A, 2019B (AMT), and 2019C (Taxable). All bonds were issued for the purpose of constructing, improving, furnishing, maintaining, and acquiring public buildings for the use of the Commonwealth and also to reimburse localities, regional jail authorities or other combination of localities under the Regional Jail Financing Program. The Series 2009D bonds were issued to advance refund outstanding series 2001A and 2002A Revenue bonds. The Series 2010B-3 bonds were issued to advance refund outstanding series 2002A and 2004B Revenue bonds. The Series 2012A bonds were issued to advance refund outstanding series 2004B and 2005C Revenue bonds. The Series 2013B bonds were issued to advance refund 2006A and 2006B revenue bonds. The Series 2014C bonds were issued to advance refund outstanding Series 2004A Refunding, 2004B, 2004C Refunding, and 2004D Refunding bonds, and certain maturities of the 2005C, 2006A, 2006B, and 2007A bonds. The Series 2015B bonds were issued to advance refund outstanding series 2005A Refunding, 2005B Refunding, and 2006A bonds and certain maturities of the series 2008B bonds. The Series 2016B bonds were issued to advance refund certain maturities of the series 2009B and 2011A bonds. The Series 2017A bonds were issued to advance refund certain maturities of the 2011A, 2013A, and 2014A bonds. The interest rates range from 1.9

percent to 5.9 percent and the issuance dates range from December 7, 2005, to April 2, 2019. The Series 2005D bonds are demand bonds with variable rates which are reset weekly by the remarketing agent. The 2005D bonds are subject to optional redemption. The principal balance outstanding on June 30, 2019 of \$50.0 million is scheduled to be paid based on mandatory sinking fund requirements and included in the following schedule. Additional information on these demand bonds may be obtained from the audited financial statements on the Department of the Treasury website at www.trs.virginia.gov.

Current year principal and interest requirements for all VPBA bonds totaled \$260.0 million. The following schedule details the annual funding requirements necessary to repay these bonds. Pursuant to the American Recovery and Reinvestment Act, the Commonwealth expects to receive an interest subsidy to reimburse interest payments of \$49.2 million for Build America Bonds (BABs) issued. The BABs are applicable to Series 2010 Revenue Bonds.

9(d) VIRGINIA PUBLIC BUILDING AUTHORITY BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 164,670,000	\$ 110,700,169	\$ 275,370,169
2021	173,205,000	105,287,590	278,492,590
2022	172,240,000	97,122,538	269,362,538
2023	176,820,000	88,847,771	265,667,771
2024	182,555,000	80,499,771	263,054,771
2025-2029	860,295,000	277,436,069	1,137,731,069
2030-2034	561,160,000	111,155,132	672,315,132
2035-2039	283,735,000	26,508,751	310,243,751
2040-2044	23,130,000	462,600	23,592,600
Add:			
Unamortized Premium	265,850,476	—	265,850,476
Total	\$ 2,863,660,476	\$ 898,020,391	\$ 3,761,680,867

Hampton Roads Transportation Accountability Commission

Hampton Roads Transportation Accountability Commission Section bonds consists of Senior Lien Revenue Bonds, Series 2018A. The bonds were issued to pay for the costs of planning, design, and construction of transportation infrastructure in the localities comprising Planning District 23. The interest rates for this bond series ranges from 5.0 percent to 5.5 percent and the issue date was February 14, 2018. Current year interest requirements totaled \$25.9 million. The following schedule details the annual funding requirements necessary to repay these bonds.

HAMPTON ROADS TRANSPORTATION ACCOUNTABILITY COMMISSION
BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ —	\$ 25,854,075	\$ 25,854,075
2021	—	25,854,075	25,854,075
2022	—	25,854,075	25,854,075
2023	—	25,854,075	25,854,075
2024	—	25,854,075	25,854,075
2025-2029	20,460,000	127,798,375	148,258,375
2030-2034	31,885,000	121,122,375	153,007,375
2035-2039	40,695,000	112,312,625	153,007,625
2040-2044	51,935,000	101,069,875	153,004,875
2045-2049	75,680,000	86,721,625	162,401,625
2050-2054	139,135,000	60,871,125	200,006,125
2055-2059	140,210,000	19,794,500	160,004,500
Add:			
Unamortized Premium	80,311,238	—	80,311,238
Total	\$ 580,311,238	\$ 758,960,875	\$ 1,339,272,113

Component Units

Higher Education Institution Bonds

Higher Education Institution Bonds are comprised of both 9(c) general obligation bonds and 9(d) revenue bonds. Section 9(d) bonds are from several sources as shown on the following schedule (dollars in thousands).

College and university bonds backed by pledge of general revenue or revenue from specific revenue-producing capital projects	\$ 2,241,523
College and university debt backed exclusively by pledged revenues of an institution	603,133
Total Higher Education Institution 9(d) debt	<u>\$ 2,844,656</u>

The interest rates for these bonds range from 1.3 percent to 6.2 percent and the issuance dates range from April 15, 2009, to June 5, 2019. The Virginia Commonwealth University Series 2012A and 2012B bonds and the Virginia Commonwealth University Health System Authority (a blended component unit of the Virginia Commonwealth University – nonmajor) Series 2013A and 2013B bonds are variable rate bonds and the rates are reset weekly by the remarketing agent.

The following schedules detail the annual funding requirements necessary to amortize Higher Education Institution 9(c) and 9(d) bonds. Pursuant to the American Recovery and Reinvestment Act, the Commonwealth expects to receive an interest subsidy to reimburse interest payments of \$249.1 million for Build America Bonds (BABs) issued. The BABs are applicable to General Obligation Series 2010A Bonds, Series 2009F and 2010B 21st Century Virginia College Building Authority Education Facilities Bonds, and the University of Virginia's Series 2009 and 2010 General Revenue Bonds. The schedules include \$177.1 million for Virginia Commonwealth University Health System Authority (blended component unit of Virginia Commonwealth University - nonmajor component unit) Direct Placement Bond Series and these bonds include event of default provisions that could change the timing of repayment of the outstanding amounts to become immediately due.

9(c) HIGHER EDUCATION INSTITUTION BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 56,260,000	\$ 34,588,076	\$ 90,848,076
2021	58,580,000	32,088,308	90,668,308
2022	57,115,000	29,455,863	86,570,863
2023	57,958,743	26,844,902	84,803,645
2024	60,472,211	24,216,179	84,688,390
2025-2029	289,185,000	80,659,816	369,844,816
2030-2034	190,810,000	27,826,281	218,636,281
2035-2039	46,820,000	3,926,916	50,746,916
2040-2044	1,785,000	83,895	1,868,895
Add:			
Unamortized Premium	74,120,179	—	74,120,179
Total	\$ 893,106,133	\$ 259,690,236	\$ 1,152,796,369

9(d) HIGHER EDUCATION INSTITUTION BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest (1)	Total
2020	\$ 25,120,983	\$ 121,676,564	\$ 146,797,547
2021	25,299,966	120,769,454	146,069,420
2022	131,400,178	117,236,545	248,636,723
2023	25,381,657	113,694,471	139,076,128
2024	61,144,439	111,977,712	173,122,151
2025-2029	155,509,207	538,935,879	694,445,086
2030-2034	172,952,019	507,694,484	680,646,503
2035-2039	378,111,454	461,953,029	840,064,483
2040-2044	868,420,000	285,983,908	1,154,403,908
2045-2049	558,615,000	126,071,819	684,686,819
2050-2054	—	62,685,000	62,685,000
2055-2059	—	62,685,000	62,685,000
2060-2064	—	62,685,000	62,685,000
2065-2069	—	62,685,000	62,685,000
2070-2074	—	62,685,000	62,685,000
2075-2079	—	62,685,000	62,685,000
2080-2084	—	62,685,000	62,685,000
2085-2089	—	62,685,000	62,685,000
2090-2094	—	62,685,000	62,685,000
2095-2099	—	62,685,000	62,685,000
2100-2104	—	62,685,000	62,685,000
2105-2109	—	62,685,000	62,685,000
2110-2114	—	62,685,000	62,685,000
2115-2119	300,000,000	43,879,500	343,879,500
Add:			
Unamortized Premium	142,701,568	—	142,701,568
Total	\$ 2,844,656,471	\$ 3,364,778,365	\$ 6,209,434,836

Note (1): The future interest requirements exclude any net Payments associated with hedging derivative instruments. See Note 16 for more details on hedging derivative instruments.

9(d) VIRGINIA COLLEGE BUILDING AUTHORITY BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 295,885,000	\$ 171,194,091	\$ 467,079,091
2021	300,510,000	164,918,740	465,428,740
2022	292,100,000	151,215,199	443,315,199
2023	288,270,000	137,896,169	426,166,169
2024	281,845,000	124,744,622	406,589,622
2025-2029	1,298,700,000	444,632,995	1,743,332,995
2030-2034	1,024,940,000	173,570,653	1,198,510,653
2035-2039	352,110,000	26,146,450	378,256,450
Add:			
Unamortized Premium	432,412,298	—	432,412,298
Total	\$ 4,566,772,298	\$ 1,394,318,919	\$ 5,961,091,217

Various higher education institutions' foundations (component units) and a museum foundation (component unit) have bonds outstanding as of year-end. The purpose of a majority of these bonds is for construction, property acquisition, and defeasance of prior debt. The following schedule details the future principal payments.

FOUNDATIONS' BONDS (1)
Debt Service Requirements to Maturity

Maturity	Principal
2020	\$ 141,655,117
2021	44,182,363
2022	34,280,273
2023	34,154,238
2024	39,538,830
Thereafter	788,538,363
Total	\$ 1,082,349,184

Note (1): Foundations represent FASB reporting entities defined in Note 1.B.

Virginia Port Authority

The Virginia Port Authority (nonmajor) has issued Section 9(d) revenue bonds and notes pursuant to powers provided to its Board of Commissioners by the *Code of Virginia*. The interest rates for these bonds range from 1.6 percent to 5.0 percent, and the issuance dates range from January 25, 2012, to July 16, 2018. The following schedule details the annual funding requirements necessary to amortize these bonds.

9(d) VIRGINIA PORT AUTHORITY DEBT
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 15,830,000	\$ 20,266,105	\$ 36,096,105
2021	16,065,000	19,821,606	35,886,606
2022	16,535,000	19,336,890	35,871,890
2023	17,040,000	18,813,511	35,853,511
2024	17,575,000	18,250,967	35,825,967
2025-2029	99,130,000	81,328,948	180,458,948
2030-2034	102,210,000	60,216,997	162,426,997
2035-2039	96,900,000	39,484,756	136,384,756
2040-2044	86,680,000	16,984,671	103,664,671
2045-2049	32,755,000	1,550,049	34,305,049
Add:			
Unamortized Premium	19,175,518	—	19,175,518
Total	\$ 519,895,518	\$ 296,054,500	\$ 815,950,018

Virginia Housing Development Authority

The Virginia Housing Development Authority (major) issued Section 9(d) revenue bonds. The interest rates for these bonds range from 2.1 percent to 6.8 percent and the issuance dates range from December 17, 2002, to May 22, 2019. The following schedule details the annual funding requirements necessary to amortize these bonds. The schedule includes \$244.1 million for rental housing bonds group Direct Placement Bonds. VHDA has an option to redeem various bonds pursuant the terms of each bond issue. The redemptions generally cannot be exercised without condition until the bonds have been outstanding for nine years or more.

9(d) VIRGINIA HOUSING DEVELOPMENT AUTHORITY BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 112,475,484	\$ 111,563,301	\$ 224,038,785
2021	101,240,000	108,418,796	209,658,796
2022	111,890,000	105,748,683	217,638,683
2023	125,835,000	102,564,625	228,399,625
2024	91,770,000	99,227,430	190,997,430
2025-2029	397,470,000	455,024,319	852,494,319
2030-2034	452,464,906	379,351,717	831,816,623
2035-2039	531,384,894	280,650,186	812,035,080
2040-2044	941,659,820	136,130,058	1,077,789,878
2045-2049	125,405,000	20,280,623	145,685,623
2050-2054	51,450,000	4,677,290	56,127,290
Less:			
Unamortized Discount	(985,291)	—	(985,291)
Total	\$ 3,042,059,813	\$ 1,803,637,028	\$ 4,845,696,841

Virginia Resources Authority

The Virginia Resources Authority (major) issued Section 9(d) revenue bonds. The interest rates for these bonds range from 0.2 percent to 6.3 percent and the issuance dates range from July 31, 2002, to November 13, 2018. The following schedule details the annual funding requirements necessary to amortize these bonds.

9(d) VIRGINIA RESOURCES AUTHORITY BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 185,206,532	\$ 137,949,579	\$ 323,156,111
2021	192,033,620	129,474,156	321,507,776
2022	188,142,050	120,643,938	308,785,988
2023	188,659,860	111,689,131	300,348,991
2024	178,069,097	102,894,165	280,963,262
2025-2029	926,248,572	384,879,222	1,311,127,794
2030-2034	690,676,608	202,129,646	892,806,254
2035-2039	427,285,893	91,331,404	518,617,297
2040-2044	207,185,000	26,301,100	233,486,100
2045-2049	46,010,000	3,131,995	49,141,995
Less: Unaccrued Capital Appreciation			
Bonds	(25,144,581)	—	(25,144,581)
Add:			
Unamortized Premium	275,297,841	—	275,297,841
Total	\$ 3,479,670,492	\$ 1,310,424,336	\$ 4,790,094,828

Virginia Public School Authority

The Virginia Public School Authority (major) issued Section 9(d) revenue bonds. The interest rates for these bonds range from 0.0 percent to 5.5 percent, and the issuance dates range from December 11, 2003, to May 21, 2019. The following schedule details the annual funding requirements necessary to amortize these bonds. Pursuant to the American Recovery and Reinvestment Act, the Commonwealth expects to receive an interest subsidy to reimburse interest payments of \$132.0 million for Qualified School Construction Bonds (QSCBs) issued. The QSCBs are applicable to Series 2010-1, 2011-1, 2011-2, and 2012-1 Revenue Bonds. The schedule includes \$6.2 million for Qualified Zone Academy Bonds (QZAB) Series 2014-1 and 2016 Direct Placement Bonds. VPSA's 2014-1 QZAB Bond Series shall bear interest at the default rate, payable on demand by the owner of the Bonds.

9(d) VIRGINIA PUBLIC SCHOOL AUTHORITY BONDS
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 251,750,000	\$ 135,872,627	\$ 387,622,627
2021	243,230,000	126,519,042	369,749,042
2022	236,905,000	115,038,664	351,943,664
2023	225,285,000	103,779,659	329,064,659
2024	217,570,000	93,025,921	310,595,921
2025-2029	1,138,016,000	308,918,975	1,446,934,975
2030-2034	706,930,000	113,554,166	820,484,166
2035-2039	288,230,000	29,026,988	317,256,988
2040-2044	39,435,000	6,455,522	45,890,522
2045-2049	21,215,000	1,960,063	23,175,063
2050-2054	2,315,000	37,619	2,352,619
Add:			
Unamortized Premium	183,722,244	—	183,722,244
Total	\$ 3,554,603,244	\$ 1,034,189,246	\$ 4,588,792,490

Hampton Roads Sanitation District Commission

The Hampton Roads Sanitation District Commission (nonmajor) issued bonds under a Master Trust Indenture and a Trust Agreement dated December 1, 1993 and March 1, 2008. The interest cost for these bonds range from 1.5 percent to 5.1 percent. The following schedule details the annual funding requirements necessary to amortize these bonds. The fiscal year 2020 principal amount includes \$50.0 million for demand bonds, which are also classified as "due within one year" in the accompanying financial statements.

HAMPTON ROADS SANITATION DISTRICT COMMISSION
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 84,951,000	\$ 33,785,000	\$ 118,736,000
2021	29,190,000	33,082,000	62,272,000
2022	31,076,000	32,633,000	63,709,000
2023	33,080,000	31,193,000	64,273,000
2024	34,126,000	29,854,000	63,980,000
2025-2029	182,089,000	126,466,000	308,555,000
2030-2034	190,664,000	85,189,000	275,853,000
2035-2039	160,453,000	42,064,000	202,517,000
2040-2044	71,162,000	13,792,000	84,954,000
2045-2049	14,941,000	1,948,000	16,889,000
Add:			
Unamortized Premium	59,897,000	—	59,897,000
Total	\$ 891,629,000	\$ 430,006,000	\$ 1,321,635,000

Virginia Biotechnology Research Partnership Authority

The Virginia Biotechnology Research Partnership Authority (nonmajor) consists of Series 2009 Commonwealth of Virginia Lease Revenue bonds. Coupon interest rates range from 3.0 percent to 5.0 percent.

VIRGINIA BIOTECHNOLOGY RESEARCH PARTNERSHIP AUTHORITY
Debt Service Requirements to Maturity

Maturity	Principal	Interest	Total
2020	\$ 4,200,000	\$ 557,750	\$ 4,757,750
2021	4,415,000	342,375	4,757,375
2022	4,640,000	116,000	4,756,000
Add:			
Unamortized Premium	965,019	—	965,019
Total	\$ 14,220,019	\$ 1,016,125	\$ 15,236,144

Total principal outstanding as of June 30, 2019, on all component unit bonds amounted to \$20.9 billion.

The following schedule summarizes the changes in long-term liabilities:

(Dollars in Thousands)

	Schedule of Changes in Long-term Debt and Obligations (1) (2)			
	Balance July 1, as restated (3)	Issuances and Other Increases	Retirements and Other Decreases	Subtotal June 30
Primary Government				
Governmental Activities:				
Long-term Debt Bearing the Pledge of the Full Faith and Credit of the Commonwealth:				
General Obligation Bonds - 9(b) and 9(c):				
Public Facilities Bonds	\$ 403,860	\$ —	\$ (48,090)	\$ 355,770
Parking Facilities Bonds	8,464	—	(985)	7,479
Transportation Facilities Bonds	8,060	—	(2,560)	5,500
Add: Unamortized Premium	56,144	—	(8,392)	47,752
Total General Obligation Bonds	<u>476,528</u>	<u>—</u>	<u>(60,027)</u>	<u>416,501</u>
Long-term Debt/Obligations Not Bearing the Pledge of the Full Faith and Credit of the Commonwealth:				
Transportation Facilities Bonds	3,551,290	355,075	(257,191)	3,649,174
Virginia Public Building Authority Bonds	2,418,000	336,950	(157,140)	2,597,810
Hampton Roads Transportation Accountability Commission	500,000	—	—	500,000
Economic Development Authority Obligations	27,115	—	(6,470)	20,645
Add: Unamortized Premium	778,419	82,766	(72,473)	788,712
Accretion on Capital Appreciation Bonds	31,002	2,791	(4,290)	29,503
Less: Unamortized Discount	(81)	5	—	(76)
Installment Purchase Obligations from Direct Borrowings	103,655	26,085	(14,809)	114,931
Compensated Absences	307,329	201,691	(191,480)	317,540
Capital Lease Obligations	36,742	765	(6,625)	30,882
Net Pension Liability*	4,082,682	—	(282,792)	3,799,890
Net OPEB Liability*	775,186	26,826	—	802,012
Total OPEB Liability*	735,108	—	(169,660)	565,448
Pollution Remediation Obligations	6,963	3,971	(504)	10,430
Other	30,948	—	(626)	30,322
Total Long-term Debt/Obligations Not Bearing the Pledge of the Full Faith and Credit of the Commonwealth	<u>13,384,358</u>	<u>1,036,925</u>	<u>(1,164,060)</u>	<u>13,257,223</u>
Total Governmental Activities	<u>13,860,886</u>	<u>1,036,925</u>	<u>(1,224,087)</u>	<u>13,673,724</u>
Business-type Activities:				
Long-term Debt/Obligations Not Bearing the Pledge of the Full Faith and Credit of the Commonwealth:				
Compensated Absences	10,546	3,577	(3,053)	11,070
Net Pension Liability*	135,629	—	(7,624)	128,005
Net OPEB Liability*	21,680	619	—	22,299
Total OPEB Liability*	25,434	—	(5,392)	20,042
Installment Purchase Obligations from Direct Borrowings	—	570	(52)	518
Lottery Prizes Payable	116,484	2,144	(5,645)	112,983
Tuition Benefits Payable	2,135,222	32,089	(175,842)	1,991,469
Total Business-type Activities	<u>2,444,995</u>	<u>38,999</u>	<u>(197,608)</u>	<u>2,286,386</u>
Total Primary Government	<u>\$ 16,305,881</u>	<u>\$ 1,075,924</u>	<u>\$ (1,421,695)</u>	<u>\$ 15,960,110</u>

*Net increase/decrease is shown.

Foundations (4)	Balance June 30	Due Within One Year
\$ —	\$ 355,770	\$ 48,140
—	7,479	785
—	5,500	2,685
—	47,752	—
—	416,501	51,610
—	3,649,174	199,728
—	2,597,810	164,670
—	500,000	—
—	20,645	6,795
—	788,712	—
—	29,503	—
—	(76)	—
—	114,931	15,125
—	317,540	196,445
—	30,882	6,140
—	3,799,890	—
—	802,012	6,177
—	565,448	23,248
—	10,430	1,879
—	30,322	6,456
—	13,257,223	626,663
—	13,673,724	678,273
—	11,070	8,427
—	128,005	—
—	22,299	63
—	20,042	825
—	518	109
—	112,983	10,691
—	1,991,469	283,077
—	2,286,386	303,192
\$ —	\$ 15,960,110	\$ 981,465

Continued on next page

Schedule of Changes in Long-term Debt and Obligations (1) (2)

(Dollars in Thousands)

(Continued)

	Balance July 1, as restated (3)	Issuances and Other Increases	Retirements and Other Decreases	Subtotal June 30
Component Units				
Long-term Debt Bearing the Pledge of the Full Faith and Credit of the Commonwealth:				
General Obligation Bonds - Higher Education 9(c) (5)	\$ 836,874	\$ 118,210	\$ (61,978)	\$ 893,106
Long-term Debt/Obligations Not Bearing the Pledge of the Full Faith and Credit of the Commonwealth:				
Bonds (5)	18,620,642	1,613,549	(1,748,016)	18,486,175
Bonds from Direct Placements (5)	436,796	—	(9,465)	427,331
Installment Purchase Obligations from Direct Borrowings	63,050	3,333	(11,124)	55,259
Capital Lease Obligations	2,295,765	20,902	(3,668)	2,312,999
Notes Payable	1,927,700	283,322	(199,040)	2,011,982
Notes Payable from Direct Borrowings	106,856	75,000	(3,950)	177,906
Compensated Absences	323,953	358,662	(333,369)	349,246
Net Pension Liability*	2,688,728	—	(197,864)	2,490,864
Net OPEB Liability*	783,799	15,231	—	799,030
Total OPEB Liability*	639,434	—	(160,050)	479,384
Trust and Annuity Obligations	62,979	2,674	(537)	65,116
Other	271,495	68,206	(67,329)	272,372
Total Component Units	\$ 29,058,071	\$ 2,559,089	\$ (2,796,390)	\$ 28,820,770

*Net increase/decrease is shown.

Note (1) Pursuant to GASB Statement No. 34, governmental activities include internal service funds. Business-type activities are considered enterprise funds.

Note (2) Payments on bonded debt that pertain to the Commonwealth's governmental activities are made through the debt service funds. Payments for installment purchases, compensated absences, capital leases, pension, and other obligations that pertain to the Commonwealth's governmental activities are made through the general and all special revenue funds, excluding the Literary Fund (major). Internal service funds predominantly serve the governmental funds. Accordingly, long-term liabilities for these funds are included as part of the total for governmental activities. Enterprise funds, or business-type activities, are self-supporting funds. Accordingly, long-term liabilities are paid from each respective fund.

Note (3) Component Unit Bonds and Notes Payable have been restated by \$84,036 (dollars in thousands) for a reclassification for the Virginia Resources Authority (major). Other Liabilities has been restated by \$33,652 (dollars in thousands) to reclassify escrow funds held by the Virginia Housing Development Authority (major) from long-term liabilities to other liabilities. Other Liabilities and Notes Payable have been restated by \$2,158 (dollars in thousands) for a reclassification from Other Liabilities to Notes Payable for a nonmajor component unit.

Note (4) Foundations represent FASB reporting entities defined in Note 1.B.

Note (5) Amounts are net of any unamortized discounts and premiums.

Foundations (4)	Balance June 30	Due Within One Year
\$ —	\$ 893,106	\$ 56,260
1,082,349	19,568,524	1,107,214
—	427,331	9,860
—	55,259	8,136
472	2,313,471	4,283
269,662	2,281,644	217,933
—	177,906	9,716
16,708	365,954	277,038
—	2,490,864	—
—	799,030	330
—	479,384	17,273
73,198	138,314	1,908
270,007	542,379	24,704
<u>\$ 1,712,396</u>	<u>\$ 30,533,166</u>	<u>\$ 1,734,655</u>

Bond and Note Defeasance

GASB Statement No. 7, *Advance Refundings Resulting in Defeasance of Debt*, provides that refunded debt and assets placed in escrow for the payment of related debt service be excluded from the financial statements. As of June 30, 2019, there were \$1.3 billion in bonds from the primary government that have been refunded and defeased in-substance from the governmental activities column by placing existing assets and the proceeds of new bonds in irrevocable trusts to provide for all future debt service payments. In addition, there were \$2.2 billion in bonds and notes outstanding considered defeased from the component units.

Primary Government

In May 2019, the Commonwealth Transportation Board of the Commonwealth of Virginia issued \$43.4 million in Commonwealth of Virginia Transportation Revenue Refunding Bonds Series 2019A with an interest rate ranging from 3.0 to 5.0 percent to advance refund the outstanding Commonwealth of Virginia Transportation Revenue Bonds Series 2009A-2 (Northern Virginia Transportation District Program - Taxable - Build America Bonds). The net proceeds from the sale of the Refunding Bonds and unspent funds of \$49.5 million (after payment of underwriter's fees and other issuance costs) were deposited to an irrevocable trust with an escrow agent to provide future debt service payments on the Refunded Bonds and to pay the costs related to issuance and refunding. As a result, the Refunded Bonds are considered to be defeased and the liability has been removed from the governmental activities column of the Statement of Net Position. The reacquisition price exceeded the net carrying value of the old debt by \$150,486. The Northern Virginia Transportation District debt defeasance resulted in an accounting gain of \$150,486. Total debt service

payments will be reduced by \$6.0 million over the next 15 years, resulting in an economic gain of \$5.1 million, discounted at the rate of 2.2 percent.

Component Units

For fiscal year 2019, the Virginia Public School Authority (VPSA) (major) issued \$169.7 million of Series 2019B refunding bonds. The net proceeds have been placed with an escrow agent to provide for all future debt service on the defeased bonds. This debt defeasance resulted in an accounting loss of \$801,800. Total debt service payments over the next 10 years will be reduced by \$15.5 million. Present value savings of \$13.8 million reflect the True Interest Cost of each component of the refunding at the discount rate.

In October 2018, Virginia Commonwealth University (nonmajor) issued \$50.7 million of Series 2018A to refund the Series 2012A and Series 2012B General Revenue Pledge Refunding Bonds, and the University's taxable note related to its line of credit. For information regarding this refunding, see the University's separately issued financial statements.

Arbitrage Rebate

The Tax Reform Act of 1986 requires that governmental entities issuing tax-exempt debt calculate and rebate arbitrage earnings to the Federal government. The U.S. Treasury has issued regulations on calculating the rebate amount and complying with the provisions of the Tax Reform Act of 1986. Governmental issuers must comply with the rebate regulations in order for their bonds to maintain tax-exempt status. The regulations require earnings on investments purchased with bond proceeds in excess of the amount that would have been earned if the proceeds were invested at a rate equal to the bond yield, be subject to rebate to the Federal government. Income earned on excess earnings is also subject to rebate. Rebate liability, if any, must be paid every five years over the life of the bonds. Governmental issuers may at the time of issuance elect to pay a penalty in lieu of rebate. Bonds may be exempt from the rebate requirements if they qualify for certain exceptions under the regulations. If the issuer meets one of the exceptions, the issuer retains any arbitrage earnings. Rebate and penalty payments are calculated and paid as required by law on bond issues that do not qualify for an exception.

Rebate liability on bonds of the VPSA (major component unit) issued under its Pooled Bond Programs is payable from earnings on related bond funds and from local issuers whose local school bonds were purchased by the VPSA. During fiscal year 2019, no rebate payments were owed on VPSA bonds issued under its Pooled Bonds Programs. Rebate liability on notes of the VPSA issued under its School Technology and Security Notes Program is payable from earnings on related note funds and funds of the Commonwealth. During fiscal year 2019, a final arbitrage rebate calculation for VPSA's School Technology and Security Notes, Series II identified a yield reduction payment of \$66,025 due to the Federal government in fiscal year 2019. The liability was paid in fiscal year 2019 by the Virginia Department of Education.

Rebatable arbitrage need only be calculated for tax purposes every fifth year that debt is outstanding. Consistent with modified accrual basis of accounting, it is not recognized as a liability in governmental funds until amounts actually become due and payable; however, a liability is recognized in accrual basis government-wide statements as soon as the underlying event has occurred. Accordingly, as of June 30, 2019, the Virginia Resources Authority (major component unit) has recognized a liability of \$247,785.

Amounts remitted to the Federal government for rebate liability are generally paid from earnings derived from the issue. However, if all proceeds have been expended and depending on the type of issue, it may be necessary to use project revenues or general or non-general fund appropriations to satisfy any rebate liability. During fiscal year 2019, no rebate payments were owed on the Commonwealth's General Obligation Bonds, Virginia Public Building Authority, Commonwealth Transportation Board, the Virginia College Building Authority 21st Century or Pooled Bond Programs, or the Virginia Port Authority.

Capital Leases

The Commonwealth leases buildings and equipment under various agreements that are accounted for as capital leases. The lease agreements are for various terms and all leases contain nonappropriation clauses indicating that continuation of the lease is subject to funding by the General Assembly.

Gross minimum lease payments, together with the present value of the net minimum lease payments as of June 30, 2019, are shown in the following table (dollars in thousands).

	Governmental Activities	Business-Type Activities	Component Units (1)
2020	\$ 8,413	\$ —	\$ 94,923
2021	8,022	—	95,419
2022	7,889	—	97,232
2023	2,634	—	99,083
2024	2,617	—	95,394
2025-2029	9,931	—	529,232
2030-2034	2,624	—	567,257
2035-2039	2,291	—	600,742
2040-2044	1,372	—	648,503
2045-2049	—	—	698,662
2050-2054	—	—	754,824
2055-2059	—	—	817,174
2060-2064	—	—	884,673
2065-2069	—	—	311,626
Total Gross Minimum Lease Payments	45,793	—	6,294,744
Less: Amount Representing Executory Costs	(5,296)	—	—
Net Minimum Lease Payments	40,497	—	6,294,744
Less: Amount Representing Interest	(9,615)	—	(3,981,745)
Present Value of Net Minimum Lease Payments	\$ 30,882	\$ —	\$ 2,312,999

Note (1): The above amounts exclude capital lease obligations of foundations.

Foundations (2)	
2020	\$ 201
2021	190
2022	77
2023	19
Net Minimum Lease Payments	487
Less: Amount Representing Interest	(15)
Present Value of Net Minimum Lease Payments	\$ 472

Note (2): Foundations represent FASB reporting entities defined in Note 1.B.

As of June 30, 2019, assets purchased under capital leases were included in depreciable capital assets as follows (dollars in thousands). The amounts are net of accumulated depreciation where applicable. For a portion of these assets, ownership will pass to the Commonwealth at the end of the lease term.

	Buildings	Equipment	Infrastructure	Total
Governmental Activities:				
Gross Capital Assets	\$ 160,915	\$ 3,971	\$ —	\$ 164,886
Less: Accumulated Depreciation	(76,396)	(2,234)	—	(78,630)
Total Governmental Activities	\$ 84,519	\$ 1,737	\$ —	\$ 86,256
Business-Type Activities:				
Gross Capital Assets	\$ —	\$ —	\$ —	\$ —
Less: Accumulated Depreciation	—	—	—	—
Total Business-Type Activities	\$ —	\$ —	\$ —	\$ —
Component Units:				
Gross Capital Assets	\$ 130,052	\$ 120,086	\$ 2,096,687	\$ 2,346,825
Less: Accumulated Depreciation	(54,640)	(23,983)	(71,239)	(149,862)
Subtotal (excluding Foundations)	75,412	96,103	2,025,448	2,196,963
Foundations:	—	773	—	773
Gross Capital Assets Less: Accumulated Depreciation	—	(253)	—	(253)
Subtotal Foundations	—	520	—	520
Total Component Units (3)	\$ 75,412	\$ 96,623	\$ 2,025,448	\$ 2,197,483

Note (3): In addition to the above, land purchased under capital leases by the University of Virginia (nonmajor) is \$8,095 (dollars in thousands).

Notes Payable

Notes Payable consist of several items as shown in the following schedule (dollars in thousands):

Primary Government	
Installment Notes from Direct Borrowings	\$ 115,449
Total Primary Government	<u>115,449</u>
Component Units	
Virginia Public School Authority	189,935
Virginia Resources Authority from Direct Borrowings	84,036
Nonmajor Component Units	1,822,047
Nonmajor Component Units from Direct Borrowings	93,870
Installment Notes from Direct Borrowings	55,259
Subtotal (excluding Foundations)	<u>2,245,147</u>
Foundations:	
Notes Payable	269,662
Subtotal - Foundations	<u>269,662</u>
Total Component Units	<u>2,514,809</u>
Total Notes Payable	<u>\$ 2,630,258</u>

The Virginia Public School Authority (major component unit) notes of \$189.9 million are for the School Technology and Security Notes Program. The note proceeds were used to finance technology equipment purchases and to make grants to school divisions for the purchase of security equipment. The notes will be repaid from appropriations to be made by the Virginia General Assembly from the Literary Fund (major special revenue).

The Virginia Resources Authority (major component unit) direct borrowing note of \$84.0 million is for the Series 2019 Clean Water State Match and contains a provision that in the event of default, the annual interest rate increases to the higher of the Prime Rate plus 4.0 percent, the Federal Funds Rate plus 5.0 percent or 10.0 percent.

An additional amount of \$1.8 billion is comprised primarily of higher education institutions' (nonmajor component units) promissory notes with the Virginia College Building Authority (VCBA) (major component unit) to finance the construction of various higher education facilities pursuant to the Pooled Bond Program. Interest rates range from 2.0 percent to 5.6 percent and shall be paid semi-annually and the planned interest payments total \$567.7 million. Additionally, in accordance with the American Recovery and Reinvestment Act, the Commonwealth expects to receive a Build America Bonds (BABs) interest subsidy to reimburse interest payments of \$23.5 million. The final principal payment is due in fiscal year 2049.

The following higher education institutions (nonmajor component units) reported notes payables primarily for construction: Virginia Commonwealth University Health System Authority (Authority) (a blended component unit of the Virginia Commonwealth University – nonmajor component unit) \$91.3 million; and Virginia State University \$476,991.

Various foundations (component units) have notes outstanding as of year-end. The purpose of a majority of these notes is for property acquisition, working capital, and construction. Future principal payments as of June 30, 2019, are shown in the following table (dollars in thousands).

Maturity	Principal
2020	\$ 30,833
2021	12,617
2022	13,701
2023	25,613
2024	10,800
Thereafter	<u>176,098</u>
Total	<u>\$ 269,662</u>

Note (1): Foundations represent FASB reporting entities defined in Note 1.B.

Installment purchase obligations have been entered into by agencies and institutions of the Commonwealth. These agreements, other than those in the component units and certain institutions of higher education, contain nonappropriation clauses indicating that continuation of the installment purchase obligations is subject to funding by the General Assembly. Installment purchase obligations represent \$170.7 million of the total outstanding debt of the Commonwealth. Presented in the following tables are repayment schedules for installment purchase obligations as of June 30, 2019.

Governmental Funds				
June 30, 2019				
Maturity	Principal	Interest	Total	
2020	\$ 15,124,782	\$ 2,756,841	\$ 17,881,623	
2021	16,718,377	2,533,763	19,252,140	
2022	16,110,103	2,106,259	18,216,362	
2023	13,840,521	1,696,224	15,536,745	
2024	11,876,688	1,360,851	13,237,539	
2025-2029	31,257,392	3,124,357	34,381,749	
2030-2034	9,979,751	714,934	10,694,685	
2035-2039	23,490	264	23,754	
Total	<u>\$ 114,931,104</u>	<u>\$ 14,293,493</u>	<u>\$ 129,224,597</u>	

Business-type Activities				
June 30, 2019				
Maturity	Principal	Interest	Total	
2020	\$ 108,865	\$ 15,725	\$ 124,590	
2021	112,377	12,213	124,590	
2022	116,003	8,587	124,590	
2023	119,746	4,845	124,591	
2024	61,313	981	62,294	
Total	<u>\$ 518,304</u>	<u>\$ 42,351</u>	<u>\$ 560,655</u>	

Installment Purchase Obligations from Direct Borrowings
Component Units

June 30, 2019

Maturity	Principal	Interest	Total
2020	\$ 8,136,270	\$ 1,268,624	\$ 9,404,894
2021	10,723,610	1,100,713	11,824,323
2022	5,892,734	931,861	6,824,595
2023	5,032,523	804,611	5,837,134
2024	4,593,390	685,540	5,278,930
2025-2029	14,100,794	1,999,518	16,100,312
2030-2034	6,780,000	447,699	7,227,699
Total	\$ 55,259,321	\$ 7,238,566	\$ 62,497,887

The foundations (component units) had no installment purchase obligations as of June 30, 2019.

On May 23, 2016, the Virginia Department of Transportation (VDOT) (primary government) and Chesterfield County (County) signed a memorandum of understanding concerning payment of interest relating to the County's contribution to VDOT for the construction of the Powhite Parkway Extension Project. The parties agreed that the interest to be paid by VDOT on the County's contribution to the construction of the Powhite Parkway Extension is \$18.5 million. The interest requirement paid during fiscal year 2019 totaled \$1.4 million. The remaining outstanding interest amount of \$4.8 million is payable in annual installments on September 1 in the years 2019 to 2022. This interest is applicable to a note payable that VDOT repaid to the County in fiscal year 2014.

Lottery Prizes Payable

Lottery prizes are paid in 20, 25, 26, or 30 installments. The first installment is paid on the day the prize is claimed. The subsequent annual payments are funded with U.S. Treasury STRIPS purchased by the Virginia Lottery. For Life prizes payable represent estimated prizes payable monthly, quarterly or annually for the life of the winner based on life expectancy tables from the Virginia Bureau of Insurance, and funded with a pool of U.S. Treasury STRIPS.

Lottery prizes payable represent the future annual prize payments valued at cost plus accrued interest (current value of securities held to maturity) of the assets funding the payments.

Lottery prizes payable for the fiscal year ended June 30, 2019, are shown in the following table:

	Jackpot	Win For Life	Total
Due within one year	\$ 5,651,248	\$ 5,039,615	\$ 10,690,863
Due in subsequent years	42,071,002	60,220,748	102,291,750
Total (current value)	47,722,250	65,260,363	112,982,613
Add:			
Interest to Maturity	15,295,750	27,954,637	43,250,387
Lottery Prizes Payable at Maturity	<u>\$ 63,018,000</u>	<u>\$ 93,215,000</u>	<u>\$ 156,233,000</u>

Tuition Benefits Payable

The Virginia College Savings Plan administers the Prepaid529 program. Prepaid529 offers contracts at actuarially determined amounts that provide for future tuition and mandatory fee payments at state higher education institutions. The contract provisions also allow the benefits to be used for private or out-of-state institutions at differing amounts.

As of June 30, 2019, tuition benefits payable of \$2.0 billion have been recorded for the Prepaid529 program on the statement of net position for the actuarially determined present value of future obligations anticipated for payment of benefits and administrative expenses for the Prepaid529 program. In addition, a receivable in the amount of \$209.7 million has been recorded to reflect the actuarially determined present value of future payments anticipated from contract holders.

29. OTHER REVENUE

The following table (dollars in thousands) summarizes Other Revenue for the fiscal year ended June 30, 2019.

	Assessments and Receipts for Support of Special Services	Fines, Forfeitures, Court Fees, Penalties, and Escheats	Receipts from Cities, Counties, and Towns	Private Gifts, Grants, and Contracts	Sales of Property
Primary Government:					
General	\$ 5,803	\$ 223,737	\$ 11,763	\$ 965	\$ 24,990
Major Special Revenue Funds:					
Commonwealth Transportation	20,167	23,874	332,960	12,837	746
Federal Trust	—	323	—	—	—
Literary	—	47,409	—	—	—
Nonmajor Governmental Funds	125,513	66,590	74,455	7,763	7,506
Major Enterprise Funds:					
Unemployment Compensation	—	193	—	—	—
Nonmajor Enterprise Funds	—	15,610	—	—	—
Private Purpose Trust Funds	—	—	—	—	—
Pension and Other Employee Benefit Trust Funds	—	—	—	—	—
Total Primary Government	<u>\$ 151,483</u>	<u>\$ 377,736</u>	<u>\$ 419,178</u>	<u>\$ 21,565</u>	<u>\$ 33,242</u>

	Tobacco Master Settlement	Taxes	Other (1)	Total Other Revenue
Primary Government:				
General	\$ 56,487	\$ —	\$ 62,457	\$ 386,202
Major Special Revenue Funds:				
Commonwealth Transportation	—	—	151,595	542,179
Federal Trust	—	—	4,702	5,025
Literary	—	—	10	47,419
Nonmajor Governmental Funds	—	—	302,957	584,784
Major Enterprise Funds:				
Unemployment Compensation	—	—	—	193
Nonmajor Enterprise Funds	—	4,880	1,501	21,991
Private Purpose Trust Funds	—	—	173	173
Pension and Other Employee Benefit Trust Funds	—	—	4,107	4,107
Total Primary Government	<u>\$ 56,487</u>	<u>\$ 4,880</u>	<u>\$ 527,502</u>	<u>\$ 1,592,073</u>

Note (1): \$36,900 (dollars in thousands) and \$103,750 (dollars in thousands) are related to prior year expenditures refunded in the current fiscal year for the General Fund and the Commonwealth Transportation Fund, respectively. The total amount recorded for the Literary Fund is related to unclaimed prizes in the Virginia Lottery. \$157,273 (dollars in thousands) is related to proceeds from unclaimed property in the Unclaimed Property Fund, \$53,773 (dollars in thousands) is related to indirect costs, charge card rebate fees and court collection fees in the Other Special Revenue Fund, \$26,642 (dollars in thousands) is related to welfare activity receipts in the Health and Social Services Special Revenue Fund, and the remaining \$65,269 (dollars in thousands) is related to other miscellaneous activities in the nonmajor governmental funds.

30. TAX ABATEMENTS

GASB Statement No. 77, *Tax Abatements*, requires disclosures to be made for tax abatements. These arise from agreements between the Commonwealth and taxpayers and result in reduced tax revenue when the taxpayer promises to provide economic benefits to the Commonwealth. As of June 30, 2019, the Commonwealth participates in the following tax abatements programs in excess of \$1.0 million. There are no provisions for recapturing abated taxes since the requirements must be met prior to receiving the abatement.

- The Retail Sales and Use Tax Data Center Exemptions are intended to attract data centers to the Commonwealth pursuant to Title 58.1-609.3(18) of the *Code of Virginia*. Qualifying entities may purchase or lease certain computer equipment, enabling software and other enabling hardware for use in the data center exempt from the retail sales and use tax. Each recipient's retail sales and use taxes are reduced by being able to purchase qualifying items for use in the data center without having to pay the retail sales and use tax on the purchase price. The amount of the abatement for each recipient is determined by multiplying the purchase price of the qualifying computer equipment, enabling software and other enabling hardware purchased by the recipient by the rate of the retail sales and use tax that would be imposed on the purchase if the exemption was not available. The rate of the retail sales and use tax is 6.0 percent in the Northern Virginia and Hampton Roads localities and 5.3 percent in the remainder of the state. The exemption is available for data centers that (i) are located in a Virginia locality; (ii) result in a new capital investment of at least \$150.0 million on or after January 1, 2009; and (iii) meet specified employment and salary requirements. On or after July 1, 2009, the data center or tenants must result in the creation of at least 50 new jobs paying at least one and one-half the prevailing average wage in the locality, or 25 new jobs paying at least one and one-half the prevailing average wage in the locality if the data center is located in a locality that has an unemployment rate for the preceding year of at least 150.0 percent of the average statewide unemployment rate or is located in an enterprise zone. Effective July 1, 2012, the exemption was extended to purchases and leases made by tenants of a data center that meets the requirements of the data center exemption.

In order to qualify for the exemption, the data center operator must enter into a memorandum of understanding with the Virginia Economic Development Partnership Authority (component unit). The exemption is scheduled to sunset June 30, 2035. The amount of abated taxes for fiscal year 2019 is \$92.2 million.

- The Motion Picture Production Tax Credit is intended to encourage the filming of motion picture productions in the Commonwealth. Pursuant to Section 58.1-439.12:03 of the *Code of Virginia*, a motion picture production company with qualifying expenses

of at least \$250,000 may abate its individual income tax or corporate income tax liability by the amount of the Motion Picture Production Tax Credit. The amount of the tax credit is equal to (i) 15.0 percent of the production company's qualifying expenses or (ii) 20.0 percent of such expenses if the production is filmed in an economically distressed area of the Commonwealth. In addition to the credit for the qualifying expenses incurred by a motion picture production company, such company may receive an Additional Virginia Resident Credit and an Additional Virginia Resident First-Time Industry Employee Credit. The Additional Virginia Resident Credit equals (i) 10.0 percent of the total aggregate payroll for Virginia residents employed in connection with the production of a film in Virginia when total production costs in Virginia are at least \$250,000, but not more than \$1.0 million or (ii) 20.0 percent of the total aggregate payroll of such residents when total production costs in Virginia exceed \$1.0 million. The Additional Virginia Resident First-Time Industry Employee Credit is equal to 10.0 percent of the total aggregate payroll for Virginia residents employed for the first time as actors or members of a production crew in connection with the production of a film in Virginia.

The Motion Picture Production Tax Credit is a refundable tax credit. Therefore, if the amount of credit that a company is allowed to claim exceeds the company's tax liability for the taxable year, the excess amount of credit will be refunded to the company. Companies must have a memorandum of understanding with the Virginia Film Office (part of primary government) in order to participate in this program.

The credit is scheduled to sunset January 1, 2022. The annual cap on the amount of credits granted during a fiscal year is \$6.5 million, and this amount is expected to be claimed annually. While a motion picture production company may receive approval within a given year, the credits are not claimed by the taxpayer until filing a return. As a result, the credits claimed in a fiscal year may fluctuate compared to the \$6.5 million annual cap. For fiscal year 2019, no taxes were abated, however, it is anticipated that abatements will resume in fiscal year 2020.

31. PRIZES AND CLAIMS

The following table summarizes Prizes and Claims Expense for the fiscal year ended June 30, 2019.

(Dollars in Thousands)

	<u>Insurance Claims</u>	<u>Lottery Prize Expense</u>	<u>Total Prizes and Claims</u>
Proprietary Funds:			
Major Enterprise Funds:			
Virginia Lottery	\$ —	\$ 1,399,749	\$ 1,399,749
Unemployment Compensation	273,566	—	273,566
Nonmajor Enterprise Funds	476,936	—	476,936
Total Enterprise Funds	<u>\$ 750,502</u>	<u>\$ 1,399,749</u>	<u>\$ 2,150,251</u>
Internal Service Funds	<u>\$ 1,472,386</u>	<u>\$ —</u>	<u>\$ 1,472,386</u>

32. OTHER EXPENSES

The following table summarizes Other Expenses for the fiscal year ended June 30, 2019.

(Dollars in Thousands)

	<u>Grants and Distributions To Localities</u>	<u>Expendable Equipment/ Improvements</u>	<u>Other (1)</u>	<u>Total Other Expenses</u>
Proprietary Funds:				
Major Enterprise Funds:				
Virginia College Savings Plan	\$ —	\$ 671	\$ 2,185	\$ 2,856
Nonmajor Enterprise Funds	94	2,932	379	3,405
Total Enterprise Funds	<u>\$ 94</u>	<u>\$ 3,603</u>	<u>\$ 2,564</u>	<u>\$ 6,261</u>
Internal Service Funds	<u>\$ 1,886</u>	<u>\$ 2,452</u>	<u>\$ 6,497</u>	<u>\$ 10,835</u>
Pension and Other Employee Benefit Trust Funds (2)	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 11,522</u>	<u>\$ 11,522</u>

Note (1): \$2,185 (dollars in thousands) can be attributed to the Prepaid529 Program for the SOAR scholarship program and other promotional scholarships. \$5,899 (dollars in thousands) can be attributed to expenses related to cyber insurance in the Risk Management internal service fund and \$435,739 can be attributed to Affordable Care Act related fees in the Health Care Fund internal service fund.

Note (2): Fiduciary expenses of \$11,522 (dollars in thousands) are not included in the Government-wide Statement of Activities.

33. OTHER NON-OPERATING REVENUE/EXPENSES

The following table summarizes Other Non-Operating Revenue/Expenses for the fiscal year ended June 30, 2019.

(Dollars in Thousands)

	Gain/(Loss) on Sale of Capital Assets	Securities Lending	Interest Expense	Other (1)	Total Other Non- Operating Revenue/ (Expenses)
Proprietary Funds:					
Major Enterprise Funds:					
Virginia Lottery	\$ 33	\$ (332)	\$ —	\$ 381	\$ 82
Virginia College Savings Plan	(26)	(8)	—	—	(34)
Nonmajor Enterprise Funds	—	(489)	(11)	9,191	8,691
Total Enterprise Funds	\$ 7	\$ (829)	\$ (11)	\$ 9,572	\$ 8,739
Internal Service Funds	\$ 1,259	\$ (1,529)	\$ (1,327)	\$ 74	\$ (1,523)

Note (1): Other Non-Operating Revenue/Expenses of the nonmajor enterprise funds are primarily comprised of amounts reported by Alcoholic Beverage Control.

34. TRANSFERS

The following table summarizes Transfers In and Transfers Out for the fiscal year ended June 30, 2019 (dollars in thousands).

Transfers Out (Reported In):	Transfers In (Reported In):							
	General	Commonwealth Transportation	Federal Trust	Literary	Nonmajor Governmental Funds	Nonmajor Enterprise Funds	Internal Service Funds	Total Primary Government
Primary Government								
General	\$ —	\$ 7,616	\$ 8	\$ —	\$ 407,203	\$ —	\$ —	\$ 414,827
Major Special Revenue Funds:								
Commonwealth Transportation	31,738	—	2	—	427,812	—	388	459,940
Federal Trust	500	8,120	—	—	1,281	121	—	10,022
Nonmajor Governmental Funds	62,112	377	199	130,000	28,861	—	—	221,549
Major Enterprise Funds:								
Virginia Lottery	649,704	—	—	1,955	—	—	—	651,659
Virginia College Savings Plan	381	—	—	—	—	—	—	381
Unemployment Compensation	—	—	1,480	—	—	—	—	1,480
Nonmajor Enterprise Funds	206,416	—	—	—	15,581	—	—	221,997
Internal Service Funds	878	—	—	—	6,752	—	—	7,630
Total Primary Government	\$ 951,729	\$ 16,113	\$ 1,689	\$ 131,955	\$ 887,490	\$ 121	\$ 388	\$ 1,989,485

Transfers are used to (1) move revenues from the fund that the *Code of Virginia* or budget requires to collect them to the fund that the *Code of Virginia* or budget requires to expend them; (2) move receipts restricted for debt service from the funds holding the resources to the debt service fund as principal and interest payments become due; and (3) move unrestricted revenues collected in the General Fund to finance various programs accounted for in other funds in accordance with budgetary authorizations.

During the fiscal year, the following significant transfers were made that do not occur on a routine basis or are inconsistent with the activities of the fund making the transfer.

Various nongeneral funds transferred approximately \$18.2 million to the General Fund as required by Chapter 854, 2019 Virginia Acts of Assembly.

35. ENDOWMENTS

Donor restricted endowments reside primarily within the higher education institutions. The net appreciation available for expenditure is \$1.5 billion as of June 30, 2019. Of this amount, \$1.9 million is reported as unrestricted net position and the remainder is reported as restricted net position. The *Code of Virginia* authorizes acceptance of donations. The governing boards of these entities and the donor agreements

determine whether net appreciation can be spent and the accepted spending rate. These policies are entity specific and vary with each institution.

36. CASH FLOWS – ADDITIONAL DETAILED INFORMATION

The following table (dollars in thousands) summarizes specific cash flows for the fiscal year ended June 30, 2019.

	Virginia Lottery	Virginia College Savings Plan	Unemployment Compensation	Nonmajor Enterprise Funds	Total Enterprise Funds	Internal Service Funds
Cash Flows Resulting from:						
Payments for Prizes, Claims, and Loss Control:						
Lottery Prizes	\$ (1,418,938)	\$ —	\$ —	\$ —	\$ (1,418,938)	\$ —
Claims and Loss Control	—	—	(282,473)	(471,856)	(754,329)	(1,513,333)
Total	<u>\$ (1,418,938)</u>	<u>\$ —</u>	<u>\$ (282,473)</u>	<u>\$ (471,856)</u>	<u>\$ (2,173,267)</u>	<u>\$ (1,513,333)</u>
Other Operating Revenue:						
Other Operating Revenue	\$ —	\$ —	\$ 152	\$ 5,206	\$ 5,358	\$ —
Total	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 152</u>	<u>\$ 5,206</u>	<u>\$ 5,358</u>	<u>\$ —</u>
Other Operating Expense:						
Other Operating Expenses (1)	\$ —	\$ (2,185)	\$ —	\$ (2,265)	\$ (4,450)	\$ (10,011)
Total	<u>\$ —</u>	<u>\$ (2,185)</u>	<u>\$ —</u>	<u>\$ (2,265)</u>	<u>\$ (4,450)</u>	<u>\$ (10,011)</u>
Other Noncapital Financing Receipt Activities:						
Advances/Contributions from the Commonwealth	\$ —	\$ —	\$ —	\$ 44,995	\$ 44,995	\$ 155,780
Receipts from Taxes	—	—	—	261,457	261,457	—
Other Noncapital Financing Receipt Activities	399	—	5	75	479	163
Total	<u>\$ 399</u>	<u>\$ —</u>	<u>\$ 5</u>	<u>\$ 306,527</u>	<u>\$ 306,931</u>	<u>\$ 155,943</u>
Other Noncapital Financing Disbursement Activities:						
Repayments of Advances/Contributions from the Commonwealth	\$ —	\$ —	\$ —	\$ (40,452)	\$ (40,452)	\$ (97,378)
Other Noncapital Financing Disbursement Activities	—	—	—	(17)	(17)	(823)
Total	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (40,469)</u>	<u>\$ (40,469)</u>	<u>\$ (98,201)</u>

Note (1): \$2,185 (dollars in thousands) can be attributed to SOAR scholarship expenses and other scholarships and awards. Also, \$5,899 (dollars in thousands) can be attributed to expenses related to cyber insurance in the Risk Management internal service fund and \$435,739 can be attributed to Affordable Care Act related fees in the Health Care Fund internal service fund.

37. TOBACCO SETTLEMENT AND SECURITIZATION

On November 23, 1998, 46 states' Attorneys General and the major tobacco companies signed a proposed settlement that reimburses states for smoking-related medical expenses paid through Medicaid and other healthcare programs. At the time of the settlement, it was estimated that the Commonwealth could receive approximately \$4.1 billion over the duration of the settlement. The settlement was approved in a Consent Decree in December 1998. On March 29, 1999, the General Assembly enacted a law approving the establishment of the Tobacco Region Revitalization Commission (nonmajor component unit), in compliance with the Consent Decree, to help communities in Virginia hurt by the decline of tobacco.

The Commission was established for the purposes of determining the appropriate recipients of monies in the Tobacco Indemnification and Community Revitalization Fund. The monies are to be used to provide payments to tobacco farmers as compensation for the tobacco equipment and barns and lost tobacco production opportunities associated with a decline in quota. The monies are also to be used to revitalize tobacco dependent communities.

The General Assembly also created the Virginia Foundation for Healthy Youth (Foundation) (nonmajor component unit). The purpose of the Foundation is to determine the appropriate recipients of monies in the Virginia Tobacco Settlement Fund. The Foundation will also be responsible for distributing monies for the purposes provided in the legislation. Disbursements can be made to assist in financing efforts to restrict the use of tobacco products by minors, through educational and awareness programs describing the health effects of tobacco use on minors, and laws restricting the distribution of tobacco products to minors.

Additionally, the General Assembly created two special non-reverting funds. The Tobacco Settlement monies were accounted for in these funds and in the General Fund. Of the Settlement monies, 50.0 percent was deposited into the Tobacco Indemnification and Community Revitalization Fund at the Commission and 10.0 percent continues to be deposited into the Virginia Tobacco Settlement Fund at the Foundation. The remaining 40.0 percent continues to be reported in the General Fund.

Pursuant to Purchase and Sale Agreements executed in 2005 and 2007, the Commonwealth, acting as an agent on behalf of the Commission, sold the Commission's future right, title and interest in the Tobacco Settlement Revenues (TSRs) to the Tobacco Settlement Financing Corporation (Corporation) (related organization).

Consideration paid by the Corporation to the Commission for TSRs consisted of a cash amount deposited into an endowment to fund the long-term spending plan approved by the Commission. Bonds issued by the Corporation to finance the purchase price are asset-backed instruments secured solely by the Corporation's right to receive TSRs. At the time of issuance these revenues were expected to

produce sufficient funds to repay the bond obligations issued by the Corporation.

The Commission is a nonmajor component unit of the Commonwealth, and the Corporation is disclosed as a related organization.

38. SERVICE CONCESSION ARRANGEMENTS

GASB Statement No. 60, *Accounting and Financial Reporting for Service Concession Arrangements*, describes the criteria for when an arrangement is classified as a Service Concession Arrangement (SCA). The basic criteria are: the operator of the capital asset owned by the transferor has the right to provide services in exchange for significant consideration; the operator's revenue must come from a third party; the transferor must retain some level of control over the asset; and the transferor must receive significant residual interest at the conclusion of the arrangement.

Primary Government

The Commonwealth of Virginia has five SCAs as of June 30, 2019: Pocahontas 895, the 495 Express Lanes, Elizabeth River – Midtown Tunnel, the 95 Express Lanes, and the I-66 Outside the Beltway Express Lanes. They are all related to highway construction and operation and were established per the Public-Private Transportation Act of 1995, as amended (PPTA). PPTA project goals are to provide highway projects to the public in a timely and cost effective manner with private funding and support.

Pocahontas 895

On June 21, 2006, the Pocahontas Parkway Association (Association – previously reported as a blended component unit of the Virginia Department of Transportation (VDOT), part of primary government) signed an agreement with Transurban (895) LLC (Transurban). Under the terms of the agreement, all assets and rights of the Association under the Comprehensive Agreement with VDOT were transferred to Transurban. In exchange for the existing toll road and other assets, Transurban transferred sufficient funds and securities to pay or defease all outstanding bonds of the Association and pay all other outstanding obligations owed to VDOT. Additionally, Transurban agreed to construct an enhancement to the original toll road, and this enhancement was completed and placed in service in 2011.

During the 99-year agreement term, VDOT will have fee title or good and valid interest in the asset. VDOT retains the right of inspection of the asset and has outlined maximum toll charges and increases in the terms of the agreement. Capital assets of \$337.2 million and deferred inflow balances of \$495.0 million are included in the government-wide financial statements. No contractual liabilities exist for this arrangement as of June 30.

During fiscal year 2014, the Transurban Board approved the transfer of Pocahontas 895 to the lenders of the asset due to lower revenues than anticipated. On May 15, 2014, DBi Services assumed control of Pocahontas 895. In December 2016, the majority owner of toll rights,

Macquarie and other rights owners closed on the sale of 100.0 percent of the tolling rights to Globalvia. Macquarie CAF Management LLC, Pocahontas Holdings LLC and Meeko LLC entered into a Sale and Purchase Agreement with Pocahontas Parkway Holdings LLC and Magnolia Operations LLC (Globalvia Inversiones SAU Subsidiaries) (as the buyers) in September 2016. The acquisition was effective on December 20, 2016 after VDOT's approval.

VDOT approved Globalvia Operations USA LLC as the new O&M contractor (as defined in the Concession Agreement) and the O&M agreement between Globalvia Operations USA LLC and Pocahontas Parkway Operations LLC (company the concession agreement with VDOT was transferred to after the acquisition in December 2016) on December 2017. Globalvia Operations USA LLC replaced DBi as the new O&M contractor in February 2018.

Globalvia acquired the company that had, at that time, the agreement with VDOT to develop, finance, operate, manage the tolls and maintain Route 895-Pocahontas Parkway. The concession agreement period will end in 2105.

495 Express Lanes

On December 19, 2007, VDOT signed an 80-year public-private partnership agreement with Capital Beltway Express, LLC. The purpose of this agreement is to build new express lanes to provide users with a faster and more reliable travel option. The construction of the express lanes was completed in November 2012.

During the 80-year agreement, VDOT maintains regulatory control and jurisdiction of the express lanes. VDOT will have fee title or good and valid interest in the express lanes. The lanes will remain open for the public as long as the applicable tolls are paid. Capital assets of \$818.1 million and deferred inflows of \$967.9 million are included in the government-wide financial statements. Liabilities are contingent on specific events occurring pursuant to the agreement.

In fiscal year 2019, VDOT worked with Capital Beltway Express, LLC under a draft Development Framework Agreement related to the northern extension of the 495 Express Lanes (495 Next), which is the approximately 2-mile extension of the existing express lanes from Route 738 to the vicinity of George Washington Memorial Parkway.

Elizabeth River – Midtown Tunnel

On December 5, 2011, VDOT signed a 58-year public private partnership agreement with Elizabeth River Crossings OPCO, LLC. The purposes of this agreement are to build and operate a new tunnel that will be adjacent to the existing Midtown Tunnel for crossing the Elizabeth River, provide improvements to the existing Midtown Tunnel and the Downtown Tunnel, and to provide various extensions and improvements of the Martin Luther King Jr. (MLK) Freeway and I-264. As of January 1, 2017 all project components of this agreement have reached substantial completion and are in service.

During the agreement, Elizabeth River Crossings OPCO, LLC will operate and maintain the road. The revenue source for the concessionaire will be toll collections, excluding the MLK Freeway, which will be used for maintenance, operating and return on investment for constructing the project. At the end of the 58-year term, control of and the rights to operate the facilities will revert back to VDOT. Capital assets of \$892.8 million and deferred inflow balances of \$884.1 million are included in the government-wide financial statements. Liabilities are contingent on specific events occurring pursuant to the agreement. In July 2017, VDOT issued a Department Project Enhancement directive for Elizabeth River Crossings OPCO LLC, to design and build noise barrier walls for the MLK Freeway. VDOT is committed for these costs estimated at \$24.5 million and 30.0 percent of the design plan has been developed as of June 30, 2019. An additional project enhancement commitment previously disclosed for VDOT is a lighting project on the Downtown Tunnel which has been deleted with no cost incurred in fiscal year 2019 for this project. In addition to these project enhancements, the Federal Highway Administration (FHWA) has also required an annual traffic study over the next six fiscal years. The scope of the traffic study is being clarified with the FHWA as of June 30, 2019 and an estimate of the annual costs is still to be determined.

95 Express Lanes

On July 31, 2012, VDOT signed a 73-year public private partnership agreement with 95 Express Lanes, LLC. This project will create approximately 29 miles of Express Lanes on I-95 in Northern Virginia. The project will also add capacity to the existing high occupancy vehicle (HOV) lanes. The construction of the express lanes was completed in December 2014.

During the agreement, 95 Express Lanes LLC will operate and maintain the road. The revenue source for the concessionaire will be toll collections which will be used for maintenance, operating and return on investment for constructing the project. At the end of the 73-year term, control of and the rights to operate the facilities will revert back to VDOT. The lanes will remain open for the public as long as the applicable tolls are paid. Capital assets of \$559.6 million and deferred inflows balances of \$592.5 million are included in the government-wide financial statements. Liabilities are contingent on specific events occurring pursuant to the agreement.

During fiscal year 2016, the Commonwealth Transportation Board awarded a contract to design and construct a reversible extension of the 95 Express Lanes at the southern terminus in Stafford County. The approximately 2.5-mile extension will carry traffic beyond the location where the 95 Express Lanes currently end. The construction began in fiscal year 2017 and lanes opened to traffic on October 31, 2017. This 2.5-mile extension resulted in an increased value of \$25.7 million to the 95 Express Lanes SCA. In addition, plans were announced by VDOT during fiscal year 2016, to extend the 95 Express Lanes north to I-395. This project involves expanding and converting two HOV lanes to three express lanes near the Pentagon. Construction on this 8-mile

extension began in summer of 2017 with project completion scheduled during 2020.

VDOT reached commercial close with Transurban on June 8, 2017, and financial close was completed on July 25, 2017, for this project.

On June 8, 2017, an amended and restated Comprehensive Agreement was signed between VDOT and 95 Express Lanes LLC to include the scope of the project work for the I-395 northern extension. The Comprehensive Agreement was updated to include this addition to the project and payments to the Department for Transit Improvements. In consideration for the rights granted by VDOT to 95 Express Lanes LLC, solely in respect of the I-395 Project, 95 Express Lanes LLC will agree to make a payment to VDOT of \$15.0 million on the I-395 Project service commencement date and escalating annually thereafter at a rate of 2.5 percent per annum as such amounts per payment year are set forth in the Amended and Restated Comprehensive Agreement (ARCA).

In fiscal year 2017, planning was initiated on the additional extension of the Express Lanes from Garrisonville Road to Route 17 in Stafford County, which is about 10 miles. It will have direct connection with both the northbound and southbound Rappahannock River crossing projects and will be analyzing access points and operational improvements with the project.

On April 18, 2019, a second amended and restated Comprehensive Agreement was signed between VDOT and 95 Express Lanes LLC to add the scope of the project work for the Fredericksburg Extension. The Comprehensive Agreement was updated to include payments to VDOT. At financial close on April 30, 2019, 95 Express Lanes LLC paid \$45.0 million Initial Permit Fee Buyout Payment. The Concessionaire also provided a right of way cost deposit of \$2.5 million and \$4.0 million for southbound Rappahannock River Crossing work overlap funding. Deferred inflows balance of \$51.3 million is included in the fund financial statements. VDOT received an additional \$65.9 million from 95 Express Lanes LLC at the additional financial close in July 2019, which is a sum of \$11.5 million Private Activity Bonds (PABs) payment and \$54.4 million design-build price protection benefits. At service commencement, the concessionaire will make payment of \$232.0 million Final Permit Fee Buyout Payment as set forth in the second amended and restated Comprehensive Agreement.

I-66 Outside the Beltway Express Lanes

On December 8, 2016, a 50-year Public Private Partnership Agreement (the Agreement) between VDOT, the Department of Rail and Public Transportation (DRPT), and private partner, I-66 Express Mobility Partners LLC, was signed.

The \$2.2 billion I-66 Outside the Beltway Project with Express Mobility Partners is to build express lanes on I-66 outside the I-495 Capital Beltway. During the 50-year Agreement, VDOT maintains regulatory control and jurisdiction of the express lanes. VDOT will have fee title or good and valid interest in the express lanes. The

purpose of this Agreement is to build new express lanes to provide users with a faster and more reliable travel option.

The I-66 Outside the Beltway Project will include 22.5 miles of new express lanes alongside three regular lanes from I-495 to University Boulevard in Gainesville, Virginia. The project will also provide new and improved bus service and transit routes, new and improved park and ride lots, and interchange improvements to enhance safety and reduce congestion.

Express Mobility Partners will be responsible for all costs to design, build, operate and maintain the I-66 Express Lanes, without any upfront public contribution.

Financial close on the project occurred on November 9, 2017. Construction work continued on the project during fiscal year 2019. The express lanes will open to traffic in mid-2022. These lanes will remain open for the public as long as the applicable tolls are paid. Liabilities for VDOT from the Agreement are contingent on specific events occurring pursuant to the Agreement.

Express Mobility Partners provided \$578.9 million as of June 30, 2018, as an up-front concession payment to the Commonwealth. Pending approval by the Commonwealth Transportation Board, these funds will be used for project oversight by VDOT, contingency risk during construction that is released during the construction period, and projects in the corridor as selected by the Commonwealth Transportation Board. Deferred inflows balance of \$559.6 million is included in the fund financial statements.

Additional consideration to be provided by Express Mobility Partners includes several components of the permit fee established in the Agreement. A description of these components and the stipulations around receiving is provided below.

Express Mobility Partners is required to pay VDOT a permit fee that consists of transit funding payments, support for corridor improvements, and revenue sharing as further described below.

The transit funding payment portion of the permit fee that becomes due during the operating period will be payable after debt service and required reserve accounts, and will be subject to the lock-up provisions required in the Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan Agreement, but prior to support for corridor improvements and distributions. If funds are insufficient to make scheduled transit funding payments at the time due, such payments or any unpaid portion thereof will be considered past due and will remain due and payable without interest charges. The net present value of these payments is \$768.0 million.

The support for corridor improvements is to be paid as indicated in the Agreement. Amounts to be paid annually are contingent on actual toll revenues. The net present value of the support for corridor improvements is expected to total \$350.0 million. At the end of the term of the Agreement, any unpaid balance of these payments is to be forgiven or cancelled.

Express Mobility Partners will make revenue sharing payments in amounts calculated based on actual cumulative net present value of gross revenue at the end of each year of the Agreement. The percentage of gross revenue to be paid by Express Mobility Partners to VDOT increases in accordance with a five-tier revenue sharing scale. Revenue sharing payments do not have to be made if transit funding payments or support for corridor improvements are past due or unpaid.

Additional information on these payments can be found in the Agreement executed between VDOT, DRPT, and Express Mobility Partners.

Component Units

Aramark – Dining Services

During the year ended June 30, 2015, the University of Virginia (nonmajor) entered into an agreement with Aramark Educational Services, LLC (Aramark) for Aramark to provide dining services to the University. In return for use of University facilities, Aramark is required to make certain payments to the University and the University is required to provide certain repair and maintenance services related to the facilities during the term of the agreement. As of June 30, 2019, the University has accrued a \$12.8 million receivable, a \$25.1 million liability and a \$47.7 million deferred inflow of resources related to the service concession arrangement.

39. INFORMATION TECHNOLOGY INFRASTRUCTURE

The Comprehensive Infrastructure Agreement (CIA) was a contract between the Commonwealth of Virginia (Commonwealth) acting through the Virginia Information Technologies Agency (VITA) and Northrop Grumman Systems Corporation (NG). The Commonwealth's primary goal was to significantly improve the Commonwealth's IT infrastructure and the manner in which such infrastructure was operated, supported, and maintained for various IT infrastructure services (i.e. integration, service desk, mainframe, server and storage, voice and data network, messaging, security, and data center facilities). This contract was terminated for convenience effective August 17, 2018. At the termination date, the Commonwealth issued a payment for contractually required resolution and exit fees, totaling approximately \$79.3 million. Furthermore, a legal settlement was later reached between NG and VITA whereby the Commonwealth issued a settlement payment totaling \$35.8 million.

The Commonwealth has signed new contracts with various IT service providers. The new service providers include SAIC for Multi-Services Integrator (MSI) services; Atos for managed security services; Unisys for server, storage, and data center services; Ironbow for end user computing services; Xerox for managed print services; and Verizon for voice and data network services. The contract terms range from five years to seven years, with additional renewal options on each.

Expenses in fiscal year 2019 associated with the new service providers were \$138.3 million. The

Commonwealth expects to spend an additional \$904.8 million over the remaining life of the current contracts with the new suppliers.

40. CONTINGENCIES

A. Grants and Contracts

The Commonwealth has received federal grants for specific purposes that are subject to review and audit by the grantor agencies or their auditors. Claims against these resources are generally conditional upon compliance with the terms and conditions of grant agreements and applicable federal regulations, including the expenditure of resources for allowable purposes. Any disallowance resulting from a federal audit may become a liability of the Commonwealth.

Institutions of higher education (component units) and other state agencies are required to comply with various federal regulations issued by the Office of Management and Budget, if such agencies are recipients of federal grants, contracts, or other sponsored agreements. Failure to comply with certain requirements of these regulations may result in questions concerning the allowability of related direct and indirect charges pursuant to such agreements. It is believed that the ultimate disallowance pertaining to these regulations, if any, will be immaterial to the overall financial condition of the Commonwealth.

The U.S. Department of Health and Human Services (DHHS) Office of the Inspector General conducted a review and indicated that the Commonwealth's Statewide Indirect Cost Allocation Plan rates have allowed over-recoveries and transfers in the internal service funds and portions of selected rebates. The Commonwealth has paid the amount it believes is owed for fiscal years 2009-2014, and appealed a DHHS determination letter indicating that an additional amount is owed for this time period. While the DHHS Departmental Appeals Board upheld the DHHS determination, the Commonwealth is currently continuing the appeal process. In October 2018, the Commonwealth paid an additional \$10.3 million in order to cease interest assessment and prevent potential debt-set off actions on future federal drawdowns. The Commonwealth still disputes that this amount is owed and expects to recover this amount from the appeal settlement. Accordingly, this amount is not included in the accompanying financial statements.

Additionally, the DHHS has received the 2017 and 2016 payback schedules which are based on fiscal year 2016 and 2015 data, respectively. Further, the Commonwealth has computed payback schedules for 2019 and 2018 which are based on fiscal years 2018 and 2017 data, respectively. The Commonwealth has computed a liability of \$25.4 million representing the amounts owed to the federal government for internal service fund over-recoveries and transfers, as well as the federal share of various rebates received. This amount has been reflected in the accompanying financial statements.

The Virginia Tourism Authority (nonmajor component unit) had unclaimed awards totaling \$1.9 million payable to awardees upon submission of proper claims for reimbursement for the Marketing Leverage Program, in addition to, unclaimed awards totaling \$135,719 payable to awardees upon submission of proper claims for reimbursement for the World War Tourism Program and Music Festival Program. Additionally, property at the Virginia/Maryland border to be used for the Gateway Welcome Center was donated to the Authority in July 2008. The deed to the property includes a covenant requiring any or all land to revert to the U.S. Government should it become needed for national defense. The net book value of the property as of June 30, 2019 was \$813,850.

B. Litigation

The Commonwealth is named as a party in legal proceedings and investigations that occur in the normal course of governmental operations, some involving substantial amounts. It is not possible at the present time to estimate the ultimate outcome or liability, if any, of the Commonwealth in respect to the various proceedings; however, it is believed that any ultimate liability resulting from these suits or investigations will not have a material, adverse effect on the financial condition of the Commonwealth.

C. Subject to Appropriation

Both the primary government and the discretely presented component units enter into agreements and issue debt secured solely by future appropriations from the General Fund of the Commonwealth. The primary government has leases and other agreements of such debt of \$2.9 billion. The discretely presented component units have such debt of \$4.6 billion.

D. Bailment Inventory

The Virginia Alcoholic Beverage Control Authority (ABC) houses and controls bailment inventory in the warehouse and is therefore responsible for the exercise of reasonable care to preserve the inventory until it is purchased by ABC or returned to the supplier. ABC uses the bailment system for payment of merchandise for resale. ABC initiates payments to the vendors based on shipments from the ABC warehouse to the retail stores, rather than receipt of invoice from the vendor. As of June 30, 2019, the bailment inventory was valued at \$50.1 million.

E. Loan Guarantees

The Virginia Small Business Financing Authority (VSBFA) (nonmajor component unit) has a loan guaranty program which provides guarantees up to the lesser of \$500,000, or 75.0 percent, of a bank loan for lines of credit and short-term working capital loans for small businesses authorized by Section 2.2-2285 of the *Code of Virginia*. The relationship of the Commonwealth to the issuer or issuers of the obligations are private banks that contact VSBFA to

obtain guarantees if they deem it necessary to approve the loan. The VSBFA staff underwrites the request for guarantees, and the Board of Directors makes the credit decision to approve or decline the loan. The Board has given VSBFA staff delegated authority to approve requests up to, and including, \$500,000. The Board reviews all loan packages and ratifies all decisions. The length of time for the guarantees is up to five years for lines of credit and seven years for term loans. Upon a default or event of default under the loan documents and payment by VSBFA under the Guaranty Agreement, the borrower and the guarantor(s), jointly and severally, acknowledge and agree that VSBFA may set off, collect and retain any payments or monies due or owing the borrower or any guarantor from the Commonwealth of Virginia, and/or any governmental authority or agency of the Commonwealth. VSBFA submits collections to the Office of the Attorney General, Division of Debt Collection for legal action and collection of debt. As of June 30, 2019, the loan guaranty program has guarantees outstanding of \$6.7 million and restricted assets pledged as collateral of \$10.2 million.

GASB Statement No. 70, *Accounting and Financial Reporting for Nonexchange Financial Guarantees*, requires that certain information be disclosed regarding selected nonexchange financial guarantees. As of June 30, 2019, the VSBFA recognized a nonexchange financial guarantee liability of \$133,677. This is a decrease of \$9,610 from the beginning balance of \$143,287. There were no required payments made during fiscal year 2019. Additionally, there have been no cumulative amounts paid on these outstanding loan guarantees nor are there any expected recoveries.

F. Regional Wet Weather Management Plan

Hampton Roads Sanitation District (HRSD) (nonmajor component unit) is party to a federal consent decree with the federal and state governments (the Consent Decree), which requires the HRSD to evaluate the wet weather capacity of the regional sewer system, including collection systems owned by 14 of the localities which the HRSD serves in the Hampton Roads area. Based upon that evaluation, the HRSD, in consultation with the localities, is required to develop a regional wet weather management plan (RWWMP) for submittal to the federal and state environmental agencies for their approval.

The HRSD and the localities believe that addressing wet weather capacity issues from a regional perspective will result in the most affordable and cost-effective approach for rate payers throughout the region. Toward that end, the HRSD and the localities entered into a legally binding Memorandum of Agreement in March of 2014 (the MOA). The MOA commits HRSD to (1) develop the RWWMP in consultation with the localities, (2) fund the approved plan through a regional rate imposed on all regional ratepayers, (3) design and construct the necessary

improvements, and (4) assume responsibility for wet weather capacity throughout the region in each area once the RWWMP is implemented. In exchange, the localities have agreed to (1) cooperate with the HRSD, (2) facilitate the construction of and accept ownership of any improvements which the HRSD may need to construct in the localities' systems, and (3) maintain the integrity of their systems to industry standards. The Consent Decree and MOA also contemplate that the localities' obligation to maintain the integrity of their sewer systems to industry standards was embodied in a State administrative order. While the HRSD is preparing the RWWMP, the Consent Decree also requires the HRSD to implement approximately \$200.0 million in priority capital system upgrade projects over a 10-year period, which is included in the capital improvement and expansion program. The HRSD is on schedule to complete these projects. The HRSD has a major capital improvement and expansion program funded through the issuance of debt and its own resources. As of June 30, 2019, the HRSD has outstanding commitments for contracts in progress of approximately \$167.2 million.

41. PENDING GOVERNMENTAL ACCOUNTING STANDARDS BOARD STATEMENT

The GASB has issued Statement No. 84, *Fiduciary Activities*, and Statement No. 87, *Leases*. GASB Statement No. 84 will modify the presentation of fiduciary funds and the related disclosures when implemented in fiscal year 2020. GASB Statement No. 87 will redefine leases and significantly impact the Commonwealth's reporting disclosures when implemented in fiscal year 2021.

42. SUBSEQUENT EVENTS

Primary Government

Debt

On August 14, 2019, the Commonwealth of Virginia issued \$54.3 million of General Obligation Bonds, Series 2019A, \$93.8 million of General Obligation Refunding Bonds, Series 2019B, and \$10.5 million of General Obligation Refunding Bonds, Series 2019C (Federally Taxable). The 2019A Bonds will provide funding for authorized 9(c) projects. The 2019B Bonds will refund certain maturities of its Series 2009C (9(b) projects) and 2009D (9(c) projects) Bonds. The 2019C Bonds will refund certain maturities of its Series 2009E-2 (9(b) projects) Bonds.

Other

The Virginia Retirement System (VRS) Board of Trustees modified the assumption for the investments long-term expected rate of return from 7.0 to 6.8 percent effective with the June 30, 2019, measurement date. This change is applicable to the VRS-sponsored pension and OPEB plans and will be applied to all periods of projected benefit payments to determine the total pension/OPEB liability in accordance with GASB Standards. This change will be

reflected in the GASB Statement Nos. 68 and 75 data with the measurement date of June 30, 2019, and will be included in the Commonwealth's fiscal year 2020 financial statements.

Component Units

Debt

On July 8, 2019, a local borrower prepaid an outstanding obligation with the Virginia Resources Authority (VRA) (major) in the amount of \$19.0 million. The local obligation was funded from bond proceeds from the Virginia Pooled Financing Program (VPFP) Series 2011A and 2011B bonds. It is VRA's intention to defease the related bonds with prepayment proceeds. On August 8, 2019, a local borrower prepaid an outstanding obligation with VRA in the amount of \$4.7 million. The local obligation was funded from bond proceeds from the VPFP Series 2009A (ACE) bonds. It is VRA's intention to defease the related bonds with prepayment proceeds. VRA issued revenue bonds in the amount of \$93,890,000 dated August 14, 2019 through the VPFP. Interest rates range from 2.0 percent to 5.0 percent with a final maturity date of November 1, 2049.

On July 15, 2019, a Master Equipment Lease Agreement between Banc of America Public Capital Corp, as Lessor, and Virginia Port Authority (VPA) (nonmajor), as Lessee, was entered into for the lease purchase of terminal equipment totaling \$22.0 million. The payments associated with this agreement begin January 1, 2020 in the amount of \$882,587 and continue with semi-annual payments each July and January for a period of fifteen years at an interest rate of 2.5 percent. Final payment will be due July 1, 2034.

On August 21, 2019, the Virginia Housing Development Authority (VHDA) (major) issued \$50.0 million of Rental Housing Bonds Series C-Taxable. On October 1, 2019, the VHDA redeemed \$8.2 million and \$18.7 million of Series 2010A and \$9.6 million of Series 2012C-8 Commonwealth Mortgage Bonds. On October 16, 2019, the VHDA issued Rental Housing Bond 2019 Series D-Taxable in the amount of \$50.0 million.

On September 5, 2019, the University of Virginia (UVA) (nonmajor) issued \$350.0 million in General Revenue Pledge Bonds, Series 2019A. The proceeds will be used to fund capital projects at the University's academic facilities and refund a portion of the outstanding principal balance of the University's commercial paper notes. On September 10, 2019, UVA issued \$150.0 million in General Revenue Pledge Bonds, Series 2019B. The proceeds will primarily be used to fund capital projects at the University's medical center facilities and refund a portion of the outstanding principal balance of the University's commercial paper notes. On September 10, 2019, UVA issued an additional \$287.4 million in General Revenue Pledge Refunding Bonds, Series 2019C. The proceeds of the bonds will primarily be used to advance refund a portion of the University's Series 2011, Series 2013A, and Series 2013B bonds originally issued to fund academic and medical center capital projects.

On October 24, 2019, Virginia Public School Authority (VPSA) (major) issued its Special Obligation School Financing Bonds, Montgomery County Series 2019 in the amount of \$27.3 million. The Bonds will be used by the County to finance the costs of various school capital improvement projects.

On October 27, 2019, a Master Equipment Lease Agreement between Banc of America Capital Corporation as Lessor and VPA as Lessee was entered into for the lease purchase of terminal equipment totaling \$15.1 million. The payments associated with this agreement begin July 1, 2020 in the amount of \$842,192 and continue with semi-annual payments each January and July for a period of 10 years at an interest rate of 2.0 percent. Final payments will be due January 1, 2030.

On October 29, 2019, VPSA issued its Special Obligation School Financing Bonds, Prince William County Series 2019A in the amount of \$109.2 million. The Bonds will be used by the County to finance the costs of various school capital improvement projects. In addition, VPSA issued its Special Obligation School Financing Refunding Bonds, Prince William County Series 2019B (Federally Taxable) in the amount of \$34.6 million. The Bonds will be used by the County to refund certain maturities of Special Obligation School Financing Bond Series 2011, 2012 and 2013 issued by the VPSA for the benefit of the County for the initial financing of the costs of various school capital improvement projects.

On November 5, 2019, VHDA issued Commonwealth Mortgage Bonds Series 2019 A-Taxable in the amount of \$106.5 million.

On November 12, 2019, VPSA issued \$88.4 million of School Financing Bonds (1997 Resolution), Series 2019C and \$22.3 million of School Financing Refunding Bonds (1997 Resolution), Series 2019D (Federally Taxable). The 2019C Bonds will be used to purchase certain general obligation local school bonds to finance capital projects for schools and the 2019D Bonds will be used to refund certain maturities of its Series 2013B Bonds.

On November 20, 2019, VRA issued revenue bonds through the VFPF in the amount of \$383.6 million. Interest rates range from 1.8 percent to 5.0 percent with a final maturity date of November 1, 2049.

On December 1, 2019, VHDA redeemed \$2.0 million of Series 2010B, \$9.6 million of Series 2012C-8, and \$19.8 million of Series 2010 B.

On December 4, 2019, the Virginia College Building Authority (VCBA) (major) issued \$37.1 million in Educational Facilities Revenue Bonds, Series 2019A under the Public Higher Education Financing Program (the "Pool Program"). VCBA will use the proceeds of the Bonds to acquire Institutional Notes from participating public institutions of higher education. Each participating Institution will use the proceeds of its Institutional Note to finance capital projects approved by the General Assembly.

On December 5, 2019, VCBA issued \$134.9 million in Educational Facilities Revenue Bonds (21st Century College and Equipment Programs), Series 2019B and \$229.1 million in Educational Facilities Revenue Refunding Bonds (21st Century College and Equipment Programs), Series 2019C. The 2019B Bonds will provide funding for authorized VCBA capital projects at public institutions of higher education around the Commonwealth. The 2019C Bonds will refund certain maturities of VCBA's Series 2009F-2 Build America Bonds.

Other

Effective July 10, 2019, Jefferson College of Health Sciences, a division of Carilion Clinic, merged with Radford University (nonmajor) resulting in the formation of Radford University Carilion.

In September 2019, the Virginia Commonwealth University Health System Authority (Authority) (a blended component unit of the Virginia Commonwealth University – nonmajor component unit) committed to a majority sale of Virginia Premier to Optima, a wholly owned subsidiary of Sentara Healthcare. The transaction is expected to close by spring of 2020.

Required Supplementary Information

**Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
General and Major Special Revenue Funds**

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	General Fund			
	Original Budget	Final Budget	Actual	Final/Actual Variance Positive (Negative)
Revenues:				
Taxes:				
Individual and Fiduciary Income	\$ 14,183,800	\$ 14,421,600	\$ 15,226,471	\$ 804,871
Sales and Use	3,934,000	3,981,000	3,973,011	(7,989)
Corporation Income	912,000	1,012,200	943,391	(68,809)
Motor Fuel	—	—	—	—
Motor Vehicle Sales and Use	—	—	—	—
Communications Sales and Use	396,500	368,000	361,023	(6,977)
Deeds, Contracts, Wills, and Suits	407,200	377,275	394,062	16,787
Premiums of Insurance Companies	376,600	395,300	382,018	(13,282)
Alcoholic Beverage Sales	239,800	240,000	240,776	776
Tobacco Products	166,400	147,200	151,289	4,089
Estate	—	—	191	191
Public Service Corporations	98,000	98,700	98,890	190
Other Taxes	35,891	37,854	47,197	9,343
Rights and Privileges	85,117	87,804	93,225	5,421
Sales of Property and Commodities	32,478	32,007	25,021	(6,986)
Assessments and Receipts for Support of Special Services	4,540	4,900	5,808	908
Institutional Revenue	41,735	43,525	37,937	(5,588)
Interest, Dividends, and Rents	67,801	70,443	103,670	33,227
Fines, Forfeitures, Court Fees, Penalties, and Escheats	216,205	213,709	224,783	11,074
Federal Grants and Contracts	10,431	10,431	10,573	142
Receipts from Cities, Counties, and Towns	11,158	11,497	11,216	(281)
Private Donations, Gifts and Contracts	168	233	965	732
Tobacco Master Settlement	48,000	58,667	56,487	(2,180)
Other	262,348	192,019	203,940	11,921
Total Revenues	21,530,172	21,804,364	22,591,944	787,580
Expenditures:				
Current:				
General Government	2,574,740	2,591,762	2,446,484	145,278
Education	9,093,983	9,212,771	9,109,073	103,698
Transportation	59	256	203	53
Resources and Economic Development	488,891	518,768	432,029	86,739
Individual and Family Services	7,140,627	7,338,134	7,208,024	130,110
Administration of Justice	2,894,241	2,938,324	2,904,663	33,661
Capital Outlay	8,438	11,127	2,575	8,552
Total Expenditures	22,200,979	22,611,142	22,103,051	508,091
Revenues Over (Under) Expenditures	(670,807)	(806,778)	488,893	1,295,671
Other Financing Sources (Uses):				
Transfers:				
Transfers In	847,477	904,470	938,306	33,836
Transfers Out	(419,792)	(408,301)	(414,827)	(6,526)
Bonds Issued	—	—	—	—
Premium on Debt Issuance	—	—	—	—
Total Other Financing Sources (Uses)	427,685	496,169	523,479	27,310
Revenues and Other Sources Over (Under)				
Expenditures and Other Uses	(243,122)	(310,609)	1,012,372	1,322,981
Fund Balance, July 1	1,786,964	1,786,964	1,786,964	—
Fund Balance, June 30	\$ 1,543,842	\$ 1,476,355	\$ 2,799,336	\$ 1,322,981

See notes on page 199 in this section.

Special Revenue Funds

Commonwealth Transportation Fund

Original Budget	Final Budget	Actual	Final/Actual Variance Positive (Negative)
\$ —	\$ —	\$ —	\$ —
1,467,556	1,533,955	1,463,348	(70,607)
—	—	—	—
1,049,430	1,126,965	1,060,135	(66,830)
952,600	917,500	972,021	54,521
—	—	—	—
48,300	43,600	47,771	4,171
168,655	168,655	168,654	(1)
—	—	—	—
—	—	—	—
—	—	—	—
48,500	49,567	132,852	83,285
1,203,511	676,972	738,886	61,914
556	556	4,031	3,475
14,204	17,224	20,157	2,933
—	—	—	—
10,845	9,686	75,514	65,828
14,042	14,460	23,438	8,978
1,110,695	669,946	1,050,583	380,637
152,324	152,195	296,461	144,266
25	25	6,651	6,626
—	—	—	—
1,319	195,029	151,742	(43,287)
6,242,562	5,576,335	6,212,244	635,909
84,882	156,582	78,668	77,914
2,370	2,370	2,313	57
6,517,501	7,461,018	5,383,394	2,077,624
25,769	26,109	19,585	6,524
—	—	—	—
10,684	10,684	10,684	—
76,610	71,400	28,811	42,589
6,717,816	7,728,163	5,523,455	2,204,708
(475,254)	(2,151,828)	688,789	2,840,617
1,000	1,000	16,113	15,113
(419,135)	(470,382)	(447,081)	23,301
311,715	311,715	311,715	—
29,921	29,921	29,921	—
(76,499)	(127,746)	(89,332)	38,414
(551,753)	(2,279,574)	599,457	2,879,031
3,109,645	3,109,645	3,109,645	—
\$ 2,557,892	\$ 830,071	\$ 3,709,102	\$ 2,879,031

Continued on next page

**Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual –
General and Major Special Revenue Funds** (Continued from previous page)

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Special Revenue Funds			
	Federal Trust			Final/Actual Variance Positive (Negative)
	Original Budget	Final Budget	Actual	
Revenues:				
Taxes:				
Individual and Fiduciary Income	\$ —	\$ —	\$ —	\$ —
Sales and Use	—	—	—	—
Corporation Income	—	—	—	—
Motor Fuel	—	—	—	—
Motor Vehicle Sales and Use	—	—	—	—
Communications Sales and Use	—	—	—	—
Deeds, Contracts, Wills, and Suits	—	—	—	—
Premiums of Insurance Companies	—	—	—	—
Alcoholic Beverage Sales	—	—	—	—
Tobacco Products	—	—	—	—
Estate	—	—	—	—
Public Service Corporations	—	—	—	—
Other Taxes	—	—	—	—
Rights and Privileges	—	—	134	134
Sales of Property and Commodities	—	2,813	—	(2,813)
Assessments and Receipts for Support of Special Services	—	—	—	—
Institutional Revenue	—	—	—	—
Interest, Dividends, and Rents	2,349	323	1,461	1,138
Fines, Forfeitures, Court Fees, Penalties, and Escheats	1,955	1,830	324	(1,506)
Federal Grants and Contracts	9,692,664	10,320,149	10,286,288	(33,861)
Receipts from Cities, Counties, and Towns	—	—	—	—
Private Donations, Gifts and Contracts	—	—	—	—
Tobacco Master Settlement	—	—	—	—
Other	243,404	212,118	218,306	6,188
Total Revenues	9,940,372	10,537,233	10,506,513	(30,720)
Expenditures:				
Current:				
General Government	152,940	165,888	122,112	43,776
Education	1,127,476	1,129,180	1,114,604	14,576
Transportation	34,268	33,017	22,200	10,817
Resources and Economic Development	187,010	234,110	176,032	58,078
Individual and Family Services	8,284,141	8,740,294	8,970,532	(230,238)
Administration of Justice	88,869	98,339	71,958	26,381
Capital Outlay	65,668	136,405	20,556	115,849
Total Expenditures	9,940,372	10,537,233	10,497,994	39,239
Revenues Over (Under) Expenditures	—	—	8,519	8,519
Other Financing Sources (Uses):				
Transfers:				
Transfers In	—	—	1,503	1,503
Transfers Out	—	—	(10,022)	(10,022)
Bonds Issued	—	—	—	—
Premium on Debt Issuance	—	—	—	—
Total Other Financing Sources (Uses)	—	—	(8,519)	(8,519)
Revenues and Other Sources Over (Under)	—	—	—	—
Expenditures and Other Uses	—	—	—	—
Fund Balance, July 1	—	—	—	—
Fund Balance, June 30	\$ —	\$ —	\$ —	\$ —

See notes on page 199 in this section.

Notes for Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual – General and Major Special Revenue Funds

1. Basis of Budgeting vs. Modified Accrual Basis Fund Balance (1)

Since the presentation of financial data on the basis of budgeting differs from that presented under accounting principles generally accepted in the United States of America, a schedule reconciling the fund balance on a budgetary basis at June 30, 2019, to the fund balance on a modified accrual basis follows.

Fund Balance Comparison			
Budgetary Basis to GAAP Basis			
<i>(Dollars in Thousands)</i>			
	General Fund	Commonwealth Transportation Fund	Federal Trust Fund
Fund Balance, Basis of Budgeting	\$ 2,799,336	\$ 3,709,102	\$ —
Adjustments from Budget to Modified Accrual:			
Net Accrued Revenues:			
Taxes	744,886	143,327	—
Tax Refunds	(892,370)	—	—
Other Revenue/Other Sources	132,483	121,131	1,212,585
Deferral of Up-front SCA payment	—	(45,000)	—
Medicaid Payable	(469,505)	—	(963,696)
Net Accrued Expenditures/Other Uses	(712,157)	(467,049)	(121,214)
Fund Reclassification - Budget to Modified Accrual	—	(578,793)	—
Fund Balance, Modified Accrual Basis	<u>\$ 1,602,673</u>	<u>\$ 2,882,718</u>	<u>\$ 127,675</u>

- As discussed in Note 1.E., the Literary Fund has no approved budget.

2. Appropriations

The amounts presented in the Schedule of Revenues, Expenditures, and Changes in Fund Balances – Budget and Actual – General and Major Special Revenue Funds are principally on a cash basis and represent the original budget adopted by the General Assembly and all supplemental appropriations and transfers. The following schedule reconciles original appropriations to the final adjusted expenditure appropriations for the General Fund and Major Special Revenue Funds, at June 30, 2019, except the Literary Fund which has no approved budget.

<i>(Dollars in Thousands)</i>			
	General Fund (8)	Commonwealth Transportation Fund	Federal Trust Fund (9)
Appropriations (1)	\$ 22,200,979	\$ 6,717,816	\$ 9,940,372
Supplemental Appropriations:			
Reappropriations (2)	105,191	91,390	72,307
Subsequent Executive (3)	181,386	340,287	112,405
Subsequent Legislative (4)	459,000	677,181	502,602
Capital Outlay and Operating Reversions (5)	(1,522)	(1)	(6,002)
Transfers (6)	(307,882)	(21,901)	(13,223)
Capital Outlay Adjustment (7)	(26,010)	(76,609)	(71,228)
Appropriations, as adjusted	<u>\$ 22,611,142</u>	<u>\$ 7,728,163</u>	<u>\$ 10,537,233</u>

- Represents the budget appropriated through Chapter 2, 2018 Acts of Assembly Special Session 1, as amended by Chapter 854, 2019 Acts of Assembly.
- Actions taken to reappropriate any prior year unexpended balances per authority of the language in the Appropriation Act.
- Actions taken by the Governor to carry forward any prior year unexpended balances, sum sufficient authority, and year 2 to year 1 reductions (General Fund) and actions taken to appropriate any additional revenues collected so that they can be legally spent (Special Revenue Funds).
- Actions taken by the Governor and the General Assembly to adjust the budget.
- Represents reversions of unexpended capital outlay and operating balances.
- Represents transfers required by the Appropriation Act. Transfers out are reduced by approximately \$1.7 billion (General Fund) and \$10.9 million (Commonwealth Transportation Fund) for transfers to component units and fiduciary funds that have been reclassified as expenditures in accordance with GASB Statement No. 34.
- Capital outlay appropriations cover the projects' lives and usually extend beyond the current fiscal year. These amounts have been adjusted to report the amount authorized for expenditure during the current fiscal year.
- Budgetary reductions totaling \$354.2 million are excluded since they were not available for disbursement during the current fiscal year.
- Appropriations do not include food stamp issuances of \$1.0 billion since this is a noncash item; however, this amount is included in actual expenditures.

Schedule of Changes in Employers' Net Pension Liability (1) (2)

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Change in the Net Pension Liability	VRS State				
	2019	2018	2017	2016	2015
Total pension liability:					
Service cost	\$ 375,965	\$ 370,235	\$ 369,779	\$ 375,149	\$ 369,120
Interest	1,606,772	1,562,819	1,533,764	1,482,951	1,436,064
Benefit changes	—	—	—	—	—
Difference between actual and expected experience	(327,289)	(85,975)	(245,642)	59,923	—
Assumption changes	—	76,965	—	—	—
Benefit payments	(1,296,803)	(1,234,388)	(1,195,198)	(1,136,102)	(1,081,866)
Refunds of contributions	(30,236)	(30,837)	(25,240)	(27,724)	(25,036)
Net change in total pension liability	328,409	658,819	437,463	754,197	698,282
Total pension liability - beginning	23,617,412	22,958,593	22,521,130	21,766,933	21,068,651
Total pension liability - ending (a)	\$ 23,945,821	\$ 23,617,412	\$ 22,958,593	\$ 22,521,130	\$ 21,766,933
Plan fiduciary net position:					
Contributions - employer	\$ 548,158	\$ 535,424	\$ 722,617	\$ 480,657	\$ 343,259
Contributions - member	201,920	201,391	200,184	195,582	198,035
Net investment income	1,302,241	1,963,811	277,166	728,083	2,243,999
Benefit payments	(1,296,803)	(1,234,388)	(1,195,198)	(1,136,102)	(1,081,866)
Refunds of contributions	(30,236)	(30,837)	(25,240)	(27,724)	(25,036)
Administrative expense	(11,481)	(11,612)	(10,140)	(10,302)	(12,341)
Other	28,502	(1,743)	(122)	(154)	123
Net change in plan fiduciary net position	742,301	1,422,046	(30,733)	230,040	1,666,173
Plan fiduciary net position - beginning	17,789,888	16,367,842	16,398,575	16,168,535	14,502,362
Plan fiduciary net position - ending (b)	18,532,189	17,789,888	16,367,842	16,398,575	16,168,535
Net pension liability - ending (a-b)	\$ 5,413,632	\$ 5,827,524	\$ 6,590,751	\$ 6,122,555	\$ 5,598,398
Plan fiduciary net position as a percentage of the total pension liability (b/a)	77.4%	75.3%	71.3%	72.8%	74.3%
Covered payroll (c)	\$ 4,152,368	\$ 4,020,893	\$ 3,977,759	\$ 3,878,632	\$ 3,861,712
Net pension liability as a percentage of covered payroll ((a-b)/c)	130.4%	144.9%	165.7%	157.9%	145.0%

(1) The Commonwealth implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date – an amendment of GASB Statement No. 68*, effective for the fiscal year ended June 30, 2015, therefore, ten years of data is unavailable.

(2) The Commonwealth's fiscal year 2019 net pension liability measurement date is June 30, 2018, as reported in Note 17.

See notes on page 208 in this section.

VRS Teacher

2019	2018	2017	2016	2015
\$ 885,510	\$ 830,475	\$ 828,856	\$ 828,901	\$ 831,501
3,099,338	3,016,207	2,931,065	2,834,138	2,722,788
—	—	—	—	—
(440,308)	(642,745)	(391,881)	(212,089)	—
—	218,559	—	—	—
(2,241,927)	(2,147,781)	(2,081,069)	(1,980,353)	(1,874,636)
(40,578)	(39,521)	(35,067)	(36,058)	(36,103)
1,262,035	1,235,194	1,251,904	1,434,539	1,643,550
45,417,520	44,182,326	42,930,422	41,495,883	39,852,333
<u>\$ 46,679,555</u>	<u>\$ 45,417,520</u>	<u>\$ 44,182,326</u>	<u>\$ 42,930,422</u>	<u>\$ 41,495,883</u>

\$ 1,292,988	\$ 1,137,976	\$ 1,062,338	\$ 1,267,250	\$ 853,634
391,490	392,730	380,314	373,525	371,241
2,421,157	3,632,291	516,704	1,327,047	4,042,441
(2,241,927)	(2,147,781)	(2,081,069)	(1,980,353)	(1,874,636)
(40,578)	(39,521)	(35,067)	(36,058)	(36,103)
(20,945)	(21,123)	(18,859)	(18,238)	(22,036)
(2,167)	(3,238)	(222)	(284)	217
1,800,018	2,951,334	(175,861)	932,889	3,334,758
33,119,545	30,168,211	30,344,072	29,411,183	26,076,425
34,919,563	33,119,545	30,168,211	30,344,072	29,411,183
<u>\$ 11,759,992</u>	<u>\$ 12,297,975</u>	<u>\$ 14,014,115</u>	<u>\$ 12,586,350</u>	<u>\$ 12,084,700</u>

74.8 % 72.9 % 68.3 % 70.7 % 70.9 %

\$ 8,086,986 \$ 7,891,783 \$ 7,624,612 \$ 7,434,932 \$ 7,313,025

145.4 % 155.8 % 183.8 % 169.3 % 165.2 %

Continued on next page

Schedule of Changes in Employers' Net Pension Liability (1) (2) (Continued from previous page)

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Change in the Net Pension Liability	VRS Political Subdivisions				
	2019	2018	2017	2016	2015
Total pension liability:					
Service cost	\$ 544,762	\$ 541,594	\$ 535,322	\$ 530,945	\$ 524,758
Interest	1,472,680	1,422,753	1,362,892	1,309,484	1,243,386
Benefit changes	10,811	36,652	2,053	1,135	—
Difference between actual and expected experience	(43,177)	(205,649)	(87,268)	(185,419)	—
Assumption changes	—	(64,510)	—	—	—
Benefit payments	(1,010,021)	(941,856)	(893,585)	(819,201)	(754,706)
Refunds of contributions	(41,324)	(42,068)	(37,380)	(36,898)	(36,876)
Net change in total pension liability	933,731	746,916	882,034	800,046	976,562
Total pension liability - beginning	21,564,004	20,817,088	19,935,054	19,135,008	18,158,446
Total pension liability - ending (a)	\$ 22,497,735	\$ 21,564,004	\$ 20,817,088	\$ 19,935,054	\$ 19,135,008
Plan fiduciary net position:					
Contributions - employer	\$ 490,286	\$ 477,563	\$ 543,947	\$ 533,877	\$ 539,366
Contributions - member	241,339	238,636	231,934	227,060	225,555
Net investment income	1,415,456	2,113,973	300,995	761,164	2,272,284
Benefit payments	(1,010,021)	(941,856)	(893,585)	(819,201)	(754,706)
Refunds of contributions	(41,324)	(42,068)	(37,380)	(36,898)	(36,876)
Administrative expense	(12,236)	(12,220)	(10,696)	(10,358)	(12,153)
Other	(30,924)	(1,887)	(130)	(162)	120
Net change in plan fiduciary net position	1,052,576	1,832,141	135,085	655,482	2,233,590
Plan fiduciary net position - beginning	19,250,247	17,418,106	17,283,021	16,627,539	14,393,949
Plan fiduciary net position - ending (b)	20,302,823	19,250,247	17,418,106	17,283,021	16,627,539
Net pension liability - ending (a-b)	\$ 2,194,912	\$ 2,313,757	\$ 3,398,982	\$ 2,652,033	\$ 2,507,469
Plan fiduciary net position as a percentage of the total pension liability (b/a)	90.2%	89.3%	83.7%	86.7%	86.9%
Covered payroll (c)	\$ 4,932,344	\$ 4,765,842	\$ 4,628,806	\$ 4,513,335	\$ 4,434,764
Net pension liability as a percentage of covered payroll ((a-b)/c)	44.5%	48.5%	73.4%	58.8%	56.5%

SPORS

2019	2018	2017	2016	2015
\$ 18,187	\$ 18,880	\$ 18,700	\$ 18,847	\$ 18,341
71,251	74,042	72,618	70,350	67,978
—	—	—	—	—
(7,248)	(5,327)	(14,711)	(2,890)	—
—	(68,707)	—	—	—
(58,197)	(57,814)	(53,515)	(53,338)	(50,467)
(867)	(630)	(584)	(375)	(685)
23,126	(39,556)	22,508	32,594	35,167
1,047,402	1,086,958	1,064,450	1,031,856	996,689
<u>\$ 1,070,528</u>	<u>\$ 1,047,402</u>	<u>\$ 1,086,958</u>	<u>\$ 1,064,450</u>	<u>\$ 1,031,856</u>

\$ 35,806	\$ 31,888	\$ 33,655	\$ 28,427	\$ 42,683
6,311	5,701	5,759	5,680	5,646
58,148	87,265	12,634	32,466	98,682
(58,197)	(57,814)	(53,515)	(53,338)	(50,467)
(867)	(630)	(584)	(375)	(685)
(509)	(926)	(590)	(471)	(431)
(63)	(99)	(23)	(27)	—
40,629	65,385	(2,664)	12,362	95,428
796,073	730,688	733,352	720,990	625,562
836,702	796,073	730,688	733,352	720,990
<u>\$ 233,826</u>	<u>\$ 251,329</u>	<u>\$ 356,270</u>	<u>\$ 331,098</u>	<u>\$ 310,866</u>

78.2 % 76.0 % 67.2 % 68.9 % 69.9 %

\$ 124,003	\$ 111,395	\$ 114,395	\$ 110,059	\$ 112,010
188.6 %	225.6 %	311.4 %	300.8 %	277.5 %

Continued on next page

Schedule of Changes in Employers' Net Pension Liability (1) (2) (Continued from previous page)

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Change in the Net Pension Liability	VaLORS				
	2019	2018	2017	2016	2015
Total pension liability:					
Service cost	\$ 45,179	\$ 47,189	\$ 45,608	\$ 47,531	\$ 46,504
Interest	136,289	135,453	129,756	124,579	119,040
Benefit changes	—	—	—	—	—
Difference between actual and expected experience	(26,111)	(1,457)	4,997	(4,849)	—
Assumption changes	—	(63,457)	—	—	—
Benefit payments	(104,776)	(96,224)	(92,270)	(84,990)	(78,412)
Refunds of contributions	(5,604)	(4,938)	(4,524)	(4,797)	(4,665)
Net change in total pension liability	44,977	16,566	83,567	77,474	82,467
Total pension liability - beginning	2,002,184	1,985,618	1,902,051	1,824,577	1,742,110
Total pension liability - ending (a)	\$ 2,047,161	\$ 2,002,184	\$ 1,985,618	\$ 1,902,051	\$ 1,824,577
Plan fiduciary net position:					
Contributions - employer	\$ 73,793	\$ 73,816	\$ 79,392	\$ 62,084	\$ 67,483
Contributions - member	17,496	17,598	17,574	17,081	17,908
Net investment income	98,292	146,039	20,899	52,312	156,786
Benefit payments	(104,776)	(96,224)	(92,270)	(84,990)	(78,412)
Refunds of contributions	(5,604)	(4,938)	(4,524)	(4,797)	(4,665)
Administrative expense	(861)	(1,540)	(940)	(743)	(681)
Other	(247)	(310)	(38)	(44)	—
Net change in plan fiduciary net position	78,093	134,441	20,093	40,903	158,419
Plan fiduciary net position - beginning	1,345,887	1,211,446	1,191,353	1,150,450	992,031
Plan fiduciary net position - ending (b)	1,423,980	1,345,887	1,211,446	1,191,353	1,150,450
Net pension liability - ending (a-b)	\$ 623,181	\$ 656,297	\$ 774,172	\$ 710,698	\$ 674,127
Plan fiduciary net position as a percentage of the total pension liability (b/a)	69.6%	67.2%	61.0%	62.6%	63.1%
Covered payroll (c)	\$ 345,531	\$ 344,468	\$ 345,504	\$ 338,562	\$ 352,492
Net pension liability as a percentage of covered payroll ((a-b)/c)	180.4%	190.5%	224.1%	209.9%	191.2%

JRS				
2019	2018	2017	2016	2015
\$ 19,228	\$ 22,144	\$ 21,978	\$ 23,254	\$ 24,024
43,799	42,081	42,820	41,759	40,013
—	—	(15,552)	—	—
(15,786)	(14,774)	(18,681)	(9,107)	—
—	16,114	—	—	—
(41,165)	(40,895)	(41,341)	(40,205)	(37,984)
—	—	—	—	—
6,076	24,670	(10,776)	15,701	26,053
646,275	621,605	632,381	616,680	590,627
<u>\$ 652,351</u>	<u>\$ 646,275</u>	<u>\$ 621,605</u>	<u>\$ 632,381</u>	<u>\$ 616,680</u>

\$ 28,096	\$ 27,612	\$ 41,502	\$ 31,503	\$ 27,727
3,231	3,272	3,236	3,015	3,051
37,466	56,029	8,112	20,051	60,833
(41,165)	(40,895)	(41,341)	(40,205)	(37,984)
—	—	—	—	—
(326)	(594)	(363)	(283)	(268)
(42)	(64)	(15)	(17)	—
27,260	45,360	11,131	14,064	53,359
512,749	467,389	456,258	442,194	388,835
540,009	512,749	467,389	456,258	442,194
<u>\$ 112,342</u>	<u>\$ 133,526</u>	<u>\$ 154,216</u>	<u>\$ 176,123</u>	<u>\$ 174,486</u>

82.8%	79.3%	75.2%	72.1%	71.7%
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\$ 68,245	\$ 66,826	\$ 66,621	\$ 61,092	\$ 61,020
164.6%	199.8%	231.5%	288.3%	285.9%

Schedule of Employer Contributions – Pension Plans

(Dollars in Thousands)

Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
VIRGINIA RETIREMENT SYSTEM (VRS) - STATE					
2019	\$ 567,450	\$ 567,450	\$ —	\$ 4,197,484	13.52%
2018	560,154	560,154	—	4,152,368	13.49%
2017	542,418	542,418	—	4,020,893	13.49%
2016	628,486	557,160	71,326	3,977,759	14.01%
2015	612,824	478,235	134,589	3,878,632	12.33%
2014	504,726	338,286	166,440	3,861,712	8.76%
2013	485,577	325,452	160,125	3,715,205	8.76%
2012	309,930	117,696	192,234	3,663,475	3.21%
2011	294,363	74,113	220,250	3,479,484	2.13%
2010	285,209	176,751	108,458	3,556,222	4.97%
VIRGINIA RETIREMENT SYSTEM (VRS) - TEACHER					
2019	\$ 1,315,160	\$ 1,315,160	\$ —	\$ 8,387,503	15.68%
2018	1,319,796	1,319,796	—	8,086,986	16.32%
2017	1,287,939	1,156,935	131,004	7,891,783	14.66%
2016	1,344,981	1,072,020	272,961	7,624,612	14.06%
2015	1,353,158	1,078,065	275,093	7,434,932	14.50%
2014	1,226,394	852,699	373,695	7,313,025	11.66%
2013	1,203,856	837,028	366,828	7,178,629	11.66%
2012	903,655	443,078	460,577	6,999,653	6.33%
2011	891,237	271,306	619,931	6,903,465	3.93%
2010	839,550	450,218	389,332	7,090,791	6.35%
VIRGINIA RETIREMENT SYSTEM (VRS) - POLITICAL SUBDIVISIONS					
2019	\$ 515,904	\$ 518,513	\$ (2,609)	\$ 5,118,622	10.13%
2018	504,955	505,603	(648)	4,932,344	10.25%
2017	487,067	487,702	(635)	4,765,842	10.23%
2016	554,335	549,408	4,927	4,628,806	11.87%
2015	540,859	535,919	4,940	4,513,335	11.87%
2014	551,822	539,131	12,691	4,434,764	12.16%
2013	537,657	525,385	12,272	4,321,565	12.16%
2012	400,879	400,879	—	4,142,150	9.68%
2011	391,531	391,531	—	4,078,580	9.60%
2010	363,982	363,982	—	4,125,087	8.82%

See notes on page 208 in this section.

Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
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STATE POLICE OFFICERS' RETIREMENT SYSTEM (SPORS)

2019	\$	31,469	\$	31,469	\$	—	\$	126,483	24.88%
2018		35,391		35,391		—		124,003	28.54%
2017		31,792		31,792		—		111,395	28.54%
2016		35,211		31,561		3,650		114,395	27.59%
2015		33,876		28,417		5,459		110,059	25.82%
2014		36,538		27,711		8,827		112,010	24.74%
2013		34,535		26,193		8,342		105,872	24.74%
2012		26,250		11,441		14,809		102,701	11.14%
2011		24,570		7,460		17,110		96,128	7.76%
2010		23,791		15,714		8,077		98,757	15.91%

VIRGINIA LAW OFFICERS' RETIREMENT SYSTEM (VaLORS)

2019	\$	75,635	\$	75,635	\$	—	\$	349,998	21.61%
2018		72,734		72,734		—		345,531	21.05%
2017		72,511		72,511		—		344,468	21.05%
2016		72,763		65,101		7,662		345,504	18.84%
2015		71,301		59,824		11,477		338,562	17.67%
2014		68,806		52,169		16,637		352,492	14.80%
2013		66,463		50,392		16,071		340,489	14.80%
2012		55,306		24,481		30,825		347,181	7.05%
2011		53,686		17,255		36,431		337,010	5.12%
2010		57,894		39,027		18,867		345,020	11.31%

JUDICIAL RETIREMENT SYSTEM (JRS)

2019	\$	23,498	\$	23,498	\$	—	\$	68,330	34.39%
2018		28,642		28,642		—		68,245	41.97%
2017		28,047		28,047		—		66,826	41.97%
2016		37,008		33,291		3,717		66,621	49.97%
2015		35,336		31,560		3,776		61,092	51.66%
2014		33,018		27,728		5,290		61,020	45.44%
2013		32,185		27,028		5,157		59,481	45.44%
2012		27,631		18,907		8,724		59,053	32.02%
2011		28,101		17,303		10,798		60,058	28.81%
2010		23,638		17,065		6,573		62,139	27.46%

Notes for Pension Schedules

	VRS			SPORS	VaLORS	JRS
	State	Teacher	Political Subdivisions			
Valuation Date	June 30, 2018	June 30, 2018	June 30, 2018	June 30, 2018	June 30, 2018	June 30, 2018
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Actuarial Assumptions:						
Investment Rate of Return*	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Projected Salary Increases:*						
State Employees/Teachers	3.50% to 5.35%	3.50% to 5.95%	N/A	3.50% to 4.75%	3.50% to 4.75%	4.50%
Political Subdivision - Non-Hazardous Duty Employees	N/A	N/A	3.50% to 5.35%	N/A	N/A	N/A
Political Subdivision - Hazardous Duty Employees	N/A	N/A	3.50% to 4.75%	N/A	N/A	N/A
Post-Retirement Benefits Increases**						
Plan 1	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Plan 2	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
Hybrid	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%

* Includes inflation at 2.50%.

** Compounded annually.

As discussed in Note 17, visit the Virginia Retirement System's website at www.varetire.org to obtain a copy of the separately issued financial statements.

Schedule of Changes in Employers' Net Other Postemployment Benefit Liability (Asset) (1) (2)

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Change in the Net OPEB Liability	RHIC		VSDP	
	2019	2018	2019	2018
Total OPEB liability:				
Service cost	\$ 19,645	\$ 19,231	\$ 27,527	\$ 27,884
Interest	66,883	66,641	15,503	15,810
Benefit changes	—	—	—	—
Difference between actual and expected experience	745	—	(11,237)	—
Assumption changes	—	(12,229)	—	(17,511)
Benefit payments	(69,117)	(71,256)	(31,073)	(30,056)
Refunds of contributions	—	—	—	—
Net change in total OPEB liability	18,156	2,387	720	(3,873)
Total OPEB liability - beginning	990,028	987,641	237,013	240,886
Total OPEB liability - ending (a)	\$ 1,008,184	\$ 990,028	\$ 237,733	\$ 237,013
Plan fiduciary net position:				
Contributions - employer	\$ 79,416	\$ 75,058	\$ 27,260	\$ 24,130
Contributions - member	—	—	—	—
Net investment income	5,706	7,706	32,073	48,206
Benefit payments	(69,117)	(71,256)	(31,073)	(30,056)
Third-party administrator charges	—	—	(6,637)	(7,001)
Administrative expense	(149)	(131)	(961)	(717)
Other	536	(546)	(35)	(54)
Net change in plan fiduciary net position	16,392	10,831	20,627	34,508
Plan fiduciary net position - beginning	79,516	68,685	442,334	407,826
Plan fiduciary net position - ending (b)	95,908	79,516	462,961	442,334
Net OPEB liability (asset) - ending (a-b)	\$ 912,276	\$ 910,512	\$ (225,228)	\$ (205,321)
Plan fiduciary net position as a percentage of the total OPEB liability (b/a)	9.5%	8.0%	194.7 %	186.6 %
Covered payroll (c)	\$ 6,762,917	\$ 6,489,069	\$ 3,972,637	\$ 3,799,590
Net OPEB liability (asset) as a percentage of covered payroll ((a-b)/c)	13.5%	14.0%	(5.7%)	(5.4%)

(1) The Commonwealth implemented GASB Statement No. 75, *Accounting and Financial Reporting for Other Postemployment Benefits*, as amended by GASB Statement No. 85, *Omnibus 2017*, effective for fiscal year 2018, therefore, ten years of data is unavailable.

(2) The Commonwealth's fiscal year 2019 net OPEB liability measurement date is June 30, 2018, as reported in Note 19.

See notes on page 214 in this section.

Schedule of the Commonwealth's Proportionate Share of the Net Other Postemployment Benefit Liability (1) (2)

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	GLI		LODA	
	2019	2018	2019	2018
Commonwealth's proportion of the net OPEB liability	30.5%	30.3%	59.9%	60.9%
Commonwealth's proportionate share of the net OPEB liability	\$ 463,787	\$ 456,387	\$ 187,869	\$ 160,064
Commonwealth's covered payroll	\$ 5,836,331	\$ 5,621,670	N/A	N/A
Commonwealth's covered employee payroll	N/A	N/A	\$ 440,535	\$ 431,978
Commonwealth's proportionate share of the net OPEB liability as a percentage of its covered payroll / covered employee payroll	7.9%	8.1%	42.6%	37.1%
Plan fiduciary net position as a percentage of the total OPEB liability	51.2%	48.9%	0.6%	1.3%

- (1) The Commonwealth implemented GASB Statement No. 75, *Accounting and Financial Reporting for Other Postemployment Benefits*, and GASB Statement No. 85, *Omnibus 2017*, effective for fiscal year 2018, therefore, ten years of data is unavailable.
- (2) The Commonwealth's fiscal year 2019 net OPEB liability measurement date is June 30, 2018, as reported in Note 19.
- (3) Since the Commonwealth is considered the governmental nonemployer contributing entity for the state-funded Retiree Health Insurance Credit for constitutional officers, social services employees and registrars (RHIC: Non-State), the covered payroll information is not applicable.

See notes on page 214 in this section.

RHIC: Non-State (3)

Constitutional Officers		Social Service Employees		Registrars	
2019	2018	2019	2018	2019	2018
100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
\$ 26,351	\$ 25,766	\$ 12,903	\$ 12,725	\$ 499	\$ 486
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A
11.1%	8.6%	9.3%	7.9%	10.4%	6.5%

Schedule of Employer Contributions – Other Postemployment Benefit Plans

(Dollars in Thousands)

Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Covered Employee Payroll	Contributions as a Percentage of Covered Payroll / Covered Employee Payroll
RETIREE HEALTH INSURANCE CREDIT						
2019	\$ 80,084	\$ 80,084	\$ —	\$ 6,844,807	N/A	1.2%
2018	79,802	79,802	—	6,762,917	N/A	1.2%
2017	76,571	76,571	—	6,489,069	N/A	1.2%
2016	73,961	66,375	7,586	6,321,454	N/A	1.0%
2015	71,522	64,186	7,336	6,112,951	N/A	1.1%
2014	63,385	60,367	3,018	6,036,629	N/A	1.0%
2013	59,618	56,779	2,839	5,677,848	N/A	1.0%
2012	60,222	7,686	52,536	5,681,295	N/A	0.1%
2011	57,193	5,395	51,798	5,395,598	N/A	0.1%
2010	66,523	43,195	23,328	5,452,717	N/A	0.8%
VIRGINIA SICKNESS AND DISABILITY PROGRAM (Also referred to Disability Insurance Trust Fund)						
2019	\$ 25,281	\$ 25,281	\$ —	\$ 4,077,627	N/A	0.6%
2018	26,219	26,219	—	3,972,637	N/A	0.7%
2017	25,077	25,077	—	3,799,590	N/A	0.7%
2016	27,187	24,580	2,607	3,724,248	N/A	0.7%
2015	26,244	23,728	2,516	3,595,080	N/A	0.7%
2014	20,610	16,701	3,909	3,553,444	N/A	0.5%
2013	21,032	17,043	3,989	3,626,208	N/A	0.5%
2012	30,285	1,096	29,189	4,037,955	N/A	0.0%
2011	28,646	—	28,646	3,819,462	N/A	—
2010	76,530	30,861	45,669	3,904,606	N/A	0.8%
GROUP LIFE INSURANCE (1)						
2019	\$ 30,869	\$ 30,869	\$ —	\$ 5,936,396	N/A	0.5%
2018	30,349	30,349	—	5,836,331	N/A	0.5%
2017	29,089	29,089	—	5,621,670	N/A	0.5%
2016	29,358	26,588	2,770	5,539,210	N/A	0.5%
2015	28,487	25,799	2,688	5,374,853	N/A	0.5%
2014	28,248	25,583	2,665	5,329,884	N/A	0.5%
2013	27,002	24,455	2,547	5,094,773	N/A	0.5%
2012	22,039	15,527	6,512	5,008,786	N/A	0.3%
2011	21,052	13,397	7,655	4,784,622	N/A	0.3%
2010	17,496	9,899	7,597	4,859,947	N/A	0.2%

- (1) The Group Life Insurance and the Line of Duty Trust Fund (Line of Duty Act) are cost-sharing plans and amounts in this schedule are only for the Commonwealth and does not include other employers.
- (2) Covered employee payroll is provided since the contributions are not based on a measure of pay. Ten years of data is not available for this plan.
- (3) Although the Retiree Health Insurance Credit program for constitutional officers, social services employees, and registrars existed prior to fiscal year 2016, the program was funded in a different manner and the results do not provide comparability with the current presentations. Since the Commonwealth is considered the governmental nonemployer contributing entity, the column regarding covered payroll is not applicable.

See notes on page 214 in this section.

Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contributions Deficiency (Excess)	Covered Payroll	Covered Employee Payroll	Contributions as a Percentage of Covered Payroll / Covered Employee Payroll
LINE OF DUTY TRUST FUND (1) (2)						
2019	\$ 14,486	\$ 8,042	\$ 6,444	N/A	\$ 462,799	1.7%
2018	13,870	6,364	7,506	N/A	440,535	1.4%
2017	14,275	6,550	7,725	N/A	431,978	1.5%
RETIREE HEALTH INSURANCE CREDIT: NON-STATE (3) For Constitutional Officers						
2019	\$ 2,593	\$ 2,593	\$ —	N/A	N/A	N/A
2018	2,362	2,362	—	N/A	N/A	N/A
2017	2,280	2,280	—	N/A	N/A	N/A
2016	1,950	1,830	120	N/A	N/A	N/A
RETIREE HEALTH INSURANCE CREDIT: NON-STATE (3) (For Social Services Employees)						
2019	\$ 1,202	\$ 1,202	\$ —	N/A	N/A	N/A
2018	1,106	1,106	—	N/A	N/A	N/A
2017	1,055	1,055	—	N/A	N/A	N/A
2016	961	824	137	N/A	N/A	N/A
RETIREE HEALTH INSURANCE CREDIT: NON-STATE (3) (For Registrars)						
2019	\$ 46	\$ 46	\$ —	N/A	N/A	N/A
2018	47	47	—	N/A	N/A	N/A
2017	45	45	—	N/A	N/A	N/A
2016	36	30	6	N/A	N/A	N/A

Notes for Other Postemployment Benefit Schedules

	Group Life Insurance Fund	Retiree Health Insurance Credit Fund	Disability Insurance Trust Fund	Line of Duty Act Trust Fund
Valuation Date	June 30, 2018	June 30, 2018	June 30, 2018	June 30, 2018
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Amortization Method (1)	Level Percent of Pay, Closed	Level Percent of Pay, Closed	Level Percent of Pay, Closed	Level Percent of Pay, Open
Payroll Growth Rate:				
State Employees	3.0%	3.0%	3.0%	3.0%
Teachers	3.0%	3.0%	N/A	N/A
Political Subdivision Employees	3.0%	3.0%	N/A	3.0%
State Police / Virginia Law Officers	3.0%	3.0%	3.0%	3.0%
Judges	3.0%	3.0%	N/A	N/A
Asset Valuation Method				
State Employees and Teachers	5-Year, Smoothed Market	5-Year, Smoothed Market	5-Year, Smoothed Market	Market Value
Political Subdivision Employees and State-Funded Local Employees	5-Year, Smoothed Market	Market Value	N/A	Market Value
Actuarial Assumptions:				
Investment Rate of Return (2)	7.0%	7.0%	7.0%	4.8%
Projected Salary Increases (3)				
State Employees	3.5% to 5.4%	3.5% to 5.4%	3.5% to 5.4%	N/A
Teachers	3.5% to 6.0%	3.5% to 6.0%	N/A	N/A
Political Subdivision Employees (Non-Hazardous Duty Employees)	3.5% to 5.4%	3.5% to 5.4%	N/A	N/A
Political Subdivision Employees (Hazardous Duty Employees)	3.5% to 4.8%	3.5% to 4.8%	N/A	N/A
State Police / Virginia Law Officers	3.5% to 4.8%	3.5% to 4.8%	3.5% to 4.8%	N/A
Judges	4.5%	4.5%	N/A	N/A
Medical Trend Assumptions (Under Age 65)	N/A	N/A	N/A	7.3% to 4.8%
Medical Trend Assumptions (Ages 65 and Older)	N/A	N/A	N/A	5.5% to 4.8%
Year of Ultimate Trend Rate (Under Age 65)	N/A	N/A	N/A	Fiscal Year Ended 2028
Year of Ultimate Trend Rate (Ages 65 and Older)	N/A	N/A	N/A	Fiscal Year Ended 2023

(1) The amortization period of the Unfunded Actuarial Accrued Liability (UAAL) was a closed 30-year period for the June 30, 2013 balance and closed 20-year period for each subsequent year. The Line of Duty Act Program amortization period is 30 years for the UAAL.

(2) Includes inflation rate of 2.5 percent. The Line of Duty Act Program uses 4.8% for the investment rate of return.

(3) Projected salary increases for the Retiree Health Insurance Credit Fund are used in the application of the actuarial cost method. Projected salary increase factors are not applicable to the Line of Duty Act Program since neither the benefit nor the cost is salary-based.

Schedule of Changes in Employers' Total Other Postemployment Benefit Liability (1) (2)

Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Change in the OPEB Liability	PMRH	
	2019	2018
Total OPEB liability:		
Service cost	\$ 94,665	\$ 116,627
Interest cost	49,279	47,346
Changes of benefit terms	—	—
Difference between expected and actual experience	(191,000)	(61,865)
Changes of assumptions	(211,762)	(326,082)
Benefit payments	(34,446)	(43,244)
Net change in total OPEB liability	(293,264)	(267,218)
Total OPEB liability - beginning	1,298,904	1,566,122
Total OPEB liability - ending (a)	\$ 1,005,640	\$ 1,298,904
Covered employee payroll (b)	\$ 5,485,993	\$ 5,229,024
Total OPEB liability as a percentage of covered employee payroll (a/b)	18.3%	24.8%

- (1) The Commonwealth implemented GASB Statement No. 75, *Accounting and Financial Reporting for Other Postemployment Benefits*, as amended by GASB Statement No. 85, *Omnibus 2017*, effective for fiscal year 2018, therefore, ten years of data is unavailable.
- (2) The Commonwealth's fiscal year 2019 total OPEB liability measurement date is June 30, 2018, as reported in Note 19. There are no assets accumulated in a trust to pay related benefits.

Changes of benefit terms – There have been no changes to the benefit provisions since the prior actuarial valuation.

Changes of assumptions – The following actuarial assumptions were updated since the June 30, 2017 valuation based on recent experience:

- Spousal Coverage - reduced the rate from 50.0% to 35.0%.
- Retiree Participation - reduced the rate from 70.0% to 60.0%.

Spousal coverage and retiree participation were both reduced based on a blend of recent experience and the prior year assumptions. The mortality assumption was modified slightly to reflect mortality improvement projection scale BB to 2020. Additionally, the discount rate was increased from 3.6% to 3.9% based on the Bond Buyers GO 20 Municipal Bond Index.

Claims Development Information – Risk Management

(Dollars in Thousands)

Comparison of Earned Revenues and Investment Income to Related Costs of Loss and Other Expenses

Fiscal and Policy Year Ended	2010	2011	2012	2013
1. Required contribution and investment revenue:				
Earned	\$ 5,485	\$ 4,131	\$ 5,019	\$ 5,043
Ceded (a)	—	—	—	—
Net earned	5,485	4,131	5,019	5,043
2. Unallocated expenses	1,269	1,310	1,382	1,273
3. Estimated incurred claims and expenses, end of policy year:				
Incurred	3,404	3,213	5,390	3,394
Ceded (a)	—	—	—	—
Net incurred	3,404	3,213	5,390	3,394
4. Net paid (cumulative) as of:				
End of policy year	412	396	1,677	335
One year later	2,236	1,940	4,468	3,401
Two years later	5,237	3,943	7,554	8,118
Three years later	6,744	4,317	8,137	8,278
Four years later	7,013	4,380	8,991	7,702
Five years later	7,653	4,392	9,034	7,747
Six years later	7,937	4,401	9,200	7,946
Seven years later	7,951	4,417	9,200	
Eight years later	7,951	4,669		
Nine years later	7,951			
5. Reestimated ceded claims and expenses (a)	—	—	—	—
6. Reestimated incurred claims and expenses:				
End of policy year	3,404	3,213	5,390	3,394
One year later	6,096	3,919	8,704	9,397
Two years later	8,428	4,523	9,107	9,939
Three years later	8,640	4,570	9,727	10,333
Four years later	8,692	4,474	9,368	8,213
Five years later	7,894	4,444	9,307	7,980
Six years later	8,108	4,456	9,206	8,057
Seven years later	7,978	4,417	9,206	
Eight years later	7,966	4,669		
Nine years later	7,951			
7. Increase (decrease) in estimated net incurred claims and expense from end of policy year	4,547	1,456	3,816	4,663

The Commonwealth, through the Department of the Treasury, Division of Risk Management, provides errors and omissions liability insurance and law enforcement professional liability insurance for local governmental units, which went into effect in fiscal year 1987. Some prior year numbers have been revised to reflect the incorporation of newly available and revised source data.

See Notes on page 222 in this section.

	2014	2015	2016	2017	2018	2019
\$	8,500	\$ 8,487	\$ 8,733	\$ 13,213	\$ 13,232	\$ 13,236
	—	—	—	—	—	—
	8,500	8,487	8,733	13,213	13,232	13,236
	1,435	1,331	1,357	1,460	1,603	1,530
	4,025	4,696	6,893	4,235	10,155	9,160
	—	—	—	—	—	—
	4,025	4,696	6,893	4,235	10,155	9,160
	367	922	1,206	836	1,979	1,075
	3,210	3,270	4,680	3,195	5,573	
	4,291	5,844	6,557	4,203		
	5,002	8,280	8,841			
	5,386	9,122				
	6,509					
	—	—	—	—	—	—
	4,025	4,696	6,893	4,235	10,155	9,160
	6,454	6,775	10,307	4,820	11,598	
	6,979	8,961	9,908	5,031		
	8,045	8,836	9,764			
	6,771	9,312				
	7,289					
	3,264	4,616	2,871	796	1,443	—

Claims Development Information - Health Care

(Dollars in Thousands)

Comparison of Earned Revenues and Investment Income to Related Costs of Loss and Other Expenses

Fiscal and Policy Year Ended	2010	2011	2012	2013
1. Required contribution and investment revenue:				
Earned	\$ 240,305	\$ 246,730	\$ 259,135	\$ 284,526
Ceded (a)	—	—	—	—
Net earned	240,305	246,730	259,135	284,526
2. Unallocated expenses	15,936	15,849	16,701	18,781
3. Estimated incurred claims and expenses, end of policy year:				
Incurred	215,376	213,694	250,019	277,455
Ceded (a)	—	—	—	—
Net incurred	215,376	213,694	250,019	277,455
4. Net paid (cumulative) as of:				
End of policy year	214,371	209,365	235,058	267,256
One year later	N/A	N/A	N/A	N/A
Two years later	N/A	N/A	N/A	N/A
Three years later	N/A	N/A	N/A	N/A
Four years later	N/A	N/A	N/A	N/A
Five years later	N/A	N/A	N/A	N/A
Six years later	N/A	N/A	N/A	N/A
Seven years later	N/A	N/A	N/A	
Eight years later	N/A	N/A		
Nine years later	N/A			
5. Reestimated ceded claims and expenses (a)	—	—	—	—
6. Reestimated incurred claims and expenses:				
End of policy year	215,376	213,694	250,019	277,455
One year later	215,376	213,694	250,019	277,455
Two years later	N/A	N/A	N/A	N/A
Three years later	N/A	N/A	N/A	N/A
Four years later	N/A	N/A	N/A	N/A
Five years later	N/A	N/A	N/A	N/A
Six years later	N/A	N/A	N/A	N/A
Seven years later	N/A	N/A	N/A	
Eight years later	N/A	N/A		
Nine years later	N/A			
7. Increase (decrease) in estimated net incurred claims and expense from end of policy year	—	—	—	—

The Commonwealth, through its Department of Human Resource Management, provides health care insurance for local governmental units, which went into effect in fiscal year 1987.

See Notes on page 222 in this section.

	2014	2015	2016	2017	2018	2019
\$	320,678	\$ 343,470	\$ 392,778	\$ 430,247	\$ 464,631	\$ 481,856
	—	—	—	—	—	—
	320,678	343,470	392,778	430,247	464,631	481,856
	17,738	22,748	25,422	26,650	27,497	26,334
	290,557	327,154	386,227	419,841	433,437	446,606
	—	—	—	—	—	—
	290,557	327,154	386,227	419,841	433,437	446,606
	291,711	329,099	379,376	417,869	421,802	443,931
	N/A	N/A	N/A	N/A	N/A	
	N/A	N/A	N/A	N/A		
	N/A	N/A	N/A			
	N/A	N/A				
	N/A					
	—	—	—	—	—	—
	290,557	327,154	386,227	419,841	433,437	446,606
	290,557	327,154	386,227	419,841	433,437	
	N/A	N/A	N/A	N/A		
	N/A	N/A	N/A			
	N/A	N/A				
	N/A					
	—	—	—	—	—	—

Claims Development Information – Line of Duty

(Dollars in Thousands)

Comparison of Earned Revenues and Investment Income to Related Costs of Loss and Other Expenses

Fiscal and Policy Year Ended	2010	2011	2012	2013
1. Required contribution and investment revenue:				
Earned	N/A	N/A	N/A	N/A
Ceded (a)	N/A	N/A	N/A	N/A
Net earned	N/A	N/A	N/A	N/A
2. Unallocated expenses	N/A	N/A	N/A	N/A
3. Estimated incurred claims and expenses, end of policy year:				
Incurred	N/A	N/A	N/A	N/A
Ceded (a)	N/A	N/A	N/A	N/A
Net incurred	N/A	N/A	N/A	N/A
4. Net paid (cumulative) as of:				
End of policy year	N/A	N/A	N/A	N/A
One year later	N/A	N/A	N/A	N/A
Two years later	N/A	N/A	N/A	N/A
Three years later	N/A	N/A	N/A	N/A
Four years later	N/A	N/A	N/A	N/A
Five years later	N/A	N/A	N/A	N/A
Six years later	N/A	N/A	N/A	N/A
Seven years later	N/A	N/A	N/A	
Eight years later	N/A	N/A		
Nine years later	N/A			
5. Reestimated ceded claims and expenses (a)	—	—	—	—
6. Reestimated incurred claims and expenses:				
End of policy year	N/A	N/A	N/A	N/A
One year later	N/A	N/A	N/A	N/A
Two years later	N/A	N/A	N/A	N/A
Three years later	N/A	N/A	N/A	N/A
Four years later	N/A	N/A	N/A	N/A
Five years later	N/A	N/A	N/A	N/A
Six years later	N/A	N/A	N/A	N/A
Seven years later	N/A	N/A	N/A	
Eight years later	N/A	N/A		
Nine years later	N/A			
7. Increase (decrease) in estimated net incurred claims and expense from end of policy year	—	—	—	—

The Commonwealth, through its Department of Human Resource Management, provides disability, death, and health benefits to eligible employees and their eligible family members. The Commonwealth began administering the insurance program for localities that do not participate in the State plan effective with fiscal year 2018.

See Notes on page 222 in this section.

2014	2015	2016	2017	2018	2019
N/A	N/A	N/A	N/A	\$ 19,910	\$ 17,790
N/A	N/A	N/A	N/A	—	—
N/A	N/A	N/A	N/A	19,910	17,790
N/A	N/A	N/A	N/A	832	594
N/A	N/A	N/A	N/A	17,210	16,786
N/A	N/A	N/A	N/A	—	—
N/A	N/A	N/A	N/A	17,210	16,786
N/A	N/A	N/A	N/A	14,779	17,302
N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A		
N/A	N/A	N/A			
N/A	N/A				
N/A					
—	—	—	—	—	—
N/A	N/A	N/A	N/A	17,210	16,786
N/A	N/A	N/A	N/A	17,210	
N/A	N/A	N/A	N/A		
N/A	N/A	N/A			
N/A	N/A				
N/A					
—	—	—	—	—	—

Notes for Claims Development Information Tables

The tables on the previous pages illustrate how the Risk Management, Health Care, and Line of Duty Claims Funds earned revenues (net of reinsurance) and investment income compare to related costs of loss (net of loss assumed by reinsurers) and other expenses assumed by the funds as of the end of each of the past several years. The rows of the tables are defined as follows:

1. This line shows the total of each fiscal year's gross earned contribution revenue and investment revenue, contribution revenue ceded to reinsurers, and net earned contribution revenue and reported investment revenue.
2. This line shows each fiscal year's other operating costs of the funds, including overhead and claims expense not allocable to individual claims.
3. This line shows the funds' gross incurred claims and allocated claim adjustment expenses, claims assumed by reinsurers, and net incurred claims and adjustment expenses (both paid and accrued) as originally reported at the end of the first year in which the event that triggered coverage under the contract occurred (called policy year).
4. This section of rows shows the cumulative net amounts paid as of the end of successive years for each policy year.
5. This line shows the latest reestimated amount of claims assumed by reinsurers as of the end of the current year for each accident year.
6. This section of rows shows how each policy year's net incurred claims increased or decreased as of the end of successive years. (This annual reestimation results from new information received on known claims, reevaluation of existing information on known claims, as well as emergence of new claims not previously known.)
7. This line compares the latest reestimated net incurred claims amount to the amount originally established (line 3) and shows whether this latest estimate of net claims cost is greater or less than originally thought. As data for individual policy years mature, the correlation between original estimates and reestimated amounts is commonly used to evaluate the accuracy of net incurred claims currently recognized in less mature policy years.

The columns of the tables show data for successive policy years.

Notes:

- (a) During fiscal year 1997, the Commonwealth implemented GASB Statement No. 30, *Risk Financing Omnibus*. The Commonwealth has no reinsurers; therefore, the ceded amounts on lines 1, 3, and 5 are zero.

Combining and Individual Fund Statements and Schedules



Nonmajor Governmental Funds

Special Revenue Funds

Special Revenue Funds account for specific revenue sources that are restricted or committed to finance particular functions and activities of the Commonwealth.

The Health and Social Services Special Revenue Fund accounts for revenues and expenditures related to local health care assistance.

The Unclaimed Property Fund accounts for unclaimed and escheat property that the Commonwealth holds for its rightful owner. Due to the nature of these transactions, the Commonwealth incurs a liability upon receipt of the assets. The accompanying financial statements reflect an estimate of the amount that will be paid to claimants as required by governmental accounting standards.

The Other Special Revenue Fund accounts for revenues and expenditures related to business and agricultural activities, and miscellaneous activities throughout the Commonwealth.

Debt Service Funds

The Debt Service Funds account for transactions related to resources retained and used for the payment of interest and principal on long-term obligations recorded in the Governmental Activities column on the Government-wide Statement of Net Position. Resources include transfers in from other governmental funds and Federal revenue solely to be used for debt service payments.

Primary Government accounts for the payment of principal and interest on bonds used to acquire, construct, or improve parks, highways, and correctional, behavioral health, and parking facilities owned by the Commonwealth.

The Virginia Public Building Authority accounts for the payment of principal and interest on bonds used to acquire, construct, and operate public buildings used by the Commonwealth and its political subdivisions.

The Hampton Roads Transportation Accountability Commission accounts for the payment of principal and interest on bonds used for construction projects related to new or existing highways, bridges or tunnels in the localities comprising Planning District 23.

Capital Project Funds

The Capital Project Funds are maintained to account for resources received and used for the acquisition, construction, or improvement of capital facilities not reported in the other governmental or proprietary funds, with the exception of certain Virginia Public Building Authority disbursements.

Primary Government accounts for the financial resources acquired through the issuance of General Obligation Bonds and Energy Performance Contracts. The resources are used to acquire, construct, or improve land, public buildings, and parking facilities owned by the Commonwealth.

The Virginia Public Building Authority accounts for financial resources acquired through the issuance of section 9(d) bonds. These resources are used to acquire, construct, finance, refinance and operate public buildings used by the Commonwealth and any of its political subdivisions.

Resources are also used to finance or refinance reimbursements to localities or governmental entities for the Commonwealth's share of the capital costs for certain authorized projects.

Hampton Roads Transportation Accountability Commission accounts for financial resources acquired through the sales and use and motor fuels taxes designated for Planning District 23. These resources will be used for construction projects related to new or existing highways, bridges or tunnels in the localities comprising Planning District 23.

Permanent Funds

Permanent Funds are funds whose principal must remain intact.

Commonwealth Health Research Fund provides financial grants for human health research benefiting the Commonwealth's citizens. The entire fund balance is restricted for use as such as a condition of a legal settlement.

Behavioral Health Endowment Funds provide funds for the welfare of patients in behavioral health facilities. The entire fund balance is restricted for use as such.

Combining Balance Sheet – Nonmajor Governmental Funds

June 30, 2019

(Dollars in Thousands)

	Special Revenue Funds			
	Health and Social Services	Unclaimed Property	Other	Total
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents	\$ 244,649	\$ 143,509	\$ 392,194	\$ 780,352
Investments	—	246,353	16,672	263,025
Receivables, Net	132,944	—	29,259	162,203
Due from Other Funds	50	—	10,813	10,863
Due from External Parties (Fiduciary Funds)	—	—	245	245
Interfund Receivable	—	—	271,152	271,152
Inventory	5,679	—	1,524	7,203
Prepaid Items	6,182	540	3,233	9,955
Other Assets	6	—	631	637
Loans Receivable from Component Units	—	—	4,197	4,197
Total Assets	389,510	390,402	729,920	1,509,832
Deferred Outflows of Resources				
	—	—	—	—
Total Assets and Deferred Outflows of Resources	\$ 389,510	\$ 390,402	\$ 729,920	\$ 1,509,832
Liabilities, Deferred Inflows of Resources, and Fund Balances				
Accounts Payable	\$ 13,472	\$ 545	\$ 34,660	\$ 48,677
Amounts Due to Other Governments	235	—	3,921	4,156
Due to Other Funds	1,519	53	3,062	4,634
Due to Component Units	—	—	—	—
Due to External Parties (Fiduciary Funds)	588	24	1,702	2,314
Unearned Revenue	19,444	—	10,501	29,945
Obligations Under Securities Lending Program	5,922	—	19,797	25,719
Due to Claimants, Participants, Escrows and Providers	—	451,851	—	451,851
Other Liabilities	128,849	—	5,528	134,377
Long-term Liabilities Due Within One Year	209	9	48	266
Total Liabilities	170,238	452,482	79,219	701,939
Deferred Inflows of Resources				
	18,195	—	11,045	29,240
Total Liabilities and Deferred Inflows of Resources	188,433	452,482	90,264	731,179
Fund Balances:				
Nonspendable	11,861	540	4,728	17,129
Restricted	38,803	—	73,338	112,141
Committed	142,512	—	535,478	677,990
Assigned	7,901	—	26,112	34,013
Unassigned	—	(62,620)	—	(62,620)
Total Fund Balances (Deficit)	201,077	(62,080)	639,656	778,653
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	\$ 389,510	\$ 390,402	\$ 729,920	\$ 1,509,832

Debt Service Funds

Primary Government	Virginia Public Building Authority	Hampton Roads Transportation Accountability Commission	Total
\$ 40,182	\$ —	\$ —	\$ 40,182
—	—	—	—
8,202	2,861	—	11,063
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
48,384	2,861	—	51,245
—	—	—	—
<u>\$ 48,384</u>	<u>\$ 2,861</u>	<u>\$ —</u>	<u>\$ 51,245</u>
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
5,551	—	—	5,551
5,551	—	—	5,551
—	—	—	—
—	—	—	—
42,833	2,861	—	45,694
—	—	—	—
—	—	—	—
—	—	—	—
42,833	2,861	—	45,694
<u>\$ 48,384</u>	<u>\$ 2,861</u>	<u>\$ —</u>	<u>\$ 51,245</u>

Continued on next page

Combining Balance Sheet – Nonmajor Governmental Funds (Continued from previous page)

June 30, 2019

(Dollars in Thousands)

	Capital Project Funds			
	Primary Government	Virginia Public Building Authority	Hampton Roads Transportation Accountability Commission	Total
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents	\$ 24,776	\$ 311,084	\$ 763,455	\$ 1,099,315
Investments	—	—	334,896	334,896
Receivables, Net	—	737	1,957	2,694
Due from Other Funds	—	—	36,997	36,997
Due from External Parties (Fiduciary Funds)	—	—	—	—
Interfund Receivable	—	—	—	—
Inventory	—	—	—	—
Prepaid Items	—	5	4	9
Other Assets	—	—	—	—
Loans Receivable from Component Units	—	—	—	—
Total Assets	24,776	311,826	1,137,309	1,473,911
Deferred Outflows of Resources				
Total Assets and Deferred Outflows of Resources	\$ 24,776	\$ 311,826	\$ 1,137,309	\$ 1,473,911
Liabilities, Deferred Inflows of Resources, and Fund Balances				
Accounts Payable	\$ 357	\$ 27,076	\$ 520	\$ 27,953
Amounts Due to Other Governments	—	1,237	887	2,124
Due to Other Funds	—	2	64,838	64,840
Due to Component Units	27	12,775	—	12,802
Due to External Parties (Fiduciary Funds)	—	2	—	2
Unearned Revenue	—	—	—	—
Obligations Under Securities Lending Program	—	—	—	—
Due to Claimants, Participants, Escrows and Providers	—	—	—	—
Other Liabilities	—	—	4	4
Long-term Liabilities Due Within One Year	—	—	—	—
Total Liabilities	384	41,092	66,249	107,725
Deferred Inflows of Resources				
Total Liabilities and Deferred Inflows of Resources	384	41,092	66,249	107,725
Fund Balances:				
Nonspendable	—	5	4	9
Restricted	24,392	270,729	1,071,056	1,366,177
Committed	—	—	—	—
Assigned	—	—	—	—
Unassigned	—	—	—	—
Total Fund Balances (Deficit)	24,392	270,734	1,071,060	1,366,186
Total Liabilities, Deferred Inflows of Resources, and Fund Balances	\$ 24,776	\$ 311,826	\$ 1,137,309	\$ 1,473,911

Permanent Funds			
Commonwealth Health Research Board	Behavioral Health Endowment Funds	Total	Total Nonmajor Governmental Funds
\$ 346	\$ 135	\$ 481	\$ 1,920,330
—	—	—	597,921
—	—	—	175,960
—	—	—	47,860
40,481	—	40,481	40,726
—	—	—	271,152
—	—	—	7,203
—	—	—	9,964
—	—	—	637
—	—	—	4,197
40,827	135	40,962	3,075,950
—	—	—	—
\$ 40,827	\$ 135	\$ 40,962	\$ 3,075,950
\$ 11	\$ —	\$ 11	\$ 76,641
—	—	—	6,280
1	—	1	69,475
—	—	—	12,802
1	—	1	2,317
—	—	—	29,945
26	—	26	25,745
—	—	—	451,851
—	—	—	134,381
—	—	—	266
39	—	39	809,703
—	—	—	34,791
39	—	39	844,494
39,025	48	39,073	56,211
1,763	87	1,850	1,525,862
—	—	—	677,990
—	—	—	34,013
—	—	—	(62,620)
40,788	135	40,923	2,231,456
\$ 40,827	\$ 135	\$ 40,962	\$ 3,075,950

**Combining Statement of Revenues, Expenditures, and Changes in Fund Balance -
Nonmajor Governmental Funds**

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Special Revenue Funds			
	Health and Social Services	Unclaimed Property	Other	Total
Revenues				
Taxes	\$ 337,645	\$ —	\$ 104,057	\$ 441,702
Rights and Privileges	146,684	—	188,091	334,775
Institutional Revenue	141,793	—	29,361	171,154
Interest, Dividends, Rents, and Other Investment Income	2,117	14,508	20,344	36,969
Federal Grants and Contracts	—	—	—	—
Other	107,024	157,273	310,031	574,328
Total Revenues	735,263	171,781	651,884	1,558,928
Expenditures				
Current:				
General Government	187	7,725	114,125	122,037
Education	114	—	30,897	31,011
Transportation	—	—	4,432	4,432
Resources and Economic Development	43,334	—	337,470	380,804
Individual and Family Services	666,776	—	76,887	743,663
Administration of Justice	634	—	81,386	82,020
Capital Outlay	2,238	—	7,801	10,039
Debt Service:				
Principal Retirement	—	—	—	—
Interest and Charges	—	—	—	—
Total Expenditures	713,283	7,725	652,998	1,374,006
Revenues Over (Under) Expenditures	21,980	164,056	(1,114)	184,922
Other Financing Sources (Uses)				
Transfers In	2,276	—	53,333	55,609
Transfers Out	(23,074)	(130,000)	(38,200)	(191,274)
Notes Issued	—	—	78	78
Insurance Recoveries	20	—	2,187	2,207
Capital Leases Issued	—	—	208	208
Bonds Issued	—	—	—	—
Premium on Debt Issuance	—	—	—	—
Refunding Bonds Issued	—	—	—	—
Payment to Refunded Bond Escrow Agents	—	—	—	—
Total Other Financing Sources (Uses)	(20,778)	(130,000)	17,606	(133,172)
Net Change in Fund Balances	1,202	34,056	16,492	51,750
Fund Balance (Deficit), July 1, as restated	199,875	(96,136)	623,164	726,903
Fund Balance (Deficit), June 30	<u>\$ 201,077</u>	<u>\$ (62,080)</u>	<u>\$ 639,656</u>	<u>\$ 778,653</u>

Debt Service Funds

Primary Government	Virginia Public Building Authority	Hampton Roads Transportation Accountability Commission	Total
\$ —	\$ —	\$ —	\$ —
—	—	—	—
—	—	—	—
1,043	5	87	1,135
122,923	6,881	—	129,804
10,456	—	—	10,456
134,422	6,886	87	141,395
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
270,070	157,140	—	427,210
191,699	103,591	25,854	321,144
461,769	260,731	25,854	748,354
(327,347)	(253,845)	(25,767)	(606,959)
329,069	253,748	25,767	608,584
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
6,377	—	—	6,377
43,360	—	—	43,360
(49,308)	—	—	(49,308)
329,498	253,748	25,767	609,013
2,151	(97)	—	2,054
40,682	2,958	—	43,640
\$ 42,833	\$ 2,861	\$ —	\$ 45,694

Continued on next page

**Combining Statement of Revenues, Expenditures, and Changes in Fund Balance -
Nonmajor Governmental Funds (Continued from previous page)**

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Capital Project Funds			Total
	Primary Government	Virginia Public Building Authority	Hampton Roads Transportation Accountability Commission	
Revenues				
Taxes	\$ —	\$ —	\$ —	\$ —
Rights and Privileges	—	—	—	—
Institutional Revenue	—	—	—	—
Interest, Dividends, Rents, and Other Investment Income	610	4,803	30,455	35,868
Federal Grants and Contracts	—	—	—	—
Other	—	—	—	—
Total Revenues	610	4,803	30,455	35,868
Expenditures				
Current:				
General Government	—	—	—	—
Education	—	—	—	—
Transportation	—	—	—	—
Resources and Economic Development	—	—	—	—
Individual and Family Services	—	—	—	—
Administration of Justice	—	—	—	—
Capital Outlay	7,776	278,380	268,569	554,725
Debt Service:				
Principal Retirement	—	—	—	—
Interest and Charges	—	—	—	—
Total Expenditures	7,776	278,380	268,569	554,725
Revenues Over (Under) Expenditures	(7,166)	(273,577)	(238,114)	(518,857)
Other Financing Sources (Uses)				
Transfers In	—	—	223,297	223,297
Transfers Out	—	(4,508)	(25,767)	(30,275)
Notes Issued	16,550	—	—	16,550
Insurance Recoveries	—	—	—	—
Capital Leases Issued	—	—	—	—
Bonds Issued	—	336,950	—	336,950
Premium on Debt Issuance	—	46,468	—	46,468
Refunding Bonds Issued	—	—	—	—
Payment to Refunded Bond Escrow Agents	—	—	—	—
Total Other Financing Sources (Uses)	16,550	378,910	197,530	592,990
Net Change in Fund Balances	9,384	105,333	(40,584)	74,133
Fund Balance (Deficit), July 1, as restated	15,008	165,401	1,111,644	1,292,053
Fund Balance (Deficit), June 30	\$ 24,392	\$ 270,734	\$ 1,071,060	\$ 1,366,186

Permanent Funds				
Commonwealth Health Research Board	Behavioral Health Endowment Funds	Total	Total Nonmajor Governmental Funds	
\$ —	\$ —	\$ —	\$ 441,702	
—	—	—	334,775	
—	—	—	171,154	
2,601	3	2,604	76,576	
—	—	—	129,804	
—	—	—	584,784	
2,601	3	2,604	1,738,795	
—	—	—	122,037	
—	—	—	31,011	
—	—	—	4,432	
—	—	—	380,804	
1,342	—	1,342	745,005	
—	—	—	82,020	
—	—	—	564,764	
—	—	—	427,210	
—	—	—	321,144	
1,342	—	1,342	2,678,427	
1,259	3	1,262	(939,632)	
—	—	—	887,490	
—	—	—	(221,549)	
—	—	—	16,628	
—	—	—	2,207	
—	—	—	208	
—	—	—	336,950	
—	—	—	52,845	
—	—	—	43,360	
—	—	—	(49,308)	
—	—	—	1,068,831	
1,259	3	1,262	129,199	
39,529	132	39,661	2,102,257	
\$ 40,788	\$ 135	\$ 40,923	\$ 2,231,456	

**Schedule of Revenues, Expenditures, and Changes in Fund Balance –
Budget and Actual – Nonmajor Special Revenue Funds**

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Health and Social Services			
	Original Budget	Final Budget	Actual	Final/Actual Variance Positive (Negative)
Revenues:				
Taxes:				
Sales and Use	\$ —	\$ —	\$ —	\$ —
Motor Fuel	—	—	—	—
Deeds, Contracts, Suits	—	—	—	—
Alcoholic Beverage Sales	—	—	—	—
Tobacco Products	—	—	—	—
Public Service Corporations	3,148	3,148	2,254	(894)
Other Taxes	300,000	277,568	241,163	(36,405)
Rights and Privileges	141,987	143,251	147,538	4,287
Sales of Property and Commodities	850	1,017	1,077	60
Assessments and Receipts for Support of Special Services	—	—	4,775	4,775
Institutional Revenue	131,476	141,103	150,536	9,433
Interest, Dividends, and Rents	358	377	3,013	2,636
Fines, Forfeitures, Court Fees, Penalties, and Escheats	2,767	1,979	3,154	1,175
Receipts from Cities, Counties, and Towns	63,006	62,466	62,644	178
Private Donations, Gifts and Contracts	2,508	2,308	2,981	673
Other	28,130	32,743	30,602	(2,141)
Total Revenues	674,230	665,960	649,737	(16,223)
Expenditures:				
Current:				
General Government	—	—	—	—
Education	216	216	114	102
Transportation	—	—	—	—
Resources and Economic Development	43,637	45,202	42,766	2,436
Individual and Family Services	705,149	700,738	529,402	171,336
Administration of Justice	683	708	649	59
Capital Outlay	3,821	6,615	2,182	4,433
Total Expenditures	753,506	753,479	575,113	178,366
Revenues Over (Under) Expenditures	(79,276)	(87,519)	74,624	162,143
Other Financing Sources (Uses):				
Transfers:				
Transfers In	225	225	2,276	2,051
Transfers Out	(19,324)	(19,324)	(23,074)	(3,750)
Total Other Financing Sources (Uses)	(19,099)	(19,099)	(20,798)	(1,699)
Revenues and Other Sources Over (Under)				
Expenditures and Other Uses	(98,375)	(106,618)	53,826	160,444
Fund Balance, July 1	182,818	182,818	182,818	—
Fund Balance, June 30	\$ 84,443	\$ 76,200	\$ 236,644	\$ 160,444

See Notes on page 236 in this section.

Other

Original Budget	Final Budget	Actual	Final/Actual Variance Positive (Negative)
\$ —	\$ 28,000	\$ 20,358	\$ (7,642)
34,330	34,155	32,769	(1,386)
576	1,000	1,004	4
845	827	830	3
113	113	158	45
10,351	10,448	10,860	412
25,808	29,723	35,757	6,034
206,686	206,676	187,883	(18,793)
7,792	8,547	6,374	(2,173)
126,169	118,253	120,663	2,410
29,745	30,880	29,220	(1,660)
13,867	20,106	19,878	(228)
51,046	51,359	62,174	10,815
1,213	1,228	1,355	127
562	1,329	4,286	2,957
75,657	92,345	117,413	25,068
584,760	634,989	650,982	15,993
85,113	121,905	111,498	10,407
34,103	34,772	30,191	4,581
8,903	5,003	4,543	460
361,734	376,404	336,683	39,721
84,055	89,127	76,966	12,161
87,831	90,836	80,916	9,920
25,702	30,010	7,947	22,063
687,441	748,057	648,744	99,313
(102,681)	(113,068)	2,238	115,306
21,427	21,263	53,332	32,069
(16,501)	(27,668)	(38,150)	(10,482)
4,926	(6,405)	15,182	21,587
(97,755)	(119,473)	17,420	136,893
633,983	633,983	633,983	—
\$ 536,228	\$ 514,510	\$ 651,403	\$ 136,893

Notes for Schedule of Revenues, Expenditures, and Changes in Fund Balance – Budget and Actual – Nonmajor Special Revenue Funds

1. Basis of Budgeting vs. Modified Accrual Basis Fund Balance (1)

Since the presentation of financial data on the basis of budgeting differs from that presented under accounting principles generally accepted in the United States of America, a schedule reconciling the fund balance on a budgetary basis at June 30, 2019, to the fund balance on a modified accrual basis follows.

<i>(Dollars in Thousands)</i>	Health and Social Services	Other
Fund Balance, Basis of Budgeting	\$ 236,644	\$ 651,403
Adjustments from Budget to Modified Accrual:		
Net Accrued Revenues:		
Taxes	100,434	8,032
Other Revenue/Other Sources	(5,324)	6,807
Medicaid Payable	(128,690)	—
Net Accrued Expenditures/Other Uses	(1,859)	(25,227)
Fund Reclassification - Budget to Modified Accrual	(128)	(1,359)
Fund Balance, Modified Accrual Basis	<u>\$ 201,077</u>	<u>\$ 639,656</u>

- As discussed in Note 1.E., the Unclaimed Property Fund has no approved budget.

2. Appropriations

The amounts presented in the Schedule of Revenues, Expenditures, and Changes in Fund Balance – Budget and Actual – Nonmajor Special Revenue Funds are principally on a cash basis and represent the original budget adopted by the General Assembly and all supplemental appropriations and transfers. The following schedule reconciles original appropriations to the final adjusted expenditure appropriations for the Nonmajor Special Revenue Funds, at June 30, 2019, except for the Unclaimed Property Fund which has no approved budget.

<i>(Dollars in Thousands)</i>	Health and Social Services	Other
Appropriations (1)	\$ 753,506	\$ 687,441
Supplemental Appropriations:		
Reappropriations (2)	3,821	35,209
Subsequent Executive (3)	298,873	42,857
Subsequent Legislative (4)	(17,638)	15,137
Capital Outlay Reversions (5)	(206)	(666)
Transfers (6)	(281,056)	818
Capital Outlay Adjustment (7)	(3,821)	(32,739)
Appropriations, as adjusted	<u>\$ 753,479</u>	<u>\$ 748,057</u>

- Represents the budget appropriated through Chapter 2, 2018 Acts of Assembly Special Session 1 as amended by Chapter 854, 2019 Acts of Assembly.
- Actions taken to reappropriate any prior year unexpended balances per authority of the language in the Appropriation Act.
- Actions taken by the Governor to appropriate any additional revenues collected so that they can be legally spent.
- Actions taken by the Governor and the General Assembly to adjust the budget.
- Represents reversions of unexpended capital outlay balances.
- Represents transfers required by the Appropriation Act.
- Capital outlay appropriations cover the projects' lives and usually extend beyond the current fiscal year. These amounts have been adjusted to report the amount authorized for expenditure during the current fiscal year.

Nonmajor Enterprise Funds

The Enterprise Funds account for operations that are financed and operated in a manner similar to private business enterprises. It is the intent that the cost of providing such goods or services will be recovered through user charges.

Alcoholic Beverage Control operates facilities for the distribution and sale of distilled spirits and wine.

Risk Management accounts for pooled resources received and used by the Department of the Treasury for financing local government insurance programs. This includes Local Entities Bond Insurance, Public Officials Insurance and Law Enforcement Insurance.

Local Choice Health Care administers a health care plan for the employees of participating local governments.

Line of Duty accounts for the disability, death, and health benefits provided to eligible local government employees and their family members.

Virginia Industries for the Blind manufactures products for sale to governments, certain private organizations, and the general public.

Consolidated Laboratory provides water testing services and a newborn screening program.

eVA Procurement System accounts for the statewide electronic procurement system.

Department of Environmental Quality accounts for the Title V program that offers services to the general public.

Wireless E-911 Service Board assists in the establishment of wireless E-911 service in Virginia localities.

Virginia Museum of Fine Arts accounts for gift shop and food service activities.

Science Museum of Virginia accounts for gift shop activities.

Behavioral Health Local Funds account for the canteen store and work activity programs.

Combining Statement of Fund Net Position – Nonmajor Enterprise Funds

June 30, 2019

(Dollars in Thousands)

	Alcoholic Beverage Control	Risk Management	Local Choice Health Care
Assets and Deferred Outflows of Resources			
Current Assets:			
Cash and Cash Equivalents	\$ 1,428	\$ 28,913	\$ 101,074
Receivables, Net	11,789	1	34,227
Due From Other Funds	—	—	—
Inventory	77,682	—	—
Prepaid Items	1,900	123	—
Other Assets	200	—	—
Total Current Assets	92,999	29,037	135,301
Noncurrent Assets:			
Other Assets	2,728	32	48
Nondepreciable Capital Assets	10,652	86	—
Depreciable Capital Assets, Net	4,834	29	—
Total Noncurrent Assets	18,214	147	48
Total Assets	111,213	29,184	135,349
Deferred Outflows of Resources	13,506	106	255
Total Assets and Deferred Outflows of Resources	124,719	29,290	135,604
Liabilities and Deferred Inflows of Resources			
Current Liabilities:			
Accounts Payable	37,411	754	14,765
Amounts Due to Other Governments	—	—	—
Due to Other Funds	15,000	41	31
Due to External Parties (Fiduciary Funds)	547	5	9
Interfund Payable	44,995	—	—
Unearned Revenue	1,262	400	—
Obligations Under Securities Lending Program	118	2,178	7,614
Other Liabilities	—	—	—
Claims Payable Due Within One Year	—	10,872	46,836
Long-term Liabilities Due Within One Year	5,362	51	107
Total Current Liabilities	104,695	14,301	69,362
Noncurrent Liabilities:			
Claims Payable Due in More Than One Year	—	28,637	—
Long-term Liabilities Due in More Than One Year	95,655	868	1,408
Total Noncurrent Liabilities	95,655	29,505	1,408
Total Liabilities	200,350	43,806	70,770
Deferred Inflows of Resources	15,091	137	220
Total Liabilities and Deferred Inflows of Resources	215,441	43,943	70,990
Net Position			
Net Investment in Capital Assets	15,486	115	—
Restricted for Net Other Postemployment Benefit -Virginia Sickness and Disability Program	2,191	27	37
Unrestricted	(108,399)	(14,795)	64,577
Total Net Position (Deficit)	\$ (90,722)	\$ (14,653)	\$ 64,614

Line of Duty	Virginia Industries for the Blind	Consolidated Laboratory	eVA Procurement System	Department of Environmental Quality	Wireless E-911 Service Board	Virginia Museum of Fine Arts
\$ 2,699	\$ 7,098	\$ 1,835	\$ 8,293	\$ 1,789	\$ 32,920	\$ 1,065
616	1,323	220	4,177	—	5,398	200
—	100	—	898	—	—	—
—	7,130	49	—	—	—	527
—	1	—	—	—	—	—
—	—	—	—	—	—	6
3,315	15,652	2,104	13,368	1,789	38,318	1,798
—	128	147	119	281	57	64
—	149	—	—	—	—	—
—	9,952	1,963	—	—	—	—
—	10,229	2,110	119	281	57	64
3,315	25,881	4,214	13,487	2,070	38,375	1,862
—	751	526	430	963	218	398
3,315	26,632	4,740	13,917	3,033	38,593	2,260
78	2,031	287	2,785	356	1,361	326
—	—	—	—	—	7,925	—
—	221	1,472	443	889	7	16
—	24	32	23	51	9	11
—	—	—	—	—	—	—
—	—	2,201	—	35	—	95
203	—	—	—	135	2,480	—
—	—	—	—	—	—	—
1,513	—	—	—	—	—	—
—	358	367	209	515	86	14
1,794	2,634	4,359	3,460	1,981	11,868	462
—	—	—	—	—	—	—
—	5,267	4,722	5,482	9,748	1,533	2,174
—	5,267	4,722	5,482	9,748	1,533	2,174
1,794	7,901	9,081	8,942	11,729	13,401	2,636
—	1,199	799	678	1,482	335	358
1,794	9,100	9,880	9,620	13,211	13,736	2,994
—	10,101	1,445	—	—	—	—
—	104	125	101	241	48	49
1,521	7,327	(6,710)	4,196	(10,419)	24,809	(783)
\$ 1,521	\$ 17,532	\$ (5,140)	\$ 4,297	\$ (10,178)	\$ 24,857	\$ (734)

Continued on next page

Combining Statement of Fund Net Position – Nonmajor Enterprise Funds (Continued from previous page)

June 30, 2019

(Dollars in Thousands)

	Science Museum of Virginia	Behavioral Health Local Funds	Total
Assets and Deferred Outflows of Resources			
Current Assets:			
Cash and Cash Equivalents	\$ 268	\$ 366	\$ 187,748
Receivables, Net	7	—	57,958
Due From Other Funds	—	—	998
Inventory	61	—	85,449
Prepaid Items	—	—	2,024
Other Assets	—	—	206
Total Current Assets	336	366	334,383
Noncurrent Assets:			
Other Assets	4	—	3,608
Nondepreciable Capital Assets	—	—	10,887
Depreciable Capital Assets, Net	—	—	16,778
Total Noncurrent Assets	4	—	31,273
Total Assets	340	366	365,656
Deferred Outflows of Resources	16	—	17,169
Total Assets and Deferred Outflows of Resources	356	366	382,825
Liabilities and Deferred Inflows of Resources			
Current Liabilities:			
Accounts Payable	31	—	60,185
Amounts Due to Other Governments	—	—	7,925
Due to Other Funds	10	—	18,130
Due to External Parties (Fiduciary Funds)	—	—	711
Interfund Payable	—	—	44,995
Unearned Revenue	2	—	3,995
Obligations Under Securities Lending Program	—	—	12,728
Other Liabilities	—	136	136
Claims Payable Due Within One Year	—	—	59,221
Long-term Liabilities Due Within One Year	—	—	7,069
Total Current Liabilities	43	136	215,095
Noncurrent Liabilities:			
Claims Payable Due in More Than One Year	—	—	28,637
Long-term Liabilities Due in More Than One Year	136	—	126,993
Total Noncurrent Liabilities	136	—	155,630
Total Liabilities	179	136	370,725
Deferred Inflows of Resources	15	—	20,314
Total Liabilities and Deferred Inflows of Resources	194	136	391,039
Net Position			
Net Investment in Capital Assets	—	—	27,147
Restricted for Net Other Postemployment Benefit -Virginia Sickness and Disability Program	3	—	2,926
Unrestricted	159	230	(38,287)
Total Net Position (Deficit)	\$ 162	\$ 230	\$ (8,214)



**Combining Statement of Revenues, Expenses, and Changes in Fund Net Position –
Nonmajor Enterprise Funds**

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Alcoholic Beverage Control	Risk Management	Local Choice Health Care
Operating Revenues			
Charges for Sales and Services	\$ 881,006	\$ 12,638	\$ 479,997
Interest, Dividends, Rents, and Other Investment Income	—	—	—
Other	21,478	—	—
Total Operating Revenues	902,484	12,638	479,997
Operating Expenses			
Cost of Sales and Services	505,167	—	—
Prizes and Claims	—	13,341	446,606
Personal Services	112,119	791	1,372
Contractual Services	40,933	612	24,253
Supplies and Materials	3,497	4	653
Depreciation	2,127	10	—
Rent, Insurance, and Other Related Charges	34,277	66	—
Non-recurring Cost Estimate Payments to Providers	—	—	—
Other	3,240	7	—
Total Operating Expenses	701,360	14,831	472,884
Operating Income (Loss)	201,124	(2,193)	7,113
Nonoperating Revenues (Expenses)			
Interest, Dividends, Rents, and Other Investment Income	797	662	2,051
Other	9,026	(63)	(192)
Total Nonoperating Revenues (Expenses)	9,823	599	1,859
Income (Loss) Before Transfers	210,947	(1,594)	8,972
Transfers In	121	—	—
Transfers Out	(205,801)	—	(559)
Change in Net Position	5,267	(1,594)	8,413
Total Net Position (Deficit), July 1	(95,989)	(13,059)	56,201
Total Net Position (Deficit), June 30	\$ (90,722)	\$ (14,653)	\$ 64,614

Line of Duty	Virginia Industries for the Blind	Consolidated Laboratory	eVA Procurement System	Department of Environmental Quality	Wireless E-911 Service Board	Virginia Museum of Fine Arts
\$ 17,787	\$ 50,894	\$ 11,685	\$ 21,437	\$ 11,978	\$ 62,838	\$ 6,935
—	3	—	—	—	—	—
—	444	—	—	—	18	51
17,787	51,341	11,685	21,437	11,978	62,856	6,986
—	36,766	—	—	—	—	2,442
16,989	—	—	—	—	—	—
—	8,942	3,874	3,297	8,737	1,088	3,474
842	2,274	1,274	15,989	813	895	776
—	112	3,908	26	37	17	147
—	436	415	—	—	—	—
—	1,497	1,057	1,485	582	6	28
—	—	—	—	—	42,066	—
—	131	13	—	3	5	—
17,831	50,158	10,541	20,797	10,172	44,077	6,867
(44)	1,183	1,144	640	1,806	18,779	119
53	—	—	—	7	608	—
(5)	—	(11)	—	(7)	(57)	—
48	—	(11)	—	—	551	—
4	1,183	1,133	640	1,806	19,330	119
—	—	—	—	—	—	—
—	(32)	(1,625)	—	(5)	(13,450)	(481)
4	1,151	(492)	640	1,801	5,880	(362)
1,517	16,381	(4,648)	3,657	(11,979)	18,977	(372)
\$ 1,521	\$ 17,532	\$ (5,140)	\$ 4,297	\$ (10,178)	\$ 24,857	\$ (734)

Continued on next page

**Combining Statement of Revenues, Expenses, and Changes in Fund Net Position –
Nonmajor Enterprise Funds** *(Continued from previous page)*

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Science Museum of Virginia	Behavioral Health Local Funds	Total
Operating Revenues			
Charges for Sales and Services	\$ 442	\$ 333	\$ 1,557,970
Interest, Dividends, Rents, and Other Investment Income	—	—	3
Other	—	—	21,991
Total Operating Revenues	442	333	1,579,964
Operating Expenses			
Cost of Sales and Services	175	299	544,849
Prizes and Claims	—	—	476,936
Personal Services	145	—	143,839
Contractual Services	22	—	88,683
Supplies and Materials	4	—	8,405
Depreciation	2	—	2,990
Rent, Insurance, and Other Related Charges	—	—	38,998
Non-recurring Cost Estimate Payments to Providers	—	—	42,066
Other	6	—	3,405
Total Operating Expenses	354	299	1,350,171
Operating Income (Loss)	88	34	229,793
Nonoperating Revenues (Expenses)			
Interest, Dividends, Rents, and Other Investment Income	—	—	4,178
Other	—	—	8,691
Total Nonoperating Revenues (Expenses)	—	—	12,869
Income (Loss) Before Transfers	88	34	242,662
Transfers In	—	—	121
Transfers Out	(35)	(9)	(221,997)
Change in Net Position	53	25	20,786
Total Net Position (Deficit), July 1	109	205	(29,000)
Total Net Position (Deficit), June 30	\$ 162	\$ 230	\$ (8,214)



Combining Statement of Cash Flows – Nonmajor Enterprise Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Alcoholic Beverage Control	Risk Management	Local Choice Health Care
Cash Flows from Operating Activities			
Receipts for Sales and Services	\$ 895,342	\$ 12,468	\$ 477,302
Internal Activity-Receipts from Other Funds	—	—	—
Internal Activity-Payments to Other Funds	—	—	—
Payments to Suppliers for Goods and Services	(562,758)	—	(671)
Payments for Contractual Services	(40,933)	(505)	(22,361)
Payments for Prizes, Claims, and Loss Control	—	(10,116)	(443,931)
Payments to Employees	(116,908)	(1,032)	(1,426)
Payments to Providers for Non-recurring Cost Estimates	—	—	—
Other Operating Revenue	4,731	—	—
Other Operating Expense	—	—	—
Net Cash Provided by (Used for) Operating Activities	<u>179,474</u>	<u>815</u>	<u>8,913</u>
Cash Flows from Noncapital Financing Activities			
Transfers In from Other Funds	121	—	—
Transfers Out to Other Funds	(458,466)	—	(559)
Other Noncapital Financing Receipt Activities	306,527	—	—
Other Noncapital Financing Disbursement Activities	(39,920)	—	—
Net Cash Provided by (Used for) Noncapital Financing Activities	<u>(191,738)</u>	<u>—</u>	<u>(559)</u>
Cash Flows from Capital and Related Financing Activities			
Acquisition of Capital Assets	(8,502)	(32)	—
Payment of Principal and Interest on Bonds and Notes	—	—	—
Net Cash Used for Capital and Related Financing Activities	<u>(8,502)</u>	<u>(32)</u>	<u>—</u>
Cash Flows from Investing Activities			
Investment Income on Cash, Cash Equivalents, and Investments	607	599	1,859
Net Cash Provided by Investing Activities	<u>607</u>	<u>599</u>	<u>1,859</u>
Net Increase (Decrease) in Cash and Cash Equivalents			
Cash Equivalents	(20,159)	1,382	10,213
Cash and Cash Equivalents, July 1	<u>21,669</u>	<u>25,353</u>	<u>83,247</u>
Cash and Cash Equivalents, June 30	<u>\$ 1,510</u>	<u>\$ 26,735</u>	<u>\$ 93,460</u>
Reconciliation of Cash and Cash Equivalents			
Per the Statement of Net Position:			
Cash and Cash Equivalents	\$ 1,428	\$ 28,913	\$ 101,074
Cash and Travel Advances	200	—	—
Less:			
Securities Lending Cash Equivalents	(118)	(2,178)	(7,614)
Cash and Cash Equivalents per the Statement of Cash Flows	<u>\$ 1,510</u>	<u>\$ 26,735</u>	<u>\$ 93,460</u>

Line of Duty	Virginia Industries for the Blind	Consolidated Laboratory	eVA Procurement System	Department of Environmental Quality	Wireless E-911 Service Board	Virginia Museum of Fine Arts
\$ 17,856	\$ 47,203	\$ 12,006	\$ 17,056	\$ 12,013	\$ 62,532	\$ 7,012
—	3,881	1,000	4,856	—	—	—
—	—	(1,314)	(1,855)	—	(33)	—
—	(38,510)	(4,518)	(29)	(39)	(24)	(2,656)
(847)	(2,393)	(1,115)	(15,641)	(816)	(828)	(780)
(17,809)	—	—	—	—	—	—
—	(9,074)	(4,029)	(3,573)	(9,235)	(1,425)	(3,427)
—	—	—	—	—	(41,486)	—
—	457	—	—	—	18	—
—	(1,632)	—	—	(604)	—	—
(800)	(68)	2,030	814	1,319	18,754	149
—	—	—	—	—	—	—
—	(32)	(1,625)	—	(5)	(13,450)	(481)
—	—	—	—	—	—	—
(532)	—	—	—	—	—	—
(532)	(32)	(1,625)	—	(5)	(13,450)	(481)
—	—	(1,050)	—	—	—	—
—	—	(62)	—	—	—	—
—	—	(1,112)	—	—	—	—
48	—	—	—	—	551	—
48	—	—	—	—	551	—
(1,284)	(100)	(707)	814	1,314	5,855	(332)
3,780	7,198	2,542	7,479	340	24,585	1,403
\$ 2,496	\$ 7,098	\$ 1,835	\$ 8,293	\$ 1,654	\$ 30,440	\$ 1,071
\$ 2,699	\$ 7,098	\$ 1,835	\$ 8,293	\$ 1,789	\$ 32,920	\$ 1,065
—	—	—	—	—	—	6
(203)	—	—	—	(135)	(2,480)	—
\$ 2,496	\$ 7,098	\$ 1,835	\$ 8,293	\$ 1,654	\$ 30,440	\$ 1,071

Continued on next page

Combining Statement of Cash Flows – Nonmajor Enterprise Funds (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Science Museum of Virginia	Behavioral Health Local Funds	Total
Cash Flows from Operating Activities			
Receipts for Sales and Services	\$ 442	\$ 333	\$ 1,561,565
Internal Activity-Receipts from Other Funds	—	—	9,737
Internal Activity-Payments to Other Funds	—	—	(3,202)
Payments to Suppliers for Goods and Services	(175)	(299)	(609,679)
Payments for Contractual Services	—	—	(86,219)
Payments for Prizes, Claims, and Loss Control	—	—	(471,856)
Payments to Employees	(135)	—	(150,264)
Payments to Providers for Non-recurring Cost Estimates	—	—	(41,486)
Other Operating Revenue	—	—	5,206
Other Operating Expense	(29)	—	(2,265)
Net Cash Provided by (Used for) Operating Activities	103	34	211,537
Cash Flows from Noncapital Financing Activities			
Transfers In from Other Funds	—	—	121
Transfers Out to Other Funds	(35)	(9)	(474,662)
Other Noncapital Financing Receipt Activities	—	—	306,527
Other Noncapital Financing Disbursement Activities	—	(17)	(40,469)
Net Cash Provided by (Used for) Noncapital Financing Activities	(35)	(26)	(208,483)
Cash Flows from Capital and Related Financing Activities			
Acquisition of Capital Assets	—	—	(9,584)
Payment of Principal and Interest on Bonds and Notes	—	—	(62)
Net Cash Used for Capital and Related Financing Activities	—	—	(9,646)
Cash Flows from Investing Activities			
Investment Income on Cash, Cash Equivalents, and Investments	—	—	3,664
Net Cash Provided by Investing Activities	—	—	3,664
Net Increase (Decrease) in Cash and Cash Equivalents			
Cash Equivalents	68	8	(2,928)
Cash and Cash Equivalents, July 1	200	358	178,154
Cash and Cash Equivalents, June 30	\$ 268	\$ 366	\$ 175,226
Reconciliation of Cash and Cash Equivalents			
Per the Statement of Net Position:			
Cash and Cash Equivalents	\$ 268	\$ 366	\$ 187,748
Cash and Travel Advances	—	—	206
Less:			
Securities Lending Cash Equivalents	—	—	(12,728)
Cash and Cash Equivalents per the Statement of Cash Flows	\$ 268	\$ 366	\$ 175,226

	Alcoholic Beverage Control	Risk Management	Local Choice Health Care
Reconciliation of Operating Income			
To Net Cash Provided by (Used for)			
Operating Activities:			
Operating Income (Loss)	\$ 201,124	\$ (2,193)	\$ 7,113
Adjustments to Reconcile Operating			
Income to Net Cash Provided by (Used for)			
Operating Activities:			
Depreciation	2,127	10	—
Other	(288)	—	—
Change in Assets, Deferred Outflows of Resources, Liabilities, and			
Deferred Inflows of Resources			
(Increase) Decrease in Accounts Receivable	(3,248)	7	(2,695)
(Increase) Decrease in Due from Other Funds	—	—	—
(Increase) Decrease in Other Assets: Due in More Than One Year	(333)	(3)	(8)
(Increase) Decrease in Inventory	1,498	—	—
(Increase) Decrease in Prepaid Items	1,687	(1)	—
(Increase) Decrease in Deferred Outflows of Resources	(1,800)	13	(46)
Increase (Decrease) in Accounts Payable	(25,039)	(154)	(1,717)
Increase (Decrease) in Amounts Due to Other Governments	—	—	—
Increase (Decrease) in Due to Other Funds	(20)	17	25
Increase (Decrease) in Due to External Parties (Fiduciary Funds)	(9)	(1)	—
Increase (Decrease) in Interfund Payables: Due Within One Year	5,075	—	—
Increase (Decrease) in Unearned Revenue	759	(175)	—
Increase (Decrease) in Other Liabilities	—	—	—
Increase (Decrease) in Claims Payable: Due Within One Year	—	1,015	6,235
Increase (Decrease) in Claims Payable: Due in More Than One Year	—	2,338	—
Increase (Decrease) in Long-term Liabilities: Due Within One Year	1,093	1	15
Increase (Decrease) in Long-term Liabilities: Due in More Than One Year	(6,412)	(81)	(85)
Increase (Decrease) in Deferred Inflows of Resources	3,260	22	76
Net Cash Provided by (Used for) Operating Activities	<u>\$ 179,474</u>	<u>\$ 815</u>	<u>\$ 8,913</u>

Noncash Investing, Capital, and Financing Activities:

The following transactions occurred prior to the Statement of Net Position date:

Installment Purchases Used to Finance Capital Assets	\$ —	\$ —	\$ —
Total Noncash, Investing, Capital, and Financing Activities	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

Continued on next page

Combining Statement of Cash Flows – Nonmajor Enterprise Funds (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Line of Duty	Virginia Industries for the Blind	Consolidated Laboratory
Reconciliation of Operating Income			
To Net Cash Provided by (Used for)			
Operating Activities:			
Operating Income (Loss)	\$ (44)	\$ 1,183	\$ 1,144
Adjustments to Reconcile Operating			
Income to Net Cash Provided by (Used for)			
Operating Activities:			
Depreciation	—	436	415
Other	(84)	(411)	—
Change in Assets, Deferred Outflows of Resources, Liabilities, and			
Deferred Inflows of Resources			
(Increase) Decrease in Accounts Receivable	175	101	9
(Increase) Decrease in Due from Other Funds	—	—	—
(Increase) Decrease in Other Assets: Due in More Than One Year	—	(12)	(12)
(Increase) Decrease in Inventory	—	(2,099)	9
(Increase) Decrease in Prepaid Items	—	(1)	—
(Increase) Decrease in Deferred Outflows of Resources	—	81	(32)
Increase (Decrease) in Accounts Payable	(153)	675	(492)
Increase (Decrease) in Amounts Due to Other Governments	—	—	—
Increase (Decrease) in Due to Other Funds	—	101	960
Increase (Decrease) in Due to External Parties (Fiduciary Funds)	—	9	4
Increase (Decrease) in Interfund Payables: Due Within One Year	—	—	—
Increase (Decrease) in Unearned Revenue	—	—	312
Increase (Decrease) in Other Liabilities	—	—	—
Increase (Decrease) in Claims Payable: Due Within One Year	(694)	—	—
Increase (Decrease) in Claims Payable: Due in More Than One Year	—	—	—
Increase (Decrease) in Long-term Liabilities: Due Within One Year	—	67	68
Increase (Decrease) in Long-term Liabilities: Due in More Than One Year	—	(646)	(533)
Increase (Decrease) in Deferred Inflows of Resources	—	448	178
Net Cash Provided by (Used for) Operating Activities	<u>\$ (800)</u>	<u>\$ (68)</u>	<u>\$ 2,030</u>
Noncash Investing, Capital, and Financing Activities:			
The following transactions occurred prior to the Statement of Net Position date:			
Installment Purchases Used to Finance Capital Assets	\$ —	\$ —	\$ 570
Total Noncash, Investing, Capital, and Financing Activities	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 570</u>

eVA Procurement System	Department of Environmental Quality	Wireless E-911 Service Board	Virginia Museum of Fine Arts	Science Museum of Virginia	Behavioral Health Local Funds	Total
\$ 640	\$ 1,806	\$ 18,779	\$ 119	\$ 88	\$ 34	\$ 229,793
—	—	—	—	2	—	2,990
—	—	—	—	—	—	(783)
695	—	(306)	145	(1)	—	(5,118)
(222)	—	—	—	—	—	(222)
(10)	(21)	(3)	(10)	—	—	(412)
—	—	—	63	8	—	(521)
—	—	—	—	—	—	1,685
(31)	44	28	(95)	(1)	—	(1,839)
(38)	(24)	(5,017)	(156)	5	—	(32,110)
—	—	5,493	—	—	—	5,493
31	83	—	—	7	—	1,204
1	(4)	—	(1)	—	—	(1)
—	—	—	—	—	—	5,075
—	35	—	96	—	—	1,027
—	—	—	(83)	—	—	(83)
—	—	—	—	—	—	6,556
—	—	—	—	—	—	2,338
47	18	8	14	—	—	1,331
(489)	(954)	(170)	(74)	(10)	—	(9,454)
190	336	(58)	131	5	—	4,588
\$ 814	\$ 1,319	\$ 18,754	\$ 149	\$ 103	\$ 34	\$ 211,537
\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 570
\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 570



Internal Service Funds

Internal Service Funds account for the operations of state agencies that render services to other state agencies, institutions, or other governmental units of the Commonwealth on a cost-reimbursement basis.

Virginia Information Technologies Agency accounts for the installation and maintenance of the state government's telephone system; the development, use and maintenance of the Commonwealth's data processing systems; and the development of automated systems.

Enterprise Application accounts for the development and operation of the Commonwealth's Performance Budgeting System, Cardinal Financial System, and Human Capital Management Replacement Project. Funding is derived from charges to agencies for the ongoing costs of the Commonwealth's enterprise applications, including recovery of the development and implementation costs initially funded through working capital advances.

Virginia Correctional Enterprises accounts for the manufacturing activities of the Commonwealth's correctional facilities.

Health Care accounts for the health insurance programs provided to state employees and for retirees who are not yet eligible to participate in Medicare.

Line of Duty accounts for the disability, death, and health benefits provided to eligible state employees and their family members.

Fleet Management accounts for the Commonwealth's motor vehicle pool.

Property Management accounts for real estate services, non-routine facility maintenance, and the disposal of state-owned property.

Personnel Management Information accounts for the personnel, compensation and health benefits database.

Risk Management accounts for the insurance programs provided to state agencies and institutions.

General Services accounts for a variety of services, including the purchase of supplies, the sale of surplus property, water testing, graphic design and engineering.

Payroll Service Bureau accounts for the payroll and leave accounting services provided to state agencies and institutions.

Combining Statement of Fund Net Position – Internal Service Funds

June 30, 2019

(Dollars in Thousands)

	Virginia Information Technologies Agency	Enterprise Application	Virginia Correctional Enterprises	Health Care
Assets and Deferred Outflows of Resources				
Current Assets:				
Cash and Cash Equivalents	\$ 87,677	\$ 6,193	\$ 3,800	\$ 497,005
Receivables, Net	1,835	—	1,698	28,916
Due From Other Funds	27,930	—	769	34,026
Due From External Parties (Fiduciary Funds)	—	—	—	247
Due From Component Units	—	—	—	30,391
Inventory	—	—	12,833	—
Prepaid Items	11,119	3	—	—
Other Assets	29,733	—	1,561	—
Total Current Assets	<u>158,294</u>	<u>6,196</u>	<u>20,661</u>	<u>590,585</u>
Noncurrent Assets:				
Other Assets	777	127	495	115
Nondepreciable Capital Assets	—	33,122	382	—
Depreciable Capital Assets, Net	6,367	56,751	7,940	—
Total Noncurrent Assets	<u>7,144</u>	<u>90,000</u>	<u>8,817</u>	<u>115</u>
Total Assets	<u>165,438</u>	<u>96,196</u>	<u>29,478</u>	<u>590,700</u>
Deferred Outflows of Resources	2,991	567	3,342	594
Total Assets and Deferred Outflows of Resources	<u>168,429</u>	<u>96,763</u>	<u>32,820</u>	<u>591,294</u>
Liabilities and Deferred Inflows of Resources				
Current Liabilities:				
Accounts Payable	37,282	6,048	4,267	37,209
Amounts Due to Other Governments	—	—	—	—
Due to Other Funds	104	162	166	57
Due to External Parties (Fiduciary Funds)	134	23	82	24
Interfund Payable	81,774	8,719	—	—
Unearned Revenue	46,602	—	2,477	—
Obligations Under Securities Lending Program	—	—	—	37,440
Other Liabilities	—	—	—	—
Claims Payable Due Within One Year	—	—	—	131,384
Long-term Liabilities Due within One Year	1,199	236	143	286
Total Current Liabilities	<u>167,095</u>	<u>15,188</u>	<u>7,135</u>	<u>206,400</u>
Noncurrent Liabilities:				
Interfund Payable	—	92,772	—	—
Claims Payable Due In More Than One Year	—	—	—	—
Long-term Liabilities Due in More Than One Year	23,319	3,502	17,810	3,475
Total Noncurrent Liabilities	<u>23,319</u>	<u>96,274</u>	<u>17,810</u>	<u>3,475</u>
Total Liabilities	<u>190,414</u>	<u>111,462</u>	<u>24,945</u>	<u>209,875</u>
Deferred Inflows of Resources	4,356	543	2,627	507
Total Liabilities and Deferred Inflows of Resources	<u>194,770</u>	<u>112,005</u>	<u>27,572</u>	<u>210,382</u>
Net Position				
Net Investment in Capital Assets	6,367	89,873	8,322	—
Restricted for Net Other Postemployment Benefit - Virginia Sickness and Disability Program	657	107	385	88
Unrestricted	(33,365)	(105,222)	(3,459)	380,824
Total Net Position (Deficit)	<u>\$ (26,341)</u>	<u>\$ (15,242)</u>	<u>\$ 5,248</u>	<u>\$ 380,912</u>

Line of Duty	Fleet Management	Property Management	Personnel Management Information	Risk Management	General Services	Payroll Service Bureau	Total
\$ 1,102	\$ 5,506	\$ 33,044	\$ 578	\$ 245,319	\$ 7,155	\$ 579	\$ 887,958
252	1,361	51	—	173	1,250	—	35,536
—	2,027	3,922	—	—	1,800	—	70,474
—	—	—	—	—	—	—	247
—	—	—	—	—	—	—	30,391
—	22	413	—	—	3,813	—	17,081
—	—	364	—	462	—	111	12,059
—	—	—	—	—	—	—	31,294
1,354	8,916	37,794	578	245,954	14,018	690	1,085,040
—	40	434	30	75	256	74	2,423
—	—	—	—	127	150	—	33,781
—	40,478	14,546	—	39	2,985	72	129,178
—	40,518	14,980	30	241	3,391	146	165,382
1,354	49,434	52,774	608	246,195	17,409	836	1,250,422
—	117	1,487	137	325	854	325	10,739
1,354	49,551	54,261	745	246,520	18,263	1,161	1,261,161
32	1,106	3,096	60	2,053	2,535	80	93,768
—	—	40	—	—	—	—	40
—	110	774	4	19	845	11	2,252
—	7	80	6	14	49	12	431
—	—	—	—	1,208	—	—	91,701
—	—	25,635	—	30,468	29	—	105,211
83	—	—	—	18,330	—	—	55,853
—	—	—	—	—	23	—	23
618	—	—	—	74,321	—	—	206,323
—	4,824	2,904	16	169	585	83	10,445
733	6,047	32,529	86	126,582	4,066	186	566,047
—	—	—	—	10,129	—	—	102,901
—	—	—	—	677,648	—	—	677,648
—	21,401	39,157	960	2,331	9,089	2,900	123,944
—	21,401	39,157	960	690,108	9,089	2,900	904,493
733	27,448	71,686	1,046	816,690	13,155	3,086	1,470,540
—	176	2,473	111	360	1,369	361	12,883
733	27,624	74,159	1,157	817,050	14,524	3,447	1,483,423
—	15,750	(261)	—	166	2,574	72	122,863
—	35	372	24	61	219	63	2,011
621	6,142	(20,009)	(436)	(570,757)	946	(2,421)	(347,136)
\$ 621	\$ 21,927	\$ (19,898)	\$ (412)	\$ (570,530)	\$ 3,739	\$ (2,286)	\$ (222,262)

Combining Statement of Revenues, Expenses, and Changes in Fund Net Position –

Internal Service Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Virginia Information Technologies Agency	Enterprise Application	Virginia Correctional Enterprises	Health Care
Operating Revenues				
Charges for Sales and Services	\$ 441,181	\$ 31,528	\$ 45,103	\$ 1,625,113
Total Operating Revenues	441,181	31,528	45,103	1,625,113
Operating Expenses				
Cost of Sales and Services	—	—	34,162	—
Prizes and Claims	—	—	—	1,433,361
Personal Services	17,426	3,191	7,612	3,179
Contractual Services	351,558	31,224	2,345	81,802
Supplies and Materials	26	20	538	—
Depreciation	3,550	8,805	918	—
Rent, Insurance, and Other Related Charges	22,180	552	521	—
Interest Expense	—	44	—	—
Other	1,550	16	82	436
Total Operating Expenses	396,290	43,852	46,178	1,518,778
Operating Income (Loss)	44,891	(12,324)	(1,075)	106,335
Nonoperating Revenues (Expenses)				
Interest, Dividends, Rents, and Other Investment Income	—	—	—	10,835
Other	7	—	(69)	(1,013)
Total Nonoperating Revenues (Expenses)	7	—	(69)	9,822
Income (Loss) Before Transfers	44,898	(12,324)	(1,144)	116,157
Transfers In	—	—	—	—
Transfers Out	—	(27)	(898)	—
Change in Net Position	44,898	(12,351)	(2,042)	116,157
Total Net Position (Deficit), July 1	(71,239)	(2,891)	7,290	264,755
Total Net Position (Deficit), June 30	\$ (26,341)	\$ (15,242)	\$ 5,248	\$ 380,912

Line of Duty	Fleet Management	Property Management	Personnel Management Information	Risk Management	General Services	Payroll Service Bureau	Total
\$ 7,265	\$ 18,548	\$ 104,028	\$ 1,770	\$ 113,122	\$ 40,139	\$ 1,782	\$ 2,429,579
7,265	18,548	104,028	1,770	113,122	40,139	1,782	2,429,579
—	—	—	—	—	25,045	—	59,207
6,653	—	—	—	32,372	—	—	1,472,386
—	921	10,979	616	2,132	6,620	2,033	54,709
344	4,311	14,125	700	12,199	4,063	90	502,761
—	3,292	2,957	19	6	1,643	8	8,509
—	9,484	1,598	—	8	906	4	25,273
—	1,005	70,214	—	2,080	1,666	122	98,340
—	—	—	—	—	—	—	44
—	83	2,658	—	5,910	98	2	10,835
6,997	19,096	102,531	1,335	54,707	40,041	2,259	2,232,064
268	(548)	1,497	435	58,415	98	(477)	197,515
22	—	—	—	5,212	98	—	16,167
(2)	1,140	(1,103)	—	(483)	—	—	(1,523)
20	1,140	(1,103)	—	4,729	98	—	14,644
288	592	394	435	63,144	196	(477)	212,159
—	—	—	—	—	388	—	388
—	(268)	—	—	(6,437)	—	—	(7,630)
288	324	394	435	56,707	584	(477)	204,917
333	21,603	(20,292)	(847)	(627,237)	3,155	(1,809)	(427,179)
\$ 621	\$ 21,927	\$ (19,898)	\$ (412)	\$ (570,530)	\$ 3,739	\$ (2,286)	\$ (222,262)

Combining Statement of Cash Flows – Internal Service Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Virginia Information Technologies Agency	Enterprise Application	Virginia Correctional Enterprises	Health Care
Cash Flows from Operating Activities				
Receipts for Sales and Services	\$ 10,521	\$ 2,674	\$ 10,504	\$ 788,070
Internal Activity-Receipts from Other Funds	410,344	28,855	32,783	823,925
Internal Activity-Payments to Other Funds	(3,847)	—	(669)	—
Payments to Suppliers for Goods and Services	(24,628)	(20)	(35,635)	—
Payments for Contractual Services	(352,783)	(29,497)	(2,281)	(75,482)
Payments for Prizes, Claims, and Loss Control	—	—	—	(1,433,122)
Payments to Employees	(20,076)	(3,164)	(8,067)	(3,243)
Other Operating Expense	—	(612)	—	(436)
Net Cash Provided by (Used for) Operating Activities	<u>19,531</u>	<u>(1,764)</u>	<u>(3,365)</u>	<u>99,712</u>
Cash Flows from Noncapital Financing Activities				
Transfers In from Other Funds	—	—	—	—
Transfers Out to Other Funds	—	(27)	(898)	—
Other Noncapital Financing Receipt Activities	138,657	14,368	18	—
Other Noncapital Financing Disbursement Activities	(88,442)	(8,719)	—	—
Net Cash Provided by (Used for) Noncapital Financing Activities	<u>50,215</u>	<u>5,622</u>	<u>(880)</u>	<u>—</u>
Cash Flows from Capital and Related Financing Activities				
Acquisition of Capital Assets	(157)	(2,331)	(263)	—
Payment of Principal and Interest on Bonds and Notes	—	—	—	—
Proceeds from Sale of Capital Assets	7	—	10	—
Net Cash Used for Capital and Related Financing Activities	<u>(150)</u>	<u>(2,331)</u>	<u>(253)</u>	<u>—</u>
Cash Flows from Investing Activities				
Investment Income on Cash, Cash Equivalents, and Investments	—	—	—	9,822
Net Cash Provided by Investing Activities	<u>—</u>	<u>—</u>	<u>—</u>	<u>9,822</u>
Net Increase (Decrease) in Cash and Cash Equivalents	69,596	1,527	(4,498)	109,534
Cash and Cash Equivalents, July 1	18,081	4,666	8,298	350,031
Cash and Cash Equivalents, June 30	<u>\$ 87,677</u>	<u>\$ 6,193</u>	<u>\$ 3,800</u>	<u>\$ 459,565</u>
Reconciliation of Cash and Cash Equivalents				
Per the Statement of Net Position:				
Cash and Cash Equivalents	\$ 87,677	\$ 6,193	\$ 3,800	\$ 497,005
Less:				
Securities Lending Cash Equivalents	—	—	—	(37,440)
Cash and Cash Equivalents per the Statement of Cash Flows	<u>\$ 87,677</u>	<u>\$ 6,193</u>	<u>\$ 3,800</u>	<u>\$ 459,565</u>

Line of Duty	Fleet Management	Property Management	Personnel Management Information	Risk Management	General Services	Payroll Service Bureau	Total
\$ 5,813	\$ 1,825	\$ 1,714	\$ 866	\$ 36,076	\$ 8,828	\$ 38	\$ 866,929
1,480	16,146	107,943	950	59,758	31,259	1,744	1,515,187
—	(1,142)	(4,269)	—	—	(3,095)	—	(13,022)
—	(4,266)	(73,087)	(43)	(6)	(25,857)	(8)	(163,550)
(346)	(4,168)	(13,775)	(628)	(12,000)	(3,679)	(90)	(494,729)
(6,560)	—	—	—	(73,651)	—	—	(1,513,333)
—	(1,008)	(11,942)	(743)	(2,236)	(7,078)	(2,058)	(59,615)
—	(15)	—	—	(8,829)	—	(119)	(10,011)
387	7,372	6,584	402	(888)	378	(493)	127,856
—	—	—	—	—	388	—	388
—	(268)	—	—	(6,437)	—	—	(7,630)
—	—	3	—	2,786	111	—	155,943
(217)	—	(823)	—	—	—	—	(98,201)
(217)	(268)	(820)	—	(3,651)	499	—	50,500
—	(4,591)	(262)	—	(54)	(169)	—	(7,827)
—	(4,477)	(3,156)	—	—	(133)	—	(7,766)
—	2,042	—	—	—	—	—	2,059
—	(7,026)	(3,418)	—	(54)	(302)	—	(13,534)
19	—	—	—	4,698	—	—	14,539
19	—	—	—	4,698	—	—	14,539
189	78	2,346	402	105	575	(493)	179,361
830	5,428	30,698	176	226,884	6,580	1,072	652,744
\$ 1,019	\$ 5,506	\$ 33,044	\$ 578	\$ 226,989	\$ 7,155	\$ 579	\$ 832,105
\$ 1,102	\$ 5,506	\$ 33,044	\$ 578	\$ 245,319	\$ 7,155	\$ 579	\$ 887,958
(83)	—	—	—	(18,330)	—	—	(55,853)
\$ 1,019	\$ 5,506	\$ 33,044	\$ 578	\$ 226,989	\$ 7,155	\$ 579	\$ 832,105

Continued on next page

Combining Statement of Cash Flows – Internal Service Funds (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Virginia Information Technologies Agency	Enterprise Application	Virginia Correctional Enterprises	Health Care
Reconciliation of Operating Income				
To Net Cash Provided by (Used for)				
Operating Activities:				
Operating Income (Loss)	\$ 44,891	\$ (12,324)	\$ (1,075)	\$ 106,335
Adjustments to Reconcile Operating				
Income to Net Cash Provided by (Used for)				
Operating Activities:				
Depreciation	3,550	8,805	918	—
Miscellaneous Nonoperating Income	—	—	22	—
Other	—	—	—	—
Change in Assets, Deferred Outflows of Resources, Liabilities, and				
Deferred Inflows of Resources				
(Increase) Decrease in Accounts Receivable	561	—	(913)	(12,530)
(Increase) Decrease in Due from Other Funds	(9,720)	—	241	(1,399)
(Increase) Decrease in Due from External Parties (Fiduciary Funds)	—	—	—	(15)
(Increase) Decrease in Due from Component Units	—	—	—	844
(Increase) Decrease in Other Assets: Due Within One Year	(16,285)	—	(785)	—
(Increase) Decrease in Other Assets: Due in More Than One Year	(46)	(8)	(67)	(18)
(Increase) Decrease in Inventory	—	—	(175)	—
(Increase) Decrease in Prepaid Items	(1,636)	1	—	—
(Increase) Decrease in Deferred Outflows of Resources	324	212	(671)	(82)
Increase (Decrease) in Accounts Payable	(4,177)	1,611	(649)	(8,717)
Increase (Decrease) in Amounts Due to Other Governments	—	—	—	—
Increase (Decrease) in Due to Other Funds	(3)	132	(57)	40
Increase (Decrease) in Due to External Parties (Fiduciary Funds)	(10)	2	(19)	4
Increase (Decrease) in Unearned Revenue	4,953	—	(409)	—
Increase (Decrease) in Other Liabilities	—	—	—	—
Increase (Decrease) in Claims Payable: Due Within One Year	—	—	—	15,211
Increase (Decrease) in Claims Payable: Due in More Than One Year	—	—	—	—
Increase (Decrease) in Long-term Liabilities: Due Within One Year	134	48	142	70
Increase (Decrease) in Long-term Liabilities: Due in More Than One Year	(2,248)	(404)	(647)	(182)
Increase (Decrease) in Deferred Inflows of Resources	(757)	161	779	151
Net Cash Provided by (Used for) Operating Activities	<u>\$ 19,531</u>	<u>\$ (1,764)</u>	<u>\$ (3,365)</u>	<u>\$ 99,712</u>
Noncash Investing, Capital, and Financing Activities:				
The following transactions occurred prior to the Statement of Net Position date:				
Installment Purchases Used to Finance Capital Assets	\$ —	\$ —	\$ —	\$ —
Accounts Payable Increase (Decrease) related to Capital Assets	—	(578)	10	—
Total Noncash, Investing, Capital, and Financing Activities	<u>\$ —</u>	<u>\$ (578)</u>	<u>\$ 10</u>	<u>\$ —</u>

Line of Duty	Fleet Management	Property Management	Personnel Management Information	Risk Management	General Services	Payroll Service Bureau	Total
\$ 268	\$ (548)	\$ 1,497	\$ 435	\$ 58,415	\$ 98	\$ (477)	\$ 197,515
—	9,484	1,598	—	8	906	4	25,273
—	—	—	—	—	—	—	22
83	—	—	—	—	—	—	83
(100)	(243)	248	47	(77)	(165)	—	(13,172)
22	(267)	(1,257)	—	3	189	—	(12,188)
—	—	—	—	—	—	—	(15)
—	—	—	—	—	—	—	844
—	—	—	—	—	—	—	(17,070)
—	(1)	(30)	(4)	(10)	(16)	(4)	(204)
—	(5)	(58)	—	—	(376)	—	(614)
—	—	5	—	(17)	—	4	(1,643)
—	23	2	2	(25)	21	144	(50)
(19)	(988)	(164)	(19)	(519)	119	(3)	(13,525)
—	—	(89)	—	—	—	—	(89)
—	19	14	1	7	268	—	421
—	(1)	(3)	1	—	1	(1)	(26)
—	—	5,887	—	(17,216)	(104)	—	(6,889)
—	—	(142)	—	—	(58)	—	(200)
133	—	—	—	(2,431)	—	—	12,913
—	—	—	—	(38,959)	—	—	(38,959)
—	1	123	(45)	28	76	—	577
—	(108)	(1,593)	(31)	(204)	(856)	(271)	(6,544)
—	6	546	15	109	275	111	1,396
\$ 387	\$ 7,372	\$ 6,584	\$ 402	\$ (888)	\$ 378	\$ (493)	\$ 127,856
\$ —	\$ 6,697	\$ —	\$ —	\$ —	\$ 35	\$ —	\$ 6,732
—	—	—	—	—	—	—	(568)
\$ —	\$ 6,697	\$ —	\$ —	\$ —	\$ 35	\$ —	\$ 6,164

Fiduciary Funds

Private Purpose Trust Funds

Private Purpose Trust Funds are trust arrangements that benefit individuals, private organizations, or other governments.

Invest529 accounts for program activities offered by the Virginia College Savings Plan (The Plan). The program is a defined contribution college savings program in which participants can save for qualified higher education expenses by making contributions and investments into portfolios of their choice. Eide Bailly, LLP, audits the Plan, and a separate report is issued.

Loan Servicing Reserve accounts for funds that are used to service loan activities for individual loans in order to meet the provisions of the Declarations of the dissolved Virginia Education Loan Authority.

Edvantage Reserve accounts for funds that are used to service loan activities for individual loans in order to meet the provisions of the dissolved Student Education Assistance Authority.

Virginia Revolving Farm Loan Program accounts for trust funds that are used to provide loans to individual farmers for rural rehabilitation purposes.

Gas and Oil Board Escrow Account accounts for the funds held in escrow awaiting disbursement to the validated owner of property containing gas and oil interest.

Miscellaneous Trust accounts for perpetual trusts created through donations to the state. Earnings are used for the benefit of donor-specified local entities.

Pension and Other Employee Benefit Trust Funds

Pension and Other Employee Benefit Trust Funds reflect the activities of the retirement systems and postemployment benefits administered by the Virginia Retirement System (VRS) or the Department of Human Resource Management.

The Virginia Retirement System provides retirement benefits to Commonwealth employees, teachers, political subdivision employees, and other qualifying employees.

The State Police Officers' Retirement System provides retirement benefits to Virginia state police officers.

The Judicial Retirement System provides retirement benefits to the Commonwealth's judiciary.

The Virginia Law Officers' Retirement System provides retirement benefits to correctional officers, capital police officers, university police officers, and game wardens.

Political Appointees provides optional retirement benefits to selected officials and administrative staff.

The Public School Superintendents' Plan provides retirement benefits to superintendents in the public school system.

The Virginia Supplemental Retirement Plan provides extra benefits to turn-around specialists in the public school system.

Other Postemployment Retiree Health Insurance Credit accounts for the health insurance credits provided by the Commonwealth which offset a portion of the retirees' monthly insurance premiums.

Other Employment Group Life provides life insurance coverage to members of the retirement systems.

Other Postemployment Disability Insurance Trust provides income protection to Commonwealth employees for absences caused by sickness or disability.

Other Employment Volunteer Firefighters and Rescue Squad Workers provides optional retirement benefits to volunteer firefighters and rescue squad workers.

Other Postemployment Line of Duty Death and Disability provides death and health benefits to beneficiaries of certain law enforcement and rescue personnel disabled or killed in the line of duty.

Virginia Local Disability Program provides long-term disability benefits to local government employees of participating localities.

Investment Trust Funds

Investment Trust Funds reflect the external portion of the local government investment pool sponsored by the Commonwealth.

Local Government Investment Pool (LGIP) helps local governmental entities maximize their rate of return by commingling their resources for investment purposes.

Local Government Investment Pool - Extended Maturity (LGIP – EM) offers public entities of the Commonwealth the opportunity to participate in an investment vehicle which allows them to invest monies that are not needed for daily liquidity.

Agency Funds

Agency Funds report those funds for which the Commonwealth acts solely in a custodial capacity.

Funds for the Collection of Taxes and Fees account for taxes and fees collected by the Commonwealth to be distributed to localities or other states.

Employee Benefits accounts for undistributed withholdings for employee benefits.

Contractor Deposits accounts for reimbursable deposits, including both cash and securities, from mining companies, road construction companies, motor fuel retailers, localities, and toll relief, to ensure performance meets regulatory standards.

Deposits of Insurance Carriers accounts for security deposits of insurance carriers as protection to the policy holders of the Commonwealth, as well as funds or irrevocable letters of credit held in lieu of insurance for pilot licensure.

Inmate and Ward accounts for the savings of inmates and wards of the Departments of Corrections and Juvenile Justice.

Child Support Collection accounts for court-ordered child support payments that flow through the Department of Social Services.

Behavioral Health Patient accounts for the savings of patients in the Commonwealth's behavioral health facilities.

Behavioral Health Non-patient accounts for the savings of non-patients in the Commonwealth's behavioral health facilities.

Comptroller's Debt Setoff accounts for monies held in a suspense status while research is conducted to determine the party entitled to the funds.

Legal Settlement accounts for receipts from court judgments that are deposited and subsequently distributed to the appropriate injured parties.

Consumer Services accounts for deposits made by businesses that will provide assistance to individuals suffering losses associated with these businesses and will be returned after dispute resolution. The Milk Commission, which accounts for deposits from milk producers that will be distributed to individual farmers to offset delivery expenses and losses incurred, is reported as part of this fund.

State Asset Forfeiture accounts for seized assets that are deposited and subsequently distributed to the appropriate parties pursuant to court orders.

Virginia School for the Deaf and the Blind accounts for student funds used to establish new activities for students.

Wilson Workforce and Rehabilitation Center accounts for student funds held by the center.

Third Party Administrator accounts for funds held in custody for assets of the Virginia Railway Express and the van pool insurance program, as well as donations collected in conjunction with auto-replenishment of EZPass Virginia customer accounts. It also includes the Drive Smart Virginia Education Fund administered by the Department of Transportation.

Virginia Veterans' Care Center Resident accounts for the savings of residents of the Virginia Veterans Care Center.

Virginia Individual Development Account Trust accounts for funds used to benefit low income individuals and to assist them in purchasing affordable housing.

E-Payables accounts for payments to vendors which are held in a suspense status until the electronic payment is processed.

Combining Statement of Fiduciary Net Position – Private Purpose Trust Funds

June 30, 2019

(Dollars in Thousands)

	Invest529	Loan Servicing Reserve	Edvantage Reserve
Assets and Deferred Outflows of Resources			
Cash and Cash Equivalents	\$ 115,795	\$ 189	\$ 278
Investments:			
Bonds and Mortgage Securities	128,257	—	—
Stocks	87,289	—	—
Fixed Income Commingled Funds	815,843	—	—
Index and Pooled Funds	1,908,626	—	—
Real Estate	117,013	—	—
Mutual and Money Market Funds	752,114	—	—
Other	1,182,257	—	—
Total Investments	4,991,399	—	—
Assets Held Pending Distribution	—	—	—
Receivables, Net:			
Accounts	316	—	—
Interest and Dividends	3,935	—	—
Other Receivables	1,122	—	—
Total Receivables	5,373	—	—
Other Assets	—	—	—
Total Assets	5,112,567	189	278
Deferred Outflows of Resources			
Total Assets and Deferred Outflows of Resources	5,112,567	189	278
Liabilities and Deferred Inflows of Resources			
Accounts Payable	368	—	—
Obligations Under Securities Lending	—	—	21
Due to Claimants, Participants, Escrows and Providers	6,449	—	—
Compensated Absences Payable	—	—	—
Payable for Security Transactions	2,082	—	—
Net Pension Liability	—	—	—
Net Other Postemployment Benefit Liability	—	—	—
Total Other Postemployment Benefit Liability	—	—	—
Total Liabilities	8,899	—	21
Deferred Inflows of Resources			
Total Liabilities and Deferred Inflows of Resources	8,899	—	21
Net Position Restricted for Participants and Other Purposes	\$ 5,103,668	\$ 189	\$ 257

Virginia Revolving Farm Loan Program	Gas and Oil Board Escrow Account	Miscellaneous Trust	Total
\$ 4,906	\$ —	\$ 66	\$ 121,234
—	—	—	128,257
—	—	—	87,289
—	—	—	815,843
—	—	—	1,908,626
—	—	—	117,013
—	—	—	752,114
—	—	—	1,182,257
—	—	—	4,991,399
—	9,875	—	9,875
—	—	—	316
—	—	—	3,935
—	—	—	1,122
—	—	—	5,373
3	—	—	3
4,909	9,875	66	5,127,884
6	—	—	6
4,915	9,875	66	5,127,890
1	—	—	369
370	—	—	391
—	—	—	6,449
3	—	—	3
—	—	—	2,082
66	—	—	66
12	—	—	12
9	—	—	9
461	—	—	9,381
7	—	—	7
468	—	—	9,388
\$ 4,447	\$ 9,875	\$ 66	\$ 5,118,502

Combining Statement of Changes in Fiduciary Net Position – Private Purpose Trust Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Invest529	Loan Servicing Reserve	Edvantage Reserve
Additions:			
Investment Income:			
Interest, Dividends, and Other Investment Income	\$ 275,125	\$ —	\$ 6
Total Investment Income	275,125	—	6
Less Investment Expenses	4,693	—	—
Net Investment Income	270,432	—	6
Contributions:			
Participants	708,609	—	—
Total Contributions	708,609	—	—
Other Revenue	—	—	1
Total Additions	979,041	—	7
Deductions:			
Loan Servicing Payments	—	—	—
Educational Expense Benefits	361,582	—	—
Insurance Premiums and Claims	—	—	1
Trust Payments	—	—	—
Administrative Expenses	2,514	—	—
Shares Redeemed	33,243	—	—
Total Deductions	397,339	—	1
Net Increase (Decrease)	581,702	—	6
Net Position Restricted for Participants and Other Purposes			
July 1	4,521,966	189	251
June 30	<u>\$ 5,103,668</u>	<u>\$ 189</u>	<u>\$ 257</u>

Virginia Revolving Farm Loan Program	Gas and Oil Board Escrow Account	Miscellaneous Trust	Total
\$ 105	\$ —	\$ 1	\$ 275,237
105	—	1	275,237
—	—	—	4,693
105	—	1	270,544
—	288	—	708,897
—	288	—	708,897
—	172	—	173
105	460	1	979,614
71	—	—	71
—	—	—	361,582
—	—	—	1
—	1,090	1	1,091
66	—	—	2,580
—	—	—	33,243
137	1,090	1	398,568
(32)	(630)	—	581,046
4,479	10,505	66	4,537,456
<u>\$ 4,447</u>	<u>\$ 9,875</u>	<u>\$ 66</u>	<u>\$ 5,118,502</u>

Combining Statement of Fiduciary Net Position – Pension and Other Employee Benefit Trust Funds

June 30, 2019

(Dollars in Thousands)

	Virginia Retirement System	State Police Officers' Retirement System	Judicial Retirement System
Assets and Deferred Outflows of Resources			
Cash and Cash Equivalents	\$ 419,870	\$ 5,126	\$ 3,304
Investments:			
Bonds and Mortgage Securities	20,438,379	230,572	148,630
Stocks	23,076,188	260,330	167,812
Fixed Income Commingled Funds	1,252,995	14,135	9,112
Index and Pooled Funds	10,332,158	116,560	75,136
Real Estate	9,219,279	104,006	67,043
Private Equity	14,078,918	158,829	102,384
Short-term Investments	4,461,974	50,337	32,448
Hybrid Defined Contribution Investments	514,672	—	5,845
Total Investments	83,374,563	934,769	608,410
Receivables, Net:			
Contributions	214,878	1,398	1,028
Interest and Dividends	258,249	2,914	1,878
Security Transactions	929,353	10,484	6,758
Other Receivables	114,633	1,041	671
Total Receivables	1,517,113	15,837	10,335
Due from Other Funds	—	—	—
Due from Internal Parties (Governmental Funds and Business-type Activities)	26,194	170	125
Due from Component Units	27,008	—	—
Furniture and Equipment	43,739	—	—
Total Assets	85,408,487	955,902	622,174
Deferred Outflows of Resources			
Total Assets and Deferred Outflows of Resources	85,408,487	955,902	622,174
Liabilities and Deferred Inflows of Resources			
Accounts Payable	28,576	252	163
Due to Other Funds	4,014	—	—
Due to Internal Parties (Governmental Funds and Business-type Activities)	62,265	—	—
Obligations Under Securities Lending	4,356,925	49,152	31,684
Other Liabilities	183,721	2,767	1,783
Retirement Benefits Payable	405,280	4,977	3,506
Refunds Payable	4,308	—	—
Compensated Absences Payable	2,758	—	—
Insurance Premiums and Claims Payable	—	—	—
Payable for Security Transactions	2,967,785	33,481	21,582
Total Liabilities	8,015,632	90,629	58,718
Deferred Inflows of Resources			
Total Liabilities and Deferred Inflows of Resources	8,015,632	90,629	58,718
Net Position Restricted for Pensions and Other Employment Benefits	\$ 77,392,855	\$ 865,273	\$ 563,456

Virginia Law Officers' Retirement System	Political Appointees	Public School Superintendents' Plan	Virginia Supplemental Retirement Plan	Other Postemployment Retiree Health Insurance Credit	Other Employment Group Life	Other Postemployment Disability Insurance Trust
\$ 8,858	\$ —	\$ —	\$ —	\$ 1,576	\$ 10,692	\$ 2,836
398,419	8,900	225	13	70,854	480,907	127,549
449,840	8,201	—	131	79,998	542,974	144,012
24,425	—	—	—	4,344	29,482	7,821
201,412	—	—	—	35,818	243,112	64,481
179,718	—	—	—	31,960	216,927	57,535
274,450	—	—	—	48,807	331,271	87,863
86,980	—	—	—	15,468	104,988	27,845
—	—	—	—	—	—	—
1,615,244	17,101	225	144	287,249	1,949,661	517,106
3,104	—	—	—	11,383	16,521	631
5,034	—	—	—	895	6,077	1,612
18,117	—	—	—	3,222	21,867	5,800
1,799	—	—	—	343	2,172	9,750
28,054	—	—	—	15,843	46,637	17,793
—	—	—	—	—	—	—
377	—	—	—	1,389	2,015	76
714	—	—	—	3,765	3,379	681
—	—	—	—	—	—	—
1,653,247	17,101	225	144	309,822	2,012,384	538,492
—	—	—	—	—	—	—
1,653,247	17,101	225	144	309,822	2,012,384	538,492
436	—	—	—	14,075	527	3,009
—	—	—	—	—	—	—
—	—	—	—	—	—	—
84,932	—	—	—	15,104	102,516	27,190
4,783	—	—	—	850	5,772	1,531
9,253	—	—	—	—	—	—
—	—	—	—	159	—	—
—	—	—	—	—	70,766	—
57,853	—	—	—	10,288	69,831	18,521
157,257	—	—	—	40,476	249,412	50,251
—	—	—	—	—	—	—
157,257	—	—	—	40,476	249,412	50,251
\$ 1,495,990	\$ 17,101	\$ 225	\$ 144	\$ 269,346	\$ 1,762,972	\$ 488,241

Continued on next page

Combining Statement of Fiduciary Net Position – Pension and Other Employee Benefit Trust Funds
(Continued from previous page)

June 30, 2019

(Dollars in Thousands)

	Other Employment Volunteer Firefighters and Rescue Squad Workers	Other Postemployment Line of Duty Death and Disability	Virginia Local Disability Program
Assets and Deferred Outflows of Resources			
Cash and Cash Equivalents	\$ —	\$ 16	\$ 19
Investments:			
Bonds and Mortgage Securities	134	741	880
Stocks	—	836	993
Fixed Income Commingled Funds	—	45	54
Index and Pooled Funds	—	374	445
Real Estate	—	334	397
Private Equity	—	510	606
Short-term Investments	—	162	193
Hybrid Defined Contribution Investments	—	—	—
Total Investments	134	3,002	3,568
Receivables, Net:			
Contributions	—	—	429
Interest and Dividends	—	9	11
Security Transactions	—	34	40
Other Receivables	—	52	14
Total Receivables	—	95	494
Due from Other Funds	4,014	—	—
Due from Internal Parties (Governmental Funds and Business-type Activities)	—	—	52
Due from Component Units	—	—	—
Furniture and Equipment	—	—	—
Total Assets	4,148	3,113	4,133
Deferred Outflows of Resources			
Total Assets and Deferred Outflows of Resources	4,148	3,113	4,133
Liabilities and Deferred Inflows of Resources			
Accounts Payable	—	1	1
Due to Other Funds	—	—	—
Due to Internal Parties (Governmental Funds and Business-type Activities)	—	—	—
Obligations Under Securities Lending	—	157	188
Other Liabilities	—	8	193
Retirement Benefits Payable	—	—	—
Refunds Payable	—	—	—
Compensated Absences Payable	—	—	—
Insurance Premiums and Claims Payable	—	—	—
Payable for Security Transactions	—	107	128
Total Liabilities	—	273	510
Deferred Inflows of Resources			
Total Liabilities and Deferred Inflows of Resources	—	273	510
Net Position Restricted for Pensions and Other Employment Benefits	\$ 4,148	\$ 2,840	\$ 3,623

Total

\$	452,297
	21,906,203
	24,731,315
	1,342,413
	11,069,496
	9,877,199
	15,083,638
	4,780,395
	520,517
	89,311,176
	249,372
	276,679
	995,675
	130,475
	1,652,201
	4,014
	30,398
	35,547
	43,739
	91,529,372
	—
	91,529,372
	47,040
	4,014
	62,265
	4,667,848
	201,408
	423,016
	4,467
	2,758
	70,766
	3,179,576
	8,663,158
	—
	8,663,158
\$	82,866,214

Combining Statement of Changes in Fiduciary Net Position – Pension and Other Employee Benefit Trust Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Virginia Retirement System	State Police Officers' Retirement System	Judicial Retirement System
Additions:			
Investment Income:			
Interest, Dividends, and Other Investment Income	\$ 5,448,586	\$ 60,990	\$ 39,721
Total Investment Income	5,448,586	60,990	39,721
Less Investment Expenses	550,279	6,198	4,002
Net Investment Income	4,898,307	54,792	35,719
Contributions:			
Member	953,343	6,379	4,031
Employer	2,399,465	31,437	23,490
Total Contributions	3,352,808	37,816	27,521
Other Revenue	2,299	—	—
Total Additions	8,253,414	92,608	63,240
Deductions:			
Retirement Benefits	4,774,664	62,683	43,584
Refunds to Former Members	112,169	805	—
Retiree Health Insurance Credits	—	—	—
Insurance Premiums and Claims	—	—	—
Administrative Expenses	48,586	488	315
Other Expenses	9,282	61	43
Long-term Disability Benefits	—	—	—
Total Deductions	4,944,701	64,037	43,942
Net Increase	3,308,713	28,571	19,298
Net Position Restricted for Pensions and Other Employment Benefits			
July 1	74,084,142	836,702	544,158
June 30	<u>\$ 77,392,855</u>	<u>\$ 865,273</u>	<u>\$ 563,456</u>

Virginia Law Officers' Retirement System	Political Appointees	Public School Superintendents' Plan	Virginia Supplemental Retirement Plan	Other Postemployment Retiree Health Insurance Credit	Other Employment Group Life	Other Postemployment Disability Insurance Trust
\$ 104,484	\$ 1,102	\$ 14	\$ 11	\$ 17,053	\$ 126,017	\$ 33,909
104,484	1,102	14	11	17,053	126,017	33,909
10,612	—	—	—	1,659	12,577	3,415
93,872	1,102	14	11	15,394	113,440	30,494
17,871	1,509	—	—	—	155,153	—
75,327	—	—	—	187,652	102,175	25,263
93,198	1,509	—	—	187,652	257,328	25,263
—	—	—	—	—	—	1,150
187,070	2,611	14	11	203,046	370,768	56,907
109,193	662	11	4	—	—	—
4,933	—	—	—	—	—	—
—	—	—	—	168,725	—	—
—	—	—	—	—	199,879	—
831	11	—	—	328	709	787
103	—	—	—	19	1,981	33
—	—	—	—	—	—	30,807
115,060	673	11	4	169,072	202,569	31,627
72,010	1,938	3	7	33,974	168,199	25,280
1,423,980	15,163	222	137	235,372	1,594,773	462,961
\$ 1,495,990	\$ 17,101	\$ 225	\$ 144	\$ 269,346	\$ 1,762,972	\$ 488,241

Continued on next page

Combining Statement of Changes in Fiduciary Net Position – Pension and Other Employee Benefit Trust Funds
(Continued from previous page)

For the Fiscal Year Ended June 30, 2019
(Dollars in Thousands)

	Other Employment Volunteer Firefighters and Rescue Squad Workers	Other Postemployment Line of Duty Death and Disability	Virginia Local Disability Program
Additions:			
Investment Income:			
Interest, Dividends, and Other Investment Income	\$ 257	\$ 348	\$ 192
Total Investment Income	257	348	192
Less Investment Expenses	—	71	16
Net Investment Income	257	277	176
Contributions:			
Member	34	—	—
Employer	84	13,377	4,192
Total Contributions	118	13,377	4,192
Other Revenue	—	658	—
Total Additions	375	14,312	4,368
Deductions:			
Retirement Benefits	—	—	—
Refunds to Former Members	152	—	—
Retiree Health Insurance Credits	—	—	—
Insurance Premiums and Claims	—	12,854	—
Administrative Expenses	—	491	84
Other Expenses	—	—	—
Long-term Disability Benefits	—	—	2,124
Total Deductions	152	13,345	2,208
Net Increase	223	967	2,160
Net Position Restricted for Pensions and Other Employment Benefits			
July 1	3,925	1,873	1,463
June 30	\$ 4,148	\$ 2,840	\$ 3,623

Total

\$	5,832,684
	5,832,684
	588,829
	5,243,855
	1,138,320
	2,862,462
	4,000,782
	4,107
	9,248,744
	4,990,801
	118,059
	168,725
	212,733
	52,630
	11,522
	32,931
	5,587,401
	3,661,343
	79,204,871
\$	82,866,214

Combining Statement of Fiduciary Net Position – Investment Trust Funds

June 30, 2019

(Dollars in Thousands)

	Local Government Investment Pool (LGIP)	Local Government Investment Pool - Extended Maturity (LGIP-EM)	Total
Assets and Deferred Outflows of Resources			
Cash and Cash Equivalents	\$ 2,724,454	\$ 1,420	\$ 2,725,874
Investments:			
Bonds and Mortgage Securities	73,871	34,738	108,609
Short-term Investments	2,510,947	70,927	2,581,874
Total Investments	2,584,818	105,665	2,690,483
Receivables, Net:			
Interest and Dividends	8,736	738	9,474
Total Receivables	8,736	738	9,474
Due From Other Funds	—	10,453	10,453
Total Assets	5,318,008	118,276	5,436,284
Deferred Outflows of Resources	—	—	—
Total Assets and Deferred Outflows of Resources	5,318,008	118,276	5,436,284
Liabilities and Deferred Inflows of Resources			
Due to Other Funds	10,453	—	10,453
Due to Internal Parties (Governmental Funds and Business-type Activities)	2	—	2
Total Liabilities	10,455	—	10,455
Deferred Inflows of Resources	—	—	—
Total Liabilities and Deferred Inflows of Resources	10,455	—	10,455
Net Position Restricted for Pool Participants	\$ 5,307,553	\$ 118,276	\$ 5,425,829

Combining Statement of Changes in Fiduciary Net Position - Investment Trust Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Local Government Investment Pool (LGIP)	Local Government Investment Pool - Extended Maturity (LGIP-EM)	Total
Additions:			
Investment Income:			
Interest, Dividends, and Other Investment Income	\$ 81,506	\$ 3,506	\$ 85,012
Distributions to Shareholders from Net Investment Income	(81,506)	(3,506)	(85,012)
Total Investment Income	—	—	—
Net Investment Income	—	—	—
Shares Sold	7,787,259	17,783	7,805,042
Reinvested Distributions	81,422	3,388	84,810
Total Additions	7,868,681	21,171	7,889,852
Deductions:			
Shares Redeemed	6,523,121	22,065	6,545,186
Total Deductions	6,523,121	22,065	6,545,186
Net Increase/Decrease	1,345,560	(894)	1,344,666
Net Position Restricted for Pool Participants			
July 1	3,961,993	119,170	4,081,163
June 30	<u>\$ 5,307,553</u>	<u>\$ 118,276</u>	<u>\$ 5,425,829</u>

Combining Statement of Fiduciary Net Position – Agency Funds

June 30, 2019

(Dollars in Thousands)

	Funds for the Collection of Taxes and Fees	Employee Benefits	Contractor Deposits	Deposits of Insurance Carriers
Assets				
Cash and Cash Equivalents	\$ 226,235	\$ 5,389	\$ 39,097	\$ 262
Assets Held Pending Distribution	—	—	9,088	450,356
Receivables, Net:				
Accounts	61,012	—	—	84
Total Receivables	61,012	—	—	84
Other Assets	—	—	—	—
Total Assets	<u>\$ 287,247</u>	<u>\$ 5,389</u>	<u>\$ 48,185</u>	<u>\$ 450,702</u>
Liabilities				
Accounts Payable	\$ —	\$ 5,389	\$ —	\$ —
Amounts Due to Other Governments	283,329	—	—	—
Due to Internal Parties (Governmental Funds and Business-type Activities)	3,771	—	—	—
Obligations Under Securities Lending Program	147	—	794	—
Due to Claimants, Participants, Escrows and Providers	—	—	—	—
Other Liabilities	—	—	47,391	450,702
Insurance Premiums and Claims Payable	—	—	—	—
Total Liabilities	<u>\$ 287,247</u>	<u>\$ 5,389</u>	<u>\$ 48,185</u>	<u>\$ 450,702</u>

Inmate and Ward	Child Support Collection	Behavioral Health Patient	Behavioral Health Non-Patient	Comptroller's Debt Setoff	Legal Settlement	Consumer Services	State Asset Forfeiture
\$ 22,563	\$ 14,441	\$ 758	\$ 43	\$ 785	\$ 4,076	\$ 1,291	\$ 3,230
—	—	—	—	—	—	—	—
510	—	—	—	—	—	—	—
510	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
<u>\$ 23,073</u>	<u>\$ 14,441</u>	<u>\$ 758</u>	<u>\$ 43</u>	<u>\$ 785</u>	<u>\$ 4,076</u>	<u>\$ 1,291</u>	<u>\$ 3,230</u>
\$ 3,307	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 1	\$ —
—	—	—	—	—	—	—	—
245	—	—	—	—	—	—	—
—	—	—	—	—	159	—	241
18,896	14,441	758	43	—	—	—	—
625	—	—	—	785	3,917	1,290	2,989
—	—	—	—	—	—	—	—
<u>\$ 23,073</u>	<u>\$ 14,441</u>	<u>\$ 758</u>	<u>\$ 43</u>	<u>\$ 785</u>	<u>\$ 4,076</u>	<u>\$ 1,291</u>	<u>\$ 3,230</u>

Continued on next page

Combining Statement of Fiduciary Net Position – Agency Funds (Continued from previous page)

June 30, 2019

(Dollars in Thousands)

	Virginia School for the Deaf and Blind	Wilson Workforce and Rehabilitation Center	Third Party Administrator	Virginia Veterans' Care Center Resident
Assets				
Cash and Cash Equivalents	\$ 18	\$ 7	\$ 14,102	\$ 208
Assets Held Pending Distribution	—	—	—	—
Receivables, Net:				
Accounts	—	—	80	—
Total Receivables	—	—	80	—
Other Assets	—	—	35	—
Total Assets	\$ 18	\$ 7	\$ 14,217	\$ 208
Liabilities				
Accounts Payable	\$ —	\$ —	\$ 301	\$ —
Amounts Due to Other Governments				
Due to Internal Parties (Governmental Funds and Business-type Activities)	—	—	—	—
Obligations Under Securities Lending Program				
Due to Claimants, Participants, Escrows and Providers	18	7	12,479	208
Other Liabilities				
Insurance Premiums and Claims Payable	—	—	2	—
Insurance Premiums and Claims Payable	—	—	373	—
Total Liabilities	\$ 18	\$ 7	\$ 14,217	\$ 208

Virginia Individual Development Account Trust	E-Payables	Total
\$ —	\$ 32,455	\$ 364,960
—	—	459,444
—	—	61,686
—	—	61,686
—	—	35
<u>\$ —</u>	<u>\$ 32,455</u>	<u>\$ 886,125</u>
\$ —	\$ —	8,998
—	—	283,329
—	—	4,016
—	—	2,403
—	—	46,850
—	32,455	540,156
—	—	373
<u>\$ —</u>	<u>\$ 32,455</u>	<u>\$ 886,125</u>

Combining Statement of Changes in Assets and Liabilities – Agency Funds

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Balance July 1	Additions	Deletions	Balance June 30
Funds for the Collection of Taxes and Fees				
Assets:				
Cash and Cash Equivalents	\$ 198,072	\$ 1,481,516	\$ 1,453,353	\$ 226,235
Accounts Receivable	62,530	61,012	62,530	61,012
Due from Internal Parties (Governmental Funds and Business-type Activities)	16,732	—	16,732	—
Total Assets	\$ 277,334	\$ 1,542,528	\$ 1,532,615	\$ 287,247
Liabilities:				
Amounts Due to Other Governments	\$ 277,245	\$ 1,538,610	\$ 1,532,526	\$ 283,329
Due to Internal Parties (Governmental Funds and Business-type Activities)	—	3,771	—	3,771
Obligations Under Securities Lending Program	89	147	89	147
Total Liabilities	\$ 277,334	\$ 1,542,528	\$ 1,532,615	\$ 287,247
Employee Benefits				
Assets:				
Cash and Cash Equivalents	\$ 5,535	\$ 242,080	\$ 242,226	\$ 5,389
Total Assets	\$ 5,535	\$ 242,080	\$ 242,226	\$ 5,389
Liabilities:				
Accounts Payable	\$ 5,535	\$ 242,080	\$ 242,226	\$ 5,389
Total Liabilities	\$ 5,535	\$ 242,080	\$ 242,226	\$ 5,389
Contractor Deposits				
Assets:				
Cash and Cash Equivalents	\$ 36,104	\$ 15,230	\$ 12,237	\$ 39,097
Assets Held Pending Distribution	12,786	1,477	5,175	9,088
Total Assets	\$ 48,890	\$ 16,707	\$ 17,412	\$ 48,185
Liabilities:				
Accounts Payable	\$ 119	\$ —	\$ 119	\$ —
Obligations Under Securities Lending Program	674	794	674	794
Other Liabilities	48,097	15,913	16,619	47,391
Total Liabilities	\$ 48,890	\$ 16,707	\$ 17,412	\$ 48,185
Deposits of Insurance Carriers				
Assets:				
Cash and Cash Equivalents	\$ 256	\$ 6	\$ —	\$ 262
Assets Held Pending Distribution	444,601	149,190	143,435	450,356
Accounts Receivable	57	546	519	84
Total Assets	\$ 444,914	\$ 149,742	\$ 143,954	\$ 450,702
Liabilities:				
Other Liabilities	\$ 444,914	\$ 149,742	\$ 143,954	\$ 450,702
Total Liabilities	\$ 444,914	\$ 149,742	\$ 143,954	\$ 450,702
Inmate and Ward				
Assets:				
Cash and Cash Equivalents	\$ 21,501	\$ 1,124	\$ 62	\$ 22,563
Accounts Receivable	507	14	11	510
Total Assets	\$ 22,008	\$ 1,138	\$ 73	\$ 23,073
Liabilities:				
Accounts Payable	\$ 3,312	\$ 2	\$ 7	\$ 3,307
Due to Internal Parties (Governmental Funds and Business-type Activities)	163	82	—	245
Due to Claimants, Participants, Escrows and Providers	18,078	874	56	18,896
Other Liabilities	455	170	—	625
Total Liabilities	\$ 22,008	\$ 1,128	\$ 63	\$ 23,073

	Balance July 1	Additions	Deletions	Balance June 30
Child Support Collection				
Assets:				
Cash and Cash Equivalents	\$ 18,038	\$ 630,355	\$ 633,952	\$ 14,441
Total Assets	\$ 18,038	\$ 630,355	\$ 633,952	\$ 14,441
Liabilities:				
Due to Claimants, Participants, Escrows and Providers	\$ 18,038	\$ 630,355	\$ 633,952	\$ 14,441
Total Liabilities	\$ 18,038	\$ 630,355	\$ 633,952	\$ 14,441
Behavioral Health Patient				
Assets:				
Cash and Cash Equivalents	\$ 1,154	\$ 2,022	\$ 2,418	\$ 758
Total Assets	\$ 1,154	\$ 2,022	\$ 2,418	\$ 758
Liabilities:				
Due to Claimants, Participants, Escrows and Providers	\$ 1,154	\$ 2,022	\$ 2,418	\$ 758
Total Liabilities	\$ 1,154	\$ 2,022	\$ 2,418	\$ 758
Behavioral Health Non-Patient				
Assets:				
Cash and Cash Equivalents	\$ 46	\$ 12	\$ 15	\$ 43
Total Assets	\$ 46	\$ 12	\$ 15	\$ 43
Liabilities:				
Due to Claimants, Participants, Escrows and Providers	\$ 46	\$ 12	\$ 15	\$ 43
Total Liabilities	\$ 46	\$ 12	\$ 15	\$ 43
Comptroller's Debt Setoff				
Assets:				
Cash and Cash Equivalents	\$ 1,190	\$ 12,484	\$ 12,889	\$ 785
Total Assets	\$ 1,190	\$ 12,484	\$ 12,889	\$ 785
Liabilities:				
Other Liabilities	\$ 1,190	\$ 12,484	\$ 12,889	\$ 785
Total Liabilities	\$ 1,190	\$ 12,484	\$ 12,889	\$ 785
Legal Settlement				
Assets:				
Cash and Cash Equivalents	\$ 5,009	\$ 2,519	\$ 3,452	\$ 4,076
Total Assets	\$ 5,009	\$ 2,519	\$ 3,452	\$ 4,076
Liabilities:				
Obligations Under Securities Lending Program	\$ 141	\$ 159	\$ 141	\$ 159
Other Liabilities	4,868	2,360	3,311	3,917
Total Liabilities	\$ 5,009	\$ 2,519	\$ 3,452	\$ 4,076
Consumer Services				
Assets:				
Cash and Cash Equivalents	\$ 1,383	\$ 96	\$ 188	\$ 1,291
Total Assets	\$ 1,383	\$ 96	\$ 188	\$ 1,291
Liabilities:				
Accounts Payable	\$ 4	\$ 53	\$ 56	\$ 1
Other Liabilities	1,379	43	132	1,290
Total Liabilities	\$ 1,383	\$ 96	\$ 188	\$ 1,291

Continued on next page

Combining Statement of Changes in Assets and Liabilities – Agency Funds (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Balance July 1	Additions	Deletions	Balance June 30
State Asset Forfeiture				
Assets:				
Cash and Cash Equivalents	\$ 2,254	\$ 8,002	\$ 7,026	\$ 3,230
Total Assets	\$ 2,254	\$ 8,002	\$ 7,026	\$ 3,230
Liabilities:				
Obligations Under Securities Lending Program	\$ 142	\$ 241	\$ 142	\$ 241
Other Liabilities	2,112	7,761	6,884	2,989
Total Liabilities	\$ 2,254	\$ 8,002	\$ 7,026	\$ 3,230
Virginia School for the Deaf and the Blind				
Assets:				
Cash and Cash Equivalents	\$ 19	\$ 6	\$ 7	\$ 18
Total Assets	\$ 19	\$ 6	\$ 7	\$ 18
Liabilities:				
Due to Claimants, Participants, Escrows and Providers	\$ 19	\$ 6	\$ 7	\$ 18
Total Liabilities	\$ 19	\$ 6	\$ 7	\$ 18
Wilson Workforce and Rehabilitation Center				
Assets:				
Cash and Cash Equivalents	\$ 7	\$ 7	\$ 7	\$ 7
Total Assets	\$ 7	\$ 7	\$ 7	\$ 7
Liabilities:				
Due to Claimants, Participants, Escrows and Providers	\$ 7	\$ 7	\$ 7	\$ 7
Total Liabilities	\$ 7	\$ 7	\$ 7	\$ 7
Third Party Administrator				
Assets:				
Cash and Cash Equivalents	\$ 13,504	\$ 5,621	\$ 5,023	\$ 14,102
Accounts Receivable	62	80	62	80
Other Assets	23	12	—	35
Total Assets	\$ 13,589	\$ 5,713	\$ 5,085	\$ 14,217
Liabilities:				
Accounts Payable	\$ 4	\$ 301	\$ 4	\$ 301
Obligations Under Securities Lending Program	927	1,062	927	1,062
Due to Claimants, Participants, Escrows and Providers	12,522	4,562	4,605	12,479
Other Liabilities	8	14	20	2
Insurance Premiums and Claims Payable	128	245	—	373
Total Liabilities	\$ 13,589	\$ 6,184	\$ 5,556	\$ 14,217

	Balance July 1	Additions	Deletions	Balance June 30
Virginia Veterans' Care Center Resident				
Assets:				
Cash and Cash Equivalents	\$ 311	\$ 187	\$ 290	\$ 208
Total Assets	\$ 311	\$ 187	\$ 290	\$ 208
Liabilities:				
Due to Claimants, Participants, Escrows and Providers	\$ 311	\$ 187	\$ 290	\$ 208
Total Liabilities	\$ 311	\$ 187	\$ 290	\$ 208
Virginia Individual Development Account Trust				
Assets:				
Cash and Cash Equivalents	\$ —	\$ 78	\$ 78	\$ —
Total Assets	\$ —	\$ 78	\$ 78	\$ —
Liabilities:				
Due to Claimants, Participants, Escrows and Providers	\$ —	\$ 78	\$ 78	\$ —
Total Liabilities	\$ —	\$ 78	\$ 78	\$ —
E-Payables				
Assets:				
Cash and Cash Equivalents	\$ 28,552	\$ 170,845	\$ 166,942	\$ 32,455
Total Assets	\$ 28,552	\$ 170,845	\$ 166,942	\$ 32,455
Liabilities:				
Other Liabilities	\$ 28,552	\$ 170,845	\$ 166,942	\$ 32,455
Total Liabilities	\$ 28,552	\$ 170,845	\$ 166,942	\$ 32,455
Totals - Agency Funds				
Assets:				
Cash and Cash Equivalents	\$ 332,935	\$ 2,572,190	\$ 2,540,165	\$ 364,960
Assets Held Pending Distribution	457,387	150,667	148,610	459,444
Accounts Receivable	63,156	61,652	63,122	61,686
Due from Internal Parties (Governmental Funds and Business-type Activities)	16,732	—	16,732	—
Other Assets	23	12	—	35
Total Assets	\$ 870,233	\$ 2,784,521	\$ 2,768,629	\$ 886,125
Liabilities:				
Accounts Payable	\$ 8,974	\$ 242,436	\$ 242,412	\$ 8,998
Amounts Due to Other Governments	277,245	1,538,610	1,532,526	283,329
Due to Internal Parties (Governmental Funds and Business-type Activities)	163	3,853	—	4,016
Obligations Under Securities Lending Program	1,973	2,403	1,973	2,403
Due to Claimants, Participants, Escrows and Providers	50,175	638,103	641,428	46,850
Other Liabilities	531,575	359,332	350,751	540,156
Insurance Premiums and Claims Payable	128	245	—	373
Total Liabilities	\$ 870,233	\$ 2,784,982	\$ 2,769,090	\$ 886,125

Nonmajor Component Units

Component Units are organizations that are legally separate from the Commonwealth of Virginia. Each discrete component unit serves or benefits those outside of the primary government.

The Higher Education Institutions account for the resources received and used in the operation of the Commonwealth's institutions of higher education and medical teaching hospitals.

Higher Education Institutions included in this section are:

- University of Virginia, including the University of Virginia Medical Center, and the University of Virginia College at Wise
- Virginia Polytechnic Institute and State University
- Virginia Commonwealth University, including the Virginia Commonwealth University Health System Authority
- The College of William & Mary, including Richard Bland College and the Virginia Institute of Marine Science
- Virginia Military Institute
- Virginia State University
- Norfolk State University
- University of Mary Washington
- James Madison University
- Radford University
- Old Dominion University
- George Mason University
- Virginia Community College System
- Christopher Newport University
- Longwood University
- Southwest Virginia Higher Education Center
- Roanoke Higher Education Authority
- Innovation and Entrepreneurship Investment Authority
- Institute for Advanced Learning and Research
- Southern Virginia Higher Education Center
- New College Institute

The Virginia Economic Development Partnership works to enhance and increase the Commonwealth's commerce and trade, both domestically and internationally.

The Virginia Outdoors Foundation promotes preservation and fundraising for the purchase of preservation land.

The Virginia Port Authority is empowered to maintain and operate Virginia's harbors and ports.

The Virginia Tourism Authority promotes tourism and film production industries of the Commonwealth.

The Virginia Foundation for Healthy Youth determines the appropriate recipients of monies in the Virginia Tobacco Settlement Fund.

The Tobacco Region Revitalization Commission determines the appropriate recipients of monies in the Tobacco Indemnification and Community Revitalization Fund.

The Hampton Roads Sanitation District Commission operates a sewage system for 18 localities in the Chesapeake Bay Area.

The Virginia Biotechnology Research Partnership Authority assists in the development of a biotechnology research park.

The Virginia Small Business Financing Authority assists small businesses in the Commonwealth in obtaining financing for new businesses or the expansion of existing businesses.

The Virginia School for the Deaf and Blind Foundation operates exclusively for the benefit of the Virginia School for the Deaf and Blind.

The Science Museum of Virginia Foundation operates to implement and fund projects and operations of the Science Museum of Virginia.

The Virginia Commercial Space Flight Authority disseminates knowledge pertaining to scientific and technological research and development among public and private entities including, but not limited to, knowledge in the area of commercial space flight, and to promote industrial and economic development.

The Danville Science Center, Inc., promotes programs, projects and operations to educate students.

The Virginia Museum of Fine Arts Foundation implements and funds programs, projects, and operations of the Virginia Museum of Fine Arts.

The A. L. Philpott Manufacturing Extension Partnership promotes industrial expansion by providing consulting services to manufacturers.

The Fort Monroe Authority assists in formulating a reuse plan for Fort Monroe.

The Assistive Technology Loan Fund Authority provides assistance with loans and in the purchase of assistive technology or other equipment to enable Virginians with disabilities to become more independent.

The Virginia Land Conservation Foundation acquires interests in preservation land and provides grants to other entities to acquire interests in preservation land.

The Virginia Arts Foundation works to promote the arts in the Commonwealth.

The Library of Virginia Foundation promotes and supports the Library of Virginia.

The Virginia Health Workforce Development Authority provides assistance to the health professions.

Combining Statement of Net Position – Nonmajor Component Units

June 30, 2019

(Dollars in Thousands)

	University of Virginia	Virginia Polytechnic Institute and State University	Virginia Commonwealth University	The College of William and Mary
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents	\$ 235,522	\$ 141,831	\$ 501,835	\$ 72,886
Investments	8,760,928	708,165	2,210,043	389,617
Receivables, Net	536,295	125,119	717,370	21,933
Contributions Receivable, Net	227,602	152,800	39,582	29,945
Due from Primary Government	11,772	—	256	—
Due from Component Units	15,986	21,191	13,467	4,450
Inventory	34,384	12,327	32,950	552
Prepaid Items	30,204	17,059	20,155	3,987
Other Assets	13,100	5,998	18,249	2,498
Restricted Cash and Cash Equivalents	41,839	164,537	97,878	52,159
Restricted Investments	1,601,555	977,357	690,714	553,131
Other Restricted Assets	52,187	20,936	34,619	179,888
Nondepreciable Capital Assets	868,657	268,053	273,422	170,760
Depreciable Capital Assets, Net	3,588,095	1,795,255	2,000,582	782,744
Total Assets	16,018,126	4,410,628	6,651,122	2,264,550
Deferred Outflows of Resources	144,135	71,098	108,403	25,952
Total Assets and Deferred Outflows of Resources	16,162,261	4,481,726	6,759,525	2,290,502
Liabilities and Deferred Inflows of Resources				
Accounts Payable	454,898	139,456	306,226	45,375
Amounts Due to Other Governments	—	—	—	—
Due to Primary Government	14	4,660	4,319	3,162
Due to Component Units	—	—	—	—
Due to External Parties (Fiduciary Funds)	7,038	7,574	5,897	1,268
Unearned Revenue	93,431	55,805	50,118	17,594
Obligations Under Securities Lending Program	—	—	—	15
Other Liabilities	886,670	129,773	173,211	6,813
Loans Payable to Primary Government	—	—	—	797
Claims Payable:				
Due Within One Year	14,442	—	179,813	—
Due in More Than One Year	—	—	32,999	—
Long-term Liabilities:				
Due Within One Year	141,819	84,515	120,616	32,255
Due in More Than One Year	3,206,604	1,189,269	1,639,216	474,587
Total Liabilities	4,804,916	1,611,052	2,512,415	581,866
Deferred Inflows of Resources	166,213	95,204	87,286	30,366
Total Liabilities and Deferred Inflows of Resources	4,971,129	1,706,256	2,599,701	612,232
Net Position				
Net Investment in Capital Assets	2,194,629	1,465,589	1,380,664	688,424
Restricted For:				
Nonexpendable:				
Higher Education	1,801,424	652,915	398,322	638,013
Other	—	—	—	—
Expendable:				
Capital Projects/Construction/Capital Acquisition	—	—	—	—
Debt Service	—	—	—	—
Gifts and Grants	—	—	—	—
Higher Education	4,091,030	681,561	399,516	415,112
Net Other Postemployment Benefit - Virginia Sickness and Disability Program	13,869	7,210	9,657	2,750
Other	—	—	—	—
Unrestricted	3,090,180	(31,805)	1,971,665	(66,029)
Total Net Position (Deficit)	\$ 11,191,132	\$ 2,775,470	\$ 4,159,824	\$ 1,678,270

Virginia Military Institute	Virginia State University	Norfolk State University	University of Mary Washington	James Madison University	Radford University	Old Dominion University	George Mason University
\$ 49,992	\$ 33,521	\$ 22,256	\$ 20,419	\$ 212,207	\$ 131,583	\$ 133,216	\$ 522,969
102,405	950	18,421	—	25,458	6,359	32,369	13,726
2,252	7,307	4,470	3,467	19,433	5,361	80,128	63,556
17,962	122	1,308	895	14,915	6,158	33,895	67,871
137	72	450	—	11	—	1,090	17
3,706	2,017	—	2,404	3,338	4,645	6,518	9,941
7,179	—	—	384	922	449	479	744
1,077	1,590	2,237	1,284	10,014	7,521	8,400	8,549
202	27	235	915	13	—	429	5,377
3,833	7,728	27,059	28,818	65,337	—	24,733	36,364
426,093	56,222	11,400	48,399	119,695	59,003	238,759	181,310
6,206	1,963	1,865	1,016	11,467	3,892	4,107	17,998
23,053	36,542	57,616	90,634	259,358	46,255	136,886	122,267
314,697	260,770	273,893	377,662	1,018,606	352,580	564,728	1,194,199
958,794	408,831	421,210	576,297	1,760,774	623,806	1,265,737	2,244,888
4,209	9,632	7,386	6,184	39,388	11,872	28,504	46,448
963,003	418,463	428,596	582,481	1,800,162	635,678	1,294,241	2,291,336
16,330	10,020	22,910	15,194	49,824	21,150	54,236	70,459
1,173	—	—	—	—	—	—	—
764	448	508	446	4,185	824	1,475	4,493
—	—	—	—	—	—	1,730	—
257	339	329	187	3,548	352	1,162	2,799
1,369	3,000	2,625	1,715	10,807	4,409	14,696	49,227
1,598	1,663	240	4	10,860	8,212	6,090	28,268
962	6,041	6,694	24,892	15,023	4,709	15,058	26,115
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
3,115	9,425	7,778	10,407	30,826	4,870	29,569	49,764
109,071	161,662	188,871	321,529	708,590	176,763	462,867	923,414
134,639	192,598	229,955	374,374	833,663	221,289	586,883	1,154,539
6,749	10,964	11,779	11,305	36,104	16,452	28,073	50,164
141,388	203,562	241,734	385,679	869,767	237,741	614,956	1,204,703
315,154	206,053	217,002	210,266	844,177	315,615	469,916	685,444
224,586	23,138	11,450	45,998	82,062	38,264	148,155	154,697
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
230,053	41,489	20,747	12,134	63,975	34,118	106,506	106,270
614	1,644	1,590	865	4,229	1,956	3,348	5,722
—	—	—	—	—	—	—	—
51,208	(57,423)	(63,927)	(72,461)	(64,048)	7,984	(48,640)	134,500
\$ 821,615	\$ 214,901	\$ 186,862	\$ 196,802	\$ 930,395	\$ 397,937	\$ 679,285	\$ 1,086,633

Continued on next page

Combining Statement of Net Position – Nonmajor Component Units (Continued from previous page)

June 30, 2019

(Dollars in Thousands)

	Virginia Community College System	Christopher Newport University	Longwood University	Southwest Virginia Higher Education Center
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents	\$ 264,505	\$ 35,720	\$ 12,287	\$ —
Investments	79,560	3,487	—	—
Receivables, Net	22,627	1,865	8,983	1,757
Contributions Receivable, Net	13,439	13,261	3,408	—
Due from Primary Government	89	65	54	—
Due from Component Units	22,980	2,748	3,516	81
Inventory	1,308	207	466	—
Prepaid Items	16,617	2,064	587	—
Other Assets	—	419	5,659	—
Restricted Cash and Cash Equivalents	20,088	2,873	5,578	—
Restricted Investments	254,461	36,551	285,916	—
Other Restricted Assets	17,433	3,854	974	63
Nondepreciable Capital Assets	175,991	54,791	120,498	599
Depreciable Capital Assets, Net	1,246,206	579,202	286,198	10,333
Total Assets	2,135,304	737,107	734,124	12,833
Deferred Outflows of Resources	73,403	10,606	9,149	253
Total Assets and Deferred Outflows of Resources	2,208,707	747,713	743,273	13,086
Liabilities and Deferred Inflows of Resources				
Accounts Payable	85,328	17,376	14,441	147
Amounts Due to Other Governments	3,210	—	—	—
Due to Primary Government	3,800	581	521	13
Due to Component Units	—	—	—	—
Due to External Parties (Fiduciary Funds)	4,133	255	206	11
Unearned Revenue	51,955	1,470	2,054	—
Obligations Under Securities Lending Program	33	2,163	111	—
Other Liabilities	14,285	6,913	10,771	—
Loans Payable to Primary Government	3,400	—	—	—
Claims Payable:				
Due Within One Year	—	—	—	—
Due in More Than One Year	—	—	—	—
Long-term Liabilities:				
Due Within One Year	29,942	19,814	128,800	187
Due in More Than One Year	701,712	274,710	344,066	2,233
Total Liabilities	897,798	323,282	500,970	2,591
Deferred Inflows of Resources	131,997	11,474	9,076	425
Total Liabilities and Deferred Inflows of Resources	1,029,795	334,756	510,046	3,016
Net Position				
Net Investment in Capital Assets	1,316,479	403,049	212,257	10,660
Restricted For:				
Nonexpendable:				
Higher Education	105,812	29,081	53,109	—
Other	—	—	—	—
Expendable:				
Capital Projects/Construction/Capital Acquisition	—	—	—	—
Debt Service	—	—	—	—
Gifts and Grants	—	—	—	—
Higher Education	132,122	25,801	27,320	—
Net Other Postemployment Benefit - Virginia Sickness and Disability Program	15,559	1,284	786	53
Other	—	—	—	—
Unrestricted	(391,060)	(46,258)	(60,245)	(643)
Total Net Position (Deficit)	\$ 1,178,912	\$ 412,957	\$ 233,227	\$ 10,070

Roanoke Higher Education Authority	Innovation and Entrepreneurship Investment Authority	Institute for Advanced Learning and Research	Southern Virginia Higher Education Center	New College Institute	Virginia Economic Development Partnership	Virginia Outdoors Foundation	Virginia Port Authority
\$ 3,545	\$ 13,070	\$ 7,765	\$ 1,471	\$ 1,327	\$ 9,134	\$ 5,584	\$ 128,174
—	12	2,030	—	2,159	—	15,567	50,992
25	230	490	99	7	49	780	86,574
—	—	—	—	—	—	—	—
—	—	—	47	367	—	—	12,775
112	—	421	4	—	—	—	—
—	—	—	—	—	—	—	27,205
39	177	450	—	18	1,282	42	7,957
347	11	—	—	1	22	—	801
—	—	263	73	—	—	1,310	95,537
—	—	—	—	1,350	—	268	40,499
—	—	760	113	40	508	—	—
1,470	5,386	2,154	—	546	—	9,030	418,383
30,160	7,246	10,866	1,193	14,776	1,043	1,004	2,734,298
35,698	26,132	25,199	3,000	20,591	12,038	33,585	3,603,195
95	—	71	523	215	3,023	49	37,883
35,793	26,132	25,270	3,523	20,806	15,061	33,634	3,641,078
—	—	—	—	—	—	—	—
168	467	781	184	422	1,335	455	57,888
—	—	—	—	—	—	—	—
—	—	—	23	9	73	—	3
—	—	—	—	—	—	—	—
—	—	—	20	5	—	116	5
301	184	1,145	—	18	81	4,500	—
—	—	—	—	—	—	—	4,329
13	166	129	—	—	—	—	21,550
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
124	30	61	194	49	899	90	19,024
628	156	20	3,750	1,253	15,147	455	2,801,661
1,234	1,003	2,136	4,171	1,756	17,535	5,616	2,904,460
145	—	51	508	247	2,078	35	4,162
1,379	1,003	2,187	4,679	2,003	19,613	5,651	2,908,622
—	—	—	—	—	—	—	—
31,047	12,632	12,587	1,193	15,322	924	10,034	374,200
—	—	—	—	1,350	—	—	—
—	—	—	—	—	—	42	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	132,383
—	—	—	—	—	—	—	—
—	—	991	73	—	—	—	—
—	—	—	95	34	390	—	—
—	—	—	—	—	—	1,260	—
3,367	12,497	9,505	(2,517)	2,097	(5,866)	16,647	225,873
\$ 34,414	\$ 25,129	\$ 23,083	\$ (1,156)	\$ 18,803	\$ (4,552)	\$ 27,983	\$ 732,456

Continued on next page

Combining Statement of Net Position – Nonmajor Component Units (Continued from previous page)

June 30, 2019

(Dollars in Thousands)

	Virginia Tourism Authority	Virginia Foundation for Healthy Youth	Tobacco Region Revitalization Commission	Hampton Roads Sanitation District Commission
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents	\$ 5,225	\$ 18,573	\$ 12,552	\$ 283,981
Investments	—	—	217,179	—
Receivables, Net	267	—	7,520	45,762
Contributions Receivable, Net	—	—	—	—
Due from Primary Government	—	—	—	—
Due from Component Units	—	—	—	—
Inventory	—	—	—	26,887
Prepaid Items	283	—	5	—
Other Assets	1	6	1,187	322
Restricted Cash and Cash Equivalents	—	—	3,906	42,888
Restricted Investments	—	—	188,466	—
Other Restricted Assets	268	65	608	—
Nondepreciable Capital Assets	811	—	—	312,916
Depreciable Capital Assets, Net	687	—	—	1,051,851
Total Assets	7,542	18,644	431,423	1,764,607
Deferred Outflows of Resources	1,383	241	240	21,442
Total Assets and Deferred Outflows of Resources	8,925	18,885	431,663	1,786,049
Liabilities and Deferred Inflows of Resources				
Accounts Payable	371	530	97	32,393
Amounts Due to Other Governments	—	—	—	—
Due to Primary Government	49	10	11	—
Due to Component Units	—	—	—	—
Due to External Parties (Fiduciary Funds)	—	10	8	—
Unearned Revenue	286	—	—	—
Obligations Under Securities Lending Program	—	1,398	186	—
Other Liabilities	—	880	3,659	17,333
Loans Payable to Primary Government	—	—	—	—
Claims Payable:				
Due Within One Year	—	—	—	—
Due in More Than One Year	—	—	—	—
Long-term Liabilities:				
Due Within One Year	393	43	29	90,839
Due in More Than One Year	8,471	2,087	1,560	847,927
Total Liabilities	9,570	4,958	5,550	988,492
Deferred Inflows of Resources	1,161	283	271	9,412
Total Liabilities and Deferred Inflows of Resources	10,731	5,241	5,821	997,904
Net Position				
Net Investment in Capital Assets	1,498	—	—	501,219
Restricted For:				
Nonexpendable:				
Higher Education	—	—	—	—
Other	—	—	—	—
Expendable:				
Capital Projects/Construction/Capital Acquisition	—	—	191,979	—
Debt Service	—	—	—	28,553
Gifts and Grants	—	—	2,126	—
Higher Education	—	—	—	—
Net Other Postemployment Benefit - Virginia Sickness and Disability Program	218	54	40	—
Other	—	—	—	—
Unrestricted	(3,522)	13,590	231,697	258,373
Total Net Position (Deficit)	\$ (1,806)	\$ 13,644	\$ 425,842	\$ 788,145

Virginia Biotechnology Research Partnership Authority	Virginia Small Business Financing Authority	Virginia School for the Deaf and Blind Foundation	Science Museum of Virginia Foundation	Virginia Commercial Space Flight Authority	Danville Science Center, Inc.	Virginia Museum of Fine Arts Foundation	A. L. Philpott Manufacturing Extension Partnership
\$ 7,295	\$ 8,337	\$ 3,633	\$ 702	\$ 10,540	\$ 839	\$ 2,953	\$ 1,535
10,427	—	1,552	859	—	90	23,010	—
13,410	7,056	—	5	1,629	1,919	—	545
—	—	—	736	—	1	7,188	—
—	—	—	—	—	—	—	—
—	—	—	—	1,730	—	—	—
—	—	—	—	—	5	—	—
55	—	—	1	360	14	—	—
—	—	—	—	—	—	4,438	—
—	30,948	—	4,510	—	145	6,887	—
—	—	—	16,104	—	1,032	232,661	—
355	10,744	—	—	—	—	—	—
3,642	—	—	—	37,454	—	819	—
206	—	—	1	102,398	1,315	999	9
35,390	57,085	5,185	22,918	154,111	5,360	278,955	2,089
705	125	—	—	—	—	—	—
36,095	57,210	5,185	22,918	154,111	5,360	278,955	2,089
—	—	—	—	—	—	—	—
101	91	—	—	4,533	37	270	567
—	—	—	—	—	—	—	—
—	—	—	865	—	—	—	—
—	—	—	—	—	—	—	—
—	4	—	—	—	—	—	—
228	—	—	25	1,918	1,917	—	—
—	1,246	—	—	—	—	—	—
11	801	—	—	—	—	11,602	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
4,241	2	—	2	52	—	318	229
10,072	1,145	—	6	70	—	42,037	—
14,653	3,289	—	898	6,573	1,954	54,227	796
22	102	—	—	—	—	—	—
14,675	3,391	—	898	6,573	1,954	54,227	796
—	—	—	—	—	—	—	—
3,848	—	—	1	139,731	1,315	516	9
—	—	—	—	—	—	—	—
—	—	—	5,807	—	254	161,553	—
—	—	—	3,297	—	—	72	—
—	—	—	—	—	—	—	—
—	38,298	—	11,374	—	923	82,124	—
—	—	—	—	—	—	—	—
—	20	—	—	—	—	—	—
493	6,550	—	—	804	—	—	—
17,079	8,951	5,185	1,541	7,003	914	(19,537)	1,284
\$ 21,420	\$ 53,819	\$ 5,185	\$ 22,020	\$ 147,538	\$ 3,406	\$ 224,728	\$ 1,293

Continued on next page

Combining Statement of Net Position – Nonmajor Component Units (Continued from previous page)

June 30, 2019

(Dollars in Thousands)

	Fort Monroe Authority	Assistive Technology Loan Fund Authority	Virginia Land Conservation Foundation	Virginia Arts Foundation
Assets and Deferred Outflows of Resources				
Cash and Cash Equivalents	\$ 3,399	\$ 4,119	\$ 13,578	\$ 90
Investments	—	—	—	—
Receivables, Net	768	4,283	—	—
Contributions Receivable, Net	—	—	—	—
Due from Primary Government	—	—	—	—
Due from Component Units	—	—	—	—
Inventory	—	—	—	—
Prepaid Items	159	—	—	—
Other Assets	236	—	—	—
Restricted Cash and Cash Equivalents	1,039	—	—	1,103
Restricted Investments	—	—	—	—
Other Restricted Assets	89	—	—	—
Nondepreciable Capital Assets	1,339	—	—	—
Depreciable Capital Assets, Net	30	—	—	—
Total Assets	7,059	8,402	13,578	1,193
Deferred Outflows of Resources	678	—	—	—
Total Assets and Deferred Outflows of Resources	7,737	8,402	13,578	1,193
Liabilities and Deferred Inflows of Resources				
Accounts Payable	1,019	—	1	—
Amounts Due to Other Governments	—	—	—	—
Due to Primary Government	—	—	—	—
Due to Component Units	—	—	—	—
Due to External Parties (Fiduciary Funds)	24	—	—	—
Unearned Revenue	—	—	—	—
Obligations Under Securities Lending Program	—	—	1,023	90
Other Liabilities	597	—	—	—
Loans Payable to Primary Government	—	—	—	—
Claims Payable:				
Due Within One Year	—	—	—	—
Due in More Than One Year	—	—	—	—
Long-term Liabilities:				
Due Within One Year	73	10	—	—
Due in More Than One Year	2,645	—	—	—
Total Liabilities	4,358	10	1,024	90
Deferred Inflows of Resources	469	—	—	—
Total Liabilities and Deferred Inflows of Resources	4,827	10	1,024	90
Net Position				
Net Investment in Capital Assets	1,108	—	—	—
Restricted For:				
Nonexpendable:				
Higher Education	—	—	—	—
Other	728	—	—	1,103
Expendable:				
Capital Projects/Construction/Capital Acquisition	—	—	—	—
Debt Service	—	—	—	—
Gifts and Grants	—	56	—	—
Higher Education	—	—	—	—
Net Other Postemployment Benefit - Virginia Sickness and Disability Program	66	—	—	—
Other	—	—	—	—
Unrestricted	1,008	8,336	12,554	—
Total Net Position (Deficit)	\$ 2,910	\$ 8,392	\$ 12,554	\$ 1,103

Library of Virginia Foundation	Virginia Health Workforce Development Authority	Total Nonmajor Component Units
\$ 51	\$ 97	\$ 2,938,318
1,241	—	12,676,606
—	—	1,793,341
—	—	631,088
—	—	27,202
—	—	119,255
70	—	146,518
2	—	142,189
—	—	60,493
200	—	767,633
2,423	—	6,023,369
—	—	372,018
—	—	3,499,332
13	—	18,603,845
4,000	97	47,801,207
—	—	663,295
4,000	97	48,464,502
6	—	1,425,086
—	—	4,383
—	—	31,256
—	—	1,730
—	—	35,547
8	—	370,886
—	—	67,529
19	—	1,384,690
—	—	4,197
—	—	194,255
—	—	32,999
—	—	820,404
—	—	14,624,254
33	—	18,997,216
—	—	722,577
33	—	19,719,793
13	—	12,042,575
—	—	4,408,376
1,804	—	171,291
—	—	195,348
—	—	160,936
820	—	135,721
—	—	6,388,818
—	—	72,053
—	—	9,107
1,330	97	5,160,484
\$ 3,967	\$ 97	\$ 28,744,709

Combining Statement of Activities – Nonmajor Component Units

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	Program Revenues				Net (Expenses) Revenue
	Expenses	Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions	
Higher Education					
University of Virginia	\$ 4,245,517	\$ 2,944,228	\$ 869,095	\$ 165,278	\$ (266,916)
Virginia Polytechnic Institute and State University	1,579,303	891,674	434,697	72,162	(180,770)
Virginia Commonwealth University	4,983,274	4,480,091	318,054	35,674	(149,455)
The College of William and Mary	492,153	281,759	103,784	40,271	(66,339)
Virginia Military Institute	105,119	54,415	34,605	8,749	(7,350)
Virginia State University	152,573	57,928	36,456	5,437	(52,752)
Norfolk State University	169,279	60,469	36,781	5,885	(66,144)
University of Mary Washington	136,889	83,816	10,478	21,028	(21,567)
James Madison University	570,020	432,602	47,919	46,498	(43,001)
Radford University	215,318	119,720	26,265	17,699	(51,634)
Old Dominion University	547,339	280,608	112,796	12,227	(141,708)
George Mason University	1,014,407	628,853	277,140	40,786	(67,628)
Virginia Community College System	1,169,541	366,432	338,442	86,505	(378,162)
Christopher Newport University	168,501	120,317	10,524	12,914	(24,746)
Longwood University	147,194	88,872	8,807	15,358	(34,157)
Southwest Virginia Higher Education Center	7,619	1,657	3,823	252	(1,887)
Roanoke Higher Education Authority	5,347	1,409	80	1,614	(2,244)
Innovation and Entrepreneurship Investment Authority	16,203	3,181	139	—	(12,883)
Institute for Advanced Learning and Research	10,060	2,609	2,446	2,854	(2,151)
Southern Virginia Higher Education Center	6,046	749	581	298	(4,418)
New College Institute	4,418	827	(2)	—	(3,593)
Total Higher Education	<u>15,746,120</u>	<u>10,902,216</u>	<u>2,672,910</u>	<u>591,489</u>	<u>(1,579,505)</u>
Other Nonmajor Component Units					
Virginia Economic Development Partnership	30,528	490	179	—	(29,859)
Virginia Outdoors Foundation	22,579	1,925	7,896	—	(12,758)
Virginia Port Authority	634,462	562,422	15,781	97,656	41,397
Virginia Tourism Authority	23,866	1,585	1,322	—	(20,959)
Virginia Foundation for Healthy Youth	10,248	—	68	—	(10,180)
Tobacco Region Revitalization Commission	33,105	—	2,126	—	(30,979)
Hampton Roads Sanitation District Commission	235,786	309,783	—	2,818	76,815
Virginia Biotechnology Research Partnership Authority	3,363	1,260	—	543	(1,560)
Virginia Small Business Financing Authority	1,155	1,732	32	—	609
Virginia School for the Deaf and Blind Foundation	274	—	—	—	(274)
Science Museum of Virginia Foundation	4,427	—	539	303	(3,585)
Virginia Commercial Space Flight Authority	29,939	3,660	8,607	9,250	(8,422)
Danville Science Center, Inc.	330	13	30	—	(287)
Virginia Museum of Fine Arts Foundation	45,885	—	3,818	—	(42,067)
A. L. Philpott Manufacturing Extension Partnership	6,171	3,015	2,393	—	(763)
Fort Monroe Authority	12,381	6,805	—	371	(5,205)
Assistive Technology Loan Fund Authority	564	—	1	—	(563)
Virginia Land Conservation Foundation	11,365	—	2,295	—	(9,070)
Virginia Arts Foundation	49	25	38	—	14
Library of Virginia Foundation	635	181	73	—	(381)
Virginia Health Workforce Development Authority	920	—	890	—	(30)
Total Other Nonmajor	<u>1,108,032</u>	<u>892,896</u>	<u>46,088</u>	<u>110,941</u>	<u>(58,107)</u>
Total Nonmajor Component Units	<u>\$ 16,854,152</u>	<u>\$ 11,795,112</u>	<u>\$ 2,718,998</u>	<u>\$ 702,430</u>	<u>\$ (1,637,612)</u>

General Revenues

Operating Appropriations from Primary Government	Unrestricted Grants and Contributions	Investment Earnings	Miscellaneous	Contributions to Permanent and Term Endowments	Change in Net Position	Net Position (Deficit) July 1, as restated	Net Position (Deficit) June 30
\$ 175,152	\$ 28,896	\$ 278,170	\$ 73,139	\$ 253,598	\$ 542,039	\$ 10,649,093	\$ 11,191,132
266,321	9,689	28,494	24,023	70,589	218,346	2,557,124	2,775,470
229,256	5,841	108,819	3,825	20,224	218,510	3,941,314	4,159,824
80,754	27,032	9,377	25,844	31,894	108,562	1,569,708	1,678,270
15,558	—	9,569	330	8,942	27,049	794,566	821,615
50,911	2,773	3,422	1,708	1,131	7,193	207,708	214,901
62,807	2,904	(1,167)	774	1,877	1,051	185,811	186,862
32,801	2,355	(4,836)	1,220	4,557	14,530	182,272	196,802
104,682	1,644	5,049	3,240	6,432	78,046	852,349	930,395
62,922	143	2,699	4,739	3,241	22,110	375,827	397,937
156,269	—	(1,565)	19	9,543	22,558	656,727	679,285
169,263	2,083	15,706	2,251	53,603	175,278	911,355	1,086,633
439,918	6,955	6,892	12,731	10,148	98,482	1,080,430	1,178,912
34,696	745	5,554	500	2,002	18,751	394,206	412,957
34,000	245	2,643	1,167	3,289	7,187	226,040	233,227
2,114	—	—	—	—	227	9,843	10,070
1,479	12	46	—	—	(707)	35,121	34,414
10,938	—	2,032	—	—	87	25,042	25,129
6,415	—	94	—	—	4,358	18,725	23,083
3,787	460	—	—	—	(171)	(985)	(1,156)
2,615	—	227	1	48	(702)	19,505	18,803
1,942,658	91,777	471,225	155,511	481,118	1,562,784	24,691,781	26,254,565
33,945	—	224	142	—	4,452	(9,004)	(4,552)
1,752	77	617	—	—	(10,312)	38,295	27,983
43,051	—	4,240	744	—	89,432	643,024	732,456
21,086	—	156	—	—	283	(2,089)	(1,806)
—	11,533	296	7	—	1,656	11,988	13,644
—	—	20,241	4,395	—	(6,343)	432,185	425,842
—	—	8,719	2,308	—	87,842	700,303	788,145
—	1,500	1,831	—	—	1,771	19,649	21,420
—	—	759	—	—	1,368	52,451	53,819
—	3	(342)	40	—	(573)	5,758	5,185
—	2,024	77	—	540	(944)	22,964	22,020
15,800	—	—	31	—	7,409	140,129	147,538
—	127	72	—	2,070	1,982	1,424	3,406
—	9,561	666	3,751	7,181	(20,908)	245,636	224,728
1,094	—	—	—	—	331	962	1,293
6,335	—	—	1,094	—	2,224	686	2,910
—	—	287	—	—	(276)	8,668	8,392
—	—	2	—	—	(9,068)	21,622	12,554
—	—	25	2	—	41	1,062	1,103
—	195	64	1	119	(2)	3,969	3,967
—	107	—	—	—	77	20	97
123,063	25,127	37,934	12,515	9,910	150,442	2,339,702	2,490,144
\$ 2,065,721	\$ 116,904	\$ 509,159	\$ 168,026	\$ 491,028	\$ 1,713,226	\$ 27,031,483	\$ 28,744,709



Debt Schedules

Summary Schedule – Total Debt and Other Long-term Obligations of the Commonwealth

Last Five Fiscal Years
(Dollars in Thousands)

	For the Fiscal Year Ended June 30,				
	2019	2018	2017	2016	2015
Tax-Supported Debt:					
Primary Government:					
General Obligation Bonds (1):					
Section 9(b) Bonds (2)	\$ 401,873	\$ 457,764	\$ 515,468	\$ 571,915	\$ 642,181
Section 9(c) Bonds (2)	14,628	18,764	22,743	29,717	33,190
Subtotal - General Obligation Bonds	416,501	476,528	538,211	601,632	675,371
Nongeneral Obligation Debt:					
Section 9(d) Bonds (2)	5,830,241	5,538,920	5,252,795	5,163,651	5,175,570
Other Long-term Debt and Obligations (3)	5,694,821	6,109,393	6,068,634	5,729,566	5,366,682
Total Primary Government	11,941,563	12,124,841	11,859,640	11,494,849	11,217,623
Component Units:					
General Obligation Bonds (1):					
Section 9(c) Bonds (2)	893,106	836,874	897,018	877,118	936,857
Subtotal - General Obligation Bonds	893,106	836,874	897,018	877,118	936,857
Nongeneral Obligation Bonds:					
Section 9(d) Bonds (2)	4,815,106	4,567,143	4,134,860	4,351,059	3,839,279
Other Long-term Debt (3)	4,066,538	4,350,598	4,509,272	4,154,182	3,756,274
Total Component Units	9,774,750	9,754,615	9,541,150	9,382,359	8,532,410
Total Tax-Supported Debt	21,716,313	21,879,456	21,400,790	20,877,208	19,750,033
Debt Not Supported by Taxes:					
Primary Government:					
Total Primary Government (2)	4,018,547	4,181,040	3,357,056	3,009,647	3,472,475
Component Units:					
Section 9(d) Moral Obligation Bonds (2)	926,540	927,834	928,088	907,209	877,875
Section 9(d) Other Debt (2)	2,844,656	2,817,992	2,224,501	2,081,823	2,038,579
Other Long-term Debt (4)	15,274,824	15,591,282	15,709,260	14,220,896	14,113,641
Foundations (5)	1,712,396	1,686,510	1,562,580	1,714,748	1,685,948
Total Component Units	20,758,416	21,023,618	20,424,429	18,924,676	18,716,043
Total Debt Not Supported by Taxes	24,776,963	25,204,658	23,781,485	21,934,323	22,188,518
Total Debt of the Commonwealth	\$ 46,493,276	\$ 47,084,114	\$ 45,182,275	\$ 42,811,531	\$ 41,938,551

	2019	2018	2017	2016	2015
Section 9(b) Debt:					
Public Facilities Bonds	\$ 401,873	\$ 457,764	\$ 515,468	\$ 571,915	\$ 642,181
Subtotal 9(b) Debt	401,873	457,764	515,468	571,915	642,181
Section 9(c) Debt:					
Higher Educational Institution Bonds	893,106	836,874	897,018	877,118	936,857
Transportation Facilities Bonds	6,061	8,914	11,642	14,562	17,154
Parking Facilities Bonds	8,567	9,850	11,101	15,155	16,036
Subtotal 9(c) Debt	907,734	855,638	919,761	906,835	970,047
Total General Obligation Debt (1)	\$ 1,309,607	\$ 1,313,402	\$ 1,435,229	\$ 1,478,750	\$ 1,612,228

- (1) Total general obligation debt for the fiscal year ended.
- (2) All amounts are net of unamortized discounts and premiums.
- (3) Includes capital lease obligations, installment purchase obligations, pension liability, the long-term portion of the liability for compensated absences, and other debt supported by taxes.
- (4) Includes bonds payable, notes payable, and other debt not supported by taxes.
- (5) Foundations represent FASB reporting entities defined in Note 1.B.

Tax-Supported Debt and Other Long-term Obligations

Last Five Fiscal Years
(Dollars in Thousands)

	For the Fiscal Year Ended June 30,				
	2019	2018	2017	2016	2015
Primary Government:					
General Obligation Debt (1) (3):					
Section 9(b) Debt					
Public Facilities (2)	\$ 401,873	\$ 457,764	\$ 515,468	\$ 571,915	\$ 642,181
Subtotal Section 9(b) Debt	401,873	457,764	515,468	571,915	642,181
Section 9(c) Debt					
Parking Facilities (2)	8,567	9,850	11,101	15,155	16,036
Transportation Facilities (2)	6,061	8,914	11,642	14,562	17,154
Subtotal Section 9(c) Debt	14,628	18,764	22,743	29,717	33,190
Subtotal General Obligation Debt	416,501	476,528	538,211	601,632	675,371
Nongeneral Obligation Debt:					
Section 9(d) Debt:					
Transportation Debt (2)	2,966,581	2,875,112	2,578,232	2,722,238	2,552,123
Virginia Public Building Authority (2)	2,863,660	2,663,808	2,674,563	2,441,413	2,623,447
Subtotal Section 9(d) Debt	5,830,241	5,538,920	5,252,795	5,163,651	5,175,570
Other Long-term Debt:					
Capital Lease Obligations	30,882	36,742	41,024	46,524	57,948
Installment Purchase Obligations (4)	114,931	103,655	109,721	108,877	113,373
Economic Development Authority Obligations	23,366	30,783	37,895	44,712	51,249
Aviation Notes Payable	—	—	—	114	307
Subtotal Other Long-term Debt	169,179	171,180	188,640	200,227	222,877
Other Long-term Obligations:					
Compensated Absences	317,540	307,329	300,501	317,053	311,406
Net Pension Liability	3,799,890	4,082,679	4,721,816	4,419,257	4,133,117
OPEB Liability (5)	—	—	814,560	734,064	654,173
Net OPEB Liability (5)	802,012	775,186	—	—	—
Total OPEB Liability (5)	565,448	735,108	—	—	—
Pollution Remediation Liability	10,430	6,963	9,437	11,308	11,954
Other Liabilities	30,322	30,948	33,680	47,657	33,155
Subtotal Other Long-term Obligations	5,525,642	5,938,213	5,879,994	5,529,339	5,143,805
Total Primary Government	11,941,563	12,124,841	11,859,640	11,494,849	11,217,623
Component Units:					
General Obligation Bonds (1) (3):					
Section 9(c) Debt					
Higher Educational Institutions (2)	893,106	836,874	897,018	877,118	936,857
Subtotal General Obligation Debt	893,106	836,874	897,018	877,118	936,857
Nongeneral Obligation Debt:					
Section 9(d) Debt:					
Virginia Port Authority (2)	234,114	243,448	253,208	275,256	288,446
Virginia College Building Authority (2)	4,566,772	4,305,134	3,858,925	4,049,060	3,520,214
Virginia Biotechnology Research Partnership Authority (2)	14,220	18,561	22,727	26,743	30,619
Subtotal Section 9(d) Debt	4,815,106	4,567,143	4,134,860	4,351,059	3,839,279
Other Long-term Debt:					
Capital Lease Obligations	7,510	5,878	76,889	71,403	77,456
Installment Purchase Obligations (4)	55,259	63,050	29,959	50,825	63,812
Subtotal Other Long-term Debt	62,769	68,928	106,848	122,228	141,268
Other Long-term Obligations:					
Compensated Absences	349,246	323,953	300,591	293,026	288,320
Net Pension Liability	2,455,020	2,650,301	3,002,030	2,777,020	2,496,179
OPEB Liability (5)	—	—	1,099,803	961,908	830,507
Net OPEB Liability (5)	779,362	769,063	—	—	—
Total OPEB Liability (5)	420,141	538,353	—	—	—
Subtotal Other Long-term Obligations	4,003,769	4,281,670	4,402,424	4,031,954	3,615,006
Total Component Units	9,774,750	9,754,615	9,541,150	9,382,359	8,532,410
Total Tax-Supported Debt	\$ 21,716,313	\$ 21,879,456	\$ 21,400,790	\$ 20,877,208	\$ 19,750,033

- (1) The general obligation debt is the only debt or long-term obligation that is backed by the full faith and credit of the Commonwealth.
- (2) All amounts are net of unamortized discounts and premiums.
- (3) See Note 1 on previous page.
- (4) As discussed in Note 28, certain balances above contain Direct Borrowings and Direct Placements.
- (5) GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, was effective starting with fiscal year 2018. This statement changed the OPEB Liability classifications.

Debt and Other Long-term Obligations Not Supported by Taxes

Last Five Fiscal Years
(Dollars in Thousands)

	For the Fiscal Year Ended June 30,				
	2019	2018	2017	2016	2015
Primary Government:					
Other Long-term Debt & Obligations:					
Federal Reimbursement Anticipation Notes Payable (1)	\$ —	\$ —	\$ —	\$ —	\$ 30,624
Grant Anticipation Notes (GARVEES) (1)	1,151,850	1,153,617	992,214	663,147	705,574
Hampton Roads Transportation Accountability Commission (1)	580,311	582,425	—	—	—
Route 460 Funding Corporation of Virginia	—	—	—	—	320,110
Net Pension Liability	128,005	135,632	151,486	140,522	125,294
OPEB Liability (6)	—	—	28,058	25,113	22,051
Net OPEB Liability (6)	22,299	21,680	—	—	—
Total OPEB Liability (6)	20,042	25,434	—	—	—
Capital Lease Obligations	—	—	5,025	5,359	5,708
Compensated Absences	11,070	10,546	10,096	10,003	10,123
Installment Purchase Obligations	518	—	—	—	—
Tuition Benefits Payable	1,991,469	2,135,222	2,048,168	2,035,608	2,116,769
Lottery Prizes Payable	112,983	116,484	122,009	129,895	136,222
Total Primary Government	4,018,547	4,181,040	3,357,056	3,009,647	3,472,475
Component Units:					
Section 9(d) Moral Obligation Debt: (1)					
Virginia Resources Authority	926,540	927,834	928,088	907,209	877,875
Subtotal Section 9(d) Moral Obligation Debt	926,540	927,834	928,088	907,209	877,875
Section 9(d) Other Debt:					
Higher Educational Institutions (1):					
Auxiliary Enterprise Revenue Bonds	2,241,523	2,207,901	1,728,052	1,579,951	1,531,950
Teaching Hospitals Revenue Bonds (3) (5)	603,133	610,091	496,449	501,872	506,629
Subtotal Section 9(d) Other Debt	2,844,656	2,817,992	2,224,501	2,081,823	2,038,579
Other Long-term Debt:					
Virginia Housing Development Authority (1) (5)	3,042,060	3,301,380	3,737,479	4,320,935	4,498,847
Hampton Roads Sanitation District Commission (1)	891,629	891,442	846,783	879,294	748,397
Virginia Public School Authority (1) (5)	3,554,603	3,641,402	3,580,954	3,655,914	3,551,741
Virginia Port Authority (1)	285,782	291,985	294,757	252,631	256,656
Virginia Resources Authority (1)	2,553,130	2,702,296	2,722,834	2,704,321	2,631,153
Notes Payable (5)	2,189,888	1,948,362	1,938,288	2,041,726	2,083,619
Net Pension Liability	35,844	38,427	57,787	44,339	41,516
Net OPEB Liability (6)	19,668	14,736	—	—	—
Total OPEB Liability (6)	59,243	101,081	—	—	—
Capital Lease Obligations	2,305,489	2,289,887	2,194,493	—	—
Other Long-term Debt	337,488	370,284	335,885	321,736	301,712
Foundations (4)	1,712,396	1,686,510	1,562,580	1,714,748	1,685,948
Subtotal Other Long-term Debt	16,987,220	17,277,792	17,271,840	15,935,644	15,799,589
Subtotal Section 9(d) and Other Debt	19,831,876	20,095,784	19,496,341	18,017,467	17,838,168
Total Component Units	20,758,416	21,023,618	20,424,429	18,924,676	18,716,043
Total Debt Not Supported by Taxes (2)	\$ 24,776,963	\$ 25,204,658	\$ 23,781,485	\$ 21,934,323	\$ 22,188,518

(1) All amounts are net of unamortized discounts and premiums.

(2) These amounts are not backed by the full faith and credit of the Commonwealth.

(3) Includes the Virginia Commonwealth University Health System Authority.

(4) Foundations represent FASB reporting entities defined in Note 1.B.

(5) As discussed in Note 28, certain balances above contain Direct Borrowings and Direct Placements.

(6) GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, was effective starting with fiscal year 2018. This statement changed the OPEB Liability classifications.

Authorized and Unissued Tax-Supported Debt

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

	As of June 30, 2018	New Debt Authorized	Debt Issued	Other Adjustments	As of June 30, 2019
Section 9(c) Debt (Primary Government):					
Higher Educational Institution Bonds	\$ 663,335	\$ 17,500	\$ 106,890	\$ (7,528)	\$ 566,417
Parking Facilities Bonds	226	—	—	—	226
Subtotal Section 9(c) Debt	<u>663,561</u>	<u>17,500</u>	<u>106,890</u>	<u>(7,528)</u>	<u>566,643</u>
Section 9(d) Debt:					
Primary Government:					
Transportation Contract Revenue Bonds					
(Northern Virginia Transportation District					
Fund Program)	24,700	—	—	—	24,700
U.S. Route 58 Corridor Development Program	595,700	—	—	—	595,700
Transportation Capital Projects Revenue Bonds	498,235	—	235,965	(19,036)	243,234
Component Units:					
Virginia Public Building Authority					
(Projects)	1,835,095	466,986	336,950	(47,158)	1,917,973
Virginia Public Building Authority					
(Jails)	48,553	—	289	(3)	48,261
Virginia College Building Authority					
(21st Century)	1,747,797	621,517	439,300	(44,793)	1,885,221
Virginia College Building Authority					
(Equipment Program)	166,000	—	73,945	(9,055)	83,000
Subtotal Section 9(d) Debt	<u>4,916,080</u>	<u>1,088,503</u>	<u>1,086,449</u>	<u>(120,045)</u>	<u>4,798,089</u>
Total Authorized and Unissued					
Tax-Supported Debt	<u>\$ 5,579,641</u>	<u>\$ 1,106,003</u>	<u>\$ 1,193,339</u>	<u>\$ (127,573)</u>	<u>\$ 5,364,732</u>

Tax-Supported Debt – Annual Debt Service Requirements [1]

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Fiscal Year Ending June 30	General Obligation Debt Sections 9(a), 9(b) and 9(c)			Other Tax-Supported Debt Section 9(d) [1] [2]		
	Principal	Interest	Total	Principal	Interest	Total
2020	\$ 107,870	\$ 51,769	\$ 159,639	\$ 609,244	\$ 410,420	\$ 1,019,664
2021	110,360	46,804	157,164	623,081	391,282	1,014,363
2022	106,240	41,604	147,844	603,560	362,458	966,018
2023	107,065	36,679	143,744	599,595	334,498	934,093
2024	107,115	31,768	138,883	604,531	306,918	911,449
2025	99,355	26,858	126,213	587,439	278,991	866,430
2026	94,455	22,470	116,925	580,599	252,171	832,770
2027	86,615	18,289	104,904	558,026	226,567	784,593
2028	71,705	14,308	86,013	552,755	201,479	754,234
2029	57,540	11,319	68,859	554,930	175,697	730,627
2030	49,020	8,914	57,934	544,050	150,190	694,240
2031	45,065	6,925	51,990	500,325	124,921	625,246
2032	34,685	5,203	39,888	479,325	103,347	582,672
2033	34,565	3,995	38,560	429,785	84,437	514,222
2034	27,475	2,789	30,264	421,210	67,032	488,242
2035	20,650	1,789	22,439	381,645	50,390	432,035
2036	13,295	1,034	14,329	307,180	36,180	343,360
2037	5,625	570	6,195	239,170	25,115	264,285
2038	5,520	369	5,889	135,560	16,771	152,331
2039	1,730	165	1,895	140,410	11,921	152,331
2040	1,785	84	1,869	82,835	7,154	89,989
2041	—	—	—	62,015	4,369	66,384
2042	—	—	—	38,604	2,180	40,784
2043	—	—	—	23,474	785	24,259
Subtotal	1,187,735	333,705	1,521,440	9,659,348	3,625,273	13,284,621
Add						
Accretion on						
Capital Appreciation						
Bonds	—	—	—	29,503	—	29,503
Add						
Unamortized						
Premium	121,872	—	121,872	979,938	—	979,938
Less						
Unamortized						
Discount	—	—	—	(76)	—	(76)
Total	\$ 1,309,607	\$ 333,705	\$ 1,643,312	\$ 10,668,713	\$ 3,625,273	\$ 14,293,986

[1] Includes Fairfax County Economic Development Authority. Does not include other capital leases, installment purchase obligations, regional jail reimbursements under the original treasury board program, compensated absences, pension liability, OPEB liability, pollution remediation liability and other liabilities.

[2] Includes principal amount of \$5,853,607 (dollars in thousands) for the primary government, net of accretion on capital appreciation and unamortized premiums and discounts.

Total		
Principal	Interest	Total
\$ 717,114	\$ 462,189	\$ 1,179,303
733,441	438,086	1,171,527
709,800	404,062	1,113,862
706,660	371,177	1,077,837
711,646	338,686	1,050,332
686,794	305,849	992,643
675,054	274,641	949,695
644,641	244,856	889,497
624,460	215,787	840,247
612,470	187,016	799,486
593,070	159,104	752,174
545,390	131,846	677,236
514,010	108,550	622,560
464,350	88,432	552,782
448,685	69,821	518,506
402,295	52,179	454,474
320,475	37,214	357,689
244,795	25,685	270,480
141,080	17,140	158,220
142,140	12,086	154,226
84,620	7,238	91,858
62,015	4,369	66,384
38,604	2,180	40,784
23,474	785	24,259
10,847,083	3,958,978	14,806,061
29,503	—	29,503
1,101,810	—	1,101,810
(76)	—	(76)
\$ 11,978,320	\$ 3,958,978	\$ 15,937,298

Tax-Supported Debt – Detail of Long-term Indebtedness (1)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Series	Amount Issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
General Obligation Debt					
Section 9(b) Debt (Primary Government):					
Public Facilities Bonds					
Series 2009	\$ 80,000	\$ 3,870	\$ (3,870)	\$ —	
Series 2009 Refunding	121,765	79,295	(19,860)	59,435	06/01/20-22
Series 2009 Taxable BABs	45,000	26,080	(2,365)	23,715	06/01/20-29
Series 2012A Refunding	71,065	39,635	(2,365)	37,270	06/01/20-24
Series 2013 Refunding	128,250	116,070	(10,430)	105,640	06/01/20-27
Series 2015	102,520	99,215	(9,200)	90,015	06/01/20-28
Series 2016B Refunding	39,695	39,695	—	39,695	06/01/20-29
Unamortized Premium	—	53,904	(7,801)	46,103	
Total Public Facilities Bonds	588,295	457,764	(55,891)	401,873	
Total Section 9(b) Debt	588,295	457,764	(55,891)	401,873	
Section 9(c) Debt					
Higher Educational Institution bonds (Component Units)					
Series 2009 Bonds					
Christopher Newport University					
Residence Hall '01 Refunded Portion	1,878	1,828	(14)	1,814	06/01/20-21
The College of William and Mary					
Dining Commons Hall Renovation '05 Refunded Portion	3,200	2,235	(520)	1,715	06/01/20-22
Dormitory Renovations '06B Refunded Portion	1,270	1,040	(240)	800	06/01/20-22
Dormitory Renovations '02 Refunded	2,582	1,368	(323)	1,045	06/01/20-22
Dormitory Renovations '05 Refunded	1,940	1,355	(315)	1,040	06/01/20-22
Dormitory Renovations '01 Refunded Portion	384	374	(3)	371	06/01/20-21
George Mason University					
Housing Building V '01 Refunded Portion	6,267	6,126	(38)	6,088	06/01/20-24
Housing Building V '02 Refunded Portion	4,448	2,348	(553)	1,795	06/01/20-22
Housing VIII	7,910	275	(275)	—	
Renovate President Park Phase I	1,790	240	(240)	—	
Student Housing Construction VII '05 Refunded	6,630	4,630	(1,075)	3,555	06/01/20-22
Student Housing VII C	8,255	275	(275)	—	
Student Housing Construction VII '06B Refunded	8,230	6,740	(1,565)	5,175	06/01/20-22
James Madison University					
Bluestone Dorm Phase II '01 Refunded Portion	458	445	(3)	442	06/01/20-21
Renovate Bluestone Res Hall III '06B Refunded Portion	1,750	1,435	(335)	1,100	06/01/20-22
Renovate Bluestone Dorms '02 Refunded Portion	1,048	553	(131)	422	06/01/20-22
Renovate Bluestone Dorms II '02 Refunded Portion	1,089	573	(136)	437	06/01/20-22
Longwood University					
Housing Facilities Renovations '05 Refunded Portion	1,340	940	(220)	720	06/01/20-22
Renovate Housing Facilities '06B Refunded Portion	1,655	1,355	(315)	1,040	06/01/20-22
Old Dominion University					
Construct Residence Hall Ph II '06B Refunded Portion	2,465	2,020	(470)	1,550	06/01/20-22
Housing Renovations '02 Refunded Portion	1,319	699	(166)	533	06/01/20-22
Housing Renovations Ph I '05 Refunded Portion	1,625	1,135	(265)	870	06/01/20-22
University of Mary Washington					
Residence Hall Renovation '01 Refunded Portion	153	148	(1)	147	06/01/20-21
Seacobeck Dining Hall '05 Refunded Portion	1,625	1,135	(265)	870	06/01/20-22
University of Virginia					
Residence Hall Monroe Lane '01 Refunded Portion	368	358	(2)	356	06/01/20-21
Virginia Military Institute					
Crozet Hall & Parking '04A Refunded Portion	4,242	2,755	(640)	2,115	06/01/20-22
Virginia Polytechnic Institute and State University					
Parking Aux Projects '06B Refunded Portion	190	155	(35)	120	06/01/20-22
Improve Residence and Dining Halls	3,720	185	(185)	—	
Parking Structure	24,590	835	(835)	—	
Renovate Dietrick Servery Ph II '04A Refunded Portion	1,891	1,230	(285)	945	06/01/20-22
Renovate Ambler Johnston Hall	39,005	1,950	(1,950)	—	
Virginia State University					
Construct Residence Hall '06B Refunded Portion	4,965	4,065	(945)	3,120	06/01/20-22
Construct Dining Hall '06B Refunded Portion	1,280	1,050	(245)	805	06/01/20-22
Subtotal Series 2009 Bonds	149,562	51,855	(12,865)	38,990	

Series	Amount issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
General Obligation Debt (continued)					
Section 9(c) Debt (continued)					
Higher Educational Institution bonds (Component Units)					
<i>(continued)</i>					
Series 2010 Bonds					
Christopher Newport University					
Construct Residence Hall	34,480	29,035	(990)	28,045	06/01/20-40
The College of William and Mary					
Construct New Dormitory	2,010	1,345	(95)	1,250	06/01/20-30
Renovate Residence Halls	4,440	2,960	(215)	2,745	06/01/20-30
George Mason University					
Housing VIII	39,420	31,200	(1,490)	29,710	06/01/20-35
Renovate Commons	1,325	945	(70)	875	06/01/20-30
Renovate Student Housing, President's Park II	2,790	670	(335)	335	06/01/20
Smithsonian CRC Housing	5,415	4,285	(205)	4,080	06/01/20-35
James Madison University					
Renovate Bluestone Dormitories, Phase IV	14,890	9,945	(730)	9,215	06/01/20-30
Old Dominion University					
Renovate Student Housing, Phase I	1,975	1,315	(95)	1,220	06/01/20-30
Virginia Commonwealth University					
Construct West Grace Housing and Parking Phase I	29,130	23,040	(1,105)	21,935	06/01/20-35
Virginia Polytechnic Institute and State University					
Construct Academic and Student Affairs Building	34,650	23,670	(1,735)	21,935	06/01/20-30
Parking Auxiliary Projects	745	495	(35)	460	06/01/20-30
Subtotal Series 2010 Bonds	171,270	128,905	(7,100)	121,805	
Series 2011 Bonds					
Christopher Newport University					
Renovate Santoro Residence Hall	4,100	1,445	(465)	980	06/01/20-21
The College of William and Mary					
Construct New Dormitory	14,400	10,885	(645)	10,240	06/01/20-31
George Mason University					
Housing VIII	20,230	16,830	(620)	16,210	06/01/20-36
Presidential Park Housing Renovation	2,700	1,000	(325)	675	06/01/20-21
Renovate Commons	14,350	11,275	(670)	10,605	06/01/20-31
Smithsonian CRC Housing	4,070	3,470	(130)	3,340	06/01/20-36
Student Housing VII-C	1,045	890	(30)	860	06/01/20-36
Virginia Commonwealth University					
West Grace Housing - North	25,830	22,050	(810)	21,240	06/01/20-36
Virginia Polytechnic Institute and State University					
Renovate Ambler Johnston Hall	18,860	14,245	(850)	13,395	06/01/20-31
Virginia State University					
Construct Gateway Residence Hall Phase II	34,735	25,665	(1,530)	24,135	06/01/20-31
Construct Quad Phase II	28,555	22,450	(1,330)	21,120	06/01/20-31
Subtotal Series 2011 Bonds	168,875	130,205	(7,405)	122,800	
Series 2012 Bonds					
The College of William and Mary					
Dining Commons Hall Renovation 2005 Refunding	1,289	1,289	—	1,289	06/01/23-24
Dorm Renovation - 2005 Refunding	780	779	—	779	06/01/23-24
George Mason University					
Student Housing Construction, VII - 2005 Refunding	2,674	2,674	—	2,674	06/01/23-24
Longwood University					
Housing Facilities Renovation - 2005 Refunding	545	545	—	545	06/01/23-24
Old Dominion University					
Housing Renovation, Phase I - 2005 Refunding	655	655	—	655	06/01/23-24
University of Mary Washington					
Seacobeck Dining Hall - 2005 Refunding	655	655	—	655	06/01/23-24

Continued on next page

Tax-Supported Debt – Detail of Long-term Indebtedness (1) (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Series	Amount issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
General Obligation Debt (continued)					
Section 9(c) Debt (continued)					
Higher Educational Institution bonds (Component Units)					
<i>(continued)</i>					
Series 2012 Bonds (continued)					
Virginia Military Institute					
Crozet Hall & Parking - 2004A Refunding	3,019	2,489	—	2,489	06/01/23-25
Virginia Polytechnic Institute and State University					
Renovate Dietrick Servery - 2004A Refunding	942	705	—	705	06/01/23-24
Subtotal Series 2012 Bonds	10,559	9,791	—	9,791	
Series 2013 Bonds					
The College of William and Mary					
Construct New Dormitory	8,770	7,185	(365)	6,820	06/01/20-33
Dining Commons Hall Renovation - 2005A Ref Portion	1,831	1,389	—	1,389	06/01/25-26
Dorm Renovations - 2005A Ref Portion	1,113	844	—	844	06/01/25-26
Dorm Renovations - 2006B Ref Portion	1,412	1,201	—	1,201	06/01/23-26
Renovate Dormitory	4,660	3,820	(195)	3,625	06/01/20-33
George Mason University					
Construct Student Housing VII & Entrance Rd - 2007B Ref Portion	4,579	4,579	(567)	4,012	06/01/20-25
Construct Student Housing VII - 2007B Refunded Portion	584	584	(72)	512	06/01/20-25
Construct Student Housing VII - 2006B Refunded Portion	9,187	7,822	—	7,822	06/01/23-26
Student Housing Construction, VII - 2005A Ref Portion	10,504	9,533	—	9,533	06/01/25-30
James Madison University					
Construct Dining Hall - 2007B Refunded Portion	8,207	8,207	(1,019)	7,188	06/01/20-25
Renovate Bluestone Residence Hall, Ph 3 - 2007B Ref Portion	893	893	(109)	784	06/01/20-25
Renovate Residence Hall - 2006B Refunded Portion	1,953	1,665	—	1,665	06/01/23-26
Longwood University					
Housing Facility Renovation - 2005A Refunded Portion	472	286	—	286	6/1/2025
Renovate Cox Hall - 2007B Refunded Portion	2,461	2,461	(305)	2,156	06/01/20-25
Renovate Housing Facilities - 2006B Refunded Portion	1,852	1,578	—	1,578	06/01/23-26
Old Dominion University					
Construct Residence Hall, Ph II - 2007B Refunded Portion	6,344	6,344	(785)	5,559	06/01/20-25
Construct Residence Hall, Ph II - 2006B Refunded Portion	2,761	2,352	—	2,352	06/01/23-26
Housing Renovations, Ph I - 2005A Refunded Portion	570	349	—	349	06/01/25
Radford University					
Washington Hall	5,040	4,130	(210)	3,920	06/01/20-33
University of Mary Washington					
Seacobeck Dining Hall - 2005A Refunded Portion	565	344	—	344	6/1/2025
Virginia Commonwealth University					
Monroe Park Housing - 2007B Refunded Portion	3,252	3,252	(405)	2,847	06/01/20-25
Virginia Polytechnic Institute and State University					
Construct New Residence Hall - 2007A Refunded Portion	7,842	7,842	(727)	7,115	06/01/20-27
Improve Residence and Dining Halls - 2007A Refunded Portion	3,576	3,576	(333)	3,243	06/01/20-27
Parking Projects - 2006B Refunded Portion	217	183	—	183	06/01/23-26
Virginia State University					
Construct Dining Hall - 2006B Refunded Portion	1,431	1,219	—	1,219	06/01/23-26
Construct Residence Hall - 2007A Refunded Portion	1,132	1,132	(104)	1,028	06/01/20-27
Construct Residence Halls - 2006B Refunded Portion	5,541	4,719	—	4,719	06/01/23-26
Construct Two Residence Halls - 2007B Refunded Portion	11,231	11,231	(1,394)	9,837	06/01/20-25
Subtotal Series 2013 Bonds	107,980	98,720	(6,590)	92,130	
Series 2014 Bonds					
Christopher Newport University					
New Residence Hall - 2004B Refunded Portion	8,147	3,091	(1,531)	1,560	06/01/20
Residence Hall II - 2004B Refunding Portion	4,210	974	(974)	—	
College Of William and Mary					
Renovate Dormitories - 2004B Refunding Portion	1,666	633	(312)	321	06/01/20
Renovate Dormitories	9,005	7,800	(345)	7,455	06/01/20-34
George Mason University					
Housing Building V - 2004B Refunding Portion	6,306	2,393	(1,186)	1,207	06/01/20
Student Housing VIII	2,235	1,935	(85)	1,850	06/01/20-34
James Madison University					
Bluestone Dormitory Phase II- 2004B Refunding Portion	1,985	754	(373)	381	06/01/20

Series	Amount issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
General Obligation Debt (continued)					
Section 9(c) Debt (continued)					
Higher Educational Institution bonds (Component Units) (continued)					
Series 2014 Bonds (continued)					
Student Housing Phase I Longwood University	46,660	40,435	(1,800)	38,635	06/01/20-34
Dining Hall - 2004B Refunding Portion	934	218	(218)	—	
Residence Hall Improvements - 2004B Refunding Portion Radford University	880	203	(203)	—	
Renovate Residence Halls University of Mary Washington	11,080	9,600	(425)	9,175	06/01/20-34
Residence Hall Renovation - 2004B Refunding Portion University of Virginia	656	247	(123)	124	6/1/2020
Residence Hall - Monroe Lane - 2004B Refunding Portion	1,595	605	(298)	307	6/1/2020
Residence Hall - Wise- 2004B Refunding Portion	1,512	350	(350)	—	
Virginia Polytechnic Institute and State University					
Dining Hall HVAC - 2004B Refunding Portion	587	137	(137)	—	
Subtotal Series 2014 Bonds	97,458	69,375	(8,360)	61,015	
Series 2015 Bonds					
Christopher Newport University					
Construct Residential Housing	18,860	17,565	(695)	16,870	06/01/20-35
Expand Dining Hall	8,960	8,340	(330)	8,010	06/01/20-35
College of William and Mary					
Renovate Graduate St. - 2008B Ref Portion	1,482	1,482	(117)	1,365	06/01/20-28
Renovate Dormitories	10,980	9,925	(395)	9,530	06/01/20-35
George Mason University					
Construct Housing VII & Entrance Road - 2007B Ref Portion	6,817	6,255	—	6,255	06/01/26-32
Construct Student Housing VII - 2006B Refunding Portion	11,765	11,765	—	11,765	06/01/27-31
Construct Student Housing VII - 2007B Refunding Portion	854	781	—	781	06/01/26-32
Renovate President Park, Phase II - 2008B Refunding Portion	1,999	1,999	(161)	1,838	06/01/20-28
Student Housing VII - 2008B Refunding Portion	1,366	1,366	(64)	1,302	06/01/20-33
Student Housing VII - C - 2008B Refunding Portion	17,566	17,566	(832)	16,734	06/01/20-33
James Madison University					
Construct Dining Hall - 2007B Refunding Portion	3,650	2,649	—	2,649	06/01/26-27
Construct New Residence Hall - 2008B Refunding Portion	11,695	11,695	(934)	10,761	06/01/20-28
Renovate Bluestone Residence Hall, Ph 3 - 2007B Ref Portion	403	291	—	291	06/01/26-27
Longwood University					
Renovate Cox Hall - 2007B Refunding Portion	1,089	791	—	791	06/01/26-27
Renovate Cox Hall - 2008B Refunding Portion	2,785	2,785	(225)	2,560	06/01/20-28
Old Dominion University					
Construct Residence Hall, Phase II - 2007B Refunding Portion	2,827	2,050	—	2,050	06/01/26-27
Quad Housing Phase II - 2008B Refunding Portion	24,074	24,074	(1,923)	22,151	06/01/20-28
Radford University					
Renovate Residence Halls	8,820	7,970	(315)	7,655	06/01/20-35
Virginia Commonwealth University					
Monroe Park Housing - 2007B Refunding Portion	6,806	6,411	—	6,411	06/01/26-37
Virginia Polytechnic Institute and State University					
New Residence Hall - 2008B Refunding Portion	10,671	10,671	(851)	9,820	06/01/20-28
Parking Auxiliary Project - 2008B Refunding Portion	921	921	(73)	848	06/01/20-28
Virginia State University					
Construct Two Residence Halls - 2007B Refunding Portion	4,995	3,623	—	3,623	06/01/26-27
Subtotal Series 2015 Bonds	159,385	150,975	(6,915)	144,060	

Continued on next page

Tax-Supported Debt – Detail of Long-term Indebtedness (1) (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Series	Amount issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
General Obligation Debt (continued)					
Section 9(c) Debt (continued)					
Higher Educational Institution bonds (Component Units) (continued)					
Series 2016 Bonds					
Christopher Newport University					
Dorm & Dining Hall 1996 Ref - 2006A Refunding Portion	750	460	(150)	310	06/01/20-21
George Mason University					
Housing VIII - 09B Refunding Portion	6,230	6,230	—	6,230	06/01/20-34
Student Housing VII-C - 2009B Refunding Portion	6,190	6,190	—	6,190	06/01/20-34
James Madison University					
Construct Dining Hall	53,700	50,945	(1,875)	49,070	06/01/20-36
Norfolk State University					
Renovate and Upgrade Dormitories	7,875	7,270	(410)	6,860	06/01/20-31
Radford University					
Renovate Residence Halls	7,160	6,790	(250)	6,540	06/01/20-36
Richard Bland College					
Convert Humanities & Social Science Building to Student Housing	2,465	2,380	(90)	2,290	06/01/20-36
Virginia Polytechnic Institute and State University					
Improve Residence & Dining Halls - 2009B Refunding Portion	2,310	2,310	—	2,310	06/01/20-29
Parking Structure - 2009B Refunding Portion	18,890	18,890	—	18,890	06/01/20-34
Renovate Ambler Johnston Hall - 2009 B Refunding Portion	24,200	24,200	—	24,200	06/01/20-29
Subtotal Series 2016 Bonds	129,770	125,665	(2,775)	122,890	
Series 2018 Bonds					
College of William & Mary					
Renovate Dormitories	13,405	—	13,065	13,065	06/01/20-38
James Madison University					
Construct Dining Hall	16,785	—	16,360	16,360	06/01/20-38
Construct Phillips Dining	24,515	—	23,895	23,895	06/01/20-38
Norfolk State University					
Construct Residential Housing	52,185	—	52,185	52,185	06/01/20-33
Subtotal Series 2018 Bonds	106,890	—	105,505	105,505	
Unamortized Premium					
	—	71,383	2,737	74,120	
Subtotal Higher Educational Institution Bonds					
	1,101,749	836,874	56,232	893,106	
Transportation Facilities Bonds (Primary Government)					
Series 2016, Coleman Refunding 1996 Ref - 2006A Refunding Portion	13,185	8,060	(2,560)	5,500	06/01/20-21
Unamortized Premium	—	854	(293)	561	
Subtotal Transportation Facilities Bonds	13,185	8,914	(2,853)	6,061	
Parking Facilities Bonds (Primary Government)					
Series 2009	13,755	665	(665)	—	
Series 2009 Refunding	2,122	1,380	(320)	1,060	06/01/20-22
Series 2012 Refunding (2004A Ref)	1,061	794	—	794	06/01/23-24
Series 2016 Refunding - 2009B Refunding Portion	5,625	5,625	—	5,625	06/01/20-29
Unamortized Premium	—	1,386	(298)	1,088	
Subtotal Parking Facilities Bonds	22,563	9,850	(1,283)	8,567	
Total Section 9(c) Debt	1,137,497	855,638	52,096	907,734	
Total General Obligation Debt	1,725,792	1,313,402	(3,795)	1,309,607	

Series	Amount issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
Nongeneral Obligation Debt					
Section 9(d) Debt					
Virginia Public Building Authority Bonds (Primary Government)					
Series 2005D	50,000	50,000	—	50,000	08/01/22-25
Series 2008B	150,000	6,955	(6,955)	—	
Series 2009A	40,995	16,700	(3,815)	12,885	08/01/19-21
Series 2009B	265,000	31,960	(15,580)	16,380	08/01/19
Series 2009C	10,000	3,930	(910)	3,020	08/01/19-21
Series 2009D Refunding	42,745	16,415	(5,575)	10,840	08/01/19-21
Series 2010A2 BABs	256,710	228,300	(14,400)	213,900	08/01/19-30
Series 2010B1	87,510	12,920	(12,920)	—	
Series 2010B2 Taxable BABs	195,310	191,285	—	191,285	08/01/19-30
Series 2010B3 Refunding	50,780	48,655	(8,805)	39,850	08/01/19-22
Series 2011A	280,000	49,095	(11,370)	37,725	08/01/19-21
Series 2011B	18,500	14,075	(805)	13,270	08/01/19-31
Series 2012A Refunding	72,415	53,085	(4,155)	48,930	08/01/19-24
Series 2013A	143,400	91,740	(5,395)	86,345	08/01/19-33
Series 2013B Refunding	72,370	72,370	—	72,370	08/01/19-23
Series 2014A	132,875	105,590	(4,725)	100,865	08/01/19-34
Series 2014B Taxable	29,735	26,120	(1,230)	24,890	08/01/19-34
Series 2014C Refunding	298,390	216,965	(30,425)	186,540	08/01/19-27
Series 2015A	232,980	218,340	(7,890)	210,450	08/01/19-35
Series 2015B Refunding	134,730	106,095	(10,170)	95,925	08/01/19-28
Series 2016A	206,420	199,920	(6,830)	193,090	08/01/19-36
Series 2016B Refunding	178,955	177,880	—	177,880	08/01/20-29
Series 2016C AMT	147,420	143,000	(4,625)	138,375	08/01/19-36
Series 2016D Taxable	13,830	13,275	(560)	12,715	08/01/19-36
Series 2017A Refunding	145,325	145,325	—	145,325	08/01/22-31
Series 2018A	160,605	160,605	—	160,605	08/01/19-38
Series 2018B Taxable	17,400	17,400	—	17,400	08/01/19-38
Series 2019A	178,105	—	178,105	178,105	08/01/20-39
Series 2019B Taxable	133,805	—	133,805	133,805	08/01/20-39
Series 2019C AMT	25,040	—	25,040	25,040	08/01/20-24
Unamortized Premium	—	245,808	20,042	265,850	
Total Virginia Public Building Authority					
Bonds	3,771,350	2,663,808	199,852	2,863,660	

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Tax-Supported Debt – Detail of Long-term Indebtedness (1) (Continued from previous page)

For the Fiscal Year Ended June 30, 2019

(Dollars in Thousands)

Series	Amount issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
Nongeneral Obligation Debt					
Section 9(d) Debt					
Virginia College Building Authority Bonds (Component Unit)					
21st Century College Program					
Series 2009A	284,020	13,795	(13,795)	—	
Series 2009E Refunding	208,860	130,725	(20,505)	110,220	02/01/20-24
Series 2009F2 Taxable BABs	390,575	309,525	(21,570)	287,955	02/01/20-30
Series 2010B2 Taxable BABs	290,600	240,365	(17,380)	222,985	02/01/20-30
Series 2011A	272,515	36,970	(17,415)	19,555	02/01/20-21
Series 2012A	335,075	115,705	(19,575)	96,130	02/01/20-32
Series 2012B	349,255	199,170	(14,460)	184,710	02/01/20-33
Series 2013A	331,705	162,345	(18,615)	143,730	02/01/20-34
Series 2014A	319,155	193,445	(18,105)	175,340	02/01/20-34
Series 2014B	27,985	7,045	(1,025)	6,020	02/01/20, 25
Series 2015A	373,230	212,135	(6,905)	205,230	02/01/20-35
Series 2015B Refunding	204,880	195,515	(2,945)	192,570	02/01/20-27
Series 2015C Taxable	6,785	2,880	(1,425)	1,455	02/01/20
Series 2015D1	233,300	218,265	(13,890)	204,375	02/01/20-35
Series 2015D2	56,765	37,165	(8,625)	28,540	02/01/20-22
Series 2016A	360,485	324,285	(16,820)	307,465	02/01/20-36
Series 2016 B Refunding	49,300	49,300	—	49,300	02/01/28-29
Series 2016C	39,980	32,280	(3,785)	28,495	02/01/20-26
Series 2017A	75,100	64,880	(8,605)	56,275	02/01/20-24
Series 2017B Refunding	173,295	158,390	(13,265)	145,125	02/01/20-28
Series 2017C	492,730	471,880	(11,160)	460,720	02/01/20-37
Series 2017D Taxable	99,915	89,760	(9,110)	80,650	02/01/20-27
Series 2017E Refunding	560,555	553,310	(4,330)	548,980	02/01/20, 22-32
Series 2018A	75,685	75,685	(10,395)	65,290	02/01/20-25
Series 2019A	513,245	—	513,245	513,245	02/01/20-39
Unamortized Premium	—	410,314	22,098	432,412	
Total Virginia College Building Authority					
Bonds	6,124,995	4,305,134	261,638	4,566,772	
Transportation Debt (Primary Government)					
Route 28 Refunding Bonds	111,680	73,937	(5,309)	68,628	04/01/20-32
Transportation Revenue Bonds (U.S. Route 58)	195,245	135,305	(34,260)	101,045	05/15/20-26
Northern Virginia Transportation District Program	210,250	132,725	(31,040)	101,685	05/15/20-34
Oak Grove Connector (Chesapeake)	10,100	7,055	(1,640)	5,415	05/15/20-22
Capital Projects	3,427,165	2,258,115	160,005	2,418,120	05/15/20-43
Unamortized Premium	—	267,975	3,713	271,688	
Total Section 9(d) Transportation Debt	3,954,440	2,875,112	91,469	2,966,581	
Virginia Port Authority Debt (Component Unit)					
Series 2011	57,370	57,370	(57,370)	—	
Series 2012	108,015	75,925	(6,695)	69,230	07/01/19-27
Series 2012B	45,230	37,650	(2,810)	34,840	07/01/19-29
Series 2012C	4,795	4,795	—	4,795	07/01/29-30
Series 2015	58,680	58,680	—	58,680	07/01/28-31, 37-40
Series 2018	60,345	—	60,345	60,345	7/1/2019-36
Unamortized Premium	—	9,028	(2,804)	6,224	
Total Virginia Port Authority Debt	334,435	243,448	(9,334)	234,114	

Series	Amount issued	Outstanding June 30, 2018	Issued (Retired) During Year	Outstanding June 30, 2019	Maturity
Nongeneral Obligation Debt					
Section 9(d) Debt					
Virginia Biotechnology Research Partnership					
Authority (Component Unit)					
Series 2009	91,010	17,245	(3,990)	13,255	09/01/19-21
Unamortized Premium	—	1,316	(351)	965	
Total Virginia Biotechnology Research Partnership					
Authority (Component Unit)	91,010	18,561	(4,341)	14,220	
Economic Development Authority Obligations	55,875	27,115	(6,470)	20,645	05/15/20-22
Unamortized Premium	—	3,668	(947)	2,721	
Total Economic Development Authority Obligations	55,875	30,783	(7,417)	23,366	
Total Section 9(d) Debt	14,332,105	10,136,846	531,867	10,668,713	
Nongeneral Obligation Debt and Other Obligations					
Other Long-term Debt					
Capital Leases	—	42,620	(4,228)	38,392	
Installment Purchase Obligations	—	166,705	3,485	170,190	
Total Other Long-term Debt	—	209,325	(743)	208,582	
Other Long-term Obligations					
Compensated Absences	—	631,282	35,504	666,786	
Net Pension Liability	—	6,732,980	(478,070)	6,254,910	
Net OPEB Liability	—	1,544,249	37,125	1,581,374	
Total OPEB Liability	—	1,273,461	(287,872)	985,589	
Other	—	37,911	2,841	40,752	
Total Other Long-term Obligations	—	10,219,883	(690,472)	9,529,411	
Total Nongeneral Obligation Debt and Other Obligations	14,332,105	20,566,054	(159,348)	20,406,706	
Total Tax-Supported Debt and Other Obligations	\$ 16,057,897	\$ 21,879,456	\$ (163,143)	\$ 21,716,313	

(1) Pursuant to GASB Statement No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments*, Governmental Activities include internal service funds.



STATISTICAL SECTION

The financial presentations included in this section present detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Commonwealth's overall financial health.

Statistical schedules related to property taxes are not presented since the Commonwealth does not assess property taxes.

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These schedules contain trend information to help the reader understand how the Commonwealth's financial performance and well-being have changed over time.	
Ten-Year Schedule of Revenues and Expenditures – Modified Accrual Basis – General Governmental Revenues by Source and Expenditures by Function	
Net Position by Component – Accrual Basis of Accounting	
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These schedules contain information to help the reader assess the factors affecting the Commonwealth's ability to generate its income taxes.	
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These schedules present information to help the reader assess the affordability of the Commonwealth's current levels of outstanding debt and the Commonwealth's ability to issue debt in the future.	
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These schedules offer demographic and economic indicators to help the reader understand the environment within which the Commonwealth's financial activities take place and to help make comparisons over time and with other governments.	
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These schedules contain information about the Commonwealth's operations and resources to help the reader understand how the Commonwealth's financial information relates to the services the Commonwealth provides and the activities it performs.	
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Sources: Unless otherwise noted, the information in these schedules is derived from the comprehensive annual financial reports for the relevant year.



Financial Trends

Ten-Year Schedule of Revenues and Expenditures – Modified Accrual Basis
General Governmental Revenues by Source and Expenditures by Function

For Fiscal Year Ended June 30

(Dollars in Millions)

	2019	2018	2017	2016
Tax Revenues:				
Individual and Fiduciary Income	\$ 14,836	\$ 14,141	\$ 13,070	\$ 12,652
Sales and Use	5,457	5,277	5,089	4,984
Motor Fuels	1,084	1,032	997	977
Corporation Income	920	875	806	773
Public Service Corporations	112	112	108	108
Motor Vehicle Sales and Use	972	935	948	910
Communications Sales and Use	359	383	395	405
Gross Premiums of Insurance Companies	552	508	504	490
Alcoholic Beverage Sales	174	161	154	148
Deeds, Contracts, Wills, and Suits	443	505	503	471
Beer and Beverage Excise	42	42	42	43
Estate	—	1	8	—
Tobacco Products	151	161	170	176
Bank Stock	30	24	22	18
Wine and Spirits/ABC Liter	29	29	27	26
Other Taxes	515	133	120	115
Total Tax Revenues	25,676	24,319	22,963	22,296
Other Revenues:				
Federal Grants and Contracts	11,999	10,537	10,392	9,885
Institutional Revenue	210	233	241	267
Sales of Property and Commodities	33	54	40	56
Rights and Privileges	1,129	1,081	1,021	977
Interest, Dividends, and Rents	360	159	146	134
Fines, Forfeitures, Costs, Penalties and Escheats	362	343	354	347
Assessments	151	150	137	137
Other Revenues	1,020	1,849	1,101	995
Total Other Revenues	15,264	14,406	13,432	12,798
Total Revenues	\$ 40,940	\$ 38,725	\$ 36,395	\$ 35,094
Percentage Increase Over Previous Year	5.7%	6.4%	3.7%	2.7%
Expenditures by Function:				
Education	\$ 10,448	\$ 10,129	\$ 9,816	\$ 9,373
Administration of Justice	3,086	3,044	2,875	2,801
Individual and Family Services	16,954	15,641	14,805	14,186
Resources and Economic Development	1,015	926	981	915
Transportation	5,455	6,015	5,732	5,817
General Government (1)	3,522	3,420	3,385	3,527
Capital Outlay	616	504	381	331
Total Expenditures	\$ 41,096	\$ 39,679	\$ 37,975	\$ 36,950
Percentage Increase Over Previous Year	3.6%	4.5%	2.8%	4.8%

(1) General Government expenditure amounts include debt service principal retirement and interest charges.

Source: Department of Accounts

	2015	2014	2013	2012	2011	2010
\$	12,248	\$ 11,659	\$ 11,378	\$ 10,714	\$ 10,050	\$ 8,730
	4,832	4,606	3,935	3,866	3,674	3,553
	887	793	879	900	903	891
	797	774	778	950	827	833
	119	119	116	115	113	112
	846	781	582	538	495	440
	416	422	425	425	556	453
	454	449	396	391	412	391
	140	132	127	121	114	111
	441	395	436	371	335	326
	43	43	43	44	44	44
	—	—	—	—	2	6
	179	182	182	195	175	178
	19	23	20	19	25	24
	26	26	25	24	23	21
	110	95	78	75	77	74
	21,557	20,499	19,400	18,748	17,825	16,187
	9,727	9,681	9,913	9,933	10,749	10,628
	303	325	360	385	384	403
	38	56	35	41	36	32
	978	950	957	921	917	870
	91	144	83	164	159	294
	352	435	366	362	368	343
	137	132	125	120	122	116
	987	739	824	814	712	704
	12,613	12,462	12,663	12,740	13,447	13,390
\$	34,170	\$ 32,961	\$ 32,063	\$ 31,488	\$ 31,272	\$ 29,577
	3.7%	2.8%	1.8%	0.7%	5.7%	9.5%
\$	9,372	\$ 8,970	\$ 8,886	\$ 8,733	\$ 8,682	\$ 8,843
	2,690	2,724	2,566	2,422	2,398	2,399
	13,421	13,196	13,039	12,682	12,688	12,236
	929	912	876	870	886	897
	5,348	5,057	4,613	4,474	3,860	3,401
	3,261	3,238	3,187	3,007	3,129	2,932
	251	194	219	330	439	619
\$	35,272	\$ 34,291	\$ 33,386	\$ 32,518	\$ 32,082	\$ 31,327
	2.9%	2.7%	2.7%	1.4%	2.4%	3.1%

**Net Position by Component
Accrual Basis of Accounting**

Last Ten Fiscal Years
(Dollars in Millions)

	2019	2018	2017	2016
Governmental Activities:				
Net Investment in Capital Assets (1)	\$ 26,032	\$ 25,527	\$ 25,539	\$ 24,309
Restricted	2,194	1,918	954	1,365
Unrestricted	(3,483)	(5,115)	(5,344)	(5,560)
Total Governmental Activities Net Position	24,743	22,330	21,149	20,114
Business-type Activities:				
Net Investment in Capital Assets (1)	40	34	38	33
Restricted	1,485	1,349	1,208	1,045
Unrestricted	947	684	692	508
Total Business-type Activities Net Position	2,472	2,067	1,938	1,586
Primary Government:				
Net Investment in Capital Assets (1)	26,072	25,561	25,577	24,342
Restricted	3,679	3,267	2,162	2,410
Unrestricted	(2,536)	(4,431)	(4,652)	(5,052)
Total Primary Government Net Position	\$ 27,215	\$ 24,397	\$ 23,087	\$ 21,700

(1) Beginning with fiscal year 2013, GASB Statement No. 63 changed the title of Invested in Capital Assets, Net of Related Debt to Net Investment in Capital Assets. Balances reported in prior fiscal years were not affected.

Source: Department of Accounts

2015	2014	2013	2012	2011	2010
\$ 23,407	\$ 22,317	\$ 20,259	\$ 19,891	\$ 18,320	\$ 17,424
1,436	1,465	1,456	1,648	1,171	1,160
(5,406)	(2,820)	(1,531)	(2,216)	(1,596)	(1,887)
19,437	20,962	20,184	19,323	17,895	16,697
34	12	30	34	35	31
845	587	371	179	16	16
500	563	261	143	70	(169)
1,379	1,162	662	356	121	(122)
23,441	22,329	20,289	19,925	18,355	17,455
2,281	2,052	1,827	1,827	1,187	1,176
(4,906)	(2,257)	(1,270)	(2,073)	(1,526)	(2,056)
\$ 20,816	\$ 22,124	\$ 20,846	\$ 19,679	\$ 18,016	\$ 16,575

**Changes in Net Position
Accrual Basis of Accounting**

Last Ten Fiscal Years
(Dollars in Millions)

	2019	2018	2017	2016
Expenses				
Governmental Activities:				
General Government	\$ 3,218	\$ 3,194	\$ 3,119	\$ 3,230
Education	11,104	10,731	10,457	10,178
Transportation	4,927	5,240	4,611	4,528
Resources and Economic Development	1,027	971	1,074	1,008
Individual and Family Services	16,566	15,598	14,708	14,024
Administration of Justice	2,946	2,989	2,853	2,922
Interest and Charges on Long-term Debt	257	167	222	240
Total Governmental Activities Expenses	40,045	38,890	37,044	36,130
Business-type Activities:				
Virginia Lottery	1,643	1,521	1,420	1,415
Virginia College Savings Plan	61	294	206	103
Unemployment Compensation	274	323	348	390
Alcoholic Beverage Control	699	666	632	615
Risk Management	15	10	10	14
Local Choice Health Care	473	460	447	412
Line of Duty	18	18	—	—
Route 460 Funding Corporation of Virginia	—	—	—	1
Virginia Industries for the Blind	50	46	53	42
Consolidated Laboratory	11	11	11	10
eVA Procurement System	21	20	21	23
Department of Environmental Quality Title V	10	10	11	11
Wireless E-911	44	43	44	42
Museum and Library Gift Shops	7	8	7	7
Behavioral Health Canteen and Work Activity	—	—	—	—
Total Business-type Activities Expenses	3,326	3,430	3,210	3,085
Total Primary Government Expenses	\$ 43,371	\$ 42,320	\$ 40,254	\$ 39,215
Program Revenues				
Governmental Activities:				
Charges for Services:				
General Government	\$ 307	\$ 323	\$ 310	\$ 306
Education	684	649	608	563
Transportation	827	756	717	675
Resources and Economic Development	400	386	392	375
Individual and Family Services	280	350	345	365
Administration of Justice	299	283	280	284
Operating Grants and Contributions	10,927	9,871	9,469	9,147
Capital Grants and Contributions	1,528	1,953	1,642	1,467
Total Governmental Activities Program Revenues	15,252	14,571	13,763	13,182

Source: Department of Accounts

2015	2014	2013	2012	2011	2010
\$ 3,267	\$ 3,362	\$ 3,019	\$ 2,878	\$ 2,917	\$ 2,829
9,845	9,431	9,281	9,181	9,086	9,312
4,369	3,602	3,307	3,030	2,839	2,311
970	940	928	985	1,006	1,107
13,277	13,116	12,941	12,712	12,663	12,285
2,751	2,927	2,760	2,639	2,641	2,741
224	238	255	229	228	206
34,703	33,616	32,491	31,654	31,380	30,791
1,300	1,266	1,194	1,121	1,030	998
155	104	156	96	243	294
431	536	584	640	662	923
580	555	533	507	479	469
10	13	12	13	8	7
350	308	296	267	230	231
—	—	—	—	—	—
13	82	67	—	—	—
43	38	31	32	28	28
9	9	8	7	7	6
23	20	20	19	17	19
10	12	11	11	10	10
37	37	42	41	38	48
7	6	7	6	7	2
—	1	1	1	—	1
2,968	2,987	2,962	2,761	2,759	3,036
\$ 37,671	\$ 36,603	\$ 35,453	\$ 34,415	\$ 34,139	\$ 33,827
297	255	250	255	254	248
545	518	448	397	388	380
691	652	680	645	650	611
379	359	345	393	309	306
366	376	413	429	430	411
316	401	322	323	322	308
8,915	8,732	8,820	9,178	9,950	9,951
1,619	1,509	1,754	1,267	1,324	1,603
13,128	12,802	13,032	12,887	13,627	13,818

Continued on next page

Changes in Net Position
Accrual Basis of Accounting (Continued from previous page)

Last Ten Fiscal Years
(Dollars in Millions)

	2019	2018	2017	2016
Business-type Activities:				
Charges for Services:				
Virginia Lottery	2,294	2,140	1,991	2,007
Virginia College Savings Plan	307	296	404	146
Unemployment Compensation	411	461	513	594
Alcoholic Beverage Control	903	845	807	772
Risk Management	13	13	13	9
Local Choice Health Care	482	463	430	393
Line of Duty	18	20	—	—
Virginia Industries for the Blind	51	44	53	42
Consolidated Laboratory	12	12	10	9
eVA Procurement System	21	21	21	21
Department of Environmental Quality Title V	12	9	9	11
Wireless E-911	64	61	60	58
Museum and Library Gift Shops	7	8	7	7
Behavioral Health Canteen and Work Activity	—	—	—	—
Operating Grants and Contributions	—	1	4	—
Capital Contributions	—	—	—	—
Total Business-type Activities Program Revenue	4,595	4,394	4,322	4,069
Total Primary Government Program Revenues	\$ 19,847	\$ 18,965	\$ 18,085	\$ 17,251
Net (Expense)/Revenue				
Governmental Activities	\$ (24,793)	\$ (24,319)	\$ (23,281)	\$ (22,948)
Business-type Activities	1,269	964	1,112	984
Total Primary Government Net Expense	\$ (23,524)	\$ (23,355)	\$ (22,169)	\$ (21,964)
General Revenues and Other Changes in Net Position				
Governmental Activities:				
Taxes:				
Individual and Fiduciary Income	\$ 14,872	\$ 14,118	\$ 13,113	\$ 12,685
Sales and Use	5,458	5,267	5,104	4,994
Corporation Income	924	852	834	773
Motor Fuel	1,084	1,031	998	976
Motor Vehicle Sales and Use	972	935	948	910
Communications Sales and Use	359	383	396	405
Premiums of Insurance Companies	554	517	479	485
Public Service Corporations	112	112	108	108
Other Taxes	1,388	1,055	1,050	1,001
Unrestricted Grants and Contributions	60	61	55	48
Investment Earnings	239	72	65	63
Miscellaneous	369	525	467	282
Special Item	—	—	—	—
Transfers	875	827	770	787
Total Governmental Activities	27,266	25,755	24,387	23,517
Business-type Activities:				
Other Taxes	9	9	9	9
Investment Earnings	2	1	1	1
Miscellaneous	—	—	—	—
Special Items	—	—	—	—
Transfers	(875)	(827)	(770)	(787)
Total Business-type Activities	(864)	(817)	(760)	(777)
Total Primary Government	\$ 26,402	\$ 24,938	\$ 23,627	\$ 22,740
Change in Net Position				
Governmental Activities	\$ 2,473	\$ 1,436	\$ 1,106	\$ 569
Business-type Activities	405	147	352	207
Total Primary Government	\$ 2,878	\$ 1,583	\$ 1,458	\$ 776

Source: Department of Accounts

2015	2014	2013	2012	2011	2010
1,844	1,811	1,690	1,616	1,483	1,436
188	408	301	160	459	371
693	761	790	853	686	524
730	689	662	633	598	584
8	9	5	5	4	5
343	321	285	259	247	241
—	—	—	—	—	—
44	36	30	32	28	30
10	9	7	8	8	7
20	16	16	16	19	17
11	11	11	8	7	10
55	54	62	55	53	53
8	6	8	7	8	2
—	—	—	1	—	—
—	—	—	—	1	4
—	70	61	—	—	—
3,954	4,201	3,928	3,653	3,601	3,284
<u>\$ 17,082</u>	<u>\$ 17,003</u>	<u>\$ 16,960</u>	<u>\$ 16,540</u>	<u>\$ 17,228</u>	<u>\$ 17,102</u>
\$ (21,575)	\$ (20,814)	\$ (19,459)	\$ (18,767)	\$ (17,753)	\$ (16,973)
986	1,214	966	892	842	248
<u>\$ (20,589)</u>	<u>\$ (19,600)</u>	<u>\$ (18,493)</u>	<u>\$ (17,875)</u>	<u>\$ (16,911)</u>	<u>\$ (16,725)</u>
\$ 12,266	\$ 11,681	\$ 11,400	\$ 10,814	\$ 10,050	\$ 8,779
4,830	4,597	3,941	3,885	3,669	3,569
801	770	805	979	852	846
888	792	879	900	903	891
846	781	582	538	495	440
416	420	424	423	557	456
453	460	407	391	406	414
119	119	116	115	113	112
959	896	909	849	795	777
49	49	74	49	48	49
16	44	6	84	63	205
206	234	306	465	286	427
(134)	—	—	—	—	—
728	724	670	668	615	597
<u>22,443</u>	<u>21,567</u>	<u>20,519</u>	<u>20,160</u>	<u>18,852</u>	<u>17,562</u>
9	9	9	9	9	10
2	2	1	1	1	2
—	1	—	—	—	—
34	—	—	—	—	—
(728)	(724)	(670)	(668)	(614)	(597)
(683)	(712)	(660)	(658)	(604)	(585)
<u>\$ 21,760</u>	<u>\$ 20,855</u>	<u>\$ 19,859</u>	<u>\$ 19,502</u>	<u>\$ 18,248</u>	<u>\$ 16,977</u>
\$ 868	\$ 753	\$ 1,060	\$ 1,394	\$ 1,099	\$ 589
303	502	306	234	238	(337)
<u>\$ 1,171</u>	<u>\$ 1,255</u>	<u>\$ 1,366</u>	<u>\$ 1,628</u>	<u>\$ 1,337</u>	<u>\$ 252</u>

**Fund Balance, Governmental Funds
Modified Accrual Basis of Accounting**

Last Ten Fiscal Years
(Dollars in Millions)

	2019	2018	2017	2016
General Fund				
Reserved (1)	\$ —	\$ —	\$ —	\$ —
Unreserved (1)	—	—	—	—
Nonspendable	103	105	127	114
Restricted	669	567	568	908
Committed	1,095	759	482	397
Unassigned	(264)	(588)	(679)	(709)
Total	\$ 1,603	\$ 843	\$ 498	\$ 710
All Other Governmental Funds				
Special Revenue Funds				
Reserved (1)	\$ —	\$ —	\$ —	\$ —
Unreserved (1)	—	—	—	—
Nonspendable	157	159	147	159
Restricted	729	679	570	583
Committed	2,949	2,391	2,148	2,094
Assigned	34	32	29	29
Unassigned	(63)	(98)	(67)	—
Debt Service Funds				
Reserved (1)	—	—	—	—
Restricted	46	42	32	22
Capital Projects Funds				
Unreserved (1)	—	—	—	—
Nonspendable	—	—	—	—
Restricted	1,366	1,292	194	40
Permanent Funds				
Unreserved (1)	—	—	—	—
Nonspendable	39	38	37	34
Restricted	2	2	2	1
Total	\$ 5,259	\$ 4,537	\$ 3,092	\$ 2,962

(1) GASB Statement No. 54 changes in fund balance information presented in this section began with fiscal year 2011. Fund balances prior to fiscal year 2011 were not reclassified because this was deemed impractical. The nature of the difference between fiscal year 2011 forward and all prior years relates to fund balances for those prior years not being reclassified to GASB Statement No. 54 fund classifications. For additional information on fund balance classifications, see Note 3, Fund Balance Classifications.

Source: Department of Accounts

2015	2014	2013	2012	2011	2010
\$ —	\$ —	\$ —	\$ —	\$ —	\$ 395
—	—	—	—	—	(1,069)
120	111	120	118	113	—
1,086	971	962	729	464	—
296	330	503	486	410	—
(653)	(782)	(947)	(821)	(1,046)	—
\$ 849	\$ 630	\$ 638	\$ 512	\$ (59)	\$ (674)
\$ —	\$ —	\$ —	\$ —	\$ —	\$ 410
—	—	—	—	—	2,502
128	104	118	105	111	—
759	880	588	567	422	—
2,244	2,145	2,556	2,923	2,683	—
29	17	14	12	10	—
(60)	—	—	—	—	—
—	—	—	—	—	105
45	44	35	79	68	—
—	—	—	—	—	206
—	—	—	—	—	—
288	53	214	202	145	—
—	—	—	—	—	47
35	34	31	28	29	—
1	1	1	1	1	—
\$ 3,469	\$ 3,278	\$ 3,557	\$ 3,917	\$ 3,469	\$ 3,270

Changes in Fund Balance, Governmental Funds

Modified Accrual Basis of Accounting

Last Ten Fiscal Years
(Dollars in Millions)

	2019	2018	2017	2016
Revenues				
Taxes	\$ 25,676	\$ 24,319	\$ 22,963	\$ 22,296
Rights and Privileges	1,129	1,081	1,021	977
Institutional Revenue	210	233	241	267
Interest, Dividends, Rents, and Other Investment Income	360	159	146	134
Federal Grants and Contracts	11,999	10,537	10,392	9,885
Other	1,566	2,396	1,632	1,535
Total Revenues	40,940	38,725	36,395	35,094
Expenditures				
General Government	2,774	2,692	2,691	2,821
Education	10,448	10,129	9,816	9,373
Transportation	5,455	6,015	5,732	5,817
Resources and Economic Development	1,015	926	981	915
Individual and Family Services	16,954	15,641	14,805	14,186
Administration of Justice	3,086	3,044	2,875	2,801
Capital Outlay	616	504	381	331
Debt Service:				
Principal Retirement	427	433	413	424
Interest and Charges	321	295	281	282
Total Expenditures	41,096	39,679	37,975	36,950
Revenues Over (Under) Expenditures	(156)	(954)	(1,580)	(1,856)
Other Financing Sources (Uses)				
Transfers In	1,989	1,913	1,731	1,673
Transfers Out	(1,106)	(1,086)	(959)	(884)
Notes Issued	19	15	8	4
Insurance Recoveries	2	4	1	1
Capital Leases Issued	1	1	2	1
Bonds Issued	648	1,280	685	274
Premium on Debt Issuance	83	367	174	45
Refunding Bonds Issued	43	1,062	276	76
Sale of Capital Assets	7	22	11	15
Payments to Refunded Bond Escrow Agents	(49)	(1,271)	(331)	(93)
Total Other Financing Sources (Uses)	1,637	2,307	1,598	1,112
Net Change in Fund Balances	\$ 1,481	\$ 1,353	\$ 18	\$ (744)
Debt Service as a Percentage of Noncapital Expenditures (1)	1.92%	1.95%	2.01%	2.05%

(1) Noncapital expenditures exclude expenditures for capital outlay, which are recorded by function. The majority of these expenditures were for Transportation.

Source: Department of Accounts

	2015	2014	2013	2012	2011	2010
\$	21,557	\$ 20,499	\$ 19,400	\$ 18,748	\$ 17,825	\$ 16,187
	978	950	957	921	917	869
	303	325	360	385	384	403
	91	144	83	164	159	294
	9,727	9,681	9,913	9,933	10,749	10,628
	1,514	1,362	1,350	1,337	1,238	1,196
	34,170	32,961	32,063	31,488	31,272	29,577
	2,544	2,538	2,424	2,322	2,439	2,306
	9,372	8,970	8,886	8,733	8,683	8,842
	5,348	5,057	4,613	4,474	3,860	3,401
	929	912	876	870	886	897
	13,421	13,196	13,039	12,682	12,688	12,236
	2,690	2,724	2,566	2,422	2,398	2,399
	251	194	219	330	439	619
	441	421	474	423	456	420
	276	279	289	262	233	206
	35,272	34,291	33,386	32,518	32,082	31,326
	(1,102)	(1,330)	(1,323)	(1,030)	(810)	(1,749)
	1,706	1,661	1,625	1,770	1,498	1,624
	(972)	(927)	(940)	(1,097)	(876)	(1,022)
	7	16	22	10	37	20
	1	—	1	3	8	5
	—	—	—	1	2	1
	671	273	264	1,196	883	941
	150	75	85	217	71	44
	536	277	201	319	51	124
	24	16	96	4	3	4
	(618)	(337)	(258)	(373)	(55)	(146)
	1,505	1,054	1,096	2,050	1,622	1,595
\$	403	\$ (276)	\$ (227)	\$ 1,020	\$ 812	\$ (154)
	2.22%	2.21%	2.58%	2.29%	2.30%	2.04%

Comparison of General Fund Balance

Last Ten Fiscal Years
(Dollars in Millions)

Fiscal Year Ended June 30,	Fund Balance	
	Budgetary Basis	Modified Accrual Basis
2019	\$ 2,799.3	\$ 1,602.7
2018	1,787.0	843.5
2017	1,339.9	498.4
2016	1,478.4	710.3
2015	1,759.2	848.4
2014	1,349.3	629.6
2013	1,820.6	637.9
2012	1,683.4	512.4
2011	1,297.6	(58.8)
2010	870.9	(674.3)

Source: Department of Accounts

Revenue Capacity

Personal Income Tax Rates

Last Ten Fiscal Years
(Dollars in Millions)

For the Fiscal Year Ended June 30,	Personal Income Tax Collections (1)	Personal Income (2)(3)	Average Effective Rate (3)(4)
2019	\$ 15,226	\$ 503,525	3.02%
2018	14,106	480,074	2.94%
2017	13,053	458,896	2.84%
2016	12,556	446,751	2.81%
2015	12,329	432,785	2.85%
2014	11,253	410,473	2.74%
2013	11,340	405,848	2.79%
2012	10,613	396,552	2.68%
2011	9,944	376,231	2.64%
2010	9,088	355,743	2.55%

- (1) Tax revenues from individual and fiduciary income tax.
(2) Personal income amounts provided by U.S. Bureau of Economic Analysis website.
(3) Amounts for fiscal years 2010 through 2018 were revised to reflect the incorporation of newly available and revised source data, as well as improved estimating methodologies.
(4) Average effective rate equals tax collections divided by income.

Sources: Department of Taxation
U.S. Bureau of Economic Analysis

Effective Tax Rates (1)

Tax Years 2009 through 2018

Income Tax Bracket	Tax Rate
\$0 - \$3,000	2.00%
\$3,000 - \$5,000	2.00% - 2.40%
\$5,000 - \$17,000	2.40% - 4.23%
\$17,000 - \$30,000	4.23% - 4.89%
\$30,000 - \$50,000	4.89% - 5.23%
\$50,000 - \$100,000	5.23% - 5.49%
Over \$100,000	5.49% up to 5.75%

- (1) Amounts shown are for all filing status returns.

Source: Department of Taxation

Personal Income Tax Filers and Liability by Income Level (1) (2)

Current Tax Year and Ten Years Ago

Income Level	Tax Year Ended December 31, 2017				Tax Year Ended December 31, 2008			
	Number of Returns	% of Total	Income Tax Liability	% of Total	Number of Returns	% of Total	Income Tax Liability	% of Total
\$100,000 and higher	799,599	20.4%	\$ 8,542,838,999	69.2%	579,238	16.2%	\$ 5,829,040,862	63.4%
\$75,000 - \$99,999	334,855	8.5%	1,234,018,541	10.0%	309,136	8.6%	1,060,465,369	11.5%
\$50,000 - \$74,999	511,778	13.1%	1,227,684,208	10.0%	484,821	13.5%	1,088,973,258	11.8%
\$25,000 - \$49,999	883,857	22.6%	1,070,569,211	8.7%	845,350	23.6%	964,313,720	10.5%
\$10,000 - \$24,999	742,217	18.9%	262,568,501	2.1%	728,949	20.3%	255,284,902	2.8%
\$9,999 and lower	645,453	16.5%	4,738,781	0.0%	639,136	17.8%	3,241,964	0.0%
Total	3,917,759	100.0%	\$ 12,342,418,241	100.0%	3,586,630	100.0%	\$ 9,201,320,075	100.0%

- (1) Due to confidentiality issues, the names of the ten largest revenue payers are not available. The categories presented are intended to provide alternative information regarding the sources of the state's revenue.
- (2) Tax year 2017 is the most recent year for which data are available.

Source: Department of Taxation

Personal Income by Industry

Last Ten Fiscal Years
(Dollars in Millions)

	2019	2018	2017	2016
Farm Earnings	\$ 126	\$ 285	\$ 334	\$ 355
Agricultural/Forestry, Fishing, and Other	528	496	482	469
Mining	679	633	427	265
Construction	19,266	18,260	17,336	16,988
Manufacturing	19,331	18,353	17,506	17,776
Transportation, Warehousing, Information and Public Utilities	18,510	17,346	17,351	17,958
Wholesale Trade	11,419	11,117	10,745	10,523
Retail Trade	16,416	16,035	15,748	15,703
Finance, Insurance, Real Estate, Rental and Leasing	25,549	24,258	22,448	21,387
Services	152,670	146,012	139,280	134,451
Federal, Civilian	28,153	27,176	26,212	25,345
Military	13,413	12,785	12,588	12,831
State and Local Government	38,224	36,992	35,970	35,189
Other (3)	159,241	150,326	142,469	137,511
Total Personal Income	\$ 503,525	\$ 480,074	\$ 458,896	\$ 446,751

(1) Personal income figures for fiscal year 2019 are estimated.

(2) Amounts for fiscal years 2010 through 2018 were revised to reflect the incorporation of newly available and revised source data.

(3) Includes dividends, interest, rental income, residence adjustment, government transfers to individuals, and deductions for social insurance.

Source: U.S. Bureau of Economic Analysis (BEA)

Note: Details may not agree to BEA due to rounding.

2015	2014	2013	2012	2011	2010
\$ 555	\$ 732	\$ 712	\$ 663	\$ 520	\$ 356
410	351	315	288	253	258
516	756	987	1,063	950	755
16,626	15,985	15,680	14,580	13,562	13,192
18,200	17,354	16,919	16,319	15,857	15,580
18,074	17,034	16,156	16,330	16,601	16,634
10,419	9,963	9,808	9,730	9,490	9,023
15,367	14,829	14,416	13,899	13,354	12,976
19,959	19,048	20,271	19,281	17,819	16,116
129,319	123,896	123,296	119,099	114,427	109,028
24,358	23,075	23,026	22,993	22,472	21,146
12,766	12,709	12,967	13,299	13,498	13,596
33,973	32,620	31,433	29,847	29,526	29,576
132,243	122,121	119,862	119,161	107,902	97,507
<u>\$ 432,785</u>	<u>\$ 410,473</u>	<u>\$ 405,848</u>	<u>\$ 396,552</u>	<u>\$ 376,231</u>	<u>\$ 355,743</u>

Taxable Sales by Business Class (1) (2) (3)Last Ten Calendar Years
(Dollars in Millions)

	2018	2017	2016	2015
Alcoholic Beverage	\$ 762	\$ 784	\$ 658	\$ 718
Apparel	5,061	4,986	5,049	5,001
Automotive	3,448	3,234	3,238	3,159
Food	32,935	31,908	31,564	30,627
Fuel	2,318	2,221	2,144	1,967
Furniture, Home Furnishings, and Equipment	2,228	2,338	3,222	2,840
General Merchandise	21,831	21,643	21,686	21,917
Hotels, Motels, Tourist Camps, etc.	3,857	3,738	3,590	3,452
Lumber, Building Materials, and Supply	9,567	7,739	9,123	8,865
Machinery, Equipment, and Supplies	290	287	292	330
Miscellaneous	21,215	22,179	18,888	19,067
Other Miscellaneous and Unidentifiable	2,537	2,520	2,225	2,273
Total	\$ 106,049	\$ 103,577	\$ 101,679	\$ 100,216
Direct Sales Tax Rate (2)	5.3%	5.3%	5.3%	5.3%

(1) Retail sales information is available only on a calendar-year basis.

(2) Effective July 1, 2013, the sales tax rate increased from 5.0 percent to 5.3 percent.

(3) Some prior year amounts may have been revised to reflect the incorporation of newly available and revised source data

Source: Department of Taxation

Weldon Cooper Center for Public Service, University of Virginia

2014	2013	2012	2011	2010	2009
\$ 676	\$ 640	\$ 559	\$ 567	\$ 545	\$ 532
4,918	6,668	6,545	4,749	4,601	4,494
3,024	2,945	2,860	2,717	2,555	2,397
28,972	27,924	27,150	25,691	24,617	24,134
1,864	1,880	1,899	1,828	1,691	1,582
2,663	2,645	2,612	2,538	2,442	1,979
21,693	21,852	21,568	20,635	19,836	19,577
3,238	3,098	3,107	2,988	2,837	2,804
8,589	8,513	8,112	7,750	7,652	7,369
303	300	357	309	243	173
17,994	16,031	16,228	16,341	16,402	17,320
2,270	2,088	2,321	2,955	2,997	3,505
<u>\$ 96,204</u>	<u>\$ 94,584</u>	<u>\$ 93,318</u>	<u>\$ 89,068</u>	<u>\$ 86,418</u>	<u>\$ 85,866</u>
5.3 %	5.3 %	5.0 %	5.0 %	5.0 %	5.0 %

Sales Tax Revenue by Business Class (1)

Tax Year 2018 and Nine Years Ago

	Tax Year Ended December 31, 2018 (2)				Tax Year Ended December 31, 2009			
	Number of Filers	% of Total	Tax Liability	% of Total	Number of Filers	% of Total	Tax Liability	% of Total
Alcoholic Beverage	426	0.4%	\$ 761,552,946	0.7%	332	0.3%	\$ 532,480,521	0.6%
Apparel	3,860	3.8%	5,060,549,375	4.8%	4,195	3.9%	4,493,619,271	5.2%
Automotive	2,974	2.9%	3,447,823,831	3.3%	3,256	3.1%	2,396,542,163	2.8%
Food	22,845	22.4%	32,934,683,862	31.1%	20,264	19.0%	24,133,855,028	28.1%
Fuel	2,385	2.3%	2,318,536,869	2.2%	2,892	2.7%	1,582,080,805	1.8%
Furniture, Home Furnishings, and Equipment	2,235	2.2%	2,228,014,365	2.1%	3,223	3.0%	1,978,611,051	2.3%
General Merchandise	15,327	15.1%	21,830,728,944	20.6%	16,033	15.0%	19,576,996,167	22.8%
Hotels, Motels, Tourist Camps, etc.	2,384	2.3%	3,857,216,436	3.6%	2,173	2.0%	2,804,207,006	3.3%
Lumber, Building Materials, and Supply	5,306	5.2%	9,566,620,798	9.0%	6,006	5.6%	7,368,949,821	8.6%
Machinery, Equipment, and Supply	156	0.2%	289,774,078	0.2%	167	0.2%	173,166,732	0.2%
Miscellaneous	36,973	36.3%	21,215,065,474	20.0%	39,733	37.3%	17,320,317,590	20.2%
Other Miscellaneous and Unidentifiable	6,998	6.9%	2,538,284,145	2.4%	8,390	7.9%	3,505,215,919	4.1%
Total	101,869	100.0%	\$ 106,048,851,123	100.0%	106,664	100.0%	\$ 85,866,042,074	100.0%

(1) Due to confidentiality issues, the names of the ten largest revenue payers are not presented. The categories presented are intended to provide alternative information regarding the sources of the state's revenue.

(2) Tax year 2018 is the most recent year for which data are available.

Sources: Weldon Cooper Center for Public Service, University of Virginia

Debt Capacity

Ratios of Outstanding Debt by Type

Last Ten Fiscal Years

(Amounts in Thousands except Per Capita)

For the Fiscal Year Ended June 30,	Governmental Activities			Business-type Activities		Total Primary Government	Debt as a Percentage of Personal Income (2)	Amount Per Capita (3)
	General Obligation Bonds	Non-General Obligation Bonds	Other Long-term Obligations (1)	Non-General Obligation Bonds	Other Long-term Obligations (1)			
2019	\$ 416,501	\$ 6,982,091	\$ 749,490	\$ —	\$ 518	\$ 8,148,600	1.62%	\$ 951
2018	476,528	7,274,962	171,180	—	—	7,922,670	1.65%	934
2017	538,211	6,245,009	188,640	—	5,025	6,976,885	1.52%	824
2016	601,632	5,826,798	200,227	—	5,359	6,634,016	1.48%	789
2015	675,371	5,911,768	222,877	320,110	5,708	7,135,834	1.65%	851
2014	742,869	5,555,935	233,002	317,305	6,072	6,855,183	1.67%	823
2013	791,992	5,593,228	285,594	314,662	6,453	6,991,929	1.72%	846
2012	873,741	5,703,448	326,543	—	449	6,904,181	1.74%	843
2011	960,374	4,701,764	348,972	—	918	6,012,028	1.60%	743
2010	1,049,386	4,120,056	366,170	—	1,594	5,537,206	1.56%	690

(1) Pension, compensated absences, other postemployment benefits, other liabilities, lottery prizes payable, tuition benefits payable, and pollution remediation obligations have been excluded.

(2) Personal income amounts used for this calculation were obtained from the U. S. Bureau of Economic Analysis.

(3) Population statistics used in this calculation were provided by the Department of Taxation and the Weldon Cooper Center for Public Service at the University of Virginia. Fiscal year 2019 population was estimated.

Sources: Department of Accounts
Department of Taxation
U. S. Bureau of Economic Analysis

Ratios of General Obligation Bonded Debt Outstanding

Last Ten Fiscal Years

(Amounts in Thousands except Per Capita)

For the Fiscal Year Ended June 30,	General Bonded Debt Outstanding [1] [2]				Percentage of Tax Revenues [6]	Amount Per Capita [7]
	Governmental		Higher Education [5]			
	9(b) [3]	9(c) [4]	9(c)	Total		
2019	\$ 401,873	\$ 14,628	\$ 893,106	\$ 1,309,607	8.85%	\$ 153
2018	457,764	18,764	836,874	1,313,402	9.31%	155
2017	515,468	22,743	897,018	1,435,229	11.00%	169
2016	571,915	29,717	877,118	1,478,750	11.78%	176
2015	642,181	33,190	936,857	1,612,228	13.08%	192
2014	706,192	36,677	925,086	1,667,955	14.82%	200
2013	752,493	39,499	877,858	1,669,850	14.73%	202
2012	831,148	42,593	906,474	1,780,215	16.77%	217
2011	914,574	45,800	765,280	1,725,654	17.35%	213
2010	999,841	49,545	631,275	1,680,661	18.49%	209

[1] Beginning with fiscal year 2014, GASB Statement No. 65 removed deferrals of debt defeasance from the debt balances. Balances reported in prior fiscal years netted the deferrals against the debt balances. Amounts are net of unamortized premiums, discounts, deferrals on debt defeasance, and/or issuance expenses.

[2] There are currently no Section 9(a) bonds outstanding.

[3] Section 9(b) bonds have been authorized by the citizens of Virginia through bond referenda to finance capital projects. These bonds are retired through the use of state appropriations.

[4] Section 9(c) bonds are issued to finance capital projects which, when completed, will generate revenue to repay the debt.

[5] While these bonds are issued for and allocated to institutions, they are backed by the full faith and credit of the Commonwealth.

[6] Individual and fiduciary Income tax collections were used for this calculation.

[7] Population statistics used in this calculation are provided by the Department of Taxation and the Weldon Cooper Center for Public Service at the University of Virginia. Fiscal year 2019 population was estimated.

Source: Department of Accounts

Computation of Legal Debt Limit and Margin

Last Ten Fiscal Years
(Dollars in Thousands)

Tax Revenues Required for Computation	2019	2018	2017	2016
Taxes on Income and Retail Sales:				
Individual and Fiduciary Income Tax [1]	\$ 14,801,986	\$ 14,105,766	\$ 13,052,887	\$ 12,555,624
Corporate Income Tax [2]	943,391	861,897	826,961	764,948
State Sales and Use Tax [3]	3,972,960	3,827,078	3,720,552	3,651,400
Total	<u>\$ 19,718,337</u>	<u>\$ 18,794,741</u>	<u>\$ 17,600,400</u>	<u>\$ 16,971,972</u>
Average Tax Revenues (Three Fiscal Years)	\$ 18,704,493	\$ 17,789,038	\$ 17,106,934	\$ 16,376,822

Section 9(a) [2] General Obligation Debt Limit [4]

Debt Issuance Limit				
(30% of 1.15 times annual tax revenues)	\$ 6,802,826	\$ 6,484,186	\$ 6,072,138	\$ 5,855,330
Less Bonds Outstanding:	—	—	—	—
Debt Issuance Margin for Section 9(a) [2]				
General Obligation Bonds	<u>\$ 6,802,826</u>	<u>\$ 6,484,186</u>	<u>\$ 6,072,138</u>	<u>\$ 5,855,330</u>
Debt Applicable to Limit as a % Limit	0.00%	0.00%	0.00%	0.00%

Section 9(b) General Obligation Debt Limit

Debt Issuance Limit				
(1.15 times average tax revenues for three fiscal years)	\$ 21,510,167	\$ 20,457,393	\$ 19,672,974	\$ 18,833,345
Less Bonds Outstanding:**				
Public Facilities Bonds [6]	401,873	457,764	515,468	571,915
Transportation Facilities Refunding Bonds [5] [6]	—	—	—	—
Debt Issuance Margin for Section 9(b)				
General Obligation Bonds	<u>\$ 21,108,294</u>	<u>\$ 19,999,629</u>	<u>\$ 19,157,506</u>	<u>\$ 18,261,430</u>
Debt Applicable to Limit as a % Limit	1.87%	2.24%	2.62%	3.04%

Additional Section 9(b) Debt Borrowing Restriction:

Four-year Authorization Restriction (25% of 9(b) Debt Limit)	\$ 5,377,542	\$ 5,114,348	\$ 4,918,244	\$ 4,708,336
Less 9(b) Debt authorized in past three fiscal years	—	—	—	—
Maximum Additional Borrowing Restriction (amount that may be authorized by the General Assembly)	<u>\$ 5,377,542</u>	<u>\$ 5,114,348</u>	<u>\$ 4,918,244</u>	<u>\$ 4,708,336</u>

Section 9(c) General Obligation Debt Limit

Debt Issuance Limit				
(1.15 times average tax revenues for three fiscal years)	\$ 21,510,167	\$ 20,457,393	\$ 19,672,974	\$ 18,833,345
Less Bonds Outstanding:**				
Parking Facilities Bonds [6]	8,567	9,850	11,101	15,155
Transportation Facilities Bonds [6]	6,061	8,914	11,642	14,562
Higher Educational Institution Bonds [6]	893,106	836,874	897,018	877,118
Debt Issuance Margin for Section 9(c)				
General Obligation Bonds	<u>\$ 20,602,433</u>	<u>\$ 19,601,755</u>	<u>\$ 18,753,213</u>	<u>\$ 17,926,510</u>
Debt Applicable to Limit as a % Limit	4.22%	4.18%	4.68%	4.82%

**Bonds included on this schedule are only those which are backed by the full faith and credit of the Commonwealth.

[1] Includes taxes imposed pursuant to Articles 2 and 9 of Chapter 3, Title 58.1 of the *Code of Virginia*.

[2] Includes taxes imposed pursuant to Article 10 of Chapter 3, Title 58.1 of the *Code of Virginia*.

[3] Includes taxes imposed pursuant to Chapter 6, Title 58.1 of the *Code of Virginia*, less taxes identified in Sections 58.1-605 and 58.1-638.

[4] Debt limit applies only to debt authorized pursuant to Article X, Section 9(a)(2) of the Constitution of Virginia.

[5] These bonds refunded certain Section 9(c) debt, and because the Governor did not certify the feasibility of the refinanced project, it must be applied against the Section 9(b) Debt Limit.

[6] Beginning with fiscal year 2014, GASB Statement No. 65 removed deferrals of debt defeasance from the debt balances. Balances reported in prior fiscal years netted the deferrals against the debt balances. Net of unamortized discounts, premiums, and/or deferral on debt defeasance.

Sources: Department of Accounts
Department of the Treasury

	2015	2014	2013	2012	2011	2010
\$	12,328,675	\$ 11,253,348	\$ 11,339,965	\$ 10,612,836	\$ 9,944,370	\$ 9,088,252
	831,907	757,491	796,728	859,923	822,259	806,473
	3,587,849	3,399,223	3,419,489	3,314,677	3,190,452	3,264,210
\$	16,748,431	\$ 15,410,062	\$ 15,556,182	\$ 14,787,436	\$ 13,957,081	\$ 13,158,935
\$	15,904,892	\$ 15,251,227	\$ 14,766,900	\$ 13,967,817	\$ 13,453,996	\$ 13,543,258
\$	5,778,209	\$ 5,316,471	\$ 5,366,883	\$ 5,101,665	\$ 4,815,193	\$ 4,539,833
	—	—	—	—	—	—
\$	5,778,209	\$ 5,316,471	\$ 5,366,883	\$ 5,101,665	\$ 4,815,193	\$ 4,539,833
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
\$	18,290,626	\$ 17,538,911	\$ 16,981,935	\$ 16,062,990	\$ 15,472,096	\$ 15,574,747
	642,181	706,192	752,493	831,148	914,574	993,372
	—	—	—	—	—	6,469
\$	17,648,445	\$ 16,832,719	\$ 16,229,442	\$ 15,231,842	\$ 14,557,522	\$ 14,574,906
	3.51%	4.03%	4.43%	5.17%	5.91%	6.42%
\$	4,572,656	\$ 4,384,728	\$ 4,245,484	\$ 4,015,747	\$ 3,868,024	\$ 3,893,687
	—	—	—	—	—	—
\$	4,572,656	\$ 4,384,728	\$ 4,245,484	\$ 4,015,747	\$ 3,868,024	\$ 3,893,687
\$	18,290,626	\$ 17,538,911	\$ 16,981,935	\$ 16,062,990	\$ 15,472,096	\$ 15,574,747
	16,036	17,045	17,538	18,383	19,445	21,151
	17,154	19,632	21,961	24,210	26,355	28,394
	936,857	925,086	877,858	906,474	765,280	631,275
\$	17,320,579	\$ 16,577,148	\$ 16,064,578	\$ 15,113,923	\$ 14,661,016	\$ 14,893,927
	5.30%	5.48%	5.40%	5.91%	5.24%	4.37%

**Schedule of Pledged Revenue Bond Coverage
Primary Government 9(d) General Long-term Debt**

Last Ten Fiscal Years
(Dollars in Thousands except Coverage)

	For the Fiscal Year Ended June 30,	Beginning Balance, as restated (1)	Pledged Revenues	Operating Expenses (2)	Net Available for Debt Service	Debt Service Requirements (3) (4)		Coverage
						Principal	Interest	
Primary Government Revenue Bonds:								
Route 460 Funding Corporation of	2019	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	—
Virginia (4) (5)	2018	—	—	—	—	—	—	—
(Series 2012A and 2012B CAB)	2017	—	—	—	—	—	—	—
	2016	1,261	—	436	825	—	—	—
	2015	(20,991)	—	524	(21,515)	—	11,726	(1.83)
	2014	(8,958)	—	448	(9,406)	—	12,084	(0.78)
	2013	—	—	130	(130)	—	—	—

(1) The Route 460 Funding Corporation of Virginia was restated due to the implementation of GASB Statement No. 65 in fiscal year 2014.

(2) Operating expenses are exclusive of principal and interest.

(3) Includes principal and interest of revenue bonds only. Does not include debt defeasance transactions.

(4) This entity was established in fiscal year 2013. No debt service payments were required during fiscal year 2013.

(5) The Route 460 Funding Corporation of Virginia continuing operations ceased during fiscal year 2016.

Source: Department of Accounts

Demographic and Economic Information

Schedule of Demographic and Economic Statistics

Last Ten Fiscal Years

Fiscal Year	Population In Thousands (1)	Personal Income In Thousands (2)(3)	Per Capita Income (3)	Public Primary and Secondary School Enrollment	Unemployment Rate
2019	8,566	\$ 503,523,403	\$ 58,782	1,298,083	2.9 %
2018	8,481	480,073,267	56,606	1,290,513	3.3 %
2017	8,470	458,896,890	54,179	1,293,049	4.0 %
2016	8,412	446,748,985	53,109	1,267,591	4.1 %
2015	8,383	432,784,615	51,626	1,279,773	4.9 %
2014	8,326	410,470,527	49,300	1,273,211	5.2 %
2013	8,260	405,848,686	49,134	1,264,880	5.6 %
2012	8,186	396,552,026	48,443	1,258,521	6.0 %
2011	8,097	376,229,162	46,465	1,253,038	6.5 %
2010	8,026	355,744,649	44,324	1,245,937	7.0 %

(1) Population figures are estimated.

(2) Personal income amount for fiscal year 2019 is estimated.

(3) Amounts for fiscal years 2010 through 2018 were revised to reflect the incorporation of newly available and revised source data, as well as improved estimating methodologies.

Sources: Department of Education
Department of Taxation
Virginia Employment Commission
U.S. Bureau of Economic Analysis
Weldon Cooper Center for Public Service at the University of Virginia

Principal Employers (1)

Current Year and Nine Years Ago (2)

Employer	2018	2009
U.S. Department of Defense	1	1
Wal-Mart	2	2
Fairfax County Public Schools	3	3
Sentara Healthcare	4	6
Huntington Ingalls Industries, Inc.	5	4
Food Lion	6	7
U. S. Postal Service	7	5
County of Fairfax	8	8
Inova Health System (3)	9	-
U. S. Department of Homeland Defense (3)	10	-

(1) The Virginia Employment Commission is precluded from disclosing the actual number of employees per the Confidential Information Protection and Statistical Efficiency Act – Title V of Public Law 107-347. All Employers above have an employment size of 1,000 or more.

(2) Calendar year 2018 is the most recent information available.

(3) Previous ranking not available.

Source: Virginia Employment Commission (1)

Operating Information

State Employees by Function (1)

Last Ten Fiscal Years

	2019	2018	2017	2016
General Government				
Virginia Information Technologies Agency	203	208	207	213
Department of Taxation	854	856	846	862
Department of General Services	623	591	596	594
All other	1,791	1,746	1,760	1,730
Education				
Colleges and Universities	68,350	65,079	66,305	64,450
All other	2,805	2,323	2,853	2,714
Transportation				
Department of Transportation	7,661	7,745	7,806	7,601
Department of Motor Vehicles	2,137	2,016	2,074	2,078
All other	342	331	330	317
Resources and Economic Development				
Department of Conservation & Recreation	1,076	1,125	1,103	1,130
Department of Environmental Quality	789	797	803	814
All other	2,889	2,997	2,991	2,935
Individual and Family Services				
Department of Health	3,445	3,431	3,559	3,408
Behavioral Health Agencies	5,808	5,971	6,285	6,628
All other	5,410	5,444	5,509	5,539
Administration of Justice				
Department of State Police	2,704	2,675	2,654	2,725
Department of Juvenile Justice	1,883	1,876	1,934	2,057
Correctional Facilities	9,424	9,433	9,436	9,731
All other	6,654	6,577	6,538	6,552
Business-type Activities				
Alcoholic Beverage Control	2,280	2,355	1,682	2,737
Virginia Lottery	296	279	279	285
All other	113	102	100	96
State Total (2)	127,537	123,957	125,650	125,196

(1) Includes salaried and wage employees but excludes adjunct faculty.

(2) Totals have been rounded and may vary slightly from the Department of Human Resource Management reports.

Source: Department of Human Resource Management

2015	2014	2013	2012	2011	2010
260	263	270	262	261	295
855	877	873	917	976	1,044
608	614	621	624	634	654
1,675	1,663	1,677	1,571	1,936	1,608
56,777	56,086	55,223	53,979	49,107	47,981
2,634	2,663	2,662	2,667	3,287	3,276
7,372	7,365	7,212	7,167	7,024	6,852
2,023	2,040	1,999	1,926	1,949	1,900
263	198	193	190	242	233
1,106	747	1,165	933	909	930
826	822	779	731	743	768
2,957	2,950	2,898	2,957	3,001	2,874
3,565	3,593	3,646	3,784	3,827	3,856
7,378	7,629	8,314	8,803	8,757	8,635
5,505	5,545	5,804	5,740	5,576	5,622
2,773	2,792	2,779	2,640	2,627	2,533
2,086	2,339	2,405	2,499	2,380	2,442
9,272	9,922	9,738	9,656	9,656	9,623
6,505	6,579	6,606	6,363	6,262	6,314
2,294	2,272	2,182	3,306	2,483	2,461
284	279	275	270	267	257
100	94	84	81	82	77
117,118	117,332	117,405	117,066	111,986	110,235

Operating Indicators by Function

Last Ten Fiscal Years

	2019	2018	2017
General Government			
Virginia Department of Taxation			
Number of Returns Processed (calendar year) (1)	Not yet available	7,935,274	7,842,664
Education			
State Council of Higher Education			
Number of Students Enrolled at State-supported Colleges and Universities	521,471	521,444	524,340
Department of Education			
Number of Public Primary and Secondary School Enrollment	1,298,083	1,290,513	1,293,049
Resources and Economic Development			
Department of Environmental Quality			
Number of Permits Issued	3,020	2,719	5,393
Number of Inspections Conducted	5,971	6,095	8,706
Department of Housing and Community Development			
Number of Housing Units Improved to Define Standards through Housing Programs	3,333	2,413	3,614
Department of Agriculture and Consumer Services			
Number of Food Inspections Conducted	9,986	9,576	9,175
Number of Weights/Measure Equipment Inspected	101,551	98,643	83,558
Department of Forestry			
Number of Firefighters Trained in Forest Fire Control	794	707	982
Individual and Family Services			
Office of Children's Services			
Number of Youth Served	15,645	15,233	15,042
Department for Aging and Rehabilitative Services			
Number of Medicare Recipients	1,628,702	1,492,436	1,420,405
Department of Medical Assistance Services			
Number of Medicaid Recipients	1,486,511	1,310,815	1,300,028
Department of Behavioral Health and Developmental Services (2)			
Number of Patients Served	1,944	1,982	2,058
Number of Beds Used	2,255	2,306	2,448
Department of Social Services			
Average Number of Households Receiving Food Stamps	343,417	354,783	372,773
Number of Households Receiving Child Support Enforcement Assistance	292,176	302,984	304,565
Department of Health			
Number of WIC Participants	196,435	201,461	223,931
Number of Childhood Immunizations Administered	1,287,433	1,319,475	1,410,886
Administration of Justice			
Supreme Court			
Number of Criminal Trials (calendar year)	639,056	640,340	642,593
Number of Civil Trials (calendar year)	1,317,267	1,290,994	1,166,949
Number of Traffic Hearings (calendar year)	1,622,583	1,659,637	1,622,252
Compensation Board			
Number of Constitutional Officers Receiving Financial Support	652	651	652
Department of State Police			
Number of Traffic Citations Issued (calendar year)	456,318	479,208	495,404
Number of Arrests (calendar year)	20,130	19,565	20,872
Department of Corrections			
Number of Inmates	29,938	29,912	29,991

2016	2015	2014	2013	2012	2011	2010
7,849,647	7,746,235	7,575,225	7,520,463	7,446,060	6,969,581	6,998,747
528,673	534,280	537,370	539,025	535,294	519,772	501,866
1,267,591	1,279,773	1,273,211	1,264,880	1,258,521	1,253,038	1,245,937
2,564	7,173	5,890	1,750	4,063	2,486	2,780
7,962	7,848	8,307	9,044	9,834	10,441	11,804
3,031	3,491	3,677	7,396	7,279	7,675	7,231
8,246	5,583	8,886	10,441	12,966	12,003	13,516
79,876	82,355	76,342	62,488	68,292	66,760	53,329
892	1,178	1,233	1,197	1,178	1,192	1,123
16,135	15,700	15,025	13,516	15,425	16,617	17,242
1,358,179	1,328,435	1,203,462	1,244,136	1,190,827	1,143,243	1,122,522
1,319,227	1,255,960	1,177,922	1,046,790	996,835	992,816	937,522
2,104	2,229	2,269	2,455	2,608	2,724	2,754
2,619	2,813	2,822	3,071	3,471	3,317	3,396
391,632	411,768	451,640	453,244	434,223	396,613	350,599
310,933	314,377	320,942	347,729	349,661	352,825	359,317
239,711	249,499	244,181	267,465	270,962	270,219	275,580
1,371,582	1,534,373	1,675,572	1,736,396	1,439,233	1,773,402	1,602,907
642,216	686,795	699,270	720,630	708,943	697,360	705,777
1,166,073	1,171,042	1,232,899	1,264,219	1,299,053	1,289,633	1,372,483
1,714,779	1,903,845	1,887,252	1,891,207	1,956,836	2,069,668	2,143,109
649	650	649	651	650	650	650
592,670	644,218	686,812	588,307	550,122	567,480	686,173
22,320	20,608	21,777	19,611	19,460	20,132	22,713
30,038	30,258	30,275	29,803	29,685	32,116	31,735

Continued on next page

Operating Indicators by Function (Continued from previous page)

Last Ten Fiscal Years

	2019	2018	2017
Business-type Activities			
Virginia Lottery			
Number of Plays Sold - Pick 3	329,229,522	296,627,276	276,560,578
Number of Plays Sold - Pick 4	326,360,467	302,727,557	291,852,118
Number of Plays Sold - Cash 5	33,818,907	33,202,456	31,427,856
Number of Plays Sold - Megamillions	166,953,172	130,782,622	84,351,249
Number of Plays Sold - Win for Life (3)	—	—	—
Number of Plays Sold - Decades of Dollars (3)	—	—	—
Number of Plays Sold - Millionaire Raffle	7,500,000	7,491,580	6,600,000
Number of Plays Sold - Powerball (4)	125,460,795	110,388,116	112,705,215
Number of Plays Sold - Bank A Million (5)	13,184,754	13,282,492	13,460,880
Number of Plays Sold - Money Ball (6) (7)	—	—	—
Number of Plays Sold - Cash 4 Life (6)	18,174,238	15,241,200	15,314,148
Number of Plays Sold - Print 'n Play (8)	50,562,452	45,434,462	39,890,998
Number of Tickets Sold - Instant Tickets	1,221,921,293	1,184,641,974	1,117,709,151
Number of Tickets Sold - Digital E-games (9)	399,969	—	—
Virginia College Savings Plan			
Number of Virginia529 Prepaid529 Tuition Contractholders	62,514	63,073	64,072
Virginia Employment Commission			
Number of Individuals Receiving Unemployment Benefits	64,932	66,632	75,012
New Unemployment Benefit Claims	134,411	141,554	160,952

- (1) Information for fiscal year 2019 is not yet available.
- (2) This agency is structured to provide services primarily in a community setting. Although they have a significant amount of capital and operating costs in facility operations, inpatient treatment methodology is being deemphasized over time. Their inpatient census will continue to decline in the future. Over \$250 million of community funding (state and Federal dollars) each fiscal year supports 40 community services boards across the Commonwealth. These entities serve approximately 300,000 Virginians each year.
- (3) Win for Life and Decades for Dollars ended during fiscal year 2015; therefore, information for fiscal year 2016 and thereafter is not available.
- (4) Powerball began during fiscal year 2010; therefore, information for fiscal year 2009 and prior years is not available.
- (5) Bank A Million began during fiscal year 2016; therefore, information for fiscal year 2015 and prior years is not available.
- (6) Money Ball and Cash 4 Life began during fiscal year 2015; therefore, information for fiscal year 2014 and prior years is not available.
- (7) Money Ball ended during fiscal year 2016; therefore, information for fiscal year 2017 and thereafter is not available.
- (8) Fast Play Bingo was renamed Print 'n Play during fiscal year 2017.
- (9) Digital E-games, which are available through the Lottery Mobile App, began during fiscal year 2019; therefore, information for fiscal 2018 and prior is not available.

2016	2015	2014	2013	2012	2011	2010
272,748,955	272,253,482	265,144,318	253,682,839	243,270,273	241,963,816	246,899,030
279,841,494	268,645,030	244,143,030	232,184,205	222,774,015	207,174,550	197,460,420
30,419,782	29,895,533	30,114,799	28,302,849	26,677,286	26,657,009	28,242,740
87,404,430	94,283,607	115,298,827	89,518,093	140,240,940	138,496,457	174,882,294
—	2,979,902	14,870,716	15,950,166	17,682,922	21,052,138	28,440,948
—	9,365,110	12,236,092	13,243,504	15,467,376	8,377,354	—
6,600,000	6,600,000	6,600,000	6,945,500	6,625,456	6,600,000	6,600,000
163,892,079	96,580,238	113,724,880	145,690,841	89,046,990	66,614,340	34,562,352
14,520,460	—	—	—	—	—	—
2,616,104	16,766,958	—	—	—	—	—
19,037,030	3,812,708	—	—	—	—	—
29,243,465	24,205,141	20,095,274	16,581,338	12,094,785	8,915,566	6,884,748
1,100,574,151	1,018,488,394	988,592,675	887,139,810	842,121,604	756,837,222	711,155,383
—	—	—	—	—	—	—
65,101	66,364	70,490	68,637	69,847	70,955	71,373
87,685	92,762	115,155	127,091	136,753	162,025	190,370
185,558	202,040	253,310	284,218	318,935	360,657	418,431

Sources: Compensation Board
 Comprehensive Services for At-Risk Youth and Families
 Department for Aging and Rehabilitative Services
 Department of Agriculture and Consumer Services
 Department of Behavioral Health and Developmental Services
 Department of Corrections
 Department of Education
 Department of Environmental Quality
 Department of Forestry
 Department of Health
 Department of Housing and Community Development
 Department of Medical Assistance Services
 Department of Social Services
 Department of State Police
 Department of Taxation
 Department of Transportation
 State Council of Higher Education
 Supreme Court
 Virginia College Savings Plan
 Virginia Employment Commission
 Virginia Lottery

Capital Asset Statistics by Function (1)

Last Ten Fiscal Years

	2019	2018	2017
General Government			
Department of General Services			
Number of Buildings	65	66	66
Total Square Footage of Buildings	5,301,474	5,351,754	5,351,754
Vehicles	13,425	14,021	14,920
Education			
State Council of Higher Education			
Campuses of In-State Institutions	265	258	255
Campuses of Out-of-State Institutions	117	120	134
Transportation			
Department of Transportation			
Bridges Maintained (1)	Not yet available	13,175	13,106
State Maintained Highway Lane Miles (calendar year) (1)	Not yet available	72,522	72,397
Vehicles	6,992	7,401	7,567
Number of Buildings (2)	3,520	3,533	3,485
Total Square Footage of Buildings	8,427,682	8,346,916	8,264,527
Resources and Economic Development			
Department Conservation & Recreation			
State Parks	39	39	39
Acres of State Parks (in thousands)	74	73	73
Natural Area Preserves	39	39	39
Acres of Natural Area Preserves (in thousands)	31	33	35
Historic Sites	3	3	3
Acres of Historic Sites (in thousands)	0.3	0.3	0.3
Number of Buildings (3)	1,417	1,405	1,359
Total Square Footage of Buildings	2,816,696	2,789,799	2,562,851
Department of Forestry			
State Forests	24	24	24
Buildings	295	295	295
Total Square Footage of Buildings	600,602	600,602	600,602
Individual and Family Services			
Department of Behavioral Health and Developmental Services			
Number of Buildings	392	394	407
Total Square Footage of Buildings	5,409,231	5,413,168	5,568,709
Administration of Justice			
Department of State Police			
Number of Stations	67	67	66
Number of Buildings	147	147	147
Total Square Footage of Buildings	685,109	685,109	685,109
Department of Corrections			
Number of Buildings	1,857	1,854	1,849
Total Square Footage of Buildings	12,107,287	12,165,957	12,082,187
Business-type Activities			
Alcoholic Beverage Control			
Number of Buildings	23	23	23
Total Square Footage of Buildings	1,174,901	1,174,901	1,174,901

(1) Information not yet available for fiscal year 2019.

(2) Includes storage sheds

(3) Includes cabins

2016	2015	2014	2013	2012	2011	2010
64	65	63	62	62	54	55
4,901,754	5,032,991	5,026,991	4,961,416	4,961,416	5,259,506	5,053,912
14,519	14,669	14,769	14,424	14,161	13,983	13,534
246	231	276	252	262	250	244
129	132	146	142	158	166	121
13,101	13,098	13,089	13,049	13,042	12,926	12,949
75,096	72,210	72,089	71,937	71,779	71,668	71,561
7,754	7,503	7,768	7,762	7,797	7,593	7,734
3,489	3,492	3,488	3,501	3,487	3,520	3,513
8,262,042	8,269,556	8,158,974	8,119,018	7,830,447	7,916,019	7,713,617
39	39	37	37	37	37	37
73	71	68	67	69	69	71
39	39	39	39	39	39	39
34	34	34	35	31	30	30
3	3	3	3	3	3	3
0.3	0.3	0.3	0.3	0.3	0.3	0.3
1,359	1,360	1,345	1,345	1,164	1,164	1,164
2,562,851	2,583,309	2,560,662	2,560,662	1,152,257	1,152,257	1,152,257
23	23	23	23	22	22	19
295	295	295	295	295	295	295
600,602	600,602	600,602	600,602	600,602	600,602	600,602
407	409	409	408	407	429	438
5,568,709	5,571,068	5,534,625	5,523,762	5,169,937	5,901,505	5,744,389
66	65	65	65	65	65	64
147	147	147	148	144	145	145
685,109	685,109	685,109	681,987	562,736	562,736	562,736
1,858	1,823	1,843	1,881	1,858	1,820	1,835
12,105,357	11,826,751	11,799,780	11,889,055	11,872,765	11,771,319	11,920,234
24	24	24	24	25	25	25
1,180,501	1,180,501	1,180,501	1,180,501	1,185,501	1,185,501	1,185,501

Sources: Department of Conservation and Recreation
Department of Forestry
Department of Motor Vehicles
Department of State Police

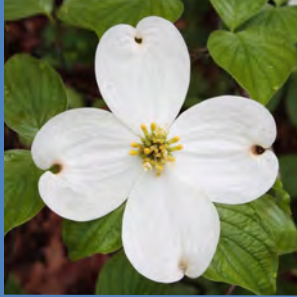
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This report is available for download from Department of Accounts' website. Our Internet address is www.doa.virginia.gov.



COMMONWEALTH OF VIRGINIA SINGLE AUDIT REPORT

FOR THE YEAR ENDED
JUNE 30, 2019

Auditor of Public Accounts
Martha S. Mavredes, CPA
www.apa.virginia.gov
(804) 225-3350



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AUDITOR'S SECTION

EXECUTIVE SUMMARY

The results of our **financial statement audit** of the Commonwealth of Virginia for the year ended June 30, 2019, are summarized as follows:

- we issued an unmodified opinion on the basic financial statements;
- we found certain matters that we consider to be material weaknesses or significant deficiencies in internal control over financial reporting; and
- we identified instances of noncompliance or other matters required to be reported under Government Auditing Standards related to the basic financial statements.

The results of our **single audit** of the Commonwealth of Virginia for the year ended June 30, 2019, are summarized as follows:

- we issued an unmodified opinion on the Commonwealth's compliance with requirements applicable to each major federal program;
- we found certain matters and instances of noncompliance with selected provisions, which are required to be reported in accordance with the Uniform Guidance, 2 C.F.R. Part 200;
- we did not identify any matters that we consider to be material weaknesses in internal control over compliance;
- we found certain matters that we consider to be significant deficiencies in internal control over compliance; and
- the Schedule of Expenditures of Federal Awards is fairly stated in all material respects in relation to the financial statements as a whole.

Our audit findings, along with a summary of the views of officials, are reported in the accompanying "Schedule of Findings and Questioned Costs." Consistent with prior years, unabridged views of responsible officials concerning audit findings are in the report related to their agency, which can be found at www.apa.virginia.gov. Management's Corrective Action Plan will be available from the Federal Audit Clearinghouse web site and the Virginia Department of Accounts' web site at www.doa.virginia.gov.



Martha S. Mavredes, CPA
Auditor of Public Accounts

Commonwealth of Virginia

Auditor of Public Accounts

P.O. Box 1295
Richmond, Virginia 23218

February 7, 2020

The Honorable Ralph S. Northam
Governor of Virginia

The Honorable Thomas K. Norment, Jr.
Chairman, Joint Legislative Audit
and Review Commission

We are pleased to submit the [Commonwealth of Virginia Single Audit Report](#) for the fiscal year ended June 30, 2019.

This report contains our:

- report on internal control over financial reporting and compliance;
- report on compliance for each major federal program;
- report on internal control over compliance;
- report on the Schedule of Expenditures of Federal Awards; and
- resulting Schedule of Findings and Questioned Costs.

Additionally, this report contains management's:

- Summary Schedule of Prior Audit Findings; and
- Schedule of Expenditures of Federal Awards, with footnotes.

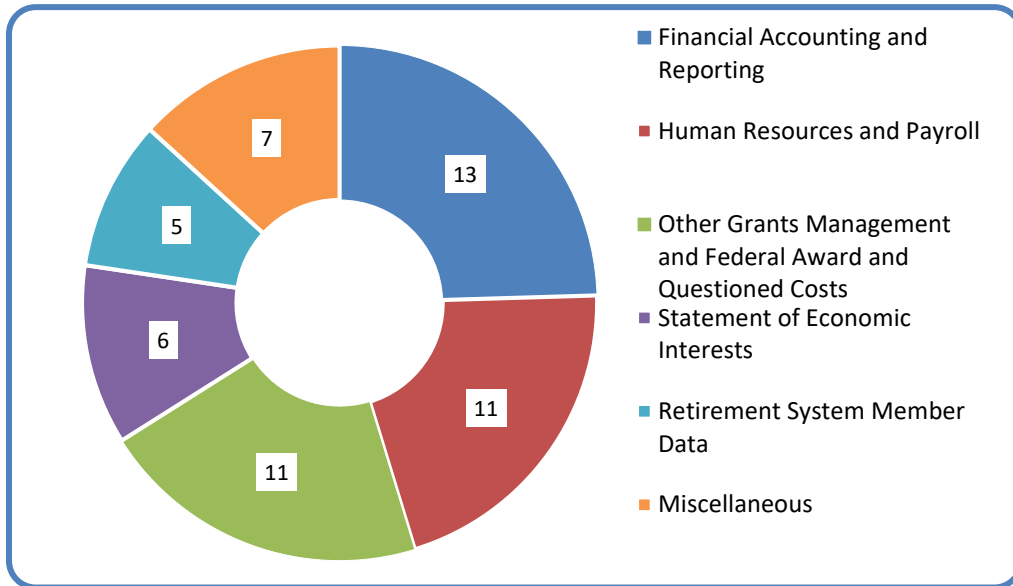
The Commonwealth's [Comprehensive Annual Financial Report](#) for the year ended June 30, 2019, and our report thereon have been issued under separate cover.

As in previous years, we included two listings of all findings in Appendix I of this report. The first list organizes all findings by topical area and the second list organizes all findings by the applicable entity. Additionally, because information security findings are a substantial number of the Commonwealth's findings, we continue to provide additional information about these findings. The Commonwealth of Virginia's Information Security Standard, SEC 501 (Security Standard) adopts the Information System Security Control Families (families) from the National Institute of Standards and Technology (NIST). The Security Standard uses these families to organize the controls that the Commonwealth is required to apply to its information systems. According to NIST, a family "contains security controls related to the general security topic of the family. Security controls may involve aspects of policy, oversight, supervision, manual processes, actions by individuals, or automated mechanisms implemented by information systems and devices."

Chart 1 on the next page shows the categories for all non-information system security findings and Chart 2 shows the control families impacted by the issues reported in the information system security findings.

Non-Information System Security Findings

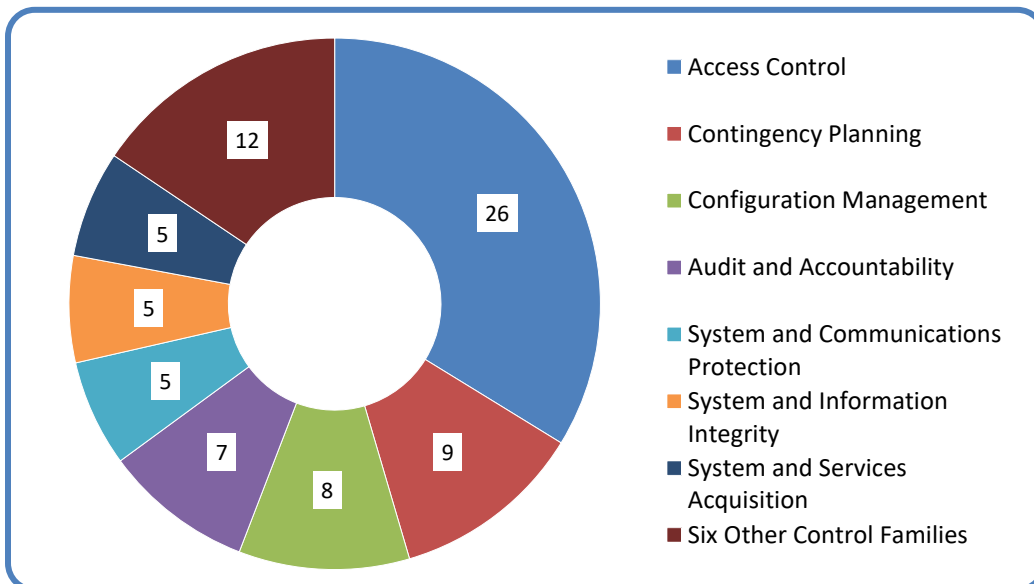
Chart 1



Of the 53 findings above in Chart 1, four represent weaknesses that are material to the Commonwealth’s Comprehensive Annual Financial Report. Additionally, there are 55 information system security findings represented in Chart 2 below. Consistent with recent years, access control represents approximately one third of the weaknesses related to information system security.

Information System Security Findings by Control Families

Chart 2



Note: Twelve findings reported deficiencies with multiple control families. For this graph, these deficiencies are broken-out and included to the total of each control family impacted.

We would like to express our appreciation to the many individuals whose efforts assisted in preparing this report and recognize the Commonwealth's management and federal program and financial staff for their cooperation and assistance in resolving single audit issues.

Martha S. Mavredes
Martha S. Mavredes
AUDITOR OF PUBLIC ACCOUNTS

GDS/clj



Martha S. Mavredes, CPA
Auditor of Public Accounts

Commonwealth of Virginia

Auditor of Public Accounts

P.O. Box 1295
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INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth of Virginia, as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Commonwealth's basic financial statements, and have issued our report thereon dated December 13, 2019. Our report includes a reference to other auditors who audited the financial statements of the Virginia College Savings Plan (major fund and private purpose trust fund), which is discussed on pages 53 and 262 of the financial statements, and certain blended and discretely presented component units of the Commonwealth, as described in our report on the Commonwealth's financial statements and Note 1.B. of the financial statements. This report does not include the results of the other auditors' testing of internal control over financial reporting or compliance and other matters that are reported on separately by those auditors. The financial statements of the Science Museum of Virginia Foundation, Virginia Museum of Fine Arts Foundation, Library of Virginia Foundation, and Danville Science Center, Inc, which were audited by other auditors upon whose reports we are relying, were audited in accordance with auditing standards generally accepted in the United States of America, but not in accordance with Government Auditing Standards.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Commonwealth's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Commonwealth's internal control. Accordingly, we do not express an opinion on the effectiveness of the Commonwealth's internal control.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and; therefore, material weaknesses or significant deficiencies may exist that have not been identified. However, as described in the accompanying Schedule of Findings and Questioned Costs, we identified certain deficiencies in internal control that we consider to be material weaknesses and significant deficiencies.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A **MATERIAL WEAKNESS** is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. We consider the deficiencies in internal control over financial reporting in the accompanying Schedule of Findings and Questioned Costs, labeled with the following numbers and titles, to be **material weaknesses**:

<u>Finding Number</u>	<u>Finding Title</u>
2019-001	Improve Controls Over Financial Reporting
2019-002	Strengthen Controls over Year-End Accrual Reporting
2019-003	Improve Financial Reporting for Accounts Receivable
2019-004	Improve Controls over SNAP Payments

A **SIGNIFICANT DEFICIENCY** is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance. We consider the deficiencies in the accompanying Schedule of Findings and Questioned Costs, labeled with the following numbers, to be **significant deficiencies**:

Finding Numbers: 2019-

005	006	007	008	009	010	011	012
013	014	015	016	017	018	019	020
021	022	023	024	025	026	027	028
029	030	031	032	033	034	035	036
037	038	039	040	041	042	043	044
045	046	047	048	049	050	051	052
053	054	055	056	057	058	059	060
061	062	063	064	065	066	067	068
069	070	071	072	073	074	075	076
077	078	079	080	081	082	083	084
085	086	088	089	090	091	092	093
094	095	096	097	098	099		

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Commonwealth's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed instances of **NONCOMPLIANCE** or **OTHER MATTERS** that are required to be reported under Government Auditing Standards and which are described in the accompanying Schedule of Findings and Questioned Costs labeled with the following numbers:

Finding Numbers: 2019-

004	014	015	016	017	018	019	020
021	022	023	024	025	026	027	028
029	030	031	032	033	034	035	036
037	038	039	040	041	042	043	044
045	046	047	048	049	050	051	052
053	054	055	056	057	058	059	060
061	062	063	064	065	066	067	075
077	083	084	085	086	087	088	089
090	091	092	093	094	095	097	099

We noted certain additional matters involving internal control over financial reporting and immaterial instances of noncompliance that we have reported to the management of the individual state agencies and institutions.

Commonwealth’s Response to Findings

The Commonwealth’s written response to the findings consist of both the responsible official’s response and management’s Corrective Action Plan. A copy of the responsible official’s response, containing the views of the responsible officials, if provided, is in the report related to their agency, which can be found at www.apa.virginia.gov. The views of responsible officials are summarized under each respective finding in the accompanying Schedule of Findings and Questioned Costs. Additionally, management’s Corrective Action Plan will be available from the Federal Audit Clearinghouse web site and the Virginia Department of Accounts’ web site at www.doa.virginia.gov. Management’s Corrective Action Plan was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Martha S. Mavredes

Martha S. Mavredes
AUDITOR OF PUBLIC ACCOUNTS
RICHMOND, VA
December 13, 2019



Martha S. Mavredes, CPA
Auditor of Public Accounts

Commonwealth of Virginia

Auditor of Public Accounts

P.O. Box 1295
Richmond, Virginia 23218

INDEPENDENT AUDITOR'S REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM; REPORT ON INTERNAL CONTROL OVER COMPLIANCE; AND REPORT ON SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS REQUIRED BY THE UNIFORM GUIDANCE

Report on Compliance for Each Major Federal Program

We have audited the Commonwealth of Virginia's compliance with the types of compliance requirements described in the U.S. Office of Management and Budget's (OMB) Compliance Supplement that could have a direct and material effect on each of the Commonwealth's major federal programs for the year ended June 30, 2019. The Commonwealth's major federal programs are identified in the Summary of Auditor's Results section of the accompanying Schedule of Findings and Questioned Costs.

The Commonwealth's basic financial statements include the operations of certain agencies and component units, which expended federal awards that are not included in the Commonwealth's Schedule of Expenditures of Federal Awards for the year ended June 30, 2019. Our audit, described below, did not include the operations of these agencies and component units since they were audited by other auditors as discussed in Note 1 of the Notes to the Schedule of Expenditures of Federal Awards.

Management's Responsibility

The Commonwealth's management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the Commonwealth's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. Code of Federal Regulations (C.F.R.) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Commonwealth's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the Commonwealth's compliance.

Opinion on Each Major Federal Program

In our opinion, the Commonwealth complied, in all material respects, with the types of compliance requirements, referred to above, that could have a direct and material effect on each of its major federal programs, as identified in the Summary of Auditor's Results section of the accompanying Schedule of Findings and Questioned Costs for the year ended June 30, 2019.

Other Matters

The results of our auditing procedures disclosed other instances of **NONCOMPLIANCE**, which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying Schedule of Findings and Questioned Costs labeled with the following numbers:

Finding Numbers: 2019-

020	024	032	037	039	044	049	051
052	059	063	083	088	090	091	092
093	095	100	101	102	103	104	105
106	107	108					

Our opinion on each major federal program is not modified with respect to these matters.

The Commonwealth's written response to the noncompliance findings consist of both the responsible official's response and management's Corrective Action Plan. A copy of the responsible official's response containing the views of the responsible officials, if provided, is in the report related to their agency, which can be found at www.apa.virginia.gov. The views of responsible officials are summarized under each respective finding in the accompanying Schedule of Findings and Questioned Costs. Additionally, management's Corrective Action Plan will be available from the Federal Audit Clearinghouse web site and the Virginia Department of Accounts' web site at www.doa.virginia.gov. Management's Corrective Action Plan was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on it.

Report on Internal Control Over Compliance

Management of the Commonwealth is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Commonwealth's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly,

we do not express an opinion on the effectiveness of the Commonwealth's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A **MATERIAL WEAKNESS** in internal control over compliance is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A **SIGNIFICANT DEFICIENCY** in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies and; therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we did identify certain deficiencies in internal control over compliance, described in the accompanying Schedule of Findings and Questioned Costs, labeled with the following numbers, that we consider to be **significant deficiencies**:

Finding Numbers: 2019-

020	024	032	037	039	044	049	051
052	059	063	083	088	090	091	092
093	095	100	101	102	103	104	105
106	107	108					

The Commonwealth’s written response to the internal control over compliance findings consist of both the responsible official’s response and management’s Corrective Action Plan. A copy of the responsible official’s response containing the views of the responsible officials, if provided, is in the report related to their agency, which can be found at www.apa.virginia.gov. The views of responsible officials are summarized under each respective finding in the accompanying Schedule of Findings and Questioned Costs. Additionally, management’s Corrective Action Plan will be available from the Federal Audit Clearinghouse web site and the Virginia Department of Accounts’ web site at www.doa.virginia.gov. Management’s Corrective Action Plan was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on it.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Commonwealth as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Commonwealth's basic financial statements. We issued our report thereon dated December 13, 2019, which contained unmodified opinions on those financial statements. We have not performed any procedures with respect to the audited financial statements subsequent to December 13, 2019. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying Schedule of Expenditures of Federal Awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of Expenditures of Federal Awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

Martha S. Mavredes

Martha S. Mavredes
AUDITOR OF PUBLIC ACCOUNTS
RICHMOND, VA
February 7, 2020

**SCHEDULE OF FINDINGS AND QUESTIONED COSTS
SECTION 1: SUMMARY OF AUDITOR'S RESULTS
FOR THE YEAR ENDED JUNE 30, 2019**

Financial Statements

Type of report the auditor issued on whether the financial statements audited were prepared in accordance with GAAP:	Unmodified
Internal control over financial reporting:	
Material weaknesses identified?	Yes
Significant deficiencies identified?	Yes
Noncompliance material to financial statements noted?	No

Federal Awards

Internal control over major federal programs:	
Material weaknesses identified?	No
Significant deficiencies identified?	Yes
Type of auditor's report issued on compliance for major federal programs:	Unmodified
Any audit findings disclosed that are required to be reported in accordance with 2 C.F.R. § 200.516(a)?	Yes
Dollar threshold used to distinguish between Type A and Type B programs:	\$ 30,000,000
Commonwealth qualified as low-risk auditee?	No

The major federal programs listed on the next page are in order by their Catalog of Federal Domestic Assistance (CFDA) number. The first CFDA number in a cluster is used to determine the cluster's placement within the list. Only the CFDA numbers, in which the Commonwealth expended funds within a cluster, are listed on the next page.

The Commonwealth's major federal programs are as follows:

CFDA Number	Name of Federal Program or Cluster (Common Acronym)
10.553 10.555 10.556 10.559	Child Nutrition Cluster
17.207 17.804	Employment Service Cluster
17.225	Unemployment Insurance
20.205 20.219 20.224	Highway Planning and Construction Cluster
66.458	Clean Water State Revolving Fund Cluster
84.010	Title I Grants to Local Educational Agencies
84.027 84.173	Special Education Cluster (IDEA)
84.126	Rehabilitation Services Vocational Rehabilitation Grants to States
84.367	Improving Teacher Quality State Grants
93.268	Immunization Cooperative Agreements
93.558	Temporary Assistance for Needy Families (TANF) Cluster
93.569	Community Services Block Grant
93.658	Foster Care Title IV-E
93.659	Adoption Assistance
93.667	Social Services Block Grant
93.775 93.777 93.778	Medicaid Cluster
93.788	Opioid STR
93.917	HIV Care Formula Grants
93.959	Block Grants for Prevention and Treatment of Substance Abuse
96.001	Disability Insurance/SSI Cluster

SCHEDULE OF FINDINGS AND QUESTIONED COSTS SECTION 2: FINANCIAL STATEMENT FINDINGS

FINANCIAL ACCOUNTING AND REPORTING

2019-001: Improve Controls Over Financial Reporting

Applicable to: Department of Human Resource Management

Prior Year Finding Number: 2018-007

Type of Finding: Internal Control

Severity of Deficiency: Material Weakness

Human Resource Management should continue to strengthen internal controls over financial reporting to ensure compliance with Governmental Accounting Standards Board (GASB) Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB). As the administrator of the statewide Pre-Medicare Retiree Healthcare plan, Human Resource Management's Contracts and Finance Department prepares and disseminates required financial reporting information to participating entities for inclusion in the participant's individual financial statements. For the fiscal year ended June 30, 2019, Human Resource Management did not properly prepare the financial schedules to comply with all requirements of GASB Statement No. 75. The financial schedules prepared by Human Resource Management's Contracts and Finance Department contained significant errors. The errors identified include:

- incorrectly including a beginning balance adjustment in the current year journal entries, which employers use in the preparation of their individual financial statements;
- adjusting journal entries not resulting in the proper ending OPEB liability for the individual employers;
- improperly excluding the amortization of prior year changes in proportion in the schedule of deferred inflows and outflows; and
- incorrect use of the expected benefit payments instead of the actual benefit payments for fiscal year 2018, which resulted in a difference of approximately \$22.6 million.

Human Resource Management relies heavily on a third-party actuary to compile the required information necessary for the GASB Statement No. 75 financial reporting. The errors described above are a result of delays in Contracts and Finance providing necessary information to the actuary. These delays resulted in Contracts and Finance and Health Benefits Services not having sufficient time to review and analyze the actuary report and prepare the financial reporting information. Further, the contract with the actuary does not clearly define the scope, deliverables, or deadlines related to GASB Statement No. 75 reporting.

During fiscal year 2019, Human Resource Management developed internal deadlines related to the GASB Statement No. 75 reporting; however, many of these deadlines were not met. Further contributing to the errors in the financial information is Human Resource Management's lack of a formal review process of the compiled information. Contracts and Finance and Health Benefits Services do not properly review the actuary report prior to the preparation of the financial schedules. A detailed review of the actuary report is necessary to ensure Human Resource Management identifies errors and omissions in a timely manner and to ensure that Human Resource Management agrees with the assumptions used by the actuary. We consider this to be a material weakness in internal control, as there is a reasonable possibility that Human Resource Management will not prevent, detect or correct material misstatements of the financial information and required disclosures in a timely manner.

Human Resource Management should modify the existing contract with the actuary, or procure a new contract, specific to the requirements and deadlines for the annual GASB Statement No. 75 reporting. Additionally, Contracts and Finance should work with Health Benefits Services to establish a formal review process for the actuary report, the financial information, and the required disclosures. The actuary report and disclosures both contain financial and program specific information that will require the coordination of these two service areas at Human Resource Management to properly review.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-002: Strengthen Controls over Year-End Accrual Reporting

Applicable to: Department of Medical Assistance Services

Prior Year Finding Number: 2018-009

Type of Finding: Internal Control

Severity of Deficiency: Material Weakness

Medical Assistance Services needs to strengthen controls over financial reporting information submitted to Accounts. Medical Assistance Services submits multiple supplemental information items to Accounts who then uses this information in preparation of the Commonwealth's financial statements. The information submitted by Medical Assistance Services contained several material errors, which affected multiple accounts and funds as follows:

- Staff incorrectly classified a Private Hospital Enhanced Rate Payment liability, which resulted in a \$139.2 million overstatement of the general fund claims payable liability and understatement of the Health Care Provider Payment Rate Assessment (Rate Assessment) fund claims payable liability. This error also impacted revenues and receivables in the Rate Assessment Fund.

- Staff incorrectly allocated the Medicaid expansion claims payable liability, which resulted in an \$18.7 million overstatement of the federal fund claims payable liability and understatement of the Health Care Provider Coverage Assessment Fund claims payable liability.
- Staff's methodology for calculating an estimate of a Private Hospital Enhanced Rate Payment liability was inadequate, which resulted in a \$19.6 million overstatement of the federal fund claims payable liability and the federal fund receivable. This also resulted in a \$17.5 million overstatement of the Rate Assessment Fund claims payable liability.
- Staff misclassified a portion of the Family Access to Medical Insurance Security (FAMIS) claims payable liability, which resulted in a \$15.8 million overstatement of the total Medicaid claims payable liability and understatement of the total FAMIS claims payable liability.
- Staff incorrectly recorded an adjusting journal entry to reverse prior year activity, which resulted in a \$26.1 million understatement of revenues and expenses in both the general and federal funds.

Medical Assistance Services' financial activity is material to the Commonwealth's financial statements, so it is essential for Medical Assistance Services to have strong financial reporting practices. Policies and procedures over financial reporting information, as a best practice, should be detailed and thorough with a sufficient review process to prevent and detect potential errors and omissions. Also, the Fiscal Division, Budget Division, and Provider Reimbursement Division should collaborate to complete the year-end accrual information reported to Accounts since the process relies on information from all three divisions. Lastly, when using accounting estimates in financial reporting, best practices dictate that management develop a sound methodology and document the basis for the methodology.

As a result of these errors, Medical Assistance Services staff had to resubmit multiple pieces of information to Accounts causing inefficiencies for Medical Assistance Services' staff as well as delays for Accounts' staff. There are multiple factors that contributed to these errors. First, there were significant changes in operations due to Medicaid expansion, and Medical Assistance Services did not properly consider all of the financial reporting implications of these changes. In addition, there has been significant turnover in key positions in both the Fiscal Division and Budget Division, which has caused a lack of consistency in staff preparing this information from year to year. Finally, a lack of communication between the Fiscal Division, Budget Division, and Provider Reimbursement Division also contributed to some of these errors.

Medical Assistance Services should strengthen its controls over the preparation of year-end financial reporting information for Accounts. They should consider incorporating a technical supervisory review into the process given the complexity of the information to ensure significant errors are detected and prevented. As part of preparing the information, the Fiscal Division, Budget Division, and Provider Reimbursement Division should collaborate as needed to ensure there is a common understanding of significant financial reporting policies and that submitted information is accurate. Given the significance of Medical Assistance Services' financial activity, it is also important to consult with Accounts on financial

reporting issues that may be complex or unusual to ensure both agencies have a thorough understanding of the nature of the activity and agree on the correct financial reporting treatment prior to submission of the information.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-003: Improve Financial Reporting for Accounts Receivable

Applicable to: Department of Medical Assistance Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Material Weakness

Medical Assistance Services' Fiscal Division needs to improve its reporting and management of accounts receivable. Medical Assistance Services has outstanding accounts receivable due at any given time from various parties for fraud restitution, overpayments, and amounts due from third party providers, as examples. The Fiscal Division estimates a portion of these receivables as uncollectible for year-end financial reporting purposes and reports this to Accounts; however, the methodology for the estimate is not formally documented. In addition, the methodology does not adequately consider the collectability of certain types of material receivables that are many years overdue, calling into question the soundness of the methodology and the accuracy of the estimate.

CAPP Manual Topic 20505 requires management to establish an allowance for doubtful accounts to reflect the amount of an agency's receivables that management estimates will be uncollectible. The method of establishing the allowance is left to the agency's discretion; however, the estimated allowance should be based upon historical data or other pertinent information relative to the receivables in question. Best practices also dictate that when accounting estimates are developed for financial reporting purposes, management is responsible for developing a sound methodology and documenting the basis for the methodology.

The lack of a sound and documented methodology for estimating uncollectible accounts impacts the accounts receivable information submitted to Accounts for year-end financial reporting. Given the age and amount of some of the receivables, it is likely the estimate is materially understated, which results in an overstatement of net accounts receivable. In addition, the lack of adequate documentation and data to support the methodology is also an issue in the event of employee turnover. In this case, turnover in the Accounts Receivable Manager position affected the Fiscal Division's ability to allocate the resources needed to perform a review of this area and update its policies, procedures, and methodology.

The Fiscal Division should review and evaluate its current methodology for estimating uncollectible accounts, giving consideration to the various types of accounts. This review should include a robust and detailed analysis of historical collection data by type of receivable, as well as age of receivable, to support a revised percentage estimate for accounts receivable that will not be collected. In addition, the Fiscal Division should update its policies and procedures over the accounts receivable area to ensure the financial accounting and reporting processes are adequately documented and the methodology for the allowance estimate is sufficiently supported.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-004: Improve Controls over SNAP Payments

Applicable to: Department of Social Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Material Weakness

Social Services' does not have sufficient controls over payments made for SNAP. Social Services' case management system is used to determine who is eligible for SNAP and the benefit amounts. Social Services sends that information to a third-party vendor who gives the benefits to recipients via an Electronic Benefits Transfer (EBT) card and the vendor then draws down the funds from the federal government. The Division of Finance (Finance) completes a daily three-way reconciliation between Social Services' case management system, the vendor's system, and the federal payment system that is used to draw down federal funds. The reconciliation shows that the vendor's system and the federal payment system had approximately \$234 million more benefits given during fiscal year 2019 than the case management system reflects. In addition, this reconciliation is not reviewed or approved by a supervisor.

Social Services' Division of Enterprise Systems (Enterprise Systems) and Finance did not resolve the discrepancies between the systems and; therefore, could not provide support for \$234 million out of \$1,013 million (23%) that was paid out by the vendor and drawn down from the federal government. Finance also used the amount paid out by the vendor when reporting revenue and expenditure amounts for the SNAP program to Accounts for use in the CAFR. Finally, while Social Services was relying on the vendor's system to provide reporting for the CAFR, Social Services was not maintaining proper oversight of this vendor, see management recommendation entitled "Develop a Process to Maintain Oversight for Third-Party Providers" for more information on this issue. After we brought this issue to management's attention, Finance and Enterprise Systems were able to work together to provide evidence that the total amount authorized by the case management system reasonably agreed to the total amount the vendor put on the EBT cards.

2 C.F.R. § 200.303(a) states that an entity must establish and maintain effective internal control over federal awards that provides reasonable assurance that the entity is managing the award in compliance with the federal statutes, regulations, and terms and conditions of the federal award. As an internal control, a supervisor should review each reconciliation and its support to ensure it is properly supported and accurate. In addition, 7 C.F.R. § 247.4 states that state agencies shall reconcile total funds entered into, exiting from, and remaining in the EBT system each day.

Finance did not investigate and resolve the discrepancies between Social Services' case management system, amounts given to recipients, and drawn down from the federal government because there were known problems with the case management system that have not been addressed by Enterprise Systems. Without adequate controls over the reconciliation process requiring approvals, identifying and resolving discrepancies, and ensuring proper support for amounts drawn down from the federal government, it could create questions as to whether the nature of the payments are permissible and could lead to potential disallowed charges by the federal government. Additionally, by not addressing discrepancies noted during the reconciliation process, Finance increases the risk of inaccurate data being reported in the CAFR. We consider this a material weakness in internal control.

Finance and Enterprise Systems should work together to investigate and resolve the reconciling amounts and maintain appropriate documentation for all payments and amounts drawn down from the federal government. Finance should implement controls over the SNAP daily reconciliation to ensure data is accurate, discrepancies are resolved timely, documentation of supervisor's review and approval, and supporting documentation is maintained.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-005: Dedicate Resources to Timely Update of CAPP Manual Topics

Applicable to: Department of Accounts

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Accounts' management is not performing timely updates to the Commonwealth Accounting Policies and Procedures (CAPP) Manual for agencies and institutions of the Commonwealth. While performing our test work, we identified ten CAPP Manual topics that were outdated and still referenced the Commonwealth's former accounting system. Accounts decommissioned the previous accounting system in July 2016. The outdated sections cover a variety of areas including payroll and the processing of revenue refunds and loans to the Commonwealth.

Section 2.2-803 of the Code of Virginia requires Accounts to provide authoritative guidance on the application of accounting policies, procedures, and systems. Further, having up to date and relevant policies and procedures is a key component of internal control and ensures consistent processing of transactions throughout the Commonwealth. Accounts not updating CAPP Manual topics on a timely basis could have a negative impact on consistent transactional processing and financial reporting throughout the Commonwealth. In addition, the lack of up to date guidance could contribute to a break down in internal controls at the agency and institution level. According to Accounts' management, the delay in performing the updates is primarily due to a lack of available resources. Accounts' current plan is to update general accounting topics by December 31, 2019. Accounts Payroll Operations does not have a definitive date for updating payroll related topics in the CAPP Manual. Accounts extended the timeline for having payroll topics updated due to management dedicating additional payroll resources to the Commonwealth's Human Capital Management project. To compensate for having outdated payroll guidance in the CAPP manual, Payroll Operations is currently using an email listserv of agency/institution payroll contacts to communicate changes and updates to specific policies and procedures.

Accounts should dedicate the necessary resources to update all outdated CAPP Manual topics. Further, while Accounts has established a set time for updating outdated general accounting topics, Accounts should also strive to set a deadline for having payroll topics updated. Though Accounts is currently using an email listserv to communicate changes to payroll policies and procedures, this is not a sufficient substitute for having updated and relevant authoritative guidance to which agency personnel can be held accountable.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-006: Improve Controls Over Financial Systems Reconciliations

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Individual facilities within the DBHDS and the Central Office do not have adequate controls in place to ensure reconciliations between DBHDS and the Commonwealth's financial systems include a review of necessary reports, are performed timely and at the appropriate level, are materially correct, are signed by the preparer, and are properly reviewed. During our review, we found the following:

- Two of four facilities tested (50%) and the Central Office do not have adequate internal policies and procedures over the fixed assets reconciliation.

- One of four facilities tested (25%) did not have evidence of a proper reconciliation of appropriations and allotments.
- The Central Office did not have evidence of a proper reconciliation of capital appropriations and allotments.
- One of four facilities tested (25%) used the increase/decrease amount for an account rather than the proper month end balance on the fixed assets reconciliation.
- The Central Office does not review reports from the Commonwealth's fixed assets system during the reconciliation of fixed assets to ensure system totals agree.
- One of four facilities tested (25%) and the Central Office did not perform reconciliations at the appropriate level, specifically for expenses (fund, program, account level) and capital project expenditures (fund, project, and account level), respectively.
- One of four facilities tested (25%) and the Central Office did not have evidence of preparer signature and date for the monthly reconciliation, including the reconciliation of fixed assets.
- One of four facilities tested (25%) did not have evidence of a timely review by approver of the fixed assets reconciliation. In addition, the Central Office did not perform a proper review of a reconciliation.

CAPP Manual Topic 20905 prescribes the level of detail at which agency records, accounts, and logs must be reconciled depending on the nature of the transactions and requires documentation to be made available for inspection by outside parties. In addition, CAPP Manual Topic 30905 requires that the agency reconcile all agency source records to reports from the Commonwealth's fixed assets system. Finally, by submitting the Certification of Agency Reconciliations to Accounts, the agency is certifying that its internal records are in agreement with those reported in the state-wide financial system and that appropriations, allotments, expenses, capital project expenses, revenues, cash, fixed assets, and all other accounts have been reconciled at the appropriate level. This certification is required to be submitted by the last business day of the month following period close or as stated otherwise by the Comptroller.

The improper reconciliation of systems to the Commonwealth's accounting and financial reporting system increases the risk of material misstatement of overall account balances. These misstatements can ultimately affect funding for DBHDS services and the amounts DBHDS reports for the Commonwealth's Comprehensive Annual Financial Report (CAFR).

DBHDS facilities and the Central Office provided several reasons for the issues noted above. Facilities acknowledged that the exceptions occurred due to oversight error, unawareness of specific reconciliation requirements, and the fact that they did not retain documentation. We noted that the Central Office monthly reconciliations lack oversight and review by management. In addition, the Central Office's Budget Department maintains responsibilities over fixed assets. However, we found that

the Fiscal Accounting Department lacks collaboration with the Budget Department during the fixed assets reconciliation.

Fiscal departments should reinforce policies and procedures over system reconciliations for DBHDS facilities and the Central Office. Management should communicate CAPP Manual requirements reflected in policies and procedures to personnel and ensure that the requirements are adhered to when completing reconciliations. DBHDS should ensure that the appropriate preparer and reviewer sign each reconciliation and that a proper review is performed. Facilities and the Central Office should reconcile at the correct level and use proper ending balances for the monthly reconciliation. The Central Office Fiscal Accounting and Budget Departments should collaborate during the reconciliation of fixed assets. Finally, DBHDS facilities and the Central Office should submit monthly certifications to Accounts only after they complete all reconciliation requirements.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-007: Process Expense Reimbursements in the Commonwealth's Accounting and Financial Reporting System

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

One facility within DBHDS is not processing expense reimbursements in the Commonwealth's accounting and financial reporting system. Currently, the Fiscal Department (Fiscal) at the facility is processing expense reimbursements with a local petty cash account. Although the facility approves travel expenses prior to an employee's travel, the facility is not processing transactions as required in the Commonwealth's accounting and financial reporting system. As a result, the facility issued numerous travel advances to employees during the fiscal year using petty cash funds, amounting to \$43,647.

CAPP Manual Topic 20335 requires state employees to be reimbursed for travel related expenses using the Travel and Expenses module of the Commonwealth's accounting and financial reporting system. Petty cash may not be used for travel advances to state employees. In addition, CAPP Manual Topic 20336 requires the processing of cash advances in the system. Processing of transactions in the Commonwealth's accounting and financial reporting system is important for ensuring transparency and proper accounting of transactions. The facility is at elevated level of risk for fraud, waste, abuse, and non-compliance if accounts are set up outside of the Commonwealth's accounting and financial reporting system. Finally, CAPP Manual Topic 20360 requires employees who travel overnight more

than two times per year to be issued a travel charge card in order to reduce the need for travel cash advances.

Due to turnover at the facility, Fiscal staff did not maintain documentation of permission given by Accounts authorizing the use of a local account for reimbursements. Therefore, Fiscal staff were unable to provide documentation of approval to use the account for expense reimbursements. Additionally, staff were unaware of the CAPP Manual requirements for expense reimbursements and cash advances. Fiscal should process expense reimbursements in the Commonwealth's accounting and financial reporting system in accordance with applicable guidance. Fiscal management should ensure that staff understand the requirements associated with employee reimbursements and cash advances. Furthermore, employees that travel regularly during the year should be issued a travel charge card as required by the CAPP Manual.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-008: Perform an Evaluation and Analysis of Potential Asset Retirement and Pollution Remediation Obligations

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

DBHDS did not perform a proper evaluation and analysis of potential asset retirement and pollution remediation obligations. Finance and Administration did not properly evaluate the applicability of Governmental Accounting Standards Board (GASB) Statement No. 83, *Certain Asset Retirement Obligations*, which became effective for reporting periods after June 15, 2018, and is applicable to fiscal year 2019. In addition, Finance and Administration did not perform any further consideration of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*.

Accounts performed a statewide survey for completion by all Commonwealth agencies to determine the applicability of this standard to the Commonwealth's financial statements. Based on the survey responses, all DBHDS facilities responded that they do not have any potential asset retirement obligations as defined by GASB Statement No. 83. We followed up on their responses and determined that DBHDS may have potential asset retirement obligations or pollution remediation obligations. We found, at a minimum, ten assets that should be further evaluated as a retirement obligation or remediation obligation. Further inquiry indicated that these identified assets did not meet the criteria of GASB 83.

Finance and Administration did not perform any verification of the individual facilities responses to the survey. Instead of performing their proper due diligence, Finance and Administration followed up with the Office of Architectural and Engineering at the Central Office as a reasonableness check of the facilities responses. Due to a lack of communication with the individual facilities, Finance and Administration was unaware of potential pollution remediation obligations and asset retirement obligations. Not contacting the facilities with direct knowledge of their assets risk incorrect responses to Account's survey. Further, not properly identifying potential asset retirement obligations or pollution retirement obligations could result in a misstatement of the Commonwealth's financial statements.

Finance and Administration should evaluate and analyze the impact applicable GASB standards have on the Commonwealth and DBHDS. This evaluation should take into consideration any applicable external laws, regulations, contracts, or court judgements that DBHDS abides by that may trigger potential asset retirement obligations. Additionally, DBHDS should determine whether an obligating event has occurred that would cause recognition of pollution remediation obligations. Finance and Administration should coordinate with the proper personnel at the individual facilities to ensure adequate and accurate identification and accounting of potential asset retirement obligations and pollution remediation obligations.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-009: Improve Review Process for Individual Facility Leave Liability Submissions

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

DBHDS needs to strengthen its controls over the review and reporting of the year-end agency leave liability submission to Accounts. The Office of Budget Execution and Financial Reporting (Budget Execution) at the Central Office receives and compiles individual facility leave liability submissions, which include leave liability and the detailed calculations behind it. Budget Execution performs a compilation of this support in order to report the total leave liability for DBHDS on the Leave Liability Attachment to Accounts for inclusion in the Commonwealth's financial statements. Budget Execution does not perform an adequate review of these submissions to ensure that the total current and noncurrent leave liability reported is accurate. In addition, each of the four facilities reviewed in detail has their own unique process of calculating and reviewing leave liability. The following errors were noted on the leave liability submission, the supporting documentation, and facility review processes:

- Budget Execution reported \$2,357,321 of leave liability in the incorrect fund on the Leave Liability Attachment.
- Budget Execution reported \$38,202 of leave liability in the incorrect program in support used for preparation of the Leave Liability Attachment.
- One facility did not use the correct social security base to determine taxes on leave liability.
- One facility reported \$800,877 of leave liability in the incorrect program on the facility's leave liability submission to Budget Execution.
- One facility performed an inadequate review of leave liability prior to submitting information to Budget Execution and does not have a formal review process in place at the facility.

The Comptroller's Directive No. 1-19 establishes compliance guidelines and addresses financial reporting requirements for state agencies to provide information to Accounts for the preparation of the CAFR as required by the Code of Virginia. The Comptroller's Directive also states that by submitting the attachment to Accounts, the agency is certifying that the attachment has been reviewed and is accurate. This guidance also provides assistance to those who prepare and review financial reporting attachments and supplemental information sent to Accounts for presentation in the CAFR.

These errors occurred for multiple reasons. Budget Execution reported amounts in the incorrect fund on the Leave Liability Attachment due to human error not detected by the review process. Individual facilities are under the impression that Budget Execution performs a detailed review of facility leave liability submissions. However, Budget Execution assumes that an adequate review is performed at the facility level. Furthermore, due to turnover, one facility does not have a formal process in place for reviewing leave liability for accuracy once calculated by the preparer. Without an adequate review process, there is a higher risk of misstatement of current and noncurrent leave liability reported as part of the CAFR. This risk is elevated due to the fact that there is potential for inadequate reviews to occur at both the facility and Budget Execution level.

Budget Execution certifies the leave liability submission and; therefore, should enhance its review of individual facility submissions for accuracy prior to preparing its Leave Liability Attachment submission. Budget Execution should communicate with facility staff responsible for preparing the individual facility leave liability submissions throughout the financial reporting process to ensure all staff are aware of the correct reporting process, use the proper criteria for leave reports, and include all necessary leave balances for the calculation of leave liability.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-010: Improve Financial Reporting of Infrastructure Assets

Applicable to: Department of Transportation

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

During fiscal year 2019, Fiscal designed, documented, and implemented detailed procedures over its infrastructure capitalization process as recommended in the prior year report. However, because the process is manual, it is difficult for Fiscal to implement controls and procedures that can adequately reduce the risk of errors. Fiscal uses a completely manual process to distinguish between capitalizable and non-capitalizable projects. Fiscal does not use control totals or any other analysis to ensure the accuracy and completeness of the capitalizable amounts reported. Fiscal did not detect changes in reporting categories of projects between fiscal years and did not identify instances where projects had two conflicting reporting categories, leading to two different accounting treatments. Additionally, in cases where Fiscal changed a project's reporting category due to subsequent review, Fiscal did not always adjust prior construction-in-progress and infrastructure asset amounts. In fiscal year 2019, Fiscal overstated net capital assets by a net \$7.6 million, which is the combination of an overstatement of \$14.8 million and an understatement of \$7.2 million. The process for reporting infrastructure assets has become so complex that making a mistake in one data field on one project in the Commonwealth's accounting and reporting system is a significant risk and could potentially result in a material misstatement.

When the Commonwealth implemented Governmental Accounting Standards Board (GASB) Statement No. 34 in 2002, Transportation decided that the most efficient way to capitalize roadway infrastructure was to use programmatic funding because construction and maintenance programs were separate. This created a simple process for identifying infrastructure expenses for capitalization. Over the years, Transportation's programmatic funding gradually changed, leading to a blurred line between maintenance and capitalizable construction projects. Starting in fiscal year 2017, the General Assembly significantly changed Transportation's programmatic funding streams and their purposes, resulting in further complexities, as programs could have capitalizable maintenance projects, capitalizable construction projects, and non-capitalizable projects in the same program. To adapt to the new programmatic coding, Fiscal began using manually assigned reporting categories to label each project for inclusion or exclusion from infrastructure. Because the process is manual and projects range in value, Fiscal cannot implement processes and controls that can adequately reduce the risk of errors and omissions.

The State Comptroller’s annual Directive requires Transportation to report capital assets including infrastructure for inclusion in the Commonwealth’s CAFR. The Commonwealth Accounting Policies and Procedures Manual (CAPP Manual) Topic 30210 requires agencies to implement internal control procedures to ensure that all assets are recorded at their proper value and that all assets are periodically reviewed to avoid material overstatement.

Since legislative and operational changes that occurred since implementation have complicated the infrastructure capitalization process, Fiscal should re-evaluate their financial reporting methodology for infrastructure assets. Fiscal should consider best practices and methods that other state governments use to capitalize highway infrastructure. Fiscal should seek ways to automate the financial reporting of infrastructure assets to eliminate reliance on manual processes and reduce errors.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-011: Improve Financial Reporting Classification within Net Position

Applicable to: Department of Transportation

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Fiscal does not consider how refinanced debt for non-Commonwealth capital assets should be classified when developing the Net Position section of the CAFR’s Statement of Net Position. While the new debt is properly classified within the Liabilities and Deferred Outflow of Resources section, Transportation does not consider which assets (Commonwealth or non-Commonwealth) were acquired with the original debt to determine how the new debt should impact the items reported within the Net Position section.

As addressed in the GASB Comprehensive Implementation Guide, Section 7.23.6, if debt is issued to refund existing capital-related debt, “the replacement debt assumes the capital characteristics of the original issue.” Further, Section 7.23.3 of the GASB Comprehensive Implementation Guide states that “premiums, discounts, and deferred outflows of resources or deferred inflows of resources from refundings ‘follow the debt’ in calculating the components of net position... if the debt proceeds are not restricted for capital or other purposes, [these components] would be included in the calculation of unrestricted net position.” Bond-funded expenses that are not capitalized should not be included in the calculation of Net Investment of Capital Assets; examples include impaired, transferred, and disposed capital assets.

While there is zero impact to the total net position of the Commonwealth, incorrectly including the new debt related to non-Commonwealth capital assets within the calculation for Net Investment in Capital Assets makes it appear that a larger portion of the debt of the Commonwealth is being used to acquire capital assets that will remain property of the Commonwealth. Conversely, an equal amount of new debt related to the original debt used to generate non-Commonwealth capital assets is being excluded from unrestricted net position.

According to Transportation’s management, in September 2016, Transportation and Accounts personnel met to discuss Transportation’s calculation of Net Investment in Capital Assets reported within its annual submissions in support of the Commonwealth’s financial statements. However, during this meeting and in further communications between the agencies, dialogue regarding the effect of debt refinancing did not occur. Transportation’s management indicated that, based on these discussions and initial review of the proposed submission by Accounts, Transportation assumed that refinanced debt should be considered as proceeds used for Commonwealth capital assets, as the refinancing proceeds were used to pay off a debt of the Commonwealth. Transportation was not aware of this requirement set by GASB and, as a result, Transportation’s written policies and procedures did not address the classification of refinanced debt for non-Commonwealth capital assets in the Statement of Net Position.

Fiscal should improve internal policies and procedures to ensure that classifications within the Net Position section of the Statement of Net Position are accurate, reasonable, and properly apply applicable accounting standards. Management should proactively assess these procedures annually to ensure that items being reported are being properly captured. Staff within Fiscal should consider attending trainings that focus on GASB requirements.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-012: Improve Policies and Procedures over Unclaimed Property Reconciliations

Applicable to: Department of the Treasury

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Unclaimed Property does not have sufficient policies and procedures over the process of reconciling its unclaimed property system to the Commonwealth’s accounting and financial reporting system. The policy does not include requirements for timeliness of preparation and review. In addition, there is not sufficient detail of the actual reconciliation process, nor explanations of how each system’s information is used and how to document the reconciling items. As a result, we found the following issues with the reconciliations reviewed for fiscal year 2019:

- Two of four (50%) of the reconciliations selected for review were not dated, so a determination of timeliness of preparation or review could not be made, and one reconciliation out of four (25%) was completed five business days late.
- Three of four (75%) of the reconciliations reviewed did not have a clear audit trail for reconciling items.

CAPP Manual Topic 20905, – Cardinal Reconciliation Requirements, requires all internally prepared accounting records, data submission logs, and other accounting data to be reconciled to reports produced by the Commonwealth’s accounting and financial reporting system by the last business day of the month following the period close. In addition, Topic 20905 prescribes the level of detail at which agency records, accounts, and logs must be reconciled depending on the nature of the transactions. If recorded in multiple systems, transactions should be traced from one system to another, any variance between accounting data should be traced to specific transactions, and all variances should be explained and justified. Additionally, documentation should be maintained that enables accountants to follow an “audit trail” through the accounting process from each transaction to appropriate reports and other output. Policies and procedures should be complete and up to date; customized to reflect agency staffing, organization, and operating procedures.

Reconciliations are a key internal control for ensuring financial activity recorded in multiple systems is accurate in each of those systems and for preventing improper payments. In addition, the improper reconciliation of systems increases the risk of material misstatement for account balances related to Unclaimed Property activity. Inadequately detailed policies and procedures over the reconciliation process coupled with the retirement of the Unclaimed Property accountant contributed to the issues we noted with the reconciliations reviewed during fiscal year 2019.

Unclaimed Property should improve its existing policies and procedures over the reconciliation between the unclaimed property system and the Commonwealth’s accounting and reporting system to ensure they are sufficiently detailed to reflect the unique operations of the division. Further, management should ensure that staff are adequately supporting reconciling items and maintaining sufficient documentation for the reconciliations. Finally, the reconciliations should be signed and dated by the preparer and reviewer; and reviewed timely in accordance with the CAPP Manual.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-013: Improve the Expense Allocation Process

Applicable to: Department of Health

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Health did not properly allocate expenses among three different funds resulting in a misstatement of expenses at the end of the year. Health initially pays expenses from the general fund and later allocates the expenses among various special revenue funds based on the revenues received. At fiscal year-end, Health usually performs an analysis and makes a final “true-up” entry, but Health did not perform this analysis or make the final “true-up” entry at the end of fiscal year 2019.

CAPP Manual Topic 60104 defines the general fund as the fund which accounts for the ordinary operations of government and states that “all activities that do not qualify for inclusion in any other fund should be included in the general fund.” The same section of the CAPP Manual states that a special revenue fund “accounts for activities, which are supported from revenues, derived from restricted taxes and other special revenue sources.” Therefore, it is critical to properly match the expenses to the appropriate funding sources.

As a result of not properly allocating expenses, Health misclassified a total of \$2,137,432 in expenses among three funds. At the end of fiscal year 2019, Health understated expenses in the Local Health District Match Fund by \$2,137,432, overstated expenses in the Local Health District Service Fee Fund by \$1,383,782, and overstated general fund expenses by \$753,650. In addition, this error affected Health’s year end leave liability submission to Accounts as Health uses these same percentages to allocate its leave liability. The leave liability information contained a misclassification between the same three funds totaling \$108,479.

These errors were due to turnover in a key position within the General Accounting Department. The person responsible for evaluating whether the year-end “true-up” entry was necessary vacated her position prior to completing this task, and there was no backup person assigned. Additionally, there are no procedures in place outlining these key responsibilities.

Health should work with Accounts to determine if this misclassification requires an adjustment to its accounting records in fiscal year 2020. Additionally, Health should document all business-critical tasks in the General Accounting Department so that other people can perform these functions in the absence of the primary person. Finally, Health should designate a backup person to perform each of these tasks in cases where the primary person is unavailable. This will reduce the risk of missing key journal entries and ensure the correct allocation of expenses at year-end.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

ACCESS CONTROL

2019-014: Develop and Implement Compliant Application Access Management Procedures

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-039

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

All of the facilities within DBHDS do not have access management procedures, which meet the baseline standard defined by the Security Standard. The Information Security Office issued baseline procedures and implemented an application to approve access requests for all DBHDS facilities. However, the facilities have not developed procedures they can adapt for their specific environment that will ensure compliance with the Security Standard.

Security Standard, Section AC-1, requires an organization to develop, document, and disseminate an access control policy that addresses purpose, scope, roles, responsibilities, management commitment, and compliance. The access control policy should include procedures to facilitate the implementation of the policy and associated access controls. Security Standard, Section AC-2, addresses requirements over account management practices for requesting, granting, administering, and terminating accounts. Not having adequate access control policies and procedures increases the risk that individuals will have inappropriate access and can potentially process unauthorized transactions.

The DBHDS Information Security Office sent the baseline security procedures to all DBHDS facilities with the expectation that they would bring their internal procedures in line with the baseline procedures by March 2018. However, the Information Security Office did not monitor the facilities' implementation of these procedures because each facility has unique processes related to access. The Information Security Office should work with the individual facilities to set reasonable deadlines and monitor their actions to ensure that they bring their application access management procedures in line with the office's baseline procedures and the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-015: Promptly Remove Commonwealth's Accounting and Financial Reporting System User Access

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS did not timely request that Accounts remove seven out of 20 (35%) Commonwealth's accounting and financial reporting system users access for individuals who no longer required access. Access removal requests for these users took between six to 64 days. Although DBHDS did have policies and procedures that included processes for removing access to the Commonwealth's accounting and financial reporting system, these procedures did not speak to the access removal timeframe.

The Security Standard, Section AC-2-COV 2f, requires the prompt removal of access when no longer needed. Per Commonwealth Accounting Policies and Procedures (CAPP) Manual Topic 70220, security officers are responsible for submitting timely security deletion requests for staff who no longer require access. CAPP Manual Topic 70220 states that agencies should have policies and procedures that include processes for removing access timely for employees that have left the agency. Furthermore, DBHDS should ensure that these procedures are in compliance with the Security Standard.

Due to ineffective access controls, DBHDS did not ensure that individuals were removed timely from the Commonwealth's accounting and financial reporting system. Instead of promptly removing access upon termination, transfer, or layoff, security officers waited until the annual review of access to request the removal of employee's access. Delaying the removal of all access privileges increases the risk that former employees will have unauthorized access to Commonwealth systems and sensitive information.

Security officers should promptly remove access upon termination, transfer, or under other circumstances in accordance with the Security Standard. Security officers should submit timely security deletion requests to Accounts instead of waiting until annual access reviews to remove access. Additionally, DBHDS should strengthen internal policies and procedures over access to the Commonwealth's accounting and financial reporting system to ensure compliance with the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-016: Develop Access Profile Descriptions and Improve Monitoring Controls over the Internal Attendance and Leave System

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS does not have descriptions of access profile capabilities for the internal time, attendance, and leave system. Since each DBHDS facility has the option to request access profiles based on the facility's need, there are varying profiles across all facilities and the Central Office. Additionally, documentation of access monitoring was not in compliance with internal monitoring requirements, which requires a complete review of all user access to be performed annually. We completed a review of monitoring certifications and submissions for all 14 DBHDS facilities and the Central Office. Four facilities (27%) did not include evidence that all access types were reviewed for reasonableness on their monitoring spreadsheets. Two of these facilities only documented the monitoring of users with elevated access privileges and users with unreasonable access that required a change. The other two facilities only documented unreasonable access.

The Security Standard, Section 8.1 AC-1, requires agencies to develop, document, disseminate, and review and update annually, an access control policy that addresses purpose, scope, roles, compliance, and responsibilities and formal documented procedures to facilitate the implementation of the policy and associated access controls. Additionally, Section 8.1 AC-2 of the Security Standard states "the organization reviews accounts for compliance with account management requirements on an annual basis or more frequently if required to address an environmental change."

Access descriptions are important to properly assign profiles to new users and help to ensure least privilege. Written documentation reduces the impact that turnover has on institutional knowledge and makes information more readily available. The lack of proper monitoring of all users can result in inappropriate access such as access for terminated employees. In addition, inadequate system documentation may cause inefficiencies in the process of granting access as well as monitoring of access.

DBHDS has not developed access profile descriptions due to the lack of staff and resources. Inadequate documentation of access monitoring occurred due to the new monitoring process implemented during fiscal year 2019 which requires the review of all users as opposed to only those with elevated access privileges. The facilities that did not comply with the new internal monitoring requirements were still following the historical monitoring process.

DBHDS should develop access capability descriptions for access profiles for the internal time, attendance, and leave system. In addition, all DBHDS facilities and the Central Office should perform and document a complete review of all users at least annually. The Central Office should review all facility submissions to ensure completeness of access reviews.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-017: Improve Access Controls over the Commonwealth's Payroll System

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Individual facilities within the DBHDS and the Central Office are not consistently removing system access to the Commonwealth's payroll system for terminated or transferred employees in a timely manner. For three out of eight (38%) Commonwealth's payroll system users tested, payroll security officers at the individual facilities and the Central Office did not terminate employee access up until two to 76 days after their last day worked.

The Security Standard, Section PS-4, states an organization must disable information system access within 24 hours of employee separation and terminate any authenticators or credentials associated with the individual. Untimely termination of access from the Commonwealth's payroll system greatly increases the risk of unauthorized payroll transactions.

There are two underlying causes for why access to the Commonwealth's payroll system was not timely removed. Payroll security officers at the individual facilities and the Central Office thought that it was reasonable to remove access within two days and; therefore, they did not comply with the access removal timeframe stipulated in the Security Standard. Additionally, access was not promptly removed upon layoff because a payroll security officer waited until the semi-annual review of access to request the removal of employee's access.

Payroll security officers at the individual facilities and the Central Office should ensure that access to the Commonwealth's payroll system is promptly removed upon termination, transfer, or under other circumstances in accordance with the Security Standard. Further, staff should submit timely requests to delete access, instead of waiting until semi-annual access reviews to remove access. Payroll security officers should ensure compliance with access removal timeframes as outlined in the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-018: Improve Controls Over Access to the Commonwealth's Retirement Benefits System

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-083; 2017-077; 2016-068; 2015-081; 2014-063

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Individual facilities within the DBHDS and the Central Office do not have adequate controls in place to ensure that system access to the Commonwealth's retirement benefits system is appropriate. Human Resources at the facilities and the Central Office did not terminate system access timely to the Commonwealth's retirement benefits system for six out of 11 (54%) inactive users. Access removal for these users ranged between three days to 72 days post separation. One out of three active Commonwealth's retirement benefits system users tested (33%) at the Central Office had system access privileges that were neither appropriate nor based on least privilege according to job responsibilities.

The Security Standard, Section PS-4, states an organization must disable information system access within 24 hours of employee separation and terminate any authenticators or credentials associated with the individual. Delays in deleting access increases the risk of unauthorized use of the Commonwealth's retirement benefits system which could result in unauthorized changes and could impair data integrity.

Furthermore, Security Standard, Section AC-6, requires granting access based on the principle of least privilege and only authorizing user access which is necessary to accomplish tasks in accordance with organizational missions and business functions. Granting access based on the principle of least privilege is a best practice for maintaining security over critical systems. When access granted violates the principle of least privilege, there is an increased risk that users can circumvent other compensating controls and perform unauthorized transactions.

According to management at the individual facilities and the Central Office, timely removal of user access to the Commonwealth's retirement benefits system did not occur due to delayed communication within Human Resources. Further, Human Resources did not have a documented procedure for removing terminated employee access to the Commonwealth's retirement benefits system. For the user that had inappropriate access at the Central Office, Human Resources did not appropriately consider the principle of least privilege when establishing access.

Human Resources Management should ensure that access to the Commonwealth's retirement benefit system is appropriate. Human Resources at the individual facilities and the Central Office should ensure there are proper procedures in place to remove unneeded access to the Commonwealth's retirement benefits system timely. Human Resources at the Central Office should reassign access to the Commonwealth's retirement benefits system based on a least privilege basis as defined in the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-019: Improve Timely Removal of Critical System Access

Applicable to: Department of Health

Prior Year Finding Number: 2018-036; 2017-024; 2016-020; 2015-026; 2014-038

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Department supervisors did not notify the Office of Human Resources (Human Resources) in a timely manner as they became aware of employee separations, which resulted in delays of system access removal. Additionally, in some cases, the supervisors and Human Resources did not realize that the terminated employees had active accounts to certain information systems, causing delays in deleting the accounts. During our review, we found delays in the removal of access from the following information systems:

- Health removed access to the Commonwealth’s human resources system for 105 users during the fiscal year, but did not remove access timely for three of these users. These accounts were removed 16 to 211 days after the employees’ separation dates.
- Health removed access to the Commonwealth’s payroll system for 37 users during the fiscal year, but access was not removed timely for four users. These accounts were removed 13 to 166 days after the employees’ separation dates.
- Health removed access to the patient management system for 376 users during the fiscal year, but access was not removed timely for 24 users. These accounts were removed seven to 144 days after the employees’ separation dates.
- Health removed access to the Commonwealth’s accounting and financial reporting system for 32 users during the fiscal year, but access was not removed timely for one user. This account was removed four business days after the employee’s separation date.

Section PS-4 of the Security Standard requires agencies to “disable information system access within 24 hours of employment termination.” Additionally, Health’s internal off-boarding procedure requires supervisors to inform Human Resources of an employee separation as soon as the supervisor is aware of the separation. Health’s procedure then requires deletion of the account within 24 hours of notification.

Terminated employees who still have access to critical systems may be able to access these systems after leaving the agency. By not deleting users' accounts to sensitive information systems timely, this also increases the risk of an internal or external party compromising these unneeded accounts and using them to access these systems. Each of these scenarios increases the risk of inappropriate transactions and the exposure of sensitive data.

Health implemented a new process to off-board employees during the fiscal year to increase efficiency; however, there were still delays in removing system access in both the old and new processes. In some cases, department supervisors and district Human Resources staff did not complete their parts of the off-boarding process in a timely manner. In other cases, Health did not identify the fact that the terminated employees had access to these systems in order to remove the access. Additionally, Health's off-boarding process does not include a review of the off-boarding procedures to ensure each responsible party completed their tasks. Therefore, Health was not able to identify the fact that they needed to remove these users' access in a timely manner.

Health should strengthen their new process by implementing a review of all off-boarding tasks and clarify the timeline for each task. This will ensure completion of each task and will identify instances of delay. Health should also review system access listings with each employee termination to identify the systems the employees can access. This will reduce rates of non-compliance with both the statewide and internal policies by removing the access within 24 hours. This will also reduce the risk of unauthorized transactions and exposure of sensitive data. Health may also want to review their current policy to ensure it is in compliance with the Security Standard. Any policy exceptions to the Security Standard need to be approved by VITA.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-020: Perform System Access Reviews

Applicable to: Department of Health

Prior Year Finding Number: 2018-037

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: HIV Care Formula Grants - 93.917

Federal Award Number and Year: X07HA00009 - 2018

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303(e)

Known Questioned Costs: \$0

Health did not perform comprehensive system access reviews within timeframes established by internal and statewide procedures. Health has multiple critical systems throughout several different departments. These systems support various business functions, including accounting, patient management and benefits administration, so there are various internal policies that address periodic system access reviews. During our review of Health's system access reviews, we identified the following instances of non-compliance with policies and procedures:

- Department supervisors did not submit three out of ten (30%) monthly access review certifications by the due date for the internal financial and accounting system; receipt of these certifications occurred 24 to 66 days past the due dates.
- Department supervisors did not submit three out of ten (30%) monthly access review certifications by the due date for the patient management system; receipt of these certifications occurred between seven to 16 days past the due dates.
- Human Resources has not performed a comprehensive annual review of access privileges for the Commonwealth's retirement benefits system since April of 2017.
- After implementing monthly access reviews for the Women, Infants, and Children (WIC) eligibility system in April 2019, 12 of 35 department supervisors did not submit at least one of their monthly access review certifications over the three-month period between April and June 2019. Two of these supervisors did not submit the certification for any of the three months. In addition, central office staff did not maintain any certifications or other evidence of a comprehensive access review for the same system throughout the entire fiscal year.
- Administrative staff did not perform two quarterly access reviews for the HIV formula grant system as required by Health's internal access review policy.

- Health has no formal process in place for reviewing access to the WIC electronic benefit system. Although a third party manages this system, Health employees have read-only access to information in the system but do not have a process to manage this access.

Health's internal policies require supervisors of Health's various business areas to review and certify access to Health's accounting, patient management, and WIC benefits systems monthly. For the patient management and accounting systems, the policy requires these supervisors to perform these monthly reviews by the tenth day of the following month. Health's internal policy on reviewing access to the HIV formula grant benefits system requires a quarterly review. Additionally, for sensitive information systems, Section AC-6-7a of the Security Standard requires agencies to "review on an annual basis the privileges assigned to all users to validate the need for such privileges."

Regular access reviews ensure that system administrators processed all requests to add, modify or delete users properly and in accordance with requests from the system owners. Not performing regular access reviews increases the risk of individuals having inappropriate access to information systems.

Staffing changes caused some of the delays in performing and certifying access reviews of the patient management and accounting systems. In some situations, the reviewer did not get the correct level of access to both review and certify system access in time to meet the deadlines. Resource constraints and the prioritization of other tasks led to the remaining delays in the patient management and accounting systems reviews as well as the retirement benefits system and WIC eligibility system reviews. Staffing changes were also the cause for the lack of reviews for the HIV formula grant benefits system.

Health should ensure backup personnel are available to perform regular reviews of access in the event that the primary reviewer is unable to perform the review. Additionally, Health should perform follow-up procedures when reviewers do not provide certifications within their established timeframes to ensure the prioritization of these reviews. This will reduce the rates of untimely reviews and decrease the risk of inappropriate access to sensitive information systems.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-021: Improve Segregation of Duties Controls over the Payroll and Human Resources System

Applicable to: University of Virginia

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

The University implemented a new payroll and human resources system (System) in fiscal year 2019, and unintentionally assigned employees conflicting roles creating segregation of duties risks. The University hired a consultant with proprietary access analysis tools to perform a segregation of duties analysis over the new System and provide a detailed report identifying potential concerns. The University began to research and address concerns in August 2019 and will continue to address additional concerns during the remainder of fiscal year 2020.

As outlined in the University’s policy FIN-021: Internal Control, individuals responsible for administering University funds and resources must grant or delegate financial authority carefully, with consideration for proper segregation of duties. The University’s adopted information security standard, ISO 27002, section 9.2.2, states, “the provisioning process for assigning or revoking access rights granted to user IDs should include verifying that the level of access granted is appropriate to the access policies and is consistent with other requirements such as segregation of duties.” Inadequate segregation of duties increases the risk for fraudulent transactions and errors in financial reporting and heightens reliance on compensating detective controls. The improper segregation of duties occurred as a result of the University not identifying business processes and prioritizing potential conflicts prior to System implementation. The University should develop a resource that details conflicting business processes and their respective roles for use in establishing and monitoring future access to the system and resolve remaining segregation of duties conflicts identified in the consultant’s report.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-022: Improve Process for Terminating Access to the Commonwealth's Retirement Benefits System

Applicable to: University of Virginia

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

University HR did not terminate employees’ access to the benefits system timely upon termination of employment. During fiscal year 2019, six individuals with access to the benefits system

separated from the University. For three individuals, HR did not remove system access for more than 30 days after each employee's last day of employment.

The University's policy IRM-003: Data Protection of University Information, classifies personal information that if exposed can lead to identity theft, as highly sensitive data. The University Use of Highly Sensitive Data Standard reads that access, generation, collection, storage, and transmission of highly sensitive data will only be allowed when essential and approved for business processes. Additionally, the University's adopted information security standard, ISO 27002, sections 9.2.1 and 9.2.2, state the University should immediately disable or remove access rights of users who have left the institution. Not removing system access in a timely manner increases the risk of unauthorized access to highly sensitive data by individuals no longer employed by the University.

Currently, on a bi-weekly basis, the HR Benefits department uploads a batch file into the benefits system, which prompts the termination of access. This process could result in an individual retaining access to the benefits system for up to two weeks after their last day of employment. In addition, the HR Benefits department noted that the untimely termination of access for two employees was the result of a delay in the batch upload. For the third employee, the untimely termination was the result of an error in the batch file. The individual was marked as "inactive" rather than "terminated," which did not prompt system access termination.

The HR Benefits department of the University should develop a process to terminate user access to the benefits system when the employee separates from the University or as soon as the employee no longer needs access to the benefits system to perform assigned job duties. Only 18 employees currently have access to the benefits system, all of whom are centrally located in the HR Benefits or Payroll departments. Therefore, due to the centralized nature of human resources and payroll operations and the small number of users with access, it is reasonable to manually terminate the access as soon as practicable, but not later than the employee's separation date. This improvement in the University's process would greatly increase the security over the highly sensitive data contained in the benefits system.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-023: Improve Patient Accounting, Billing, and Management System Segregation of Duties

Applicable to: University of Virginia-Medical Center

Prior Year Finding Number: 2018-044

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

The University of Virginia Medical Center (Medical Center) continues to address the deficiency communicated in our prior year audit report to gain assurance that user access to the patient accounting, billing, and management system complies with the principle of least privilege. During fiscal year 2018, the University of Virginia (University) Audit Department (Audit Department) issued a segregation of duties audit report, which focused on access within the Medical Center's patient accounting, billing, and management system. The primary concerns noted by the Audit Department included insufficient consideration or analysis of potential segregation of duties conflicts when changing user access templates, along with a lack of documented approval when making changes to templates.

The Medical Center Security Standard, section AC-5 Separation of Duties, requires that the organization separate the duties of individuals, document the separation of the duties of individuals, and define information system access authorizations to support separation of duties. The Medical Center has documented an analysis over sensitive security points and roles in the patient accounting, billing, and management system, and has been designing a plan to address concerns over segregation of duties. As of fiscal year end 2019, the Medical Center has not implemented this plan, and; therefore, the Medical Center has limited assurance that the access assigned complies with the principle of least privilege. Improper access to the patient accounting, billing, and management system increases the risk of improper activity within the system, which could subsequently affect the Medical Center's financial statements.

The Medical Center should continue to address the recommendations made by the University Audit Department related to segregation of duties in the patient accounting, billing, and management system. By implementing its plan to limit access in compliance with the principle of least privilege, the Medical Center will be able to better monitor and avoid improper segregation of duties within the system.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-024: Remove Separated Employee Access in a Timely Manner

Applicable to: Department of Medical Assistance Services

Prior Year Finding Number: 2018-040; 2017-016

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1805VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303(a)

Known Questioned Costs: \$0

Medical Assistance Services did not remove access to the claims processing system timely for individuals who no longer needed access. Five out of 12 (42%) employees did not have their system access disabled within 24 hours of separation, which occurred during the first six months of the fiscal year. These employees retained their system access between two and 27 days after separation. In January 2019, Medical Assistance Services implemented a new process, but we continued to find issues with untimely removal of access. Two out of 12 (17%) employees who separated after January did not have their access terminated within 24 hours of separation. The employees retained access for five and 27 days after separation.

Additionally, one out of three (33%) employees did not have their access to the Commonwealth's accounting and financial reporting system disabled timely following a change in job responsibilities. The employee retained system access for 60 days after the change in job responsibilities.

Medical Assistance Services' IT Access Control AC-1 Policy Section A11 (b) (i) requires that "all user accounts must be disabled immediately upon separation or within 24 business hours upon receipt by the Office of Compliance and Security." This internal policy is not in agreement with the Security Standard Section PS-4, which states an organization must disable information system access within 24 hours of employee separation and terminate any authenticators or credentials associated with the individual. Not timely disabling access to a web-based mission critical system threatens the data integrity of the system. If separated employees retain access to the claims processing system and the Commonwealth's accounting and financial reporting system, users are potentially able to view, copy, and edit sensitive information.

Medical Assistance Services is not suspending separated employees' access in a timely manner due to ineffective and untimely communication within the agency. The new exit clearance workflow process must be initiated by the employee's supervisor in order for automatic notification to be sent to the Office of Compliance and Security (Compliance and Security) for removal of system access. There can also be differences in an employee's last day in office and his or her separation date, which contributed to some of these exceptions. Additionally, disabling access to the claims processing system requires input from multiple employees within Compliance and Security.

For removing access to the Commonwealth’s accounting and financial reporting system, the process requires proper communication and manual approvals before access can be disabled. When combined with the issues noted above, the manual nature of the process often prevents timely removal of separated users. Lastly, Medical Assistance Services’ current internal policy is not in compliance with the Security Standard, and prior approval for this deviation was not obtained from VITA.

Compliance and Security and the Human Resources Division should establish effective, regular communication to report staff changes to those individuals responsible for managing system access to ensure users’ access is removed timely. In addition, Compliance and Security and the Human Resources Division should clarify its policy to ensure there is a consistent understanding of an employee’s last day of employment and his or her separation date. Lastly, Compliance and Security should evaluate its internal policy to ensure it is clear and also consistent with the Security Standard. Any exceptions to the Security Standard requirements need to be approved by VITA.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-025: Continue to Improve Controls Over Role Access

Applicable to: Department of Taxation

Prior Year Finding Number: 2018-035; 2017-018

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Taxation’s management and its Office of Technology (Technology) did not properly restrict the access granted within security roles in their financial accounting and reporting system (system) based on the principle of least privilege. Although Taxation has various compensating controls in place, we found 14 out of the 35 security roles provided access to critical access functions in excess of the job duties of the employees assigned to these roles. Because of this, employees had unnecessary critical access in the financial accounting and reporting system.

Management made efforts to improve controls over the system’s access, specifically through their recertification process. Management provided training to the various department managers emphasizing the importance of certifying access based on least privilege. Even with the efforts, users continued to have security roles that allowed access to critical resources that were not necessary to their job functions. Managers stated they were not aware that they should have reviewed the resources associated with the roles when completing the recertification. Managers were also hesitant to delete access to a resource thinking it may result in a user being unable to complete their job responsibilities.

The Commonwealth's Information Security Standard SEC 501 (Security Standard), Section 8.1 AC-6, requires an organization employ the principle of least privilege when granting access to ensure users only have access that is necessary to accomplish their assigned tasks. Management should ensure least privilege when certifying the access granted to ensure employees have the least amount of access necessary to perform their job duties. Additionally, Technology should ensure proper setup of the access functions to ensure they grant only the stated privileges in the financial accounting and reporting system.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-026: Continue to Improve Information System Access Controls

Applicable to: Department of the Treasury

Prior Year Finding Number: 2018-041; 2017-026

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

In fiscal year 2017, we recommended that the Unclaimed Property Division (Unclaimed Property) of the Department of the Treasury (Treasury) strengthen access controls to two of its information systems used to administer unclaimed property to ensure access privileges are adequately defined and documented, are assigned based on the principle of least privilege, and ensure proper segregation of duties. During fiscal year 2018, Unclaimed Property corrected access issues related to one of the two systems. However, we recommended that Unclaimed Property should continue its efforts to adequately document access privilege descriptions and its policies and procedures for all processes including, but not limited to, ensuring segregation of duties exist for claim payments and for conducting periodic access reviews to ensure system access is appropriate. In addition, we recommended Treasury maintain adequate documentation supporting access privileges assigned.

During fiscal year 2019, Unclaimed Property has made significant improvements related to its Unclaimed Property system access controls. Unclaimed Property adequately defined and documented access privilege descriptions. In addition to the annual systems access review required by Treasury, Unclaimed Property has implemented and documented its process for a detailed review of its claims processing system to ensure access is appropriate. Unclaimed Property has identified access roles based on job duties to ensure least privilege and rolled out this new method of assigning access roles in phases during fiscal year 2020. We will test this new method during our fiscal year 2020 audit. Unclaimed Property has documented policies and procedures for a detective control related to ensuring segregation of duties exists for claim payments; however, in two of the eight months (25%) tested, review was performed more than three months (98 days) after the end of the period being reviewed.

The Security Standard, Section 8.1 AC-6, requires that Unclaimed Property employ the principle of least privilege when granting access. Additionally, the Security Standard, Section 8.1 AC-5 parts a through c, require that Unclaimed Property define and assign system access to support segregation of duties. Segregation of duties and access assigned based on the principle of least privilege reduces the risk of fraud and errors.

Unclaimed Property should document its expectation of timely review in its policies and procedures related to the detective control ensuring segregation of duties exist for claim payments.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-027: Improve Access Controls to Critical Systems

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-042

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Social Services does not have sufficient controls in place to ensure system access to critical systems is reasonable. Our review of user access across six critical systems identified the following:

- One new user was granted access permissions to Social Services' financial system in excess of the employee's job responsibilities;
- Three users were granted conflicting access to the Social Services' financial system;
- Two terminated employees retained access to Social Services' financial system;
- Two terminated employees retained access to Social Services' central security system;
- One terminated employee retained access to the Commonwealth's accounting and financial reporting system;
- Six terminated contractors retained access to the Social Services' childcare system;
- One active user to the Social Services' childcare system has two user login IDs, with different access for each ID;

- Three terminated employees retained access to the Commonwealth’s human resource system; two of the three had their access for over a year after employment termination; and
- Seven employees had unnecessary access privileges based on their job responsibilities to the Commonwealth’s retirement benefits system.

The Security Standard, Section 8.1 AC-2(j), requires the agency to “review accounts for compliance with account management on an annual basis or more frequently if required to address environmental change.” Security Standard 8.1 AC-6(7) requires the agency to “review on an annual basis the privileges assigned to all users to validate the need for such privileges; and to reassign or remove privileges, if necessary, to correctly reflect organizational mission/business needs.” The Security Standard, Section PS-4, states that the organization, upon employee termination “disables information system access within 24-hours of employment termination.” In addition, the Security Standard, AC-6, requires the agency to employ the principle of least privilege, allowing only authorized access for users that is necessary to accomplish assigned tasks.

Social Services does not have sufficient policies and procedures in place to ensure access is granted based on least privilege, access is removed timely, accurate based on conflicting access roles, and periodic reviews of access are completed. Additionally, the Separation and Transfer Checklist form does not include the Commonwealth’s accounting and financial reporting system; therefore, the Security Officer did not receive notification to terminate access. Not communicating when an employee terminates and not conducting adequate access reviews to critical systems threatens the integrity of the system and data housed within the system, and allows employees with unapproved access, which increases the risk of compromising confidentiality of Social Services’ critical data.

Social Services should update policies and procedures to reflect the requirements in the Security Standard. This would include ensuring access is granted based on the principal of least privilege, access is removed timely, and access does not involve conflicting roles. Social Services should update the Separation and Transfer Checklist form to include all systems and ensure there is proper communication with the Security Officer when there is a change with system access. Social Services should perform an annual access review of the critical systems and retain documentation of this review.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-028: Continue Improving Controls for Processing Access Terminations and Changes

Applicable to: Department of Motor Vehicles

Prior Year Finding Number: 2018-043

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Motor Vehicles' management acknowledges that the agency is still making improvements to its controls for removing access to agency and statewide systems for employees who either separate from the agency or change job responsibilities. This year, we noted an instance in which an employee's supervisor did not notify a system owner timely to remove the user's access. Instead, the user's access was later removed during the next system access review. System access reviews are completed annually or semi-annually based on the system.

The Security Standard, Sections PS-4 and AC-2, requires Commonwealth organizations, upon termination of an individual's employment to disable information system access within 24-hours and to notify account managers when users are terminated or transferred, respectively. In addition, Motor Vehicles' Information Technology Access Control Policy calls for prompt termination of systems access upon termination or transfer. Untimely deletion of access to systems can expose the agency to inappropriate activity by individuals no longer employed by the agency or no longer in their previous position.

Management should continue their efforts to improve the notification process between supervisors and system owners to ensure required changes to user access are occurring in a timely manner. Additionally, management should also consider whether supervisors are the best initiators of the notification process to determine if another party should be responsible for initiating this process.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-029: Perform Annual Access Review of Information Systems

Applicable to: Department of Corrections-Central Administration

Prior Year Finding Number: 2018-045

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

During the fiscal year 2018 audit, we determined Corrections is not performing an adequate annual review of system access to the Commonwealth’s attendance and leave system, Correction’s attendance and leave system, and the Commonwealth’s human resource system.

As of our report date, Corrections had implemented corrective actions with respect to this previously reported finding, but had not completely implemented all corrective actions.

Corrections should continue to improve procedures to ensure a detailed annual review of systems access to the Commonwealth’s attendance and leave system, Correction’s attendance and leave system, and the Commonwealth’s human resource system is performed.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-030: Improve Logical Access Controls for Users with Privileged Access

Applicable to: Virginia Alcoholic Beverage Control Authority

Prior Year Finding Number: 2018-046

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

ABC has not made sufficient progress since last year to update their account management processes for users with privileged access to meet the requirements in its current security standard, the Commonwealth’s Information Security Standard, SEC 501 (Security Standard). In addition, ABC became an Authority in January 2018 and, as such, received autonomy from following the requirements in the Security Standard beginning October 1, 2018, and has the ability to adopt a different security standard. Therefore, ABC is in the process of transitioning to the National Institute of Standards and Technology (NIST) Standard, 800-53 (NIST Standard) as its new security standard, and is developing policies and procedures based on the NIST Standard. Thus far, ABC has a complete password policy and access control policy. The policies received management’s formal approval in April 2019 and September 2019, respectively. ABC does not have accompanying procedures for the policies and they have yet to implement them into their information security program.

We addressed specific control weaknesses to management in a separate document marked Freedom of Information Act Exempt (FOIAE) under Section § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms. The Security Standard and the NIST Standard requires ABC to implement specific controls to reduce unnecessary risk to data confidentiality, integrity, and availability.

ABC should remediate the weaknesses discussed in the communication marked FOIAE in a timely manner, and ensure they meet all the requirements in the NIST Standard as they transition away from the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-031: Improve Database Security

Applicable to: Department of Transportation

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Transportation does not have a security control in place for a sensitive system's database that is required by the Security Standard.

We communicated the control weakness to management in a separate document marked Freedom of Information Act (FOIA) Exempt under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms. The Security Standard requires the implementation of certain controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information. By not meeting the minimum requirements in the Security Standard and aligning the database's settings and configurations with best practices, Transportation cannot ensure the confidentiality, integrity, and availability of data within the database or the information it reports.

Transportation should implement the security control discussed in the communication marked FOIA Exempt in accordance with the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-032: Implement Process for Ongoing Monitoring of System Access

Applicable to: Department of Education - Central Office Operations

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Child Nutrition Cluster - 10.553, 10.555, 10.556, 10.559

Federal Award Number and Year: 201919N109941 - 2019

Name of Federal Agency: U.S. Department of Agriculture

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303(e)

Known Questioned Costs: \$0

Education did not remove temporary elevated access to an employee for the School Nutrition Programs web application (web application). During our review of web application access, we found that one employee of the six tested (17%) inappropriately retained access that allowed the employee to modify and submit annual agreements, as well as provide first and second levels of approval for annual agreements.

The Security Standard, Section AC-6: Least Privilege, states; “the organization employs the principle of least privilege, allowing only authorized access for users (or processes acting on behalf of users) which are necessary to accomplish assigned tasks in accordance with organizational missions and business functions.” The program specialist with extended access could have potentially modified and approved changes for the following year to the meal programs in which local school divisions participated, violating the established controls governing the web application.

In this case, Education intended to temporarily grant the employee elevated access; however, Education did not reduce the employee’s access rights after their task was completed. Additionally, Education does not have a review process in place to evaluate the reasonableness of access when it changes responsibilities for an employee. As a result, Education should develop formal policies and procedures for ongoing monitoring of existing user access to ensure the principle of least privilege is maintained.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

MULTIPLE INFORMATION SYSTEM SECURITY CONTROL FAMILIES

2019-033: Improve Web Application Security

Applicable to: Department of Accounts

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Access Control, System and Communications Protection

Accounts does not configure a mission critical and sensitive web application in accordance with the Security Standard. We communicated two control weaknesses to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms. The Security Standard requires the documentation and implementation of certain controls that reduce unnecessary risk to the confidentiality, integrity, and availability of Accounts' information systems and data.

Accounts should develop a plan and implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard in a timely manner. Doing this will help to ensure Accounts secures the web application to protect its sensitive and mission-critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-034: Improve the Budget System Database Governance and Security

Applicable to: Department of Planning and Budget

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Audit and Accountability, Configuration Management, Contingency Planning, System and Information Integrity, Identification and Authentication

The Department of Planning and Budget (Planning and Budget) does not have adequate policies, procedures, and baseline configurations to delineate roles and responsibilities to support its database environment. As a result, it does not secure the database that supports the Commonwealth's budget system in accordance with industry best practices and the Security Standard. We communicated the details of these weaknesses to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security controls.

Planning and Budget receives infrastructure services from VITA's contractual partnership with various information technology (IT) service providers (Partnership) and outsources database administration for the budget system to an external vendor because it has limited resources to manage the database internally. However, Planning and Budget does not document roles and responsibilities between the agency, Partnership, and the external vendor to ensure all parties understand and are held accountable for securing and managing the database environment in accordance with the Security Standard and industry best practices.

Planning and Budget should develop agreements that outline the roles and responsibilities for each party to ensure all aspects of securing and managing the database are covered. Additionally, Planning and Budget should remediate the weaknesses communicated in the FOIAE document to align the configuration settings with the requirements in the Security Standard and industry best practices. Properly securing its database environment will maintain the confidentiality, integrity, and availability of sensitive and mission critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-035: Improve Web Application Security

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-027

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Access Control, Risk Assessment

DBHDS is not meeting some of the minimum requirements in the Security Standard for the web application. DBHDS uses the web application for wage employees, such as nurses and clinical staff, at the agency's 13 facilities. The web application is the originating system for wage employee hours and interfaces with the Commonwealth's payroll system. During fiscal year 2019, DBHDS had wage payroll totaling over \$13.7 million making the integrity and availability of the web application critical to the agency. The following weaknesses exist for the web application:

- DBHDS only has one central administrator that manages and maintains the web application. Each facility has an administrator to handle small issues at their facility; however, the one central administrator at the Central Office is the only one responsible for tasks such as reviewing audit reports, setting up and configuring pay rules, granting and modifying administrator access for the facilities, and monitoring system performance. The Security Standard, Section AC-2-COV, requires DBHDS to have at least two individuals with administrator accounts to each IT system to provide continuity of operations. By having one

administrator, DBHDS increases the risk of disruptions to the wage payroll process at the facilities in the absence of the single administrator.

- DBHDS did not update the risk assessment after the web application went through a recent upgrade to the software and web servers. The Security Standard, Section RA-3, requires DBHDS to update the risk assessment on an annual basis or whenever there are significant changes to the information system or environment. Without completing new risk assessments when a system undergoes a significant modification, DBHDS may not identify risks to the system and implement the necessary mitigating controls.

The primary contributing factor to these security weaknesses is the lack of resources dedicated to administer the web application. The IT security group is working on updating the risk assessment and expects to complete it in early fiscal year 2020.

DBHDS should hire or assign an individual to be a backup to the central administrator. DBHDS should update the risk assessment to ensure sufficient mitigating controls are in place. Doing this will help to ensure DBHDS maintains the confidentiality, integrity, and availability of their mission critical and sensitive systems.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-036: Improve Access Controls over the Internal Accounting and Patient Revenue Systems

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-038

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Access Control, Personnel Security

DBHDS does not have written policies and procedures over access to their internal accounting and financial reporting system. The most recent policies and procedures are from 2006, which are outdated and do not reflect changes that were implemented during the system upgrades that occurred during 2011 and 2015. In addition, DBHDS does not have adequate policies and procedures over the granting and monitoring of access to the internal patient accounting system. DBHDS does not have a formal process in place to monitor access periodically to the internal accounting and financial reporting system. Specifically, we found the following issues with user access to internal systems:

- Three out of 25 (12%) users tested had access to the internal accounting and financial reporting system that did not agree with the access level on the user access form. Although

DBHDS granted some levels of access to the employees upon request, account modification forms were created at the time of the auditor's request to reflect actual access in the system at the time of our inquiry.

- One out of two (50%) terminated users tested had access to the internal accounting and financial reporting system that was not removed within 24 hours. Removal for this user took four days after termination.
- Four out of 13 (31%) users tested had access in the internal patient revenue system but did not have an access form on file at the time of auditor inquiry. These users have had access to the system since prior to the implementation of access forms. Therefore, DBHDS performed the documentation of access forms for the users retroactively.

In addition, we found that monitoring requests over the internal accounting and financial reporting system for Central Office users were not sent out to department managers until after the end of the fiscal year. Furthermore, the Information Security Office did not ensure confirmation of proper access from each facility during the fiscal year as at least six facilities did not respond to monitoring requests until after the end of the fiscal year. We noted that monitoring requests do not include requirements as to timeliness of review, which would ensure that timely monitoring of access occurs.

The Security Standard, Section PS-4, states an organization must disable information system access within 24 hours of employee separation and terminate any authenticators or credentials associated with the individual. The Security Standard, Section AC-6, requires granting access based on the principle of least privilege and only authorizing user access, which is necessary to accomplish tasks in accordance with organizational missions and business functions. Part 7 of Section AC-6 requires the performance of an annual review of access to validate that the need of such access still exists.

Not ensuring that system users have and retain appropriate access to the internal accounting and financial reporting system increases the risk of unauthorized individuals inappropriately entering or approving transactions and could affect the integrity of DBHDS transactions in the internal and Commonwealth's accounting and financial reporting systems. Without a review of all accounts on an annual basis, DBHDS cannot verify that each user's access is appropriate based on job functions, does not violate the principles of least privilege or separation of duties, and is configured appropriately. Due to an increased workload and lack of staff resources, personnel did not update internal policies and procedures over the internal accounting and financial reporting system. Personnel in the Information Security Office did not understand the purpose and timing of when to perform monitoring activities, which should be done regularly during the fiscal year rather than only prior to the audit.

DBHDS should establish and implement proper policies, procedures, and controls over access to the internal accounting and financial reporting system, as well as the internal patient revenue system. DBHDS should ensure that monitoring of access to the internal accounting and financial reporting system for all facilities and the Central Office occurs annually and throughout the year as opposed to at the time of auditor's request.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-037: Improve Web Application Security

Applicable to: Department of Social Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Audit and Accountability, Risk Assessment, System and Communications Protection, System and Information Integrity

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1905VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R § 200.303(e)

Known Questioned Costs: \$0

Social Services does not configure a sensitive web application in accordance with the Security Standard. We identified five control weaknesses and communicated them to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia, due to it containing descriptions of security mechanisms. The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to the confidentiality, integrity, and availability of Social Services' information systems and data.

Social Services should develop a plan to implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard in a timely manner. Doing this will help to ensure Social Services secures the web application to protect its sensitive and mission critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-038: Improve IT Change and Configuration Management Process

Applicable to: Department of Social Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Configuration Management, Access Control

Social Services does not follow an IT change and configuration management process that includes all elements required by the Security Standard. Change management is a key control to evaluate, approve, and verify configuration changes to security components.

We identified nine control weaknesses and communicated them to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia, due to it containing descriptions of security mechanisms. The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to the confidentiality, integrity, and availability of Social Services' information systems and data.

Social Services should develop a plan to implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard in a timely manner. Improving Social Services' IT change and configuration management processes will decrease the risk of unauthorized modifications to sensitive systems and help maintain the confidentiality, integrity, and availability of sensitive and mission critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-039: Improve Web Application Security

Applicable to: Department of Health

Prior Year Finding Number: 2018-026

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: System and Information Integrity, Contingency Planning, Configuration Management

CFDA Title and CFDA #: Immunization Cooperative Agreements - 93.268

Federal Award Number and Year: NH23IP000763 - 2018

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303(e)

Known Questioned Costs: \$0

Health does not secure two of their sensitive systems with some of the minimum security controls required by the Security Standard and industry best practices. We identified eight weaknesses across two different systems and communicated them to management in separate documents marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to the descriptions of security mechanisms contained within the documents.

The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information. By not meeting the minimum requirements in the Security Standard, Health cannot ensure the confidentiality, integrity, and availability of data within its systems.

Health should implement the controls discussed in the communications marked FOIAE in accordance with the Security Standard and best practices in a timely manner.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-040: Improve Server Operating System Security

Applicable to: Virginia Lottery

Prior Year Finding Number: 2018-066

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Configuration Management, Identification and Authentication, Audit and Accountability

Lottery made progress to remediate weaknesses since the prior year audit for one of the server operating systems that support Lottery's primary financial management system but continues to implement the remaining security controls. These missing controls are requirements in Lottery's information security policies and the Commonwealth's Information Security Standard, SEC 501 (Security Standard). Further, industry best practices, such as the Center for Internet Security (CIS), also recommend certain controls to protect data confidentiality, integrity, and availability.

The missing controls relate to least functionality and system monitoring. We communicated details about the specific control weaknesses to management in a separate document marked Freedom of Information Act Exempt under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms.

Not configuring the server according to least functionality and using inadequate monitoring controls increases the risk that Lottery will not be able to prevent, detect, or mitigate security incidents involving the server in a timely manner that also complies with Lottery's policy and the Security Standard.

Lottery should update their server configuration process to include the missing controls so that they align with Lottery's policy, the Security Standard, and industry best practices. Implementing these controls will help maintain the confidentiality, integrity, and availability of the sensitive and mission critical data stored and processed on the server.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-041: Improve Vulnerability Remediation Efforts

Applicable to: Department of Education - Central Office Operations; Virginia Information Technologies Agency

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: System and Information Integrity, Risk Assessment

Education relies on VITA's contractual partnership with various information technology (IT) service providers (Partnership) to install, maintain, operate, and support IT infrastructure components, such as servers, routers, firewalls, and virtual private networks. As a part of these services, Education relies on the Partnership to install security patches and updates to software to remediate weaknesses found in vulnerability scans.

During our review, we found that the Partnership is not installing certain security patches for Education's systems to remediate vulnerabilities. The Partnership states it does not support certain software maintained for Education's systems and that it is the responsibility of Education to maintain the software. However, Education does not have the ability to install patches for its systems because only the Partnership has administrative privileges to the servers. Additionally, VITA does not have a list of approved software to provide Education so the agency knows what software the Partnership will support.

The Commonwealth's IT Risk Management Standard, SEC 520 (IT Risk Management Standard), Section 3.7 Vulnerability Scanning, requires vulnerability scans be performed at least once every 90 days and when new vulnerabilities potentially affecting the system or application are identified and reported. Additionally, legitimate vulnerabilities are required to be remediated within 90 days based on risk. Furthermore, the Commonwealth's Information Security Standard, SEC 501 (Security Standard), section SI-2 Flaw Remediation, requires security-relevant software and firmware updates be installed within 90-days of the release of the update.

With the Partnership not installing certain security patches and updates, it increases the risk of cyberattack, exploit, and data breach by malicious parties. Education is aware of this issue and is working with the Partnership to develop remediation plans to install security patches and updates in accordance with the Security Standard. Additionally, the Commonwealth Security and Risk Management group within VITA is aware of the need to publish a list of approved software the Partnership will support.

Education should continue working with the Partnership to install current security patches and updates for its IT systems and workstations to remediate vulnerabilities and maintain up-to-date software. Additionally, VITA should develop and publish a list of approved software so Education is aware of the software the Partnership supports. Doing this will further reduce the risk to the confidentiality, integrity, and availability of sensitive Commonwealth data and achieve compliance with the Security Standard and IT Risk Management Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding. Additionally, we provided management of the Virginia Information Technologies Agency (VITA) with a copy of this finding for their response. VITA's management elected not to provide a response for inclusion in the audit report.

2019-042: Improve Web Application Security

Applicable to: Department of Education - Central Office Operations

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Audit and Accountability, System and Communications Protection

Education does not configure a sensitive web application in accordance with the Security Standard. We identified three control weaknesses and communicated them to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia, due to it containing description of security mechanisms. The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to the confidentiality, integrity, and availability of Education's information systems and data.

Education took immediate corrective action to subsequently resolve two of the three weaknesses included in the FOIAE document. Education should develop a plan to implement the remaining control included in the communication marked FOIAE in accordance with the Security Standard and in a timely manner. Doing this will help to ensure Education secures the web application to protect its sensitive and mission critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-043: Improve Database Security

Applicable to: Virginia Alcoholic Beverage Control Authority

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Audit and Accountability, Access Control, Configuration Management, Identification and Authentication

ABC does not secure the database that supports its human resource system with certain minimum-security controls in accordance with the Security Standard and industry best practices.

We communicated the control weaknesses to management in a separate document marked Freedom of Information Act (FOIA) Exempt under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms. The Security Standard and industry best practices require the implementation of certain controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information.

ABC should ensure database configurations, settings, and controls align with its policies and the requirements in the Security Standard and industry best practices, such as the Center for Internet Security Benchmark. Implementing these controls will help maintain the confidentiality, availability, and integrity of the sensitive and mission critical data stored or processed in the database. ABC should ensure they meet all the requirements in the NIST Standard as they transition away from the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-044: Improve Database Security

Applicable to: Virginia Employment Commission

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Information System Security Control Family: Configuration Management, Contingency Planning,
Access Control

CFDA Title and CFDA #: Unemployment Insurance - 17.225

Federal Award Number and Year: UI-32632-19-55-A-51 - 2019

Name of Federal Agency: U.S. Department of Labor

Type of Compliance Requirement - Criteria: Special Tests and Provisions - 20 C.F.R. §§ 600 - 656

Known Questioned Costs: \$0

The Virginia Employment Commission (Commission) does not secure one of their sensitive system's database with some of the minimum security controls required by its policies and the Commonwealth's Information Security Standard, SEC501 (Security Standard). The Security Standard requires agencies to implement certain minimum controls to protect the confidentiality, integrity, and availability of the system's data.

We communicated five control weaknesses to management in a separate document marked Freedom of Information Act Exempt (FOIAE) under Section §2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms. By not meeting the minimum requirements in the Security Standard and aligning the database's settings and configurations with best practices, the Commission cannot ensure the confidentiality, integrity, and availability of data within the database or the information it reports.

The Commission should dedicate the necessary resources to implement the control discussed in the communication marked FOIA Exempt in accordance with the Security Standard and best practices in a timely manner.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

CONTINGENCY PLANNING

2019-045: Improve IT Contingency Management Program

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-053; 2017-065

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS does not have complete and current Continuity of Operations Plans (COOP) and IT Disaster Recovery Plans (DRP) for the facilities and the Central Office. DBHDS has hospitals, mental health institutes, and training centers that manage their own mission critical IT applications that help provide patient services. Three of these facilities do not have a COOP, one facility and the Central Office do not have a DRP, and the remaining facilities' COOPs and DRPs are out-of-date, with some as old as 2009. In addition, the Central Office and the facilities are not performing annual tests on the COOPs or DRPs.

DBHDS had plans to work with the Virginia Information Technologies Agency (VITA) and the new managed services with multi-sourcing services integrator to obtain cost estimates and develop a plan to address disaster recovery and continuity of operations; however, turnover in the Chief Information Officer and Chief Information Security Officer positions as well as staff turnover are the primary factors for not completing this effort. DBHDS does not have an estimate when they will complete the work to obtain cost estimates and develop current IT COOPs and IT DRPs.

The Security Standard, Section CP-1, requires DBHDS to develop and disseminate procedures to facilitate the implementation of a contingency planning policy and associated contingency planning controls. The Security Standard also requires the agency to maintain current COOPs and DRPs and conduct annual tests against the documents to assess their adequacy and effectiveness.

By not having current COOPs and DRPs, DBHDS increases the risk of mission critical systems being unavailable to support patient services. In addition, by not performing annual tests against the COOPs and DRPs, DBHDS is unable to identify weaknesses in the plans and may unnecessarily delay the availability of sensitive systems in the event of a disaster or outage.

DBHDS should assign the necessary resources and work with VITA and the multi-sourcing services integrator to remediate the weaknesses in the continuity of operations and disaster recovery processes and ensure the contingency management program meets the minimum requirements in the Security Standard. DBHDS should develop and update the COOPs and DRPs ensuring they are consistent across the facilities and the Central Office. Once the COOPs and DRPs are complete, DBHDS should perform annual tests against them to ensure the Central Office and the facilities can restore mission critical and sensitive systems in a timely manner in the event of an outage or disaster. Doing this will help to ensure DBHDS maintains the confidentiality, integrity, and availability of their mission critical and sensitive systems.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-046: Improve Disaster Recovery for Sensitive Systems

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS does not perform certain processes in its disaster recovery plan required by the Security Standard and industry best practices. We identified a weakness in this area and communicated this to management in a separate document marked Freedom of Information Act Exempt (FOIAE) under § 2.2-3705.2 of the Code of Virginia due to descriptions of security mechanisms contained within the document.

The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information. By not meeting the minimum requirements in the Security Standard, DBHDS cannot ensure the confidentiality, integrity, and availability of data within its systems.

DBHDS should implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard and best practices in a timely manner.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-047: Improve Contingency Management Program

Applicable to: Department of Health

Prior Year Finding Number: 2018-055

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Health does not perform certain processes in their contingency management program required by the Security Standard and industry best practices. We identified two weaknesses and communicated them to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to the descriptions of security mechanisms contained within the document.

The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information. By not meeting the minimum requirements in the Security Standard, Health cannot ensure the confidentiality, integrity, and availability of data within its systems.

Health should implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard and best practices in a timely manner.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-048: Improve the Disaster Recovery Plan

Applicable to: Department of Health

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Health does not perform certain processes in its disaster recovery plan required by the Security Standard and industry best practices. We identified a weakness in this area and communicated this to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to descriptions of security mechanisms contained within the document.

The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information. By not meeting the minimum requirements in the Security Standard, Health cannot ensure the confidentiality, integrity, and availability of data within its systems.

Health should implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard and best practices in a timely manner.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-049: Develop Records Retention Requirements and Processes for Case Management System

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-054

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1905VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303(e)

Known Questioned Costs: \$0

Social Services did not make progress to develop and implement electronic records retention requirements for its case management system. We communicated the deficiencies to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms.

Federal regulations require different record retention requirements for different federal programs. Additionally, the Virginia Public Records Act (§ 42.1-91 of the Code of Virginia) requires each agency to be responsible for ensuring that its public records are preserved, maintained, and accessible throughout their lifecycle, including converting and migrating electronic records as often as necessary so that information is not lost due to hardware, software, or media obsolescence or deterioration. Furthermore, the Security Standard, Section CP-9-COV, requires for every IT system identified as sensitive relative to availability, an agency implement backup and restoration plans that address the retention of the data in accordance with the records retention policy.

Retaining records longer than necessary causes the Commonwealth to spend additional resources to maintain, back-up, and protect the information. Additionally, without documenting and implementing records retention requirements, Social Services may not be able to ensure that backup and restoration efforts will provide mission essential information according to recovery times. Social Services placed corrective actions on hold due to competing priorities of Medicaid expansion and other corrective actions within the IT environment. Social Services' goal is to develop and implement record retention requirements in November 2020.

Social Services should identify retention requirements for the data within its case management system. Additionally, Social Services should implement a process, whether a manual process or automated control, to ensure consistent compliance with the retention requirements the agency identifies for each data set within the IT system.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-050: Continue to Improve Disaster Recovery Planning Documentation

Applicable to: Department of Taxation

Prior Year Finding Number: 2018-056

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Taxation made progress to improve its risk management documentation since the previous audit by updating its Business Impact Analysis (BIA). However, Taxation did not update its disaster recovery documentation, specifically its Contingency Plan (CP) and Information Technology (IT) Disaster Recovery Plan (DRP), to consistently reflect recovery expectations and meet the requirements in the Security Standard. Additionally, Taxation does not consistently use disaster recovery plan nomenclature in its contingency planning documentation.

We communicated the specific control weaknesses to management in a separate document marked Freedom of Information Act Exempt (FOIAE) under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms.

Inconsistent recovery expectations and ambiguous language reduces the effectiveness of Taxation's disaster recovery planning documentation. Taxation should make the necessary revisions, as discussed in the separate FOIAE communication, to become compliant with the Security Standard and improve the effectiveness of its plans.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

SYSTEM AND SERVICES ACQUISITION

2019-051: Complete and Approve the System Security Plan

Applicable to: Department of Medical Assistance Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1805VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Special Tests and Provisions - 45 C.F.R. § 95.621(f)

Known Questioned Costs: \$0

Medical Assistance Services does not have a complete and formally approved System Security Plan (SSP) with the vendor that manages the claims processing system. Medical Assistance Services has been working with the vendor to ensure they are in compliance with their contractual requirements and complete the SSP in response to findings from an external 2017 system security review. Medical Assistance Services continues to work with the vendor, but the SSP is not complete and multiple gaps remain between the vendor's controls and Medical Assistance Services' internal policies and procedures.

The contract between Medical Assistance Services and the vendor, Section 6.0 Security and Risk Assessment, states that the vendor will maintain a current SSP according to Medical Assistance Services' policies, procedures, standards, and guidelines. Additionally, 45 C.F.R. § 95.621 requires the establishment of a security plan that addresses various system security requirements.

An SSP is important because it documents the minimum control requirements the vendor must implement to protect confidential and sensitive Commonwealth data. Without a complete SSP that has the formal approval of Medical Assistance Services and the vendor, the system may lack certain controls to protect the confidentiality, integrity, and availability of its mission essential data. Additionally, without a complete SSP, the roles and responsibilities between Medical Assistance Services and the vendor may be unclear, thereby increasing the risk of service disruption or data breach due to missing or ambiguous controls.

Medical Assistance Services did not meet its original due date, March 31, 2018, for completing the SSP because Medical Assistance Services is in the process of replacing the current system and the vendor has competing priorities with transitioning to the new system. Medical Assistance Services should complete the SSP and receive formal approval to ensure the vendor is meeting their contractual obligations. Medical Assistance Services should also ensure the SSP aligns with the requirements in its own policies, procedures, standards, and guidelines. Medical Assistance Services is unable to provide a specific completion date when the SSP will be complete and receive formal approval but has set a tentative goal of December 31, 2019.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-052: Develop a Process to Maintain Oversight for Third-Party Providers

Applicable to: Department of Social Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: TANF Cluster - 93.558

Federal Award Number and Year: 1901VATANF - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303(e)

Known Questioned Costs: \$0

Social Services does not have a formal process to manage its third-party Software as a Service (SaaS) providers that fall under VITA's Enterprise Cloud Oversight Service (ECOS). Social Services uses VITA's ECOS to assist the agency with gaining assurance that its SaaS providers implement the minimum security requirements required by the Commonwealth's Hosted Environment Information Security Standard, SEC 525 (Hosted Environment Security Standard).

Specifically, Social Services does not have any policies or procedures that assign roles and responsibilities to ensure the correct employees, such as contract administrators or system owners, work with VITA's ECOS to receive and review communications from the SaaS providers. Additionally, Social Services does not have procedures or a process to ensure VITA's ECOS communicates with its SaaS providers to resolve weaknesses that are identified in the SaaS providers' independent audit reports. As a result, the SaaS provider that hosts Social Services' electronic benefits processing system and administers electronic payment of benefit cards for benefit programs such as SNAP, TANF, and Child Support received a qualified opinion in its two most recent independent audit reports and neither Social Services nor VITA's ECOS performed any follow-up with the SaaS provider to determine if they are properly remediating the weaknesses.

Executive branch agencies, such as Social Services, that receive IT services from VITA must follow the Third-Party Use Policy, which requires agencies to receive written approval from VITA prior to procuring, signing, or engaging with a third-party hosted (cloud) service, specifically SaaS providers. Social Services signed a Memorandum of Understanding (MOU) with VITA's ECOS that requires Social Services to review and approve all documentation evidencing VITA ECOS' performance of services to monitor compliance with the MOU. Additionally, the Hosted Environment Security Standard, Section 1.1, states management remains accountable for maintaining compliance with the Hosted Environment Security Standard through documented agreements and oversight of services provided.

Without a formal process to review and maintain VITA ECOS' documentation, Social Services cannot validate whether its SaaS providers implement security controls that meet the requirements in the Hosted Environment Security Standard to protect the agency's sensitive and confidential data. Social Services was unaware of its oversight responsibilities in the MOU for VITA's ECOS, which led to the weaknesses described above.

Social Services should develop a formal process to monitor and maintain oversight of its third-party SaaS providers to ensure they comply with the Hosted Environment Security Standard and that VITA's ECOS is meeting all requirements in the MOU. Doing this will help maintain the confidentiality, integrity, and availability of sensitive and mission critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-053: Create Processes for Review and Assessment of Third-Party Service Provider's Controls

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS does not have a formal process for identifying third-party service providers and evaluating their controls. DBHDS is not gaining annual assurance over the internal controls of two third-party service providers through review of Service Organization Control (SOC) reports or similar independent attestations. Specifically, for the third-party configuration of a system to support inpatient and long-term care functions for twelve DBHDS facilities, as well as, third-party administration of healthcare benefits for off-campus medical services provided to patients under DBHDS care. DBHDS relies on the provider of healthcare benefits to accurately calculate rates and discounts associated with charges from off-campus medical service providers. Additionally, both providers are responsible for the secure storage and transfer of patient data protected by HIPAA.

The Security Standard, Section SA-9-COV 3.1, requires agencies to perform an annual security audit of the environment or review the annual audit report of the environment conducted by an independent, third-party audit firm on an annual basis. Furthermore, the contract terms for the inpatient and long-term care system state that DBHDS shall ensure performance of a Type 2 SOC audit at least once annually.

Without performing a review of SOC reports or similar attestations, DBHDS cannot ensure that third-party service provider's controls are designed, implemented, and operating effectively. This increases the Commonwealth's risk that it will not detect a weakness in a provider's environment,

thereby exposing the Commonwealth to potential vulnerabilities created by third-party service providers. According to management, there is currently not a process in place for identifying and evaluating the controls of significant third-party service providers as they relate to finance. Additionally, management does not see the need to obtain assurance over the internal controls of the third-party service provider responsible for the administration of health care benefits for off-campus medical care.

DBHDS should create a documented process for identifying third-party service providers and assessing controls. DBHDS should consider which of its outsourced services merit a review of SOC reports or other attestations and should then document the results of its reviews in order to ensure the effectiveness of the third-party service providers' controls. If weaknesses are identified in the SOC reports or other attestations, DBHDS should implement complementary controls to mitigate the risk to the Commonwealth until the provider corrects the deficiency.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-054: Practice Oversight of Service Providers Throughout the Lifecycle of a Project

Applicable to: Department of Motor Vehicles

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Motor Vehicles is not practicing oversight of the third-party service provider (provider) managing one of its systems used for collecting and recording revenues. Motor Vehicles communicated security requirements to the provider during the development of the system and ensured the database met the minimum-security requirements when the first phase went into production; however, Motor Vehicles did not plan to begin oversight of this portion of the new system until all phases of the project are in production.

The Commonwealth's Hosted Environment Security Standard, SEC 525 (Hosted Standard), Section 1.1, requires that Motor Vehicles' management remains accountable for maintaining compliance with the requirements in the Hosted Standard through documented agreements and oversight of services provided. Additionally, Section SA-9 requires Motor Vehicles to employ processes to monitor security control compliance by external providers on an ongoing basis.

Collecting and recording revenues is mission critical to Motor Vehicles and the Commonwealth. By not maintaining oversight of the first phase placed into production, Motor Vehicles did not detect that the database was no longer meeting the minimum-security requirements in the contract, and this

increased the risk to the confidentiality, integrity, and availability of sensitive and mission critical data used in collecting and recording revenues.

According to management, Motor Vehicles is not maintaining oversight because the contract between Motor Vehicles and the provider has that Motor Vehicles will begin oversight once the provider completes all phases of the project. Management should reevaluate its contract with the provider to ensure it does not preclude Motor Vehicles from continually meeting requirements in the Hosted Standard and, if there are none, begin oversight of the system in production. Additionally, management should develop a plan to remediate any perceived or actual barriers that may cause Motor Vehicles to not practice oversight of the provider.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

AWARENESS AND TRAINING

2019-055: Improve Security Awareness Training Program

Applicable to: University of Virginia-Academic Division

Prior Year Finding Number: 2018-067; 2017-067; 2016-063

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

The University of Virginia Academic Division (Academic Division) is making progress to address an information security weakness communicated in our prior year audit report regarding improving the security awareness training program; however, corrective action remains in progress.

The Academic Division's Information Technology Services (ITS) established a process to track whether faculty and staff complete their annual security awareness training. Additionally, ITS established a procedure that requires employees to complete security awareness training in order to receive access to the Academic Division's highly sensitive network.

However, the process does not include security awareness training requirements for faculty and staff with access to other parts of the Academic Division's networks. Despite these network segments residing outside the highly sensitive network, they are used daily by the University's faculty and staff community to conduct business and to connect to web portals that connect to systems within the highly sensitive network. It is, therefore, imperative that these users receive security awareness training before, or as soon as practicable after, receiving their access. During calendar year 2018, 2,318 out of 7,093 faculty and staff (33%) that do not have direct access to the highly sensitive network did not complete their assigned training.

The Academic Division's adopted information security standard, ISO 27002 (Academic Division Security Standard), section 7.2.2, states that organizations should train all users on a regular basis and that organizations provide initial security awareness training to employees transferring to new positions, as well as to new hires, before the role becomes active. Additionally, the Academic Division's Data Protection Standards require that faculty, staff, and other affiliates granted access to the Academic Division's data must complete information and security awareness training annually. Ineffective security awareness training increases the risk of security incidents related to untrained users falling victim to common cyber-attacks, such as phishing or social engineering.

The Academic Division plans to continue to incorporate annual security awareness training into its recently implemented learning management system (LMS). ITS should develop a strategy to comply with the Academic Division Security Standard and Data Protection Standards, and provide a sufficient level of security awareness training to all sectors of its faculty and staff who have access to Academic Division networks. The fiscal year 2020 audit will include an evaluation of the Academic Division's completed corrective action and determine whether it satisfactorily resolved the weakness.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-056: Improve Security Awareness Training Program

Applicable to: Virginia Alcoholic Beverage Control Authority

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

ABC is not meeting certain requirements in the Security Standard for security awareness training (SAT). Specifically, ABC does not have an adequate process to ensure all users complete SAT, and ABC does not require users with specific information security roles to complete role-based training.

ABC does not have an enforcement measure that requires users to take SAT. The lack of this control resulted in 120 out of 449 (approximately 27%) users who did not take the SAT training within the past year. ABC assigns oversight of the SAT program to the Information Security Officer (ISO) and the Human Resource Information Systems Manager. These individuals monitor whether users complete the training and send email notifications to users who have not completed the training in the past year. However, ABC has no other process to enforce the training requirement outside of sending the email notifications. ABC's Security Awareness and Training Policy requires users to take SAT within 30 days of receiving access to ABC resources and annually thereafter. Additionally, the Security Standard requires that all computer users complete SAT initially upon employment, after significant changes in the environment, and annually thereafter (Security Standard section: AT-2 Security Awareness). Without an

adequate process to ensure that all users take SAT annually, ABC increases the risk that users will be more susceptible to malicious attempts to compromise sensitive data, such as ransomware, phishing and social engineering.

ABC does not provide role-based training to users with designated security roles, such as system owners, data owners, system administrators, or security personnel. ABC's Security Awareness and Training Policy requires that personnel who manage, administer, operate, or design IT systems receive additional training commensurate with their roles and responsibilities. Additionally, the Security Standard requires role-based training initially, when required by information system changes, and as practical and necessary thereafter for personnel with assigned security roles and responsibilities. (Security Standard sections: AT-3 Role-Based Security Training). Lack of adequate role-based training increases the risk that users will be unaware or lack pertinent skills and knowledge to perform their security related functions, increasing the risk to sensitive data.

Approximately 27 percent of users did not complete the security awareness training in the past year because ABC does not have an enforcement measure, such as disabling a user's account until training is complete, that forces users to take the training and comply with ABC's security awareness training policy. In addition, although ABC requires additional role-based training, ABC has not developed, documented, and implemented a process to provide role-based training to users with these designated security roles.

ABC should develop, document, and implement a formal process that includes an enforcement measure and require all users to complete SAT training before accessing computer resources and on an annual basis thereafter. Additionally, ABC should develop a procedure and process to ensure the ISO and Managers provide role-based training to users with designated security roles. Improving the SAT program will help protect ABC from malicious attempts to compromise the confidentiality, integrity, and availability of sensitive data. ABC should ensure they meet all the requirements in the NIST Standard as they transition away from the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

SYSTEM AND COMMUNICATIONS PROTECTION

2019-057: Improve Web Application Security Controls

Applicable to: Department of Human Resource Management

Prior Year Finding Number: 2018-069; 2017-033; 2016-015; 2015-010

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Human Resource Management continues to not implement certain minimum security controls for a sensitive web application required by the Commonwealth's Information Security Standard, SEC 501 (Security Standard), and industry best practices. Lacking application controls can create vulnerabilities that expose data to potential compromises and effect system availability, which, could lead to reputational damage and financial penalties for Human Resource Management.

We communicated the specific control weaknesses and compliance references to management in a separate document marked Freedom of Information Act Exempt (FOIAE) under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms.

The weaknesses identified in the FOIAE document continue to persist in Human Resource Management's environment due to limited information technology (IT) resources and inadequate collaboration with the Virginia Information Technologies Agency (VITA). Human Resource Management should allocate the necessary resources and continue to work with VITA to remediate the weaknesses and meet the requirements in the Security Standard. Remediating these weaknesses will help to protect the confidentiality, integrity, and availability of data in the application environment.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-058: Improve Web Application Security

Applicable to: Department of the Treasury

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Treasury does not configure a sensitive web application in accordance with the Security Standard. We identified one control weakness and communicated it to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security

mechanisms. The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to the confidentiality, integrity, and availability of Treasury’s information systems and data.

Treasury should develop a plan to implement the control discussed in the communication marked FOIAE in accordance with the Security Standard in a timely manner. Doing this will help to ensure Treasury secures the web application to protect its sensitive and mission-critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

AUDIT AND ACCOUNTABILITY

2019-059: Continue Improving Database Security

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-058; 2017-031; 2017-032; 2016-017

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1905VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303(e)

Known Questioned Costs: \$0

Social Services continues to not perform certain security procedures over the databases supporting its financial reporting system and case management system in accordance with the Security Standard and industry best practices. We communicated the weaknesses for both systems to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security controls.

The Security Standard requires agencies to implement certain minimum controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information. By not implementing the controls discussed in the FOIAE communication, the systems’ databases are not secure against known vulnerabilities. This increases the risk for malicious users to exploit those vulnerabilities and compromise sensitive Commonwealth data.

Social Services should dedicate the necessary resources to ensure that database procedures and controls align with the requirements in the Security Standard. Additionally, Social Services should

consistently implement controls across all of its systems. Doing this will help maintain the confidentiality, integrity, and availability of sensitive and mission critical data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-060: Continue Improving Database Security

Applicable to: Department of Education - Central Office Operations

Prior Year Finding Number: 2018-057; 2017-030; 2016-009

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Education continues to make progress to improve a security control for its database that stores its financial activity in accordance with the Security Standard. We communicated the remaining control weakness to management in a separate document marked Freedom of Information Act Exempt (FOIAE) under § 2.2-3705.2 of the Code of Virginia due to it containing descriptions of security mechanisms. Since the prior year audit, Education is actively working with the Commonwealth's IT Partnership to implement a solution and resolve the weakness. The Security Standard requires agencies to implement certain controls that reduce unnecessary risk to data confidentiality, integrity, and availability in systems processing or storing sensitive information. By not meeting the minimum requirements in the Security Standard, Education cannot ensure the confidentiality, integrity, and availability of data within the database or the information it reports.

Education should continue working with the Partnership to implement the control discussed in the communication marked FOIAE in accordance with the Security Standard and in a timely manner.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

CONFIGURATION MANAGEMENT

2019-061: Dedicate Resources to Support Information Security Program

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS has been unable to adequately manage and dedicate the necessary resources to support its sensitive systems according to Commonwealth's standards. DBHDS has 211 sensitive systems between the Central Office and the facilities. This number of sensitive systems requires extensive information technology (IT) resources to ensure compliance with the agency's enterprise security program and the Security Standard.

DBHDS stated there are insufficient IT resources at the Central Office and the facilities to properly manage the systems. As a result, DBHDS continues to have weaknesses in certain areas of their information security program with some weaknesses being repeat management recommendations for four years. Specifically, the lack of software baseline configurations and the lack of IT contingency management documentation are areas of concern.

DBHDS began the Facility Application Inventory Reduction initiative in 2017 to reduce the number of applications across the facilities and improve their IT governance program. However, due to a lack of resources and funding, DBHDS did not make progress with this initiative until recently. DBHDS is currently implementing two IT systems that will replace 20 disparate facility systems, bringing the total number of sensitive systems to 191. DBHDS is also working on an enterprise initiative that has the potential to reduce a significant number of systems across the facilities, but the exact number is not yet known. DBHDS stated it is evaluating the resource levels to support the sensitive systems at the Central Office and will do the same for the facilities and expects to complete this effort in April 2020. DBHDS is also implementing a new governance process to manage the procurement and implementation of IT systems at the Central Office and the facilities. DBHDS has a goal to finalize and begin using the new governance process in the first quarter of fiscal year 2020.

Section 2.4.2 of the Security Standard states agency heads are responsible for ensuring that a sufficient information security program is maintained, documented, and effectively communicated to protect the agency's IT systems. Not having sufficient IT resources to manage the sensitive systems at the Central Office and the facilities increases the risk that certain controls may not exist resulting in a data breach or unauthorized access to confidential and mission-critical data. If a breach occurs and Health Insurance Portability and Accountability Act (HIPAA) data is stolen, the agency can incur large penalties, as much as \$1.5 million.

DBHDS should continue to reduce its sensitive system inventory and complete the evaluation of resources that are necessary to support the sensitive systems at the Central Office and the facilities.

DBHDS should develop a plan to obtain or reallocate funding to hire the necessary resources to maintain the inventory of sensitive systems according to the Security Standard and complete the new governance structure to assist the agency with managing IT applications and systems going forward. Completing these recommendations will help DBHDS to remediate weaknesses in its information security program and help ensure the confidentiality, integrity, and availability of DBHDS' sensitive data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-062: Develop Baseline Configurations for Informations Systems

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-064; 2017-053; 2016-051; 2015-005

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS does not have documented baseline configurations for their sensitive systems' hardware and software requirements. DBHDS is working to reduce the total number of sensitive systems but still has 211 sensitive systems, with some containing HIPAA data, social security numbers, and Personal Health Information data. DBHDS was in the process of implementing software that has the ability to establish, configure, and monitor baseline configurations, but the resource implementing it left the agency in September 2018. The agency assigned the work effort to another IT security analyst and planned to complete the implementation in 2019, but due to turnover and competing priorities, DBHDS did not implement the software and there is no estimate when they will complete it.

The Security Standard, Sections CM-2 and CM-2-COV, requires DBHDS to perform the following:

- Develop, document, and maintain a current baseline configuration for information systems. (CM-2)
- Review and update the baseline configurations on an annual basis, when required due to environmental changes, and during information system component installations and upgrades. (CM-2)
- Maintain a baseline configuration for information system development and test environments that is managed separately from the operational baseline configuration. (CM-2)
- Apply more restrictive security configurations for sensitive systems, specifically systems containing HIPAA data. (CM-2-COV)

- Modify individual IT system configurations or baseline security configuration standards, as appropriate, to improve their effectiveness based on the results of vulnerability scanning. (CM-2-COV)

The absence of baseline configurations increases the risk that these systems will not meet the minimum security requirements to protect data from malicious access attempts. Baseline security configurations are essential controls in information technology environments to ensure that systems have appropriate configurations and serve as a basis for implementing or changing existing information systems. If a data breach occurs to a system containing HIPAA data, the agency can incur large penalties, up to \$1.5 million.

DBHDS should dedicate the necessary resources and prioritize the installation of the software to establish and maintain security baseline configurations for their sensitive information systems to meet the requirements in the Security Standard. Doing this will help ensure the confidentiality, integrity, and availability of the agency's sensitive data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

PLANNING

2019-063: Continue Improving IT Risk Management Program

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-025

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1905VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Other - 2 C.F.R § 200.303(e)

Known Questioned Costs: \$0

Social Services continues to improve its IT Risk Management documentation. Since the prior year audit, Social Services completed its annual test of the Continuity of Operations Plan and four IT System and Data Sensitivity Classifications. However, Social Services does not comply with the following areas:

- Social Services does not have documentation supporting the IT System and Data Sensitivity Classifications for one system (2.5%) out of a total of 40 sensitive systems. The Security

Standard, Section 4, requires Social Services classify the IT system as sensitive if any type of data handled by the system is sensitive based on confidentiality, integrity, or availability.

- Social Services does not have IT System Risk Assessments for three systems (7.5%). The Security Standard, Section 6.2, requires the agency to conduct and document a risk assessment for each IT system classified as sensitive at least once every three years.
- Social Services does not have System Security Plans for two systems (5%). The Security Standard, Section PL-2-COV, requires Social Services document a System Security Plan for the IT system.
- Social Services does not perform annual reviews of its Risk Assessments and System Security Plans to determine the continued validity of the documents. The Security Standard, Section 6.2, requires Social Services conduct an annual self-assessment of the Risk Assessment, and Section PL-2 requires the agency to review the System Security Plans on an annual basis or more frequently to address environmental changes.
- Social Services does not evaluate and implement corrective actions to mitigate risks in its sensitive systems' Risk Assessments. The Security Standard, Section 6.2.3, requires Social Services to prepare a report of each Risk Assessment that includes major findings and mitigation efforts. Without documenting this information, Social Services cannot determine whether the risks they identify in the risk Assessment and vulnerability scanning processes have the proper mitigating security controls and procedures.

Without documenting risk management information for all its sensitive systems and reviewing the documentation at least annually, Social Services cannot prioritize information security controls to implement or determine if proper information security controls are in place. This could lead to a breach of data or unauthorized access to sensitive and confidential data.

Social Services had a reorganization of executive positions under the Commissioner that included hiring a new Deputy Commissioner of Information Management and Technology. The new Deputy Commissioner of Information Management and Technology was reorganizing the four information technology divisions that report to the new position, which included the divisions of Information Systems, Enterprise Systems, Information Security and Risk Management, and Data Management. Part of the reorganization included a new Risk Manager position that will be responsible for developing and updating Social Services' IT Risk Management and Contingency Planning documentation. The Deputy Commissioner of Information Management and Technology left the agency in October 2019, putting the reorganization and filling the Risk Manager position on hold.

Social Services should develop a plan and dedicate the necessary resources to complete Risk Management documentation for its sensitive systems and review those documents annually to validate that the information reflects the current environment. Additionally, Social Services should dedicate the necessary resources to implement security controls to mitigate the risks and vulnerabilities identified in

its Risk Assessments. Doing this will help to ensure the confidentiality, integrity, and availability of the agency's sensitive systems and mission essential functions.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

SYSTEM AND INFORMATION INTEGRITY

2019-064: Mitigate Server Vulnerabilities

Applicable to: Department of Taxation; Virginia Information Technologies Agency

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

VITA's contractual partnership with various IT service providers (Partnership) provides agencies with installation, maintenance, operation, and support of IT infrastructure components, such as servers, routers, firewalls, and virtual private networks. Taxation relies on the Partnership for the installation of security patches in systems that support Taxation's operations. During our review, we found that the Partnership is not performing timely security patching in accordance with the Security Standard.

The Security Standard requires the installation of security-relevant software updates within 90 days of release. The Security Standard does allow for varying time periods depending on factors such as the criticality of the update, but generally the Partnership uses a 90-day window from the date of release as its standard for determining timely implementation of security patches (Security Standard section: SI-2 Flaw Remediation).

As of October 2019, the Partnership had not applied a significant number of critical and highly important security patches to Taxation's server environment, all of which are past the 90-day Security Standard requirement. The systems missing security updates are at an increased risk of cyberattack, exploit, and data breach by malicious parties.

Taxation is working with the Partnership to ensure that all servers have all critical and highly important security patches installed. Additionally, our separate audit of the Commonwealth's Partnership contract administrator, VITA, will include a contract performance review regarding this risk alert. We anticipate this report will be issued during 2020.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding. Additionally, we provided management of the Virginia Information Technologies Agency (VITA) with a copy of this finding for their response. VITA's management elected not to provide a response for inclusion in the audit report.

RISK ASSESSMENT

2019-065: Complete a Risk Assessment for Each Sensitive System

Applicable to: Department of Taxation

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Taxation does not have complete or current risk management documentation for some of its sensitive systems. Specifically, Taxation does not have risk assessments for 19 of 46 (41%) sensitive systems and two of 27 complete (7%) risk assessments are older than three years. In addition, Taxation does not perform annual self-assessments to ensure the continued validity of the risk assessments and does not prepare a report of the risk assessments that identifies the vulnerabilities and an executive summary of major findings and risk mitigation recommendations.

The Security Standard, Section 6.2, requires Taxation to conduct and document a risk assessment of each sensitive IT system, at last once every three years. Additionally, Section 6.2 of the Security Standard requires Taxation to conduct and document an annual self-assessment to determine the continued validity of risk assessments and to prepare a report of each risk assessment that includes identification of all vulnerabilities discovered during the self-assessment and an executive summary, including major findings and risk mitigation recommendations. Further, the Security Standard requires the Information Security Officer (ISO) to review the report.

Taxation had turnover in the department responsible for completing risk assessments and this was the primary factor for not completing risk assessments and annual self-assessments for their sensitive systems.

Without having current and complete risk assessments, Taxation increases the risk they will not detect and mitigate existing weaknesses in sensitive systems. By not detecting the weaknesses, it increases the risk of a malicious user compromising confidential data and impacting the system's confidential tax data and its availability.

Taxation should ensure there are sufficient resources to complete and update its risk assessments for each sensitive system. In addition, Taxation should maintain oversight of the IT risk assessments by conducting and documenting annual self-assessments.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

MEDIA PROTECTION

2019-066: Improve IT Asset Surplus Process

Applicable to: Virginia Commonwealth University

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

The University's media sanitization policy does not align with the International Organization for Standardization and the International Electrotechnical Commission information security standard, ISO/IEC 27001 (Security Standard). In addition, the University lacks certain controls to support the information technology asset surplus and data sanitization process.

We identified and communicated this information to management in a separate document marked FOIAE under § 2.2-3705.2 of the Code of Virginia due to it containing specific descriptions of security mechanisms. The Security Standard recommends certain procedures to minimize the risk of data compromise, data accuracy and data loss. The University should dedicate the necessary resources to implement the controls and recommendations discussed in the communication marked FOIAE in accordance with the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

HUMAN RESOURCES AND PAYROLL

2019-067: Comply with Employment Eligibility Requirements

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-073

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Individual facilities within the DBHDS do not have sufficient processes and controls over the employment eligibility process. Employment Eligibility Verification forms (Form I-9) are not completed by the Human Resources Departments (Human Resources) at the facilities in accordance with guidelines issued by the United States Citizenship and Immigration Services of the Department of Homeland Security. During fiscal year 2019, we noted the following:

- Human Resources could not locate Form I-9 for one out of 40 (2.5%) employees tested.
- Human Resources did not fully complete Section 2 of the Form I-9 for 11 out of 40 (27.5%) employees tested.
- Human Resources did not ensure that the employee properly completed Section 1 of Form I-9 for one out of 40 (2.5%) employees tested.
- Human Resources at three out of four (75%) facilities tested and the Central Office did not have written policies and procedures over employment eligibility.

The Immigration Reform and Control Act of 1986 requires that all employees hired after November 6, 1986, have a Form I-9 completed to verify both employment eligibility and identity. The United States Citizenship and Immigration Services sets forth federal requirements for completing the Form I-9 in the Handbook for Employers known as the M-274. Per M-274, the employer is responsible for ensuring all parts of Form I-9 are completed and retained for a period of at least three years from the date of hire or for one year after the employee has separated, whichever is longer. Not complying with federal requirements could result in civil and/or criminal penalties and debarment from government contracts.

The issues listed above occurred because Human Resource staff at the facilities have not received proper training in this area. Further, Human Resources is not performing an adequate review of Form I-9's to ensure the proper completion of the form. Management should provide adequate training to Human Resources staff to reinforce the expectation of compliance with the applicable federal requirements. Human Resources should perform an adequate review of Form I-9's completed by staff and employees to ensure accurate completion and compliance with federal requirements. Additionally, Human Resources should develop and implement policies and procedures over employment eligibility.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-068: Perform Reconciliation between the Commonwealth’s Payroll and the Accounting and Financial Reporting Systems

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

DBHDS is not reconciling the Commonwealth’s payroll system to the Commonwealth’s accounting and financial reporting systems as part of their post-certification process for payroll. All four of the DBHDS facilities reviewed (100%) and the Central Office did not perform a reconciliation between the two systems during payroll post-certification activities.

Facility and Central Office payroll departments perform a monthly reconciliation of the Commonwealth’s accounting and financial system and the agency’s internal accounting system. The reconciliation shows overall payroll expenses between the systems; however, it does not go into the necessary detail. CAPP Manual Topic 50820 requires a review of payroll expenses recorded in the Commonwealth’s accounting and financial reporting system to ensure that all expenses were recorded correctly. The topic outlines reports that should be included in the review process, which includes reports from both the payroll and accounting and financial reporting systems. An adequate and complete post-certification process ensures payroll expenditure data is accurate and complete. Without reconciling the two systems, DBHDS is unable to ensure that they are charging payroll expenses to the correct programmatic codes. Furthermore, not performing the reconciliation may cause errors or discrepancies in either system to go undetected.

Facilities and the Central Office should implement a process to reconcile the Commonwealth’s payroll and the Commonwealth’s accounting and financial reporting systems as part of their post-certification process for payroll in accordance with the CAPP Manual.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-069: Improve Controls over Payroll Certifications

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

DBHDS needs to improve controls over payroll certifications. We found that all four facilities tested and the Central Office do not have adequate controls over the payroll certification process. Specifically, we found the following:

- Two facilities and the Central Office (60%) do not have adequate, written policies and procedures over the payroll certification process that are in line with the CAPP Manual.
- One of the four facilities reviewed (25%) is not following internal payroll certification policies and procedures for wage certifications.
- Three of the four facilities (60%) tested did not review all necessary reports during the payroll pre- and post-certification process.
- Two of the four facilities (50%) reviewed do not have an adequate process in place to perform a regular comparison between the Commonwealth's payroll and human resources systems during post-certification.
- One of the four facilities (20%) reviewed does not have proper separation of duties within the facility's payroll function.

CAPP Manual Topic 20905 requires that agencies have written policies and procedures separate from the CAPP Manual for all processes. CAPP Manual Topics 50810, 50815, and 50820 outline procedures over the certification process, including pre- and post-certification requirements. CAPP Topics 50810 and 50820 require the review of specified reports from the Commonwealth's payroll system during payroll pre- and post-certification review respectively. In addition, as a best practice, there should be a separation of duties between all critical parts of the certification process.

DBHDS staff were unaware that procedures should exist separate from the CAPP Manual. The lack of formally documented internal policies and procedures that are customized to reflect the agency's staffing, organization, and unique operating procedures exposes the agency to unnecessary risk of performing payroll certifications improperly. In addition, written procedures reduce the impact that turnover has on institutional knowledge. The Central Office has not reviewed the Payroll Service Bureau Scope of Services manual since it was last updated in 2016. Without a regular review of this manual, the Central Office may neglect to fulfill responsibilities as outlined by the Payroll Service Bureau.

Many of these exceptions occurred because the individual facilities and the Central Office do not have adequate policies and procedures over the payroll process. In addition, we found in most cases that payroll staff do not review or maintain documentation of reports if no exceptions are found during the certification review.

Facility and Central Office payroll departments should improve existing policies and procedures over the payroll certification process or develop procedures if they do not already exist. Facility and Central Office payroll departments should ensure that applicable staff review all necessary reports throughout the payroll certification process and ensure that these reports are retained as part of the certification file.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-070: Retain Documentation of Property Collection and Removal of Terminated Employee Badge Access

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Individual facilities within the DBHDS do not have sufficient processes and controls over terminated employees. Two out of four (50%) facilities tested did not have formal termination processes. It should be noted that one of these facilities experienced a significant number of layoffs during the fiscal year. As a result, Human Resources at the facilities were unable to provide documentation confirming the collection of Commonwealth property or timely removal of badge access for all 24 of the terminated employees sampled at those facilities. Further, three facilities do not have internal policies and procedures over the employee termination process, although, one facility uses a termination checklist during the termination process.

CAPP Manual Topic 50320 recommends agencies develop a termination check-off list to complete as part of the termination process, to include the collection of outstanding uniforms, badges, keys, etc. Per CAPP Manual Topic 20905, agencies should develop internal policies and procedures aside from the CAPP Manual over all critical areas. DBHDS experienced significant turnover during the period under review, as evidenced by the fact that DBHDS employs over 6,000 employees and had over 1,700 separations during this period. Without proper and sufficient internal controls over terminated employees that ensure the return of Commonwealth property and removal of all access privileges, individual facilities are increasing the risk that terminated employees may retain physical access to

Commonwealth property and unauthorized access to state systems and sensitive information. For DBHDS, the exposure to risk is further increased due to the secure nature of the individual facilities.

These issues occurred because the individual facilities have not developed and implemented policies and procedures over the termination process. Individual facilities stated that they place reliance on the Human Resource Management termination procedures. Alternatively, facilities are unaware that separate written procedures are required. One facility used a termination checklist in the past, but is no longer using it during terminations. Further, facilities rely on verbal communications with employees to collect property. In addition, the Security Department is responsible for removing badge access; however, they do not retain evidence of the badge deactivation.

Management across all DBHDS facilities, not just those reviewed, should ensure that adequate processes and controls are in place over terminated employees. Individual facilities should develop and implement more effective termination processes to ensure the collection of Commonwealth property and the timely removal of badge access for terminated employees. Additionally, facility staff should retain documentation of terminations. Facilities should develop policies and procedures over the termination process and/or create a termination checklist if they do not already exist.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-071: Ensure Terminated Employees Are Properly Classified in the Payroll System

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Individual facilities within the DBHDS did not change the employment status for six terminated or inactive employees in the Commonwealth's payroll system. Four out of six (67%) terminated or inactive employees did not receive any compensation during the 2018 calendar year but remained "active" in the system after January 2019. Two out of ten (20%) employees identified that received their final paychecks remained "active" in the Commonwealth's payroll system after being terminated.

CAPP Manual Topic 50320 states that agencies must verify that information in the Commonwealth's payroll system concerning terminated employees is complete, properly authorized, and entered accurately into the system. Employees remaining active in the payroll system after being terminated and having received final paychecks pose a risk for improper payments.

The facilities did not properly identify and update the statuses of these employees due to a lack of management oversight. In addition, facility staff reactivated several employees in the Commonwealth's payroll system during the fiscal year in order to update their Federal Insurance Contributions Act statuses; however, staff did not change these employees back to an "inactive" status once changes were made. The facility recognized that more instances of this potentially exist and have since begun to correct this misclassification.

Facilities should ensure terminated or inactive employees are properly classified in the Commonwealth's payroll system. Facilities should regularly complete a review of employment statuses to ensure employees terminated in the human resources system are removed from the Commonwealth's payroll system after final pay is made to the employee.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-072: Properly Approve and Monitor Administrative Employee Overtime

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

DBHDS should improve controls over employee overtime. During our review, we found that employees in administrative positions at two DBHDS facilities worked an excessive amount of overtime during the fiscal year that was not properly approved or was not reasonable in relation to job responsibilities. Specifically, two out of 18 (11%) employees tested worked overtime hours that was not properly approved, and one out of 18 (6%) employees tested worked overtime that is unreasonable in relation to the employee's responsibilities.

One of the facilities had a large increase in employee turnover during the fiscal year, and the lack of staff required existing staff to take on additional workload and overtime. Management at the second facility approved an administrative employee to work overtime because there was a misunderstanding of the employee's job roles and responsibilities. The Human Resource Management Policy 1.25, Hours of Work, states that non-exempt employees must not work additional hours that have not been authorized by management.

DBHDS facilities should improve controls over employee overtime by properly approving and monitoring administrative employee overtime hours. DBHDS should develop processes for monitoring and tracking hours for wage employees in administrative positions. Payroll departments should clarify with managers that overtime must be properly approved and reasonable in relation to employee job

responsibilities. When possible, DBHDS should allocate additional staff as needed to mitigate excessive overtime hours on existing staff.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-073: Strengthen the Employee Off-Boarding Process

Applicable to: Department of Health

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Health did not correctly complete their off-boarding procedures for employees who separated from the agency. Health underpaid an employee for their annual leave payout and did not detect this error. In addition, Health discontinued paying two employees who terminated their employment, but did not remove them from the Commonwealth's payroll system for an entire year following their separations.

As a result of an error in the leave payout calculation, Health underpaid an employee \$2,067 in the employee's final paycheck and had to issue a corrected check. Additionally, not reporting employees as terminated in the payroll system led to the two employees remaining in the system throughout the fiscal year. Although Health discontinued paying these employees, leaving them in the payroll system increases the risk of accidentally paying the employees after termination. CAPP Manual Topic 50320 states that agencies must verify that the Commonwealth's payroll system information concerning terminating employees is complete, properly authorized, and entered accurately into the system.

Health does not have a review process in place to ensure the Payroll Department correctly completes each of its required off-boarding tasks. Additionally, each of these issues came at a time when Health experienced turnover and a high volume of transactions in the department. Resource strain and the lack of a review process contributed to Health reporting inaccurate and incomplete information to the payroll system.

Health should implement a review process of employee off-boarding documents to ensure all amounts keyed agree to the approved supporting documentation. This review process should also cover each step of the employee off-boarding process to ensure payroll analysts enter all terminations completely and accurately into the payroll system. This will reduce the risk of incorrectly paying terminated employees.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-074: Enhance the Overtime Reporting Process

Applicable to: Department of Health

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Health paid one of its employees an incorrect amount of overtime pay and did not pay the overtime until over a month after the employee worked the overtime hours. This resulted in an overpayment of \$4,889, which was not detected until the employee reported this issue to management.

CAPP Manual Topic 50505 requires agencies to properly complete and authorize all source documents used to pay employees. This ensures accurate entry into the payroll system. When a classified employee works overtime, Health requires managers to complete a “Classified Employee Overtime Form” (overtime form). This form requires the total number and type of overtime hours worked. The signing of this form serves as the certification that the employee worked the number of hours listed on the form.

As a result of the incorrect completion of this form, Health paid an employee an incorrect amount of overtime pay. The employee’s pay and associated tax withholdings and records required correction in a subsequent paycheck after the employee reported this error to management.

Work unit staff incorrectly entered the employee’s hours worked causing the error. Although the Payroll Department questioned the amount as unusual and provided guidance on the proper way to complete the form, management of the work unit did not provide a revised form prior to processing the payroll. Management of the business unit’s confusion on how to properly complete the form led to the delay in providing the approved overtime hours to the Payroll Department until three pay periods after the employee worked the overtime.

Health should provide guidance on how to use the overtime form and clarify that managers should only enter the overtime hours worked as opposed to the total hours worked. In addition, Health should require that managers provide this information to the Payroll Department prior to the end of the following pay period for timely processing. This will reduce the risk of overpayments to salaried or classified employees who work overtime and will ensure timeliness of overtime payments to employees.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-075: Develop and Implement Policy for Monitoring Part-time Employee Hours

Applicable to: Department of Health

Prior Year Finding Number: 2018-078

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Health does not adequately ensure part-time employees work less than an average of 29 hours per week, which equates to a total of 1,508 hours annually. For the look-back period from May 1, 2018, through April 30, 2019, Health had six part-time employees who averaged greater than 29 hours per week and, therefore, exceeded the 1,508-hour limit. Health has developed procedures to generate monthly monitoring reports and to notify departmental managers of part-time employees approaching 1,500 hours annually. However, Health should strengthen these procedures to require limiting the employees' hours after the Payroll Department sends out these notifications.

The Affordable Care Act requires certain employers to provide health care benefits to all full-time employees who work a weekly average of 29 hours or more. Additionally, Chapter 854 § 4-7.01g of the 2019 Virginia Acts of Assembly states that part-time Commonwealth employees may not work more than 29 hours per week on average over a twelve-month period. Health's internal procedures require the Payroll Department to send out warnings to managers advising that their employees are approaching 1,500 hours to prevent non-compliance with the state and federal regulations.

When the agency has part-time employees working the equivalent of full-time jobs without full-time job benefits, it could create the appearance of unequal treatment for those employees and could create future liabilities for the agency. By allowing a part-time employee to work more than an average of 29 hours per week for a year, Health is out of compliance with federal and state regulations and can be subject to penalties or even incur the costs of providing benefits to part-time employees.

Although the Payroll Department sent out warnings to managers indicating their employees were approaching the 1,500-hour limit outlined in the Payroll Department's procedures, management did not take action to limit the quantity of hours worked after this notification. Additionally, there are no specific actions outlined in Health's procedures that require the responsible supervisors to ensure compliance with the 1,500-hour rule.

Health should strengthen policies and procedures related to the monitoring of part-time hours. Health should document and implement a procedure specifically requiring managers to take action after reviewing the monitoring reports generated by the Payroll Department. Health's district managers

should maintain an awareness of their part-time employees' total hours worked and reduce their hours as they approach the yearly limit. This will help to ensure compliance with the Affordable Care Act and the Virginia Acts of Assembly.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-076: Improve Timesheet Approval Process

Applicable to: University of Virginia-Academic Division

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

The Academic Division does not have adequate timesheet controls to support the reasonableness of hourly employee pay. Currently, the Payroll department instructs supervisors to approve timesheets for their direct report employees prior to each payroll run. However, if supervisors do not approve timesheets by the deadline, an automated payroll system process completes the approval of all unapproved timesheets. The Payroll department then notifies the supervisors of the mass approval of timesheets for their direct report employees and gives them 30 days to make corrections to time. The Academic Division does not require supervisors to review the time or to provide positive confirmation that the submitted time is accurate.

When supervisors rely on the mass approval process, the risk of employees charging fraudulent or erroneous time increases. Supervisor reliance on the mass approval process is a result of the absence of policies and procedures surrounding supervisor approvals and a lack of accountability on behalf of department supervisors.

The Academic Division should develop and implement a formal policy to emphasize timely timesheet approval prior to each pay run to ensure reasonableness and accuracy of hourly employee payroll. In instances where the approving supervisor cannot approve a timesheet in a timely manner, the Academic Division should designate a backup approver. When neither approver is available to approve timesheets prior to the Payroll department's processing of payroll, the Payroll department should require each supervisor to provide subsequent positive confirmation of the reasonableness of the hours paid. Finally, management should develop a mechanism for monitoring those supervisors consistently relying on the mass approval process and implement a system of follow up to ensure the supervisors understand their responsibility for timely approval of timesheets.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-077: Implement Internal Controls to Terminate Benefits for Employees Convicted of a Felony

Applicable to: Department of Motor Vehicles

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Motor Vehicles has not designed, implemented, or documented internal controls to identify when it is necessary to initiate the benefits forfeiture process against an employee who is convicted of a felony in relation to his/her employment. One former employee was convicted of a felony associated with the employee's job responsibilities at Motor Vehicles during the fiscal year. Management did not initiate the process of terminating the individual's benefits with the Virginia Retirement System (Retirement System) until four months after the conviction date.

Section 51.1-124.13 of the Code of Virginia requires the forfeiture of all pension and related benefits if a state employee is convicted of a felony associated with the performance of the employee's job and the person's employer determines that the felony arose from misconduct in a covered position on or after July 1, 2011. To aid agencies in meeting this requirement, the Retirement System created a form known as the [VRS-180](#) form. This form contains background information and steps an agency can take to meet the requirements of the Code of Virginia. Without adequately designing and implementing internal controls over this process, an individual convicted of a qualifying felony may be able to obtain benefits through the Retirement System.

Management asserts that Motor Vehicles' lack of experience in completing this process is the reason why there is no control for making the required notification and using the VRS-180 form. In addition, there was confusion between Motor Vehicles' Human Resources and Law Enforcement divisions as to which division was responsible for initiating this process.

To implement internal controls, management should establish a process that identifies when it is necessary to initiate the benefits forfeiture process in accordance with the Code of Virginia. Furthermore, management should clarify who is responsible for the implementation of these controls. Once management has designed and implemented adequate internal controls, management should ensure these controls are adequately documented within policies and procedures.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

RETIREMENT SYSTEM MEMBER DATA

2019-078: Perform and Document Commonwealth's Retirement Benefits System Reconciliations

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-083; 2017-077; 2016-068; 2015-081; 2014-063

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Individual facilities within the DBHDS and the Central Office did not adequately perform and document reconciliations between the Commonwealth's human resource and retirement benefits systems during fiscal year 2019. Specifically, we noted the following:

- The Central Office did not perform a reconciliation of the credible compensation between the Commonwealth's human resource and retirement benefits systems prior to confirming the contribution.
- Three of the four facilities tested (75%) did not maintain documentation to support correction of all non-creditable compensation data discrepancies prior to confirming the contribution.
- One of four facilities tested (25%) did not clear exceptions identified on the Commonwealth's human resource system cancelled records reports in a timely manner.
- The Central Office and three of the four facilities tested (75%) are not confirming the contribution snapshot within the required timeframe.
- The Central Office and three of the four facilities (75%) tested only reviewed the cancelled record report monthly and could not provide adequate justification for their deviation from the CAPP Manual guidance.

CAPP Manual Topic 50410 requires a daily review of the human resource system cancelled record report. Reviewing and correcting items in the cancelled record report ensures retirement benefits are accurately calculated and properly transmitted between the human resource and benefits systems.

Additionally, CAPP Manual Topic 50410 states that agencies should perform a reconciliation of creditable compensation between the Commonwealth's human resource and retirement benefits

systems monthly before confirming the contribution. Improper reconciliation processes can affect the integrity of the information in the Commonwealth's retirement benefits system that determines pension liability calculations for the entire Commonwealth. Since the VRS actuary uses retirement benefits system data to calculate the Commonwealth's pension liabilities, inaccurate data could result in a misstatement in the Commonwealth's financial statements.

In accordance with the Contribution Confirmation and Payment Scheduling VRS Employer Manual, all employers are required to submit the contribution snapshot for the month by the 10th of the following month. Not reviewing or reconciling the contribution snapshot prior to confirmation deadline can result in incorrect payroll deductions and retroactive collections.

Individual facilities staff were unsure of how to perform several components of the reconciliation process; therefore, they did not properly perform pieces of the reconciliation process during the fiscal year. Due to turnover, staff did not retain sufficient documentation that the reconciliation to the Commonwealth's retirement benefits system occurred. Additionally, due to the lack of understanding of documentation requirements, staff did not maintain documentation showing the clearing of all exceptions. Human Resources at the Central Office was unaware of the requirement to reconcile the human resources and benefits systems prior to confirming the monthly contribution. In addition, current written procedures do not include the reconciliation of the human resources and benefits systems. Human Resources staff at the Central Office are in the process of updating procedures over the reconciliation to be distributed agency wide.

Management should ensure that staff perform and document monthly reconciliations between the Commonwealth's human resource and retirement benefits systems. Staff should clear exceptions noted in the Commonwealth's human resource system cancelled record report timely. When clearing exceptions, staff should document the reason for the exception and the remediation activities performed. Management should implement corrective action to ensure that the contribution snapshot is confirmed by the 10th of the following month. Additionally, management at the Central Office should ensure that policies and procedures include all necessary requirements for performing a reconciliation of the Commonwealth's human resources and benefits systems. Policies should include sufficient justification for any deviation from CAPP Manual requirements.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-079: Improve Documentation and Timeliness of Retirement Benefits System Reconciliations

Applicable to: Department of Corrections-Central Administration

Prior Year Finding Number: 2018-084

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

During the fiscal year 2018 audit, we determined that the Department of Corrections (Corrections) was not adequately documenting reconciliations between the Commonwealth's human resources system and the Commonwealth's retirement benefits system. Additionally, as part of the reconciliation between these two systems, Corrections was not confirming the contribution snapshot within the required timeframe.

As of our report date, Corrections had implemented corrective actions with respect to this previously reported finding, but had not completely implemented all corrective actions.

Corrections should continue to improve policies and procedures to strengthen internal controls and oversight over this process. Corrections should ensure the reconciliation's adequate and timely completion. In addition, Corrections should consider designing and implementing more centralized procedures over this process.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-080: Perform Monthly Reconciliations of the Payroll and Retirement Systems

Applicable to: Department of Health

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Health has not performed monthly reconciliation procedures for the retirement benefits system since October of 2018. There are five automated reports, which show reconciling items between the payroll system and the retirement benefits system. These monthly reports ensure Health withholds the correct amounts from employees' paychecks and remits the correct amounts to VRS.

According to CAPP Manual Topic 50410, "exception items on automated VRS reconciliation reports should be identified and communicated to the proper system of authority for correction as soon as possible, but no later than 31 days from the date of the report." This same section of the CAPP Manual

also requires agencies to “ensure that a timely review of the monthly reconciliation reports is performed and that any automated transfers are accurate or correcting actions are completed.” Additionally, the Contribution Confirmation Section of the VRS Employer Manual states “...the employer should review and reconcile amounts in the retirement benefits system to the information in the payroll system.” The lack of a reconciliation between the payroll system and the retirement benefits system also represents a violation of Health’s internal policies and procedures.

Without performing reviews of monthly reconciliation reports, Health does not know if there are discrepancies between the payroll system and the retirement benefits system to report. The lack of a monthly review prevents Health from being able to identify and resolve reconciling items between the payroll system and the retirement benefits system. This could cause an improper deduction from an employee’s paycheck or an incorrect remittance to VRS on an employee’s behalf. Additionally, since the VRS actuary uses the retirement benefits system data to calculate the Commonwealth’s pension liabilities, inaccurate data due to unresolved exceptions could result in a misstatement in the Commonwealth’s financial statements.

Employee turnover in the Payroll Department caused Health to stop performing monthly reviews of the reconciliations due to the prioritization of other critical payroll tasks. Health recently hired an additional employee for the Payroll Department and provided training on these reconciliations. Health should continue to resolve the backlog of reviews and report any reconciling items for resolution. In addition, Health should provide cross-training and designate a backup person to perform this task in the future to prevent gaps in performance in the event of future turnover.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-081: Ensure Completion of the Commonwealth's Retirement Benefits System Reconciliation Process

Applicable to: University of Virginia

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

The University Human Resources Office (HR) is not completing a reconciliation of the University’s payroll and human resources system to the Commonwealth’s retirement benefits system (benefits system). HR did not perform a reconciliation for ten out of 12 months in fiscal year 2019 (83%), and performed its last full reconciliation during August 2018. For 26 employees tested for pay rate changes, 20 (77%) had incorrect pay date changes in the Commonwealth’s retirement benefits system, which an effective reconciliation may have detected and corrected.

Commonwealth Accounting Policy and Procedure Manual Topic 50410, Virginia Retirement System and Optional Retirement Plans, states that agencies should submit their snapshot confirmation to the Virginia Retirement System (VRS) that confirms their retirement benefits information is accurate in the benefits system by the tenth of the month following the snapshot month. The VRS Employer Manual states that before confirming the snapshot, the employer must review and reconcile the snapshot to ensure the employer reports the most accurate data. Not performing the required reconciliations prior to confirming the snapshot can lead to incorrect information in the benefits system that determines pension liability calculations for the Commonwealth. Since the VRS actuary uses benefits system data to calculate the Commonwealth's pension and other postemployment benefit liabilities, inaccurate data could result in a misstatement in the Commonwealth's financial statements, and consequently the portion of the collective liability VRS allocates to the University.

The University implemented a new payroll and human resources system in January 2019, which required significant personnel resources to implement. Due to the allocation of these resources to development of the new system, HR deferred performing the required reconciliations. With the completion of the new system implementation, HR should allocate sufficient resources to ensure the proper and timely completion of the reconciliation of the University's human resources information to the benefits system managed by VRS.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-082: Improve Internal Controls for Reviewing Exceptions in the Commonwealth's Retirement System

Applicable to: Department of Motor Vehicles

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Motor Vehicles' Human Resources is not reviewing and addressing items on the retirement system's automated reconciliations (automated reconciliations). The automated reconciliations compare information in the retirement system to other sources and reports exceptions. CAPP Manual Topic 50410, pages 33-38, describe each of the automated reconciliations and the actions agencies should take to resolve exceptions. This topic also states that the agency should maintain any supporting documentation of its reconciliations for audit purposes. Without reviewing the automated reconciliations, Motor Vehicles cannot ensure that amounts are accurate or correcting actions are completed.

According to management, there are several contributing factors negatively impacting its ability to review the automated reconciliations. Turnover in Human Resources is the primary factor, which is compounded by a lack of adequately documented policies and procedures and overall understanding of what is required to ensure this control is operating as intended. Additionally, Human Resources is not obtaining the necessary automated reconciliations timely from its payroll service provider in order to complete its review and any correcting actions.

To improve internal controls, management should determine which staff will be responsible for completing the control of reviewing the automated reconciliations. In addition, Human Resource staff should attend training to obtain a better understanding of the processes required by the CAPP Manual and ensure that these controls are well documented within internal policies and procedures. Lastly, management should work with the Motor Vehicles' payroll service provider to ensure Human Resource staff is receiving the automated reconciliation reports in a timely manner.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

STATEMENT OF ECONOMIC INTERESTS

2019-083: Ensure Employees Complete Required Conflict of Interest Training

Applicable to: Department of Medical Assistance Services

Prior Year Finding Number: 2018-081; 2017-081

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1805VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Procurement and Suspension and Debarment - 2 C.F.R. § 200.317

Known Questioned Costs: \$0

Medical Assistance Services did not ensure employees completed the required Conflict of Interest training within the timeframe outlined in the Code of Virginia. Specifically, 15 out of 138 (11%) employees who hold positions of trust did not complete the Conflict of Interest training within the required timeframe.

Pursuant to Code of Virginia § 2.2-3128 through § 2.2-3131, each state filer shall attend the orientation course within two months after he or she becomes a state filer and at least once during each consecutive period of two calendar years commencing on the first odd-numbered year thereafter. In

addition, the Code of Virginia § 2.2-3129 requires agencies to keep a record of attendance that includes the specific attendees, each attendee’s job title, and the dates of attendance for a period of not less than five years after each course is given.

Medical Assistance Services could be susceptible to actual or perceived conflicts of interest that would impair or appear to impair the objectivity of certain decisions made by employees in positions of trust. Additionally, not completing the Conflict of Interest orientation course may prevent Medical Assistance Services employees from recognizing or properly disclosing a conflict of interest.

Although the Human Resources Division has policies and procedures to guide management through the process of identifying employees for whom these requirements would be applicable, they had difficulties monitoring employees and holding them accountable for compliance with Conflict of Interest requirements due to the manual process. Medical Assistance Services is in the process of modifying the policies and procedures to require all state filers within the agency to complete the training every January, which will help the Human Resources division monitor employees who have not completed the training.

The Human Resources Division should ensure compliance with its internal policy and the Code of Virginia by monitoring all employees designated in a position of trust to ensure they complete the required Conflict of Interest training within two months of becoming a filer and once within each consecutive period of two calendar years thereafter. The Human Resources Division should also maintain a record of such attendance.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-084: Ensure Compliance with Conflict of Interests Act

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-082; 2017-082

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Human Resources did not properly identify all employees and board members holding a position of trust, to ensure required disclosures were properly filed. Additionally, Human Resources did not ensure all employees in a position of trust completed the required Conflict of Interests Act (COIA) training timely. Our review identified the following:

- Human Resources did not identify two employees within Procurement as needing to file disclosures.

- Human Resources did not identify eight board members as needing to file disclosures.
- Seven out of 24 (29%) employees identified by Human Resources within a position of trust did not complete COIA training within two months of their hire date.

Per the Code of Virginia § 2.2-3114, persons occupying positions of trust within state government or non-salaried citizen members of policy and supervisory boards shall file a disclosure statement with the Commonwealth's Ethics Advisory Council annually. Additionally, per Executive Order Number Eight (2018), positions of trust for Executive Branch Agencies include, but are not limited to, Chief Procurement Officers and other positions with the ability to authorize and make contract and procurement decisions. The Code of Virginia § 2.2-3128 through § 2.2-3131 requires that each employee within a position of trust complete COIA training within two months of their hire date and at least once every two years after the initial training. This training is designed to help employees recognize potential conflicts of interest. The Commonwealth offers in-person and web-based training, which satisfies this requirement.

Without appropriately identifying positions of trust and ensuring those employees are completing the required training, Social Services could be susceptible to actual or perceived conflicts of interest and may be limited in its ability to hold its employees accountable for not knowing how to recognize a conflict of interest and how to resolve it. Additionally, employees and board members could be subject to penalties for inadequate disclosure on their filings, as outlined within the Code of Virginia § 2.2-3120 through § 2.2-3127. Human Resources updated their policies and procedures to meet Code of Virginia requirements for the COIA training; however, Human Resources misinterpreted the training requirement under the Code of Virginia and employees were provided incorrect instructions for completing the training within two months of hire date.

Human Resources should ensure employees within a position of trust and board members are appropriately identified and are provided adequate instruction and notice to maintain compliance with the COIA. Additionally, Human Resources should ensure that policies and procedures are updated to reflect current Code of Virginia requirements and the guidance issued by the Commonwealth's Ethics Advisory Council.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-085: Comply with the Conflicts of Interest Act

Applicable to: Department of Health

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Health did not require all employees designated as occupying positions of trust to complete the required Statement of Economic Interest (SOEI) training within the required timeframe. Pursuant to the Code of Virginia § 2.2-3130 (Conflicts of Interest Act), SOEI filers must complete orientation training to help them recognize potential conflicts of interest. Employees in positions of trust must complete this training within two months of hire and at least once during each consecutive period of two calendar years.

Thirty-four of 70 (48.6%) employees designated as required filers did not complete the training. By not ensuring that all required employees have completed the necessary training, Health may not be able to rely on its employees to effectively recognize, disclose, and resolve conflicts of interest.

Health's Shared Administrative Services (SAS) did not adequately monitor employees or hold them accountable for compliance with SOEI training requirements. Health relies on an automated notification system to inform new and existing employees when they must complete certain required trainings and provides them with deadlines for completion. SAS did not properly include the SOEI Orientation within these notifications.

SAS should monitor all employees designated in positions of trust to ensure they complete the required SOEI training once within each consecutive period of two calendar years. SAS should update the notification system to include the SOEI Orientation and all other required trainings. This will reduce the rate of non-compliance with the Conflicts of Interest Act and reduce the risk of improper or incomplete conflicts disclosure.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-086: Develop Policies and Procedures to Ensure Compliance with Conflict of Interest Act Requirements

Applicable to: University of Virginia

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

The University's Department of Policy, Risk Management, and Compliance (Policy, Risk Management, and Compliance) does not properly ensure that all individuals in positions of trust file Statement of Economic Interest (SOEI) forms as a condition of assuming employment, and does not maintain adequate internal records to monitor and ensure employees have completed the ethics and conflict of interest training within each rolling two-year period as required by the Code of Virginia. Policy, Risk Management, and Compliance identifies and instructs filers to file only during the annual filing period, regardless of their hire date. Additionally, 313 of 567 filers (55%) have not completed training in the past two years. Policy, Risk Management, and Compliance reviews compliance with training requirements on an annual basis and relies solely on the training records provided and maintained by the Virginia Conflict of Interest and Ethics Advisory Council (the Council), which may be an incomplete listing of training taken by University filers due to the other acceptable trainings that a filer may complete outside of the Council's training process.

Pursuant to the Code of Virginia § 2.2-3114A and § 2.2-3118.2, persons occupying positions of trust within state government shall file with the Council, as a condition to assuming office or employment, a disclosure statement of their personal interests and such other information as is required on the form, on or before the day such office or position of employment is assumed, and thereafter shall file such a statement annually on or before February 1. The Governor of Virginia's Executive Order Number Eight (2018) indicates positions of trust for institutions of higher education include Presidents, Vice Presidents, Provosts, Deans, and any other person as designated by the institution including those persons with approval authority over contracts or audits. Additionally, Code of Virginia § 2.2-3129 and § 2.2-3130 require employees in a position of trust to complete an ethics and conflict of interest course, initially within two months of hire, and thereafter on a biennial basis. Code of Virginia § 2.2-3129, requires agencies to maintain the training records for a period of not less than five years to confirm that employees have completed the course as required.

Policy, Risk Management, and Compliance does not have adequate policies and procedures in place to ensure compliance with the Act. By not ensuring that individuals in positions of trust file SOEI forms as a condition of assuming employment, the University could be susceptible to actual or perceived conflicts of interest that would impair or appear to impair the objectivity of certain programmatic or fiscal decisions made by employees in designated positions of trust. While not a cost to the University itself, employees in a position of trust who do not complete the required Statement of Economic Interest form may, as allowed by the Code of Virginia § 2.2-3124, be assessed a civil penalty in an amount equal to \$250.

Policy, Risk Management, and Compliance should develop, implement, and maintain written policies and procedures to meet the Code of Virginia requirements for the SOEI. These updated policies should assist in identifying positions of trust and develop processes to ensure that the appropriate individuals submit SOEI forms as a condition of assuming their employment and each January thereafter. In addition, Policy, Risk Management, and Compliance is responsible for developing and maintaining a filer listing with training records for no less than the preceding five years. Using this internal record, Policy, Risk Management, and Compliance should ensure that filers are informed of their initial training requirement and their biennial training thereafter, and should update the record upon the filer's completion of training.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-087: Improve the Process to Identify Individuals in a Position of Trust

Applicable to: Virginia Polytechnic Inst. and State University

Prior Year Finding Number: N/A

Type of Finding: Compliance

Severity of Deficiency: Not Applicable

Virginia Polytechnic Institute and State University (Virginia Tech) is not properly identifying and tracking individuals in a position of trust, to ensure such individuals complete the Statement of Economic Interest (SOEI) requirements. Virginia Tech did not identify seven individuals in a position of trust that had approval over contracts or audit. In addition, 28 individuals identified in a position of trust did not complete the required training, and seven individuals on Virginia Tech's filer list did not file the SOEI disclosure form.

Executive Order Number Eight (2018) requires Virginia Tech to submit a report to the Office of the Secretary of the Commonwealth identifying, by name and job title, the positions that are required to file a SOEI form. Additionally, per the Executive Order, positions of trust for institutions of higher education include presidents, vice presidents, provosts, deans, and any other person as designated by the institution including those persons with approval authority over contracts or audits. The Executive Order also requires that the head of each agency, institution, board, commission, council, and authority within the Executive Branch to be responsible for ensuring that designated officers and employees file their statements of economic interests in accordance with § 2.2-3114 of the Code of Virginia. Section 2.2-3130 of the Code of Virginia requires individuals in a position of trust to receive training within two months upon hire and every two years thereafter.

By not identifying and tracking all individuals in a position of trust, Virginia Tech cannot ensure that these individuals are filing a SOEI form as required. Unidentified individuals that should have filed

may be unable to recognize a conflict of interest or unable to resolve the conflict due to the lack of the required training. Virginia Tech increases their risk for fraud and possible lawsuits involving the respective employees. Additionally, employees in a position of trust who do not complete the required SOEI form may, as stated by the Code of Virginia § 2.2-3124, be subject to a \$250 civil penalty.

The current controls related to the identification of positions of trust in Virginia Tech’s Human Resources system did not adequately identify all potential job positions that should require the employee to file an SOEI form and complete the required training because the process did not consider part time employees. In addition, there has been turnover within the SOEI program coordinator position, which resulted in miscommunication in both documentation and tracking.

Virginia Tech should modify existing procedures or implement additional procedures to ensure that the SOEI program coordinator identifies employees in positions of trust upon hire or change in employee job responsibilities to include part time employees. They should also ensure that an adequate tracking mechanism exists to ensure filers are completing their required training.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

OTHER GRANTS MANAGEMENT

2019-088: Improve Controls over the Income Verification for the TANF Program

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-087

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: TANF Cluster - 93.558

Federal Award Number and Year: 1901VATANF - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Special Tests and Provisions - 45 C.F.R. § 205.55

Known Questioned Costs: \$0

Social Services is still working on implementing a control to ensure the Income Eligibility and Verification System (IEVS) is used when determining eligibility for TANF participants. 45 C.F.R. § 205.55 requires agencies to collect income information through IEVS. By not ensuring that IEVS is used when verifying income for TANF participants, Social Services cannot verify that participants in the TANF program have met all eligibility requirements.

Social Services submitted a change request to Enterprise Systems to design and implement a defined process for working the IEVS matches. The design for the new process for IEVS has been completed; however, it has not been implemented and is planned for implementation in calendar year 2020.

Social Services should continue implementation of the new IEVS process for local agencies processing TANF applications in order to utilize IEVS for verifying income. In addition, Social Services should implement a control to ensure that IEVS is utilized when determining eligibility for TANF.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-089: Improve Controls over SNAP Federal Reporting

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-091

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Finance does not have adequate controls in place to ensure accurate federal quarterly reporting on the FNS-209 “Status of Claims Against Households” Report (FNS-209). Two FNS-209 reports reviewed identified the following:

- For one FNS-209 quarterly report, Finance could not provide documentation from the case management system to validate all the line items reported.
- For one FNS-209 quarterly report, Finance could not provide documentation from the case management system validating the beginning and ending balance line items.

7 C.F.R. § 273.18 (m) requires agencies to maintain a system for monitoring recipient claims against households that maintains claims records and corresponding receivable information. The system must also be able to produce summary reports and reconcile to supporting records. Reporting potentially inaccurate or incomplete information prevents the United States Department of Agriculture, Food and Nutrition Service from adequately monitoring the status of claims against households.

Finance and Enterprise Systems have been working to address the system deficiencies in the case management system to ensure FNS-209 can be adequately supported; however, the beginning and ending balances reported on the FNS-209 report do not agree to the case management system. When Enterprise Systems performs a data fix to the case management system, it will alter the amounts in the

system and any previously submitted FNS-209 reports are no longer adequately supported. In addition, Social Services does not have sufficient policies and procedures over the FNS-209 reporting process.

Finance and Enterprise Systems should continue to work together to ensure all information submitted in the FNS-209 can be sufficiently validated. Finance should create policies and procedures over the reporting process to ensure accurate reporting of claims against households.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-090: Ensure Subrecipient Reviews Adhere to Monitoring Plan

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-093

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Community Services Block Grant - 93.569; Foster Care Title IV-E - 93.658; Adoption Assistance - 93.659; Social Services Block Grant - 93.667; Medicaid Cluster - 93.775, 93.777, 93.778; TANF Cluster - 93.558

Federal Award Number and Year: Various - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Subrecipient Monitoring - 2 C.F.R. § 200.331(d)

Known Questioned Costs: \$0

Social Services is still not adhering to its established approach for monitoring subrecipients. The established approach includes having the Division of Community and Volunteer Services (Community and Volunteer Services) exercise agency wide oversight over the subrecipient monitoring process to ensure the various divisions are following the established monitoring plans and produce reports to consolidate the monitoring activity agency wide. During fiscal year 2019, Social Services did not produce quarterly reports to brief Executive Management on subrecipient monitoring activities for each Division within Social Services.

2 C.F.R. § 200.331(d) requires pass through entities to monitor the activities of subrecipients as necessary to ensure that the sub-award is meeting grant requirements. To aid in this process and mitigate risk, Social Services develops annual monitoring plans across divisions which outline the review process and reports the results of the reviews to executive management quarterly.

Without providing reports to executive management, we are not able to determine if Social Services is assessing each of their division's completed subrecipient reviews and if executive management is acting upon possible deviations from the plan. During fiscal year 2019, Social Services

underwent a reorganization and created a new Compliance Division. The oversight for the agency's overall subrecipient monitoring transitioned from Community and Volunteer Services to the Compliance Division. The Compliance Division is in the process of hiring a subrecipient monitoring manager and developing a subrecipient monitoring oversight process.

Social Services should ensure that all divisions are adhering to the established approach for monitoring subrecipients. Specifically, Social Services should work to ensure progress reports are provided to executive management for review and monitoring of subrecipients.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-091: Continue to Improve Controls over Subrecipient Monitoring

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-092

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Community Services Block Grant - 93.569; Foster Care Title IV-E - 93.658; Adoption Assistance - 93.659; Social Services Block Grant - 93.667; Medicaid Cluster - 93.775, 93.777, 93.778; TANF Cluster - 93.558

Federal Award Number and Year: Various - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Subrecipient Monitoring - 2 C.F.R. § 200.501(a-b); 2 C.F.R. § 200.521

Known Questioned Costs: \$0

Social Services continues to not provide assurance that audits are performed and reviewed for all subrecipients expending \$750,000 or more and that management is making timely decisions based on the results of the audit report reviews. Community and Volunteer Services is responsible for reviewing non-profit organization audit reports and the Local Review Team is responsible for reviewing locality audit reports. Our testwork identified the following:

- Five of 17 (29%) non-profit organizations expending more than \$750,000 tested had not been reviewed by Community and Volunteer Services, to determine if proper audits were completed, at the time of our audit. Three of the five organizations selected for testwork were not included on the non-profit audit report tracking spreadsheet until it was brought to Community and Volunteer Services' attention during our audit.

- Reports to senior management and regional directors, detailing the results of the locality and non-profit organization audit report reviews to be used in issuing official management decisions to subrecipients, have not been issued by the Local Review Team or Community and Volunteer Services.

According to 2 C.F.R. § 200.331 (f), pass thru entities are required to verify that every subrecipient is audited as required. 2 C.F.R. § 200.501(a-b) requires all non-Federal entities that expend \$750,000 or more during the non-Federal entity's fiscal year in Federal awards must have a single or program-specific audit conducted for that year. 2 C.F.R. § 200.512 requires audit reports be submitted within the earlier of 30 days after receipt of the auditor's report or nine months after the end of the audit period. Additionally, 2 C.F.R. § 200.521 requires pass-through entities to issue management decisions within six months of acceptance of the audit report.

Without maintaining a complete listing of all non-profit organizations required to have an audit and reviewing all of those audit reports, Community and Volunteer Services is unable to provide assurance that it is meeting the audit requirements set by the federal regulations. Additionally, without providing senior management and regional directors the results of the audit report reviews timely, management cannot make decisions within the timeframes set by the federal regulations.

Community and Volunteer Services attributed the incomplete tracking spreadsheet for non-profit reviews to competing priorities and difficulty in obtaining all audit reports. Social Services plans to transition the review of non-profit organization audit reports from Community and Volunteer Services to the newly established Compliance Division in fiscal year 2020. Additionally, review results have not been reported to senior management and regional directors because Community and Volunteer Services and the Local Review Team want all non-profit and locality audit reports to be received and all reviews to be completed prior to reporting results.

Social Services should ensure that all subrecipients are monitored in accordance with all federal requirements. Additionally, Social Services should develop a process to ensure that senior management and other responsible parties are notified timely of the results of the audit reviews so that prompt and meaningful management decisions can be issued in accordance with federal requirements.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

PROCUREMENT AND CONTRACT MANAGEMENT

2019-092: Ensure Performance Evaluations are Completed for Professional Service Contracts

Applicable to: Department of Transportation

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Highway Planning and Construction Cluster - 20.205, 20.219, 20.224

Federal Award Number and Year: Various - 2019

Name of Federal Agency: U.S. Department of Transportation

Type of Compliance Requirement - Criteria: Procurement and Suspension and Debarment - 2 C.F.R. § 200.317

Known Questioned Costs: \$0

Project managers for professional service contracts are not always completing performance evaluations for consultants. Of the 18 professional services contracts we tested, Transportation did not have any evidence that the project manager completed a performance evaluation for 13 (or 72 percent) of the contracts. 2 C.F.R. § 200.317 requires each state to use the same standards for federal procurement that it uses for state procurement. The Virginia Public Procurement Act § 2.2-4300(C) states that public bodies should obtain high quality goods and services. Section 7.2 of Transportation's Manual for the Procurement and Management of Professional Services established the design of performance evaluation controls and assigns related responsibilities in order to ensure the quality of the services received. The manual requires the project manager to evaluate and document the consultant's performance, at a minimum, in January and June of each year over the duration of the project and upon expiration of the contract.

During fiscal year 2019, Transportation managed over 160 professional service contracts valued at approximately \$990 million. Transportation uses the performance evaluations as a control to measure each consultant's performance and to determine whether it is appropriate to continue to do business with the consultant in the future. If Transportation does not ensure that performance evaluations are completed as designed, Transportation places the Commonwealth at risk of not being able to hold consultants accountable for nonperformance.

According to certain project managers, they were not completing the performance evaluations because their responsibility for the control activity was not communicated to them and there was a lack of monitoring by management. Transportation should ensure that project managers are aware of the performance evaluation requirements and should dedicate the resources necessary to ensure that project managers are completing performance evaluations as required.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-093: Improve Controls for Ensuring Quality Improvement Recommendations are Implemented

Applicable to: Department of Transportation

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Highway Planning and Construction Cluster - 20.205, 20.219, 20.224

Federal Award Number and Year: Various - 2019

Name of Federal Agency: U.S. Department of Transportation

Type of Compliance Requirement - Criteria: Special Tests and Provisions - 23 C.F.R. § 637.205

Known Questioned Costs: \$0

Transportation's Construction Division designed and implemented its Construction Quality Improvement Program (Improvement Program) to meet federal requirements for developing a quality assurance program (23 C.F.R § 637.205). During fiscal year 2019, the Improvement Program reviewed 148 contracts which were valued at approximately \$400 million. Most reviews resulted in recommendations for making improvements. To ensure recommendations are implemented, Transportation established the control of requiring an Area Construction Engineer (Engineer) to perform follow-up procedures and document that Transportation implemented the recommendations. The Improvement Program Manager (Manager) is responsible for collecting the documented follow-up procedures from the Engineer to monitor compliance with the policy. Of the fifteen reviews we tested, the Manager could not provide documentation as evidence to whether or not the Engineer performed the follow-up control activities for two of the reviews. Without documentation of the follow-up control activities, Transportation does not have evidence that it is making the necessary improvements.

According to management, the lack of documentation of follow-up was not identified because the current process the Manager uses for tracking follow-up control activities performed by the Engineer is labor intensive and relies on a paper-based work flow to monitor follow-up control activities. The Construction Division is aware of this issue and is in the process of implementing a new automated tracking system. Management should continue with its efforts to redesign its processes or explore other options, as necessary.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-094: Improve Controls over the Purchasing Process

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: 2018-080

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

DBHDS is not ensuring compliance with the prompt pay provisions of the Virginia Public Procurement Act and is not properly processing purchase orders through the Commonwealth's purchasing system. The identified issues are as follows:

- Two of 16 (12.5%) expenses reviewed at one of the four facilities tested (25%) were not paid within the time requirements set by the prompt payment provisions.
- At one of the four facilities tested (25%), Fiscal did not ensure that the vendor charged the correct rate for services, which resulted in a payment at an incorrect amount.
- The Purchasing Department (Purchasing) did not properly process purchase orders through the Commonwealth's purchasing system for seven of 26 (26.9%) expenses reviewed at two of the four facilities tested (50%).

The untimely payments were due to a lack of communication between Fiscal and Purchasing. This resulted in one payment being included in the incorrect fiscal year, and overdue invoices ranging from 105 to 302 days. Code of Virginia § 2.2-4347 requires state agencies to pay for delivered goods and services within 30 days after receipt of a proper invoice or 30 days after receipt of the goods or services, whichever is later. By not following prompt pay requirements established by the Commonwealth, individual facilities may harm the Commonwealth's reputation as a buyer, damage relationships with vendors, and could incur late fees. Furthermore, Section 10.11 of the Agency Procurement and Surplus Property Manual (APSPM) encourages agencies with separate fiscal and purchasing departments to develop a Memorandum of Understanding to effectively resolve discrepancies and ensure timely payment.

Fiscal staff did not perform a proper review of the invoice and purchase order prior to approving the payment to ensure the vendor charged the correct rate, which resulted in a payment at the incorrect amount. CAPP Manual Topic 20315 states that the receiving report and purchase order should be obtained and matched to the corresponding invoice prior to approval and payment processing. Without properly matching the invoice to supporting documentation, the agency risks incorrect payment for goods or services.

Facility purchasing departments did not properly process purchase orders related to food service or pharmaceutical drug expenses. As a result, these payments were not supported by purchase orders from the Commonwealth's purchasing system. Facility purchasing departments were unaware of the requirement and noted processing pharmaceutical purchases through the Commonwealth's purchasing

system would delay compliance with the vendor's payment terms. Section 14.9 of the APSPM requires the use of the Commonwealth's purchasing system for certain purchase transaction types. The APSPM states that the purchase of pharmaceuticals is a transaction type that is exempt from agency and transaction fees imposed by the Commonwealth's purchasing system; however, use of the system is still mandatory. Without the mandatory use of the Commonwealth's purchasing system for certain purchases, there is an increased potential for reduced transaction transparency, analysis, and reporting.

DBHDS should ensure compliance with the prompt pay provisions through a clearly established process to resolve discrepancies between the Fiscal and Purchasing Departments timely. Fiscal should be trained to properly review invoices and purchase orders prior to approval and payment processing. Management at the individual facilities should improve purchasing processes and controls to ensure the proper use of the Commonwealth's purchasing system.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

REVENUE AND ACCOUNTS RECEIVABLE

2019-095: Continue Improving the Overpayment Collection Process

Applicable to: Department of Medical Assistance Services

Prior Year Finding Number: 2018-017; 2017-084; 2016-080

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Medicaid Cluster - 93.775, 93.777, 93.778

Federal Award Number and Year: 1805VA5MAP - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Special Tests and Provisions - 42 C.F.R. § 455.16(c)(3)

Known Questioned Costs: \$0

Medical Assistance Services' Accounts Receivable Unit needs to continue to improve its collection process for overpayments. Although improvements have been made in this area, they need to ensure that policies and procedures for collecting overpayments are followed. For two of nine (22%) overpayments identified by the Provider Review Unit, the Accounts Receivable Unit did not send invoice letters in a timely manner. These invoice letters were sent between two and seven days late based on the internal policy. There was one additional overpayment reviewed where the invoice letter was sent 150 days late, but this overpayment was less than one dollar, which brings into question the cost effectiveness of the collection policy.

Medical Assistance Services, to comply with the Virginia Debt Collection Act, Code of Virginia § 2.2-4800-4809, established procedures to pursue collection of overpayments from recipients and providers. These procedures specify timeframes in which overpayment notice letters and invoicing letters must be sent to recipients and providers. For provider overpayments, the procedures require the Accounts Receivable Unit send an invoice letter to the provider 34 days from the date they receive notification from the Provider Review Unit. By not following established procedures designed to meet Commonwealth requirements, Medical Assistance Services is potentially not collecting money owed from providers or not collecting money owed to them timely.

There has been significant turnover in Accounts Receivable staff including the Accounts Receivable Manager position. This turnover, combined with the high volume of work, has contributed to the majority of the delays identified. The issue related to the immaterial overpayment was due to confusion over whether or not there is an internal policy that establishes a threshold for collection (i.e., the amount has to be over a certain dollar amount to pursue collection efforts).

Management should evaluate resources assigned to these areas to ensure they are adequate to perform the necessary functions in accordance with policies and procedures. In addition, Medical Assistance Services should evaluate its current policies in several areas. The Accounts Receivable Unit should evaluate its internal policy over collections to determine whether it is appropriate to establish a dollar threshold to guide collections efforts. This will help to ensure resources are used in the most effective manner. In addition, the Accounts Receivable Unit may want to clarify its internal policy in terms of business days or calendar days.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-096: Implement Separation of Duties over Accounts Receivable Resulting from Dealership Transactions

Applicable to: Department of Motor Vehicles

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Motor Vehicles does not have proper separation of duties over accounts receivable resulting from errors in transactions processed by dealerships participating in the agency's Online Dealer program. Employees in the Dealer Services Work Center (Work Center) review dealership transactions to ensure there are no errors. If a Work Center employee identifies an error during their review of transactions, that same employee is responsible for notifying the dealership of the error and creating a receivable for Motor Vehicles. Should the dealership's error result in the dealership owing money to Motor Vehicles,

the dealership remits payment directly to the Work Center employee, who then processes it and sends it to the cashier's office within Fiscal Services for deposit. The same employee that created and recorded the receivable and communicated it to the dealership is responsible for removing the receivable when the funds are received. Allowing the Work Center to identify, create, and collect account receivables poses a separation of duties violation.

Separation of duties must exist for financial transactions as part of any sound system of internal controls. Additionally, internal controls should provide a safeguarding of assets, which includes accounts receivable. CAPP Manual Topic 20905 indicates agency management is responsible for instituting internal control over recording of financial transactions that is designed to provide reasonable assurance regarding the reliability of those records. Not having proper separation of duties increases Motor Vehicles' risk that fraud or errors will go undetected.

The Work Center does not have formal, written policies and procedures over their process of reviewing dealership transactions. In addition, the Work Center does not typically communicate errors resulting in the creation of an accounts receivable from dealerships to Fiscal Services. Therefore, management overseeing Fiscal Services was not aware that the Work Center was identifying, creating, and collecting accounts receivable.

The Work Center should create formal, written policies and procedures to document their process of reviewing dealership transactions and have management of Fiscal Services evaluate those internal controls for reasonableness to ensure proper separation of duties over accounts receivable owed to Motor Vehicles.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

EXPENSES AND ACCOUNTS PAYABLE

2019-097: Improve Process for Payment of Risk Management Invoices

Applicable to: Department of the Treasury

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

Treasury's Risk Management Division (Risk Management) is not adequately monitoring or ensuring compliance with the prompt payment provisions in the Code of Virginia. We also noted this issue in our fiscal year 2017 report, but not in our fiscal year 2018 report as Treasury indicated it had been resolved. Risk Management does not have sufficient oversight in place to ensure all invoices

received are being processed and paid according to the prompt payment provisions regardless of whether the invoice is received by Risk Management directly or if the invoice is received via the Office of the Attorney General. For the invoices we reviewed, we found ten out of 70 (14 percent) were paid between one and 12 days after the 30-day prompt pay limitation. The invoices were paid an average of nine days after the 30-day limit. In addition, one invoice was lacking time and date documentation to indicate when the invoice was received, making it impossible to determine whether the payment was made on time. Also, Risk Management was unable to produce documentation to adequately support one out of 14 (7%) payments reviewed.

The Code of Virginia § 2.2-4347 states that agencies are required to pay invoices no later than 30 days after the receipt of the goods, services, or invoice, whichever is later, or the due date specified in the vendor's contract. Not following prompt pay requirements established by the Commonwealth may harm the Commonwealth's reputation as a buyer, damage relationships with vendors, and result in late fees. CAPP Manual Topic 21005, Records and Retention, outlines the minimum record retention periods for audit support, including all records relating to expenses. The Department of Accounts and the Library of Virginia established the minimum retention period for expenses at five years past the end of the fiscal year in which it occurred.

Risk Management indicated that the untimely payments are a result of several factors, including staff vacancies, new personnel training, and an uneven distribution of work for personnel. Additionally, the Division receives an influx of invoices towards the end of the calendar year, leading to an increased work load.

Risk Management should strengthen its internal controls and policies and procedures to ensure compliance with prompt payment provisions, including further developing and improving operational procedures, adequately training staff, and maintaining sufficient management oversight of the payment process. Further, management should ensure that adequate staffing is available, and that operations are adjusted accordingly for the high-volume periods anticipated during the year. In addition, Risk Management should communicate the importance of document retention to staff and ensure that staff maintain and retain all documents supporting payments in accordance with the CAPP Manual and Commonwealth retention policies.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

THIRD-PARTY SERVICE PROVIDERS

2019-098: Improve Service Organization Control Report Review Policies and Procedures

Applicable to: Department of the Treasury

Prior Year Finding Number: N/A

Type of Finding: Internal Control

Severity of Deficiency: Significant Deficiency

Treasury does not have updated and comprehensive policies and procedures over the review of third-party service providers' Service Organization Control (SOC) reports. SOC report reviews are a key internal control as Treasury contracts with several service organizations and these organizations' transactions and internal control environments have a direct impact on Treasury's financial operations through the financial transactions they process using the subservice organizations. The policy in place during fiscal year 2019 was drafted in 2008, and contains several inaccuracies in regards to Treasury's operations. The policy and procedure does not adequately address:

- Documentation of complementary user entity controls (CUECs) and the related controls in place;
- The steps needed to address internal control deficiencies and/or exceptions noted in reviews; and
- Current standards and Treasury organization.

The CAPP Manual Topic 10305 requires agencies to have adequate interaction with service providers to appropriately understand the provider's internal control environment. Agencies must also maintain oversight over the provider to gain assurance over outsourced operations. SOC reports are a key tool in gaining an understanding of the provider's internal control environment and maintaining oversight over outsourced operations.

Without updated and comprehensive policies and procedures over SOC report reviews, Treasury may be unable to ensure that their CUECs are sufficient to support their reliance on service providers' controls design, implementation, and operating effectiveness and address any internal control deficiencies and / or exceptions noted in the report.

Treasury has some documentation of internal controls through its Agency Risk Management and Internal Control Standards (ARMICS) process that correlate to some of the CUECs identified in SOC reports; however, this documentation is independent of the SOC review process performed by staff. In addition, staff responsible for reviewing the SOC reports did not document or understand the CUECs, and maintained that they did not have policies and procedures concerning their reviews, which reduces the operational effectiveness of the reviews. Treasury has developed a checklist in response to the

previous audit, which documents the elements in the SOC reports reviewed, but the checklist does not require consideration of whether CUECs have been implemented or the evaluation of exceptions noted within the report. In addition, Treasury has been taking steps to improve overall policies and procedures in the current fiscal year through their Internal Review department's activities.

Treasury should update and improve policies and procedures already in place to ensure an integrated process wherein staff responsible for SOC report reviews and ARMICS processes are accurately and effectively identifying, incorporating, and documenting compensating internal controls to ensure the financial information received from service organizations is suitably assured through the coordinated efforts of Treasury staff. In addition, Treasury should use SOC reports as a component of its oversight activities over its providers to confirm they comply with the requirements outlined in the CAPP Manual and industry best practices. Finally, if Treasury identifies exceptions in the SOC reports, management should document their evaluation of the exception, including whether additional complementary controls are necessary to mitigate the risk to the Commonwealth.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

STUDENT FINANCIAL ASSISTANCE

2019-099: Improve Reporting to National Student Loan Data System

Applicable to: Virginia Commonwealth University

Prior Year Finding Number: 2018-101

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

In our last audit, we recommended Virginia Commonwealth University (University) improve controls to ensure reporting of enrollment data to the National Student Loan Data System (NSLDS) is accurate and timely. In accordance with Code of Federal Regulations 34 C.F.R. 685.309 and further outlined in the Enrollment Guide, enrollment changes must be reported to NSLDS within 30 days when attendance changes, unless a roster file will be submitted within 60 days. The accuracy of Title IV enrollment data depends heavily on information reported by institutions. By not submitting timely and accurate data to NSLDS, the University can affect the reliance placed by the U.S. Department of Education on the data for monitoring purposes and other higher education institutions when making aid decisions.

The University's Office of Financial Aid has developed a corrective action plan, which included the implementation of new procedures in the Spring of 2019 to identify and correct errors in the

reporting to the NSLDS. The corrective action plan remains ongoing as of June 30, 2019. We will review the implementation of the University's corrective action during our next audit.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

SCHEDULE OF FINDINGS AND QUESTIONED COSTS SECTION 3: FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

- 2019-020:** Perform System Access Reviews
- 2019-024:** Remove Separated Employee Access in a Timely Manner
- 2019-037:** Improve Web Application Security
- 2019-039:** Improve Web Application Security
- 2019-049:** Develop Records Retention Requirements and Processes for Case Management System
- 2019-051:** Complete and Approve the System Security Plan
- 2019-052:** Develop a Process to Maintain Oversight for Third-Party Providers
- 2019-059:** Continue Improving Database Security
- 2019-063:** Continue Improving IT Risk Management Program
- 2019-083:** Ensure Employees Complete Required Conflict of Interest Training
- 2019-088:** Improve Controls over the Income Verification for the TANF Program
- 2019-090:** Ensure Subrecipient Reviews Adhere to Monitoring Plan
- 2019-091:** Continue to Improve Controls over Subrecipient Monitoring
- 2019-095:** Continue Improving the Overpayment Collection Process

Each of the findings referenced above represents a compliance finding that could be material to the basic financial statements and are required to be reported under Government Auditing Standards. These findings relate to both the financial statements and federal awards. The details of these findings are reported within "*Section 2: Financial Statement Findings*" of the Schedule of Findings and Questioned Costs.

2019-100: Improve Controls over TANF Federal Performance Reporting

Applicable to: Department of Social Services

Prior Year Finding Number: 2018-089

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: TANF Cluster - 93.558

Federal Award Number and Year: 1901VATANF - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Reporting - 45 C.F.R. § 265.7(b)

Known Questioned Costs: \$0

Social Services does not have adequate controls in place to ensure accurate federal reporting for two TANF performance reports, the ACF-199 “TANF Data Report” and ACF-209 “SSP-MOE Data Report.” These reports are submitted quarterly and utilize a case management system to create the reports. During our review, we identified the following discrepancies in four key line items, where key line items did not agree to information maintained in the case management system:

- Nine out of 50 (18%) cases did not properly report the Receives Subsidized Child Care key line item;
- One out of 25 (4%) cases did not properly report the Toward Federal Time-Limit key line item; and
- Six out of 50 (12%) cases did not properly report the Work Participation Status and Unsubsidized Employment key line items. One of the cases was the result of the key line items not agreeing to information maintained in the case management system. The five remaining cases did agree to the information in the case management system; however, the information in the system was entered incorrectly by the local Department of Social Services.

45 C.F.R. § 265.7(b) requires states to have complete and accurate reports which means that the reported data accurately reflects information available in case records, data is free of computational errors, and is internally consistent. Reporting potentially inaccurate or incomplete information prevents the Administration for Child and Families from adequately monitoring Social Services’ work participation rates and overall performance for the TANF program. In addition, if Social Services is found to not be meeting minimum work participation rates, a penalty can be imposed on the awarded grant. These reporting errors can be attributed to the implementation of the case management system. Social Services should continue working with Enterprise Systems to correct system deficiencies to ensure all information submitted in federal reports is accurate.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-101: Ensure Family Services Subrecipient Reviews Adhere to Monitoring Plan

Applicable to: Department of Social Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Foster Care Title IV-E - 93.658; Adoption Assistance - 93.659

Federal Award Number and Year: 1901VAADPT - 2019

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Subrecipient Monitoring - 2 C.F.R. § 200.331(d)

Known Questioned Costs: \$0

Social Services' Division of Family Services (Family Services) cannot provide assurance that Adoption Assistance and Title IV-E Foster Care subrecipient monitoring reviews are completed timely and in accordance with Family Services' subrecipient monitoring plan and related processes. Our testwork over 25 Adoption Assistance and IV-E Foster Care monitoring reviews identified the following:

- For four Adoption Assistance reconciliation reviews tested, there was no communication notifying the local agency the review was complete and if variances were identified in accordance with Family Services' established monitoring process.
- For one Adoption Assistance reconciliation review tested, variances were identified by the assigned Quality Assurance and Accountability (QAA) consultant in October 2018, and the variances have not been resolved, over one year later.
- For one IV-E Foster Care Training monitoring review tested, all documentation supporting the QAA consultant's assessment and conclusions was not provided.

2 C.F.R. § 200.331(d) requires pass through entities to monitor the activities of subrecipients as necessary to ensure that the sub-award is meeting grant requirements. To aid in this process and mitigate risk, Family Services develops an annual monitoring plan, which outlines the review process. Without maintaining adequate support and resolving identified issues timely, Family Services cannot provide assurance that it is completing subrecipient monitoring reviews in accordance with its monitoring plan and federal guidelines.

Family Services implemented the process of communicating the results of its Adoption Assistance reconciliation reviews in February 2018; however, Family Services stated that during fiscal year 2020

they were able to streamline and improve the process. Additionally, the consultant that completed the IV-E Foster Care Training monitoring review separated from Social Services and the evidence supporting the consultant's assessments was not retained and/or accessible by Family Services.

Family Services should ensure that all consultants are performing reviews as outlined by the monitoring plan and internal processes. Additionally, Family Services should ensure that reviews are being completed timely and adequate documentation is maintained supporting the reviews.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-102: Implement Opioid Grant Sub-Recipient Monitoring

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Opioid STR - 93.788

Federal Award Number and Year: H79TI081682 - 2018

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Subrecipient Monitoring - 45 C.F.R. § 75.352(6)(b)(d)(e)

Known Questioned Costs: \$0

DBHDS is not properly monitoring the awards provided to Community Service Boards (CSBs) for the opioid grants as determined by DBHDS's Office of Budget and Financial Reporting's CSB Risk Assessment. DBHDS management responsible for the opioid grants did not have sufficient documentation of onsite visits with the CSBs to monitor programmatic progress for both the STR Grant and the SOR Grant that encompass the Catalogue of Federal Domestic Assistance (CFDA) 93.788.

The Code of Federal Regulations (C.F.R.) 45 C.F.R. § 75.352(6)(b) requires an evaluation of each subrecipient's risk of noncompliance with Federal statutes, regulations, and the terms and conditions of the subaward for purposes of determining the appropriate subrecipient monitoring described in paragraphs (d) and (e) of this section.

45 C.F.R. § 75.352(6)(d) requires monitoring the activities of the subrecipient as necessary to ensure that the subaward is used for authorized purposes, in compliance with Federal statutes, regulations, and the terms and conditions of the subaward; and that subaward performance goals are achieved.

45 C.F.R. § 75.352(6)(e)(2) states that depending upon the pass-through entity's assessment of risk posed by the subrecipient, the following monitoring tools may be useful for the pass-through entity to ensure proper accountability and compliance with program requirements and achievement of performance goals: performing on-site reviews of the subrecipient's program operations.

The SOR grant was new for the fiscal year, and DBHDS did not have a structured and coordinated internal process for the monitoring of the SOR Grant. Insufficient and unreasonable evidence of subrecipient monitoring activities could result in unallowable expenses and jeopardizes current and future funding. Current monitoring activities provide no authoritative proof that the CSBs are providing the services as outlined in the performance contract between DBHDS and the CSBs. The state, through DBHDS, is liable to the federal government for any funds that CSBs do not spend correctly.

DBHDS should properly document subrecipient monitoring over the opioid grants to ensure that CSBs are properly following federal requirements. Further, DBHDS management should improve communication effectiveness between DBHDS's subrecipient monitoring departments for compliance with the Code of Federal Regulations.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-103: Provide Federal Award Requirements to Subrecipients

Applicable to: Department of Behavioral Health and Developmental Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Opioid STR - 93.788

Federal Award Number and Year: H79TI081682 - 2018

Name of Federal Agency: U.S. Department of Health and Human Services

Type of Compliance Requirement - Criteria: Subrecipient Monitoring - 45 C.F.R. § 75.352(a)

Known Questioned Costs: \$0

DBHDS is not providing federal award requirements to the CSBs for the opioid grants. DBHDS did not have a performance contract in place with the CSBs for the funding of the SOR Grant. A review of the CSB's performance contracts determined that the SOR Grant funding awarded to the CSBs from DBHDS did not exist. The SOR Grant accounts for \$12,476,526 of \$19,862,333 (62.81%) of total federal awards passed-through to the CSBs for opioid related services.

45 C.F.R. § 75.352(a) requires every subaward be clearly identified to the subrecipient as a subaward and include certain information at the time of the subaward and if any of these data elements

change, include the changes in subsequent subaward modification. When this information is not available, the pass-through entity must provide the best information available to describe the federal award and subaward.

The lack of a performance contract or memorandum of understanding outlining the requirements of the SOR Grant increases the risk of the CSBs using the awards for activities not related to the opioid grant or for unallowable costs associated with the opioid grant. This creates a potential financial liability for DBHDS, and they have limited recourse with the CSBs due to the lack of a legally binding document.

The SOR Grant is a new grant, and DBHDS management assumed that the SOR Grant was covered in the existing performance contracts with the CSBs for fiscal year 2019. Therefore, DBHDS management did not have an addendum with the CSBs to cover the SOR Grant funding.

DBHDS should provide CSBs with the federal requirements attached to their federal awards. CSBs will be aware of the requirements of the federal awards, and DBHDS will be able to properly monitor whether the CSB complies federal regulations set forth in the contract.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

U.S. DEPARTMENT OF EDUCATION

2019-104: Improve the Case Management System Access Review Process

Applicable to: Department for Aging and Rehabilitative Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Rehabilitation Services Vocational Rehabilitation Grants to States - 84.126

Federal Award Number and Year: H126A180069 - 2018

Name of Federal Agency: U.S. Department of Education

Type of Compliance Requirement - Criteria: Eligibility - 2 C.F.R. § 200.303(e)

Known Questioned Costs: \$0

Aging and Rehabilitative Services did not perform a comprehensive system access review of the case management system. Aging and Rehabilitative Services, the Wilson Workforce and Rehabilitation Center, and Blind and Vision Impaired use this mission-critical system to process eligibility determinations, set up services planned for clients, and authorize payments. Aging and Rehabilitative Services is responsible for ensuring access is appropriate.

The Commonwealth's Information Security Standard, SEC 501 (Security Standard), Section AC-2j, requires agencies to "review accounts for compliance with account management requirements on an annual basis or more frequently..." The absence of a comprehensive access review increases the risk of unauthorized individuals inappropriately altering or viewing sensitive information or authorizing eligibility determinations. There is not a backup person to perform this review if the case management system manager is unable to complete it. This prevented completion of the annual access review.

Aging and Rehabilitative Services should perform an annual review of access to the case management system. In addition, Aging and Rehabilitative Services should ensure there are backups for mission-critical duties such as access reviews. This will reduce the risk of unauthorized transactions and ensure compliance with the Security Standard.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-105: Improve the Eligibility Determination Process for Vocational Rehabilitation

Applicable to: Department for Aging and Rehabilitative Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Rehabilitation Services Vocational Rehabilitation Grants to States - 84.126

Federal Award Number and Year: H126A180069 - 2018

Name of Federal Agency: U.S. Department of Education

Type of Compliance Requirement - Criteria: Eligibility - 29 U.S.C. § 722

Known Questioned Costs: \$0

Aging and Rehabilitative Services' Vocational Rehabilitation (VR) counselors did not determine individuals' eligibility or process extensions within 60 days for 17% of individuals sampled. United States Code (29 U.S.C. § 722), Eligibility and Individualized Plan for Employment, requires states to determine whether an individual is eligible for VR services within a reasonable period of time, not to exceed 60 days, after the individual has submitted an application for the services.

Not determining eligibility or processing extensions in a timely manner makes Aging and Rehabilitative Services out of compliance with this federal requirement. Additionally, if an individual's circumstances change, making them ineligible between the time the individual submits the application and the VR counselor makes the eligibility determination, this risks providing benefits to an ineligible recipient. Untimely eligibility determinations could also cause the individuals to miss certain job opportunities as they await assistance.

Significant turnover in VR counselors caused the untimely determinations of eligibility. This turnover and a prioritization of other tasks caused the counselors to be unresponsive to system notifications of eligibility due dates.

Aging and Rehabilitative Services should enhance the process by which it responds to the notifications and ensure counselors are available to determine eligibility or request extensions within 60 days as required by the VR grant. This will reduce the risk of providing benefits to ineligible recipients, ensure accurate and up-to-date records of clients' needs are maintained, and reduce noncompliance with this federal requirement.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-106: Improve Processes to Comply with the Conflicts of Interest Act

Applicable to: Department for Aging and Rehabilitative Services; Department for the Blind and Vision Impaired

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Rehabilitation Services Vocational Rehabilitation Grants to States - 84.126

Federal Award Number and Year: H126A180069 - 2018

Name of Federal Agency: U.S. Department of Education

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303

Known Questioned Costs: \$0

Aging and Rehabilitative Services did not identify 196 VR counselors and staff who determine eligibility and one grants manager as being in positions of trust to ensure all such individuals comply with Statement of Economic Interest (SOEI) requirements. Blind and Vision Impaired did not identify one VR counselor who transferred from Aging and Rehabilitative Services as occupying a position of trust. As a result, these individuals did not complete the required training and did not file SOEI disclosure forms.

Executive Order Number Eight (Executive Order) from the Office of the Governor requires agencies to submit a report to the Office of the Secretary of the Commonwealth identifying, by name and job title, the positions that must file SOEI forms. The Executive Order requires executive branch agencies to ensure that employees who occupy positions of trust file their SOEI disclosure forms in accordance with § 2.2-3114 of the Code of Virginia. Section 2.2-3130 of the Code of Virginia (Conflicts of Interest Act) requires individuals in positions of trust to undergo training within two months upon hire and every two years thereafter.

Without identifying and tracking all individuals in positions of trust, Aging and Rehabilitative Services and Blind and Vision Impaired cannot ensure these individuals file SOEI forms and complete the training as required. Individuals who do not complete the training may be unable to recognize or resolve conflicts of interest. This increases the risk of fraud and possible lawsuits involving these employees as those who do not complete the required SOEI form may, as stated by the Code of Virginia § 2.2-3124, be subject to a \$250 civil penalty.

Aging and Rehabilitative Services' existing process does not properly identify all job positions that it should consider to be positions of trust. This caused Aging and Rehabilitative Services' failure to obtain SOEI forms and provide training to these individuals.

Aging and Rehabilitative Services should enhance existing procedures and provide guidance to ensure that the SOEI program coordinators identify employees in positions of trust upon hire, transfer, or changes in job responsibilities. This will reduce the risk of noncompliance with the Conflicts of Interest Act and reduce the risk of conflicts associated with transactions processed by these employees.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

U.S. DEPARTMENT OF EDUCATION AND SOCIAL SECURITY ADMINISTRATION

2019-107: Improve Documentation to Show Compliance

Applicable to: Department for Aging and Rehabilitative Services; Department for the Blind and Vision Impaired

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Rehabilitation Services Vocational Rehabilitation Grants to States - 84.126;
Disability Insurance/SSI Cluster - 96.001

Federal Award Number and Year: H126A180069; 1804VADI00 - 2018

Name of Federal Agency: U.S. Department of Education; Social Security Administration

Type of Compliance Requirement - Criteria: Activities Allowed or Unallowed - 29 U.S.C. § 722 (b) and POMS DI 39545.000 and 39569.000

Known Questioned Costs: \$0

Aging and Rehabilitative Services and Blind and Vision Impaired do not maintain adequate documentation to demonstrate compliance with their federal grant agreements and Commonwealth policies. During our review, we found the following deficiencies in the documentation that Aging and Rehabilitative Services and Blind and Vision Impaired provided:

- the Commonwealth’s physician fee schedule for payments to consultative examination (CE) providers for the Social Security Disability Insurance and Supplemental Security Income programs showed no evidence of review or approval;
- there was no evidence of a comprehensive oversight management review of the CE providers for suspension and debarment for the Social Security Disability Insurance and Supplemental Security Income programs;
- twelve percent of benefit expenses sampled showed no evidence of counselor approval for the VR program;
- the IT department’s business impact analysis showed no evidence of review; and
- the Aging and Rehabilitative Services Annual VR Program/Cost Report (RSA-2) showed no evidence of review or approval.

Section DI (Disability Insurance) 39545.600: Fee Schedules, of the Social Security Administration’s Program Operations Manual System (POMS) requires retention of documentation to support payment rates and regional office approval of rate increases. Section DI 39569.300: Disability Determination Services Requirements, of POMS prohibits Aging and Rehabilitative Services from using CE providers who are currently excluded, suspended, or barred from participating in federal programs. The United States Code (29 U.S.C. § 722 (b)) and Aging and Rehabilitative Services’ internal policy requires VR counselors to review and approve expenses for individuals’ plans for employment to ensure the expense is allowable and reasonable. The Security Standard, Section 3.2.7 requires agencies to perform an annual review of its business impact analysis. Aging and Rehabilitative Services’ VR Reporting policy requires review of each federal report prior to submission.

The lack of documentation of reviews and approvals is out of compliance with federal and Commonwealth guidelines. Although Aging and Rehabilitative Services and Blind and Vision Impaired have indicated they perform the necessary reviews, the absence of documentation increases the risk that these reviews and approvals may not occur. A lack of review increases the risk of inaccurate reporting, incorrect payment rates, improper payments and further instances of noncompliance.

Aging and Rehabilitative Services’ and Blind and Vision Impaired’s inadequate level of documentation was due to management and staff oversight. Aging and Rehabilitative Services and Blind and Vision Impaired should retain documentation over reviews and approvals. Additionally, Aging and Rehabilitative Services and Blind and Vision Impaired should provide training to all personnel regarding the need to retain documentation used to support compliance with federal and Commonwealth requirements. This will reduce instances of noncompliance with these requirements and reduce the risk of improper transactions and reporting.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

2019-108: Improve Oversight of Third-Party Service Providers

Applicable to: Department for Aging and Rehabilitative Services

Prior Year Finding Number: N/A

Type of Finding: Internal Control and Compliance

Severity of Deficiency: Significant Deficiency

CFDA Title and CFDA #: Rehabilitation Services Vocational Rehabilitation Grants to States - 84.126;
Disability Insurance/SSI Cluster - 96.001

Federal Award Number and Year: H126A180069; 1804VADI00 - 2018

Name of Federal Agency: U.S. Department of Education; Social Security Administration

Type of Compliance Requirement - Criteria: Other - 2 C.F.R. § 200.303

Known Questioned Costs: \$0

Aging and Rehabilitative Services does not gain assurance that a third-party service provider who manages and maintains an outsourced information technology (IT) system has a secure environment to protect its sensitive and mission-critical data. For external IT systems, the Commonwealth's Hosted Environment Information Security Standard, SEC 525 (Hosted Environment Security Standard), Section SA-9-COV 3.1, requires agencies to "perform an annual security audit of the environment or review the annual audit report of the environment conducted by an independent, third-party audit firm on an annual basis."

Without gaining assurance over third-party service providers' IT environments, Aging and Rehabilitative Services cannot validate the effectiveness of the third-party's IT controls. This risks allowing the service provider to operate outside the Security Standard and the potential compromise of sensitive data.

Aging and Rehabilitative Services does not have a policy or formal process in place to identify third-party service providers or to review those service providers' audit reports. Additionally, Aging and Rehabilitative Services' contract with the third-party service provider does not require annual System and Organizational Controls (SOC) reports from the provider.

Aging and Rehabilitative Services should develop a formal process to identify all third-party service providers and obtain assurance that these providers have secure IT environments. Aging and Rehabilitative Services should also ensure contractual requirements exist for third-party service providers to provide annual SOC reports to satisfy the Hosted Environment Security Standard. Aging and Rehabilitative Services' process should include a review of the third-party providers' SOC report on an annual basis. Implementation of these practices into the information security program will help to

ensure third-party providers' IT controls protect the confidentiality, integrity, and availability of sensitive and mission-critical sensitive data.

Views of Responsible Officials:

Views of responsible officials are in the report related to their agency, which can be found at www.apa.virginia.gov. In summary, the views of responsible officials in the agency report do not express a disagreement with the finding.

U.S. DEPARTMENT OF TRANSPORTATION

2019-092: Ensure Performance Evaluations are Completed for Professional Service Contracts

2019-093: Improve Controls for Ensuring Quality Improvement Recommendations are Implemented

Each of the findings referenced above represents a compliance finding that could be material to the basic financial statements and are required to be reported under Government Auditing Standards. These findings relate to both the financial statements and federal awards. The details of these findings are reported within "Section 2: Financial Statement Findings" of the Schedule of Findings and Questioned Costs.

U.S. DEPARTMENT OF AGRICULTURE

2019-032: Implement Process for Ongoing Monitoring of System Access

The finding referenced above represents a compliance finding that could be material to the basic financial statements and is required to be reported under Government Auditing Standards. This finding relates to both the financial statements and federal awards. The details of this finding are reported within "Section 2: Financial Statement Findings" of the Schedule of Findings and Questioned Costs.

U.S. DEPARTMENT OF LABOR

2019-044: Improve Database Security

The finding referenced above represents a compliance finding that could be material to the basic financial statements and is required to be reported under Government Auditing Standards. This finding relates to both the financial statements and federal awards. The details of this finding are reported within "Section 2: Financial Statement Findings" of the Schedule of Findings and Questioned Costs.

MANAGEMENT'S SECTION

COMMONWEALTH OF VIRGINIA
 Summary Schedule of Prior Audit Findings
 For the Year Ended June 30, 2019

Fiscal Year	Page No.	Finding No.	Title of Finding	CFDA No.	Questioned Costs	State Agency	Current Status	Corrective Action and Applicable Deliverables	For Previous Findings Not Corrected or Partially Corrected		
									Reason for Recurrence	Corrective Action Taken to Date	Significant Differences Between Previously Reported Corrective Action

FINANCIAL STATEMENT FINDINGS

Department of General Services

2018	40	2018-021	Properly Classify Lease Renewals and Establish Policies for Renovations	N/A	-	DGS	Resolved - Corrective action is completed			
2018	41	2018-022	Improve Preparation Procedures for Attachment 11	N/A	-	DGS	Resolved - Corrective action is completed			

Department of Human Resource Management

2018	23	2018-007	Improve Controls Over Financial Reporting	N/A	-	DHRM	Corrective action is ongoing	DHRM is in the process of modifying the existing contract with the actuary to specific to the requirements and deadlines for the annual GASB Statement No. 75 reporting. OCF and OHB staff are working together to establish a formal review process. Internal deadlines are to be established to allow adequate review time. GASB Statement No. 75 training is under research to offer to financial reporting staff in order to properly consider, research and apply the reporting requirements.	Ongoing process.	Meeting with the actuary to establish FY2020 timeline is scheduled January 7, 2019 (telephone conference).	No significance differences.
2018	25	2018-008	Reconcile Billing Records for the Line of Duty Act Program	N/A	-	DHRM	Resolved - Corrective action is completed				
2018	42	2018-023	Improve IT Risk Management and Disaster Recovery Planning	N/A	-	DHRM	Corrective action is ongoing	DHRM IT Security staff to work with systems and applications owners to develop baseline configurations for systems and applications designated as sensitive. Develop an automated process to document the baseline configurations to notify system owners when changes happen. Commonwealth Security staff assigned to DHRM is responsible to reform the DHRM self-assessments. It is included in the IT Security MOU between Commonwealth Security and DHRM. DHRM IT Security staff to perform review of findings from self-assessment.	Existing operational mandates (e.g., 2019 Open Enrollment and Statewide salary increase) consumed the time of needed resources and necessitated the date to be pushed out to July 31, 2019.	Staff has bandwidth now to work on completing this corrective action.	Baseline configurations have been developed for sensitive systems. Changes to baseline configurations are detected when they occur. Risk Assessments have been performed and reviewed.

Fiscal Year	Page No.	Finding No.	Title of Finding	CFDA No.	Questioned Costs	State Agency	Current Status	Corrective Action and Applicable Deliverables	For Previous Findings Not Corrected or Partially Corrected		
									Reason for Recurrence	Corrective Action Taken to Date	Significant Differences Between Previously Reported Corrective Action
2017	54	2017-034	Improve IT Risk Management and Disaster Recovery Planning	N/A	-	DHRM	See Finding Number 2018-023				
2016	74	2016-054	Improve IT Risk Management and Disaster Recovery Planning	N/A	-	DHRM	See Finding Number 2017-034				
2015	45	2015-041	Improve IT Risk Management and Disaster Recovery Planning	N/A	-	DHRM	See Finding Number 2016-054				
2018	85	2018-069	Improve Web Application Security Controls	N/A	-	DHRM	Corrective action is ongoing	DHRM IT Security staff is working with DHRM Systems Operations to review related web pages and assure the correct encryption and controls are implemented. DHRM IT Security staff is working with VITA/SAIC to review related web server headers and assure the sanitization is done and implemented. by VITA/SAIC.	There are impacts from making changes that are more far-reaching than anticipated and require additional research and planning to avoid introducing negative operational impacts.	DHRM has taken steps to make the necessary changes but these efforts have uncovered additional issues that now require further investigation and testing.	Solution has been developed and is in need to be tested before implementation. VITA/UNISYS has been requested to provide test environment. Testing will start once environment is setup.
2017	53	2017-033	Improve Web Application Security Controls	N/A	-	DHRM	See Finding Number 2018-069				
2016	30	2016-015	Improve System Security for the Time, Attendance, and Leave System	N/A	-	DHRM	See Finding Number 2017-033				
2015	18	2015-010	Improve System Security for the Time, Attendance, and Leave System	N/A	-	DHRM	See Finding Number 2016-015				
2018	87	2018-071	Improve IT Security Governance	N/A	-	DHRM	Resolved - Corrective action is completed				
2018	103	2018-086	Review and Document Service Organization Control Reports of Third-Party Service Providers	N/A	-	DHRM	Resolved - Corrective action is completed				
2017	55	2017-035	Improve Database and Application Security	N/A	-	DHRM	Resolved - Corrective action is completed				
2017	76	2017-056	Improve Vulnerability Identification and Mitigation Process	N/A	-	DHRM	Resolved - Corrective action is completed				
2017	87	2017-066	Improve Security Awareness and Training	N/A	-	DHRM	Resolved - Corrective action is completed				
2016	83	2016-062	Improve Security Awareness and Training	N/A	-	DHRM	See Finding Number 2017-066				
2015	55	2015-050	Improve Security Awareness and Training	N/A	-	DHRM	See Finding Number 2016-062				
Virginia Employment Commission											
2018	48	2018-028	Improve Firewall Management	N/A	-	VEC	Resolved - Corrective action is completed				
2018	65	2018-047	Continue to Improve Oversight over Third Party Service Providers	N/A	-	VEC	Resolved - Corrective action is completed				

Fiscal Year	Page No.	Finding No.	Title of Finding	CFDA No.	Questioned Costs	State Agency	Current Status	Corrective Action and Applicable Deliverables	For Previous Findings Not Corrected or Partially Corrected		
									Reason for Recurrence	Corrective Action Taken to Date	Significant Differences Between Previously Reported Corrective Action
2017	69	2017-049	Continue to Improve Oversight over Third-Party Service Providers	N/A	-	VEC	See Finding Number 2018-047				
2016	60	2016-042	Continue Improving Oversight over Third-Party Service Providers	17.225	-	VEC	See Finding Number 2017-049				
2015	65	2015-060	Maintain Oversight over Third-Party Service Providers	17.225	-	VEC	See Finding Number 2016-042				
2014	14	2014-003	Maintain Oversight Over the Information Security Program	17.225	-	VEC	See Finding Number 2015-060				
2018	76	2018-059	Continue to Improve Database Security	N/A	-	VEC	Corrective action is ongoing	VEC is in the process of migrating one of our database environments from Virtual to Physical servers. When this is complete, the version of the database will be upgraded and database logging will be enabled.	This finding was repeated in the APA's FY18 audit, therefore this finding is being closed and tracked in finding number 2018-059.	VEC has been having database administration staffing issues which have prevented us from making substantial process. VEC has established a recruitment for a full-time classified database administrator. Two offers were made and declined. The second round of recruitment has started. We separated our contracted database administrator on December 18, 2018. We will not be able to fully address this issue until our staffing issues are resolved. Revised estimated completion date is September 30, 2019.	No significant difference.
2017	60	2017-039	Continue to Improve Database Security	N/A	-	VEC	See Finding Number 2018-059				
2016	29	2016-014	Continue Improving Database Security	17.225	-	VEC	See Finding Number 2017-039				
2015	13	2015-004	Improve Database Security	17.225	-	VEC	See Finding Number 2016-014				
2018	77	2018-061	Complete IT Risk Assessments and Define System Boundaries	N/A	-	VEC	Resolved - Corrective action is completed				
2017	58	2017-038	Risk Management and Contingency Planning Documentation	N/A	-	VEC	See Finding Number 2018-061				
2017	78	2017-058	Continue to Improve Oversight over IT Risk Assessments	N/A	-	VEC	See Finding Number 2018-061				
2016	77	2016-056	Continue Improving Oversight over IT Risk Assessments	17.225	-	VEC	See Finding Number 2017-058				
2015	44	2015-040	Continue Improving Oversight over IT Risk Assessments and Security Audits	17.225	-	VEC	See Finding Number 2016-056				
2014	14	2014-003	Maintain Oversight Over the Information Security Program	17.225	-	VEC	See Finding Number 2015-040				
2017	72	2017-052	Evaluate, Revise, and Implement the Change Management Process	N/A	-	VEC	Resolved - Corrective action is completed				
2017	81	2017-061	Continue to Upgrade Unsupported Technology	N/A	-	VEC	Resolved - Corrective action is completed				
2016	54	2016-037	Upgrade Unsupported Technology	17.225	-	VEC	See Finding Number 2017-061				

Fiscal Year	Page No.	Finding No.	Title of Finding	CFDA No.	Questioned Costs	State Agency	Current Status	Corrective Action and Applicable Deliverables	For Previous Findings Not Corrected or Partially Corrected		
									Reason for Recurrence	Corrective Action Taken to Date	Significant Differences Between Previously Reported Corrective Action
2016	39	2016-024	Document Separation of Duties of Individuals for Mission Critical Systems	17.225	-	VEC	Resolved - Corrective action is completed				
2015	39	2015-036	Document Separation of Duties of Individuals for Mission Critical Systems	17.225	-	VEC	See Finding Number 2016-024				
2014	14	2014-003	Maintain Oversight Over the Information Security Program	17.225	-	VEC	See Finding Number 2015-036				
2016	70	2016-050	Improve Change Management Process	17.225	-	VEC	Resolved - Corrective action is completed				
2016	87	2016-065	Continue to Improve Physical and Environmental Security	17.225	-	VEC	Resolved - Corrective action is completed				
2015	68	2015-063	Continue to Improve Physical and Environmental Security	17.225	-	VEC	See Finding Number 2016-065				
2014	14	2014-003	Maintain Oversight Over the Information Security Program	17.225	-	VEC	See Finding Number 2015-063				
2015	62	2015-057	Obtain Approval to Use End-of-Life Operating Systems	17.225	-	VEC	Resolved - Corrective action is completed				
Department of Education - Central Office Operations and Direct Aid to Public Education											
2018	19	2018-004	Implement Separation of Duties over VPSA Education Technology Grant Payments	N/A	-	DOE/COO	Resolved - Corrective action is completed				
2018	21	2018-005	Continue to Improve Support and Review of Financial Recording	N/A	-	DOE/COO	Resolved - Corrective action is completed				
2018	22	2018-006	Use Secure Local Division Data	N/A	-	DOE/COO	Resolved - Corrective action is completed				
2018	36	2018-019	Ensure Consistent Recording of Receivables	N/A	-	DOE/COO	Resolved - Corrective action is completed				
2018	74	2018-057	Continue Improving Database Security	N/A	-	DOE/COO	Corrective action is ongoing	DOE will resolve the outstanding deficiency monitoring of highly privileged user access by implementing security services that are to be made available to Executive Branch agencies via VITA's Master Services Agreement in CY2019.	Resource constraints, Strategic Planning Adjustments, Technical Issues.	The APA has recognized that Education has resolved five out of six control weaknesses identified in the fiscal year 2017 audit. DOE expects to resolve the outstanding deficiency; monitoring of highly privileged user access by implementing security services that are to be made available to Executive Branch agencies via VITA's MSA in CY2019.	DOE expects to resolve the outstanding deficiency of monitoring of highly privileged user access by utilizing VITA's recently released solution.
2017	50	2017-030	Improve Database Security	N/A	-	DOE/COO	See Finding Number 2018-057				
2016	24	2016-009	Improve Database Security	N/A	-	DOE/COO	See Finding Number 2017-030				
2018	77	2018-060	Perform Information Technology Security Audits	N/A	-	DOE/COO	Resolved - Corrective action is completed				

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2018	79	2018-063	Improve Vulnerability Scanning Process	N/A	-	DOE/COO	Corrective action is ongoing	DOE has implemented quarterly internal vulnerability scanning to internal-facing sensitive systems. The APA has stated their intent to verify quarterly internal vulnerability scanning and supporting documentation during the next audit cycle.	Employee turn over and resource constraints at the agency.	DOE has engaged an information security consultant who worked with VITA to begin reviewing and addressing vulnerabilities.	DOE has fully addressed the gap that was discovered. Vulnerability scanning occurs on a weekly basis, soon to be ongoing via agent based scanning, and is reviewed and managed by the information security office at the agency.
2018	84	2018-068	Improve the IT Security Awareness Training Process	N/A	-	DOE/COO	Resolved - Corrective action is completed				
2017	82	2017-062	Continue to Improve Information Security Program and IT Governance	N/A	-	DOE/COO	Resolved - Corrective action is completed				
2016	56	2016-039	Improve Information Security Program and IT Governance	N/A	-	DOE/COO	See Finding Number 2017-062				
2015	42	2015-039	Continue to Improve IT Risk Management	N/A	-	DOE/COO	See Finding Number 2016-039				
2014	35	2014-020	Improve IT Risk Management Documentation	N/A	-	DOE/DAPE	See Finding Number 2015-039				
2015	51	2015-047	Continue to Improve Information Security Policies and Procedures	N/A	-	DOE/COO	See Finding Number 2016-039				
2014	33	2014-018	Improve Information Security Policies and Procedures	N/A	-	DOE/DAPE	See Finding Number 2015-047				
2015	52	2015-048	Improve Information Security Awareness Training Program	N/A	-	DOE/COO	See Finding Number 2016-039				
2017	109	2017-086	Drawdown Federal Grant Funds as Instructed and Update Loan Request with Important Facts	N/A	-	DOE/COO	Resolved - Corrective action is completed				
University of Virginia - Academic Division and Medical Center											
2018	31	2018-014	Improve Bank Reconciliation Policies and Procedures	N/A	-	UVAH	Resolved - Corrective action is completed				
2018	32	2018-015	Improve Revenue Recognition for Non-reimbursement Grants	N/A	-	UVA/AD	Resolved - Corrective action is completed				
2018	48	2018-029	Improve Database Security	N/A	-	UVA/AD	Resolved - Corrective action is completed				
2018	49	2018-030	Improve Wireless Local Area Network Security	N/A	-	UVAH	Resolved - Corrective action is completed				
2018	63	2018-044	Improve Patient Accounting, Billing, and Management System Segregation of Duties	N/A	-	UVAH	Corrective action is ongoing	In response to Internal Audit findings, UVAH convened a joint task force of Separation of Duty stakeholders and owner that consisted of members from Finance	Corrective Action is ongoing.	UVAH continues to implement the processes in order to demonstrate appropriate segregation of duties within the Patient Billing system, therefore strengthening internal controls within UVAH while minimizing risk.	No significant differences.

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								Revenue Cycle Leadership, UVAHS Revenue Cycle Joint Operating Team (JOT), Training and Development, Epic Revenue Cycle Application, and Information Technology (IT) Security to review the recommendations and develop plans for each of the findings. The action plans were written to address each finding and recommendations noted in the Internal Comprehensive action plan that included but were not limited to the following objectives: Review and understanding of the Observations and Recommendations, develop an informed Management Response and Corrective action plan, develop a risk matrix by key functional areas, validate existing templates provisioning and controls, identify gaps, and establish mitigation plans. Ongoing meetings and discussions have occurred with the UVAHS Internal Audit team in the development of the corrective action plan with goal. As part of these discussions, the Audit team was informed of organization intent to establish an SOD Quarterly Oversight group to review progress These processes might include policy changes, procedure changes, and a review of new and existing controls. The notes from those meetings will be shared with the Chief Information Officer and Chief Financial Officer.			
2018	66	2018-048	Improve Oversight of Third-Party Service Providers	N/A	-	UVAH	Resolved - Corrective action is completed				
2017	67	2017-047	Improve Oversight of Third Party Service Providers	N/A	-	UVAH	See Finding Number 2018-048				
2018	67	2018-049	Improve Oversight of Third-Party Service Providers	N/A	-	UVA/AD	Resolved - Corrective action is completed				
2018	78	2018-062	Improve IT Risk Management Process and Documentation	N/A	-	UVAH	Resolved - Corrective action is completed				

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2017	60	2017-040	Improve IT Risk Management Process and Documentation	N/A	-	UVAH	See Finding Number 2018-062				
2018	83	2018-067	Improve Security Awareness Training Program	N/A	-	UVA/AD	Corrective action is ongoing	The University will update existing policies to address periodic security training and ensure that additional role-based training is included and implement a process to monitor completions and enforce compliance. As part of the SecureUVA program (formerly named the Security Enhancement Program), the University will update all IT security policies, standards, and guidelines. The requirement for security training, as well as more periodic training updates, will be covered in these updated standards. This project has started and will be completed by June 30, 2017. The university will also develop methods to track and enforce compliance as part of a second SecureUVA project. This project will be scoped to update the current training materials and training system, which will help track and enforce training requirements. This project is scheduled to begin in March 2017 and will be completed by December 29, 2017.	Satisfactory progress noted, but corrective action remains in progress.	In response to the initial finding, the University updated its policies to address periodic security training and implemented a process to monitor completion and ensure compliance with that policy.	After the last review by the APA, the University will make additional updates to reflect its risk-based approach to security training that focuses compliance efforts on personnel with access to highly sensitive data.
2017	88	2017-067	Improve Security Awareness Training Program	N/A	-	UVA/AD	See Finding Number 2018-067				
2016	84	2016-063	Improve Security Awareness Training Program	N/A	-	UVA/AD	See Finding Number 2017-067				
2018	117	2018-101	Improve Compliance over Enrollment Reporting	Student Financial Assistance Programs Cluster	-	UVA/AD	Resolved - Corrective action is completed				
2018	117	2018-102	Properly Process Return of Title IV Calculations	Student Financial Assistance Programs Cluster	-	UVA/AD	Resolved - Corrective action is completed				
2018	117	2018-103	Improve Notification of Awards to Students	Student Financial Assistance Programs Cluster	-	UVA/AD	Resolved - Corrective action is completed				

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2017	62	2017-041	Improve Database Security	N/A	-	UVAH	Resolved - Corrective action is completed				
2017	91	2017-070	Improve Terminated Employee Procedures	N/A	-	UVA/AD	Resolved - Corrective action is completed				
2017	96	2017-075	Comply with Commonwealth Requirements for Wage Employees	N/A	-	UVA/AD	Resolved - Corrective action is completed				
Virginia Commonwealth University											
2018	70	2018-052	Improve Continuity Planning Documentation	N/A	-	VCU/AD	Resolved - Corrective action is completed				
2017	77	2017-057	Improve Risk Management and Continuity Planning Documentation	N/A	-	VCU/AD	See Finding Number 2018-052				
2018	94	2018-077	Comply with Commonwealth Requirements for Wage Employees	N/A	-	VCU/AD	Resolved - Corrective action is completed				
2017	95	2017-074	Comply with Commonwealth Requirements for Wage Employees	N/A	-	VCU/AD	See Finding Number 2018-077				
2018	102	2018-085	Improve Timeliness of the Commonwealth's Retirement Benefits System Reconciliation Process	N/A	-	VCU/AD	Resolved - Corrective action is completed				
2018	117	2018-101	Improve Compliance over Enrollment Reporting	Student Financial Assistance Programs Cluster	-	VCU/AD	Corrective action is ongoing	To ensure that unofficial withdrawal enrollment updates are reported accurately and timely to NSLDS, the Office of Financial Aid will perform manual enrollment updates to NSLDS for all students who have withdrawn without official notification during a term/semester. This step has been added to the existing Return of Title IV procedure and will begin implementation at the conclusion of the fall 2018 term/semester. To rectify the graduation status finding, the Office of Records and Registration is sending amended enrollment files to the National Student Clearinghouse (NSC) to update the NSLDS. The office has also added a supplementary enrollment report for graduates only to the transmission schedule provided to the NSC each semester. In addition, quality control reviews will be conducted in collaboration with staff from the Offices of Financial Aid and Records and Registration at the end of each	Processes was changed, but an error was discovered in the Banner process for a limited population of students.	Manual process is in place to correct the date errors on the limited population of students that are not handled properly in the Banner process.	Error identified has been corrected.

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semester to ensure timely and accurate reporting at both the campus and program levels.

2017	71	2017-051	Implement Newly Developed Policies over Information Technology Third-Party Service Providers	N/A	-	VCU/AD	Resolved - Corrective action is completed			
2016	66	2016-046	Improve Oversight of Information Technology Third-Party Service Providers	N/A	-	VCU/AD	Resolved - Corrective action is completed			

Virginia Polytechnic Institute and State University

2018	117	2018-101	Improve Compliance over Enrollment Reporting	N/A	-	VPISU/ID	Corrective action is ongoing	VPISU/ID has met with the National Student Clearinghouse and will begin providing a separate file to the Clearinghouse to ensure records are reported. The production of this file, testing with the National Student Clearinghouse, and creation of an auditing process will be completed.	The programs and processes were implemented in production, but it was not possible to retroactively correct FY 2019 data. Therefore, the APA could not test to determine if the correction was effectively implemented and said this comment would have to be continued into FY 2020.	The corrections made to the processes and procedures will be used to create the submission for Fall Semester of FY 2020 which will occur in February of 2020.	The corrections to the programs and processes could not be used to restate or correct data previously submitted for FY 2019 semesters. So the first submission where the new processes will be actually used will be for the submission for Fall Semester of FY 2020 in February 2020.
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Department of Accounts

2018	68	2018-050	Review and Document Service Organization Control Reports of Third-Party Service Providers	N/A	-	DOA	Resolved - Corrective action is completed			
2018	95	2018-079	Ensure all Nonexempt Active Vendors in the Commonwealth's Accounting and Financial Reporting System have a Form W-9	N/A	-	DOA	Resolved - Corrective action is completed			
2017	101	2017-079	Ensure all Nonexempt Active Vendors in the Commonwealth's Accounting and Financial Reporting System Have a Form W-9	N/A	-	DOA	See Finding Number 2018-079			

Department of Taxation

2018	50	2018-031	Strengthen Access Controls	N/A	-	TAX	Resolved - Corrective action is completed			
2017	37	2017-018	Strengthen Access Controls	N/A	-	TAX	See Finding Number 2018-031			
2018	51	2018-032	Continue to Improve Service Account Management	N/A	-	TAX	Resolved - Corrective action is completed			
2017	38	2017-019	Improve Service Account Management	N/A	-	TAX	See Finding Number 2018-032			
2018	52	2018-033	Improve Controls over Workgroups	N/A	-	TAX	Resolved - Corrective action is completed			
2018	53	2018-034	Improve Effectiveness of the Access Termination Process	N/A	-	TAX	Resolved - Corrective action is completed			

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2018	54	2018-035	Improve Controls over Role Access	N/A	-	TAX	Corrective action is ongoing	Before the next access certification in June 2019, Virginia Tax will complete a project that identifies combinations of access functions that create potential segregation-of-duty violations. We will communicate the results to management so that they can make and document an informed decision regarding whether to address the potential conflict in the access control process or rely on other compensating controls. Virginia Tax will also recommunicate to all supervisors that during the access request and recertification process they must approve only the access that constitutes least privilege for an employee's current need.	Corrective Action is ongoing.	Prior to the AR re-certification the team researched, reviewed, and documented resources and roles that were separation of duty conflicts. Team met with role owners concerning separation of duty conflicts and the concept of least privilege. Team documented the role owners justification and their acceptance for the responsibility for the separation of duty conflicts and least privilege for the resources and roles they required to perform their duties.	The AR Re-certification application reflects and documents the duty conflicts and least privilege and requires role owners to review conflicts and accept responsibility.	
2018	74	2018-056	Improve Disaster Recovery Planning Documentation	N/A	-	TAX	Corrective action is ongoing	General Services Manager to distribute email to preparers of COOP plan describing the APA comment and plan of action to address issues.	Corrective Action is ongoing.	General Services Manager has distributed email to preparers of COOP plan describing the APA comment and plan of action to address issues. Internal Audit Director discussed plan of action at next LT. General Services Manager distributed COOP to VDEM and Tax management by March 31, 2019 to hit VDEM due date. Business Impact Analysis was revised.	Due dates after April 31, 2019 have been pushed back 60 days to allow for a more complete and accurate product July 12, 2019, a meeting was held where the accuracy of this target date was confirmed.	
2017	39	2017-020	Address Uncorrelated Accounts	N/A	-	TAX	Resolved - Corrective Action is completed					
2017	40	2017-021	Improve Documentation over Financial Reporting System Security Functions and Features	N/A	-	TAX	Resolved - Corrective Action is completed					
2017	41	2017-022	Perform Annual Access Review	N/A	-	TAX	Resolved - Corrective action is completed					
Department of the Treasury												
2018	27	2018-010	Improve Accounting and Financial Reporting Control Environmental of Trust Accounting	N/A	-	TD	Corrective action is ongoing	With the recent addition of a Senior Management position in Trust Accounting, Treasury will place continued emphasis on succession planning, and make cross-training within the Trust Accounting Unit a key priority. Where possible, Treasury will focus on streamlining its accounting and reporting processes.	Because the budget authorizing the hiring of a senior management position for Trust Accounting was not approved until later in calendar 2018, Treasury was not able to hire this position until September of 2018 during the year-end reporting cycle.	Senior management position has been hired and is being trained on responsibilities and being cross-training on other Trust Accounting responsibilities.	No significant differences.	

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2017	26	2017-008	Improve Accounting and Financial Reporting Control Environment of Trust Accounting	N/A	-	TD	See Finding Number 2018-010				
2016	21	2016-007	Maintain Adequate Staffing in Accounting and Reporting Functions	N/A	-	TD	See Finding Number 2017-008				
2018	28	2018-011	Improve Financial Reporting of Unclaimed Property Activity	N/A	-	TD	Corrective action is ongoing	The Unclaimed Property Division (UCP) will improve its procedures to ensure the financial statements are completed in accordance with the instructions provided by DOA, as well as Generally Accepted Accounting Principles.	The Unclaimed Property Division continued research to gain an understanding for the requirements and procedures to complete this new template for the second year.	Additional documentation, supporting schedules and procedures have been developed based on prior year experience to assist with the preparation for FY 2019, with a pre-submission audit scheduled.	Developed enhanced documentation and procedures based on experience and reporting deficiencies in prior years.
2017	24	2017-007	Improve Financial Reporting of Unclaimed Property Activity	N/A	-	TD	See Finding Number 2018-011				
2018	29	2018-012	Document Risk Management Procedures and Improve Quality of Data Provided to Actuary	N/A	-	TD	Resolved - Corrective action is completed				
2018	60	2018-041	Improve Information System Access Controls	N/A	-	TD	Resolved - Corrective action is completed				
2017	45	2017-026	Improve Information System Access Controls	N/A	-	TD	See Finding Number 2018-041				
2017	49	2017-029	Improve Database Security	N/A	-	TD	Resolved - Corrective action is completed				
<u>Department of Behavioral Health and Developmental Services</u>											
2018	30	2018-013	Improve Controls over Financial Reporting	N/A	-	DBHDS	Resolved - Corrective action is completed				
2018	46	2018-027	Improve Application Security	N/A	-	DBHDS	Corrective action is ongoing	DBHDS will immediately move the central administrator to a team of existing application support administrators to provide better support and continuity of operations through cross training. Additional action plans will be developed and implemented by July 1, 2019.	Corrective Action is ongoing.	Generic application procedures have been developed. DBHDS Information Security is currently conducting a risk assessment of the application.	Resource constraints continue. Procedures have been developed. Risk Assessment is ongoing.
2018	57	2018-038	Improve Access Controls over the Internal Accounting System	N/A	-	DBHDS	Corrective action is ongoing	DBHDS will improve access controls by October 1, 2019. This will include continuing to conduct security monitoring activities at all regions and facilities and ensuring they are sufficiently documented.	Corrective Action is ongoing.	DBHDS is using an application to ensure proper access controls.	Implementation of application.

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2018	58	2018-039	Develop and Implement Compliant Application Access Management Procedures	N/A	-	DBHDS	Corrective action is ongoing	DBHDS will work with its facilities to ensure their procedures match the Agency's existing Policy. This will be completed by July 1, 2019.	Corrective Action is ongoing.	DBHDS is using an application to ensure proper access controls.	Implementation of application.
2018	71	2018-053	Improve IT Contingency Management Program	N/A	-	DBHDS	Corrective action is ongoing	DBHDS is changing the infrastructure to a more cloud based architecture which will provide greater availability of resources. This change is based on approved cloud based funding. Continuity of Operations Plans and Disaster Recovery Plans are changing to support the new infrastructure and will be completed by October 1, 2019.	Infrastructure changes related to Executive Order 19.	DBHDS has started an IT COOP / DRP project with a projected completion date of April 1, 2020. This project will develop procedures, assign roles and responsibilities, and update the IT COOPs and DRPs ensuring they are consistent across the agency. DBHDS will ensure these IT COOPs and DRPs are tested annually. DBHDS is currently engaging Unisys on cost estimates for the COOP and DRPs for affected servers. In addition, part of the Contingency Management Program planning at DBHDS is the continued movement to Cloud Storage. DBHDS IT Security has identified the servers that need to be updated and the related costs were sent to VITA.	DBHDS is changing the infrastructure to a more cloud based architecture which will provide greater availability of resources. This change is based on approved cloud based funding. COOPs and DRPs are changing to support the new infrastructure and will be complete by April 1, 2020.
2017	86	2017-065	Improve IT Contingency Management Program	N/A	-	DBHDS	See Finding Number 2018-053				
2018	80	2018-064	Develop Baseline Configurations for Information Systems	N/A	-	DBHDS	Corrective action is ongoing	DBHDS has baseline configurations for hardware, and we are completing the baseline configurations for software requirements. This will be completed by October 1, 2019.	DBHDS was dependent on NG providing servers and software. NG had substantial delays in completing their tasks.	DBHDS has upgraded the operating system of 52 servers. DBHDS is developing baselines for the upgraded applications present on these servers. DBHDS plans to complete the installation of server software by March 31, 2018, which will establish and maintain security baseline configurations for our sensitive information systems. This software will ensure we meet the requirements of the Commonwealth's Security Standards. Servers, and software, have been configured. DBHDS has baseline configurations for hardware, and DBHDS is in the process of completing the baseline configurations for software requirements. An estimated completion date is October 1, 2019.	DBHDS has baseline configurations for hardware, and DBHDS is in the process of completing the baseline configurations for software requirements. An estimated completion date is October 1, 2019.
2017	73	2017-053	Develop Baseline Configurations for Information Systems	N/A	-	DBHDS	See Finding Number 2018-064				
2016	71	2016-051	Develop Baseline Configurations for Information Systems	N/A	-	DBHDS	See Finding Number 2017-053				

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2015	14	2015-005	Develop Baseline Configurations for Information Systems	N/A	-	DBHDS	See Finding Number 2016-051				
2018	86	2018-070	Continue to Upgrade Unsupported Technology	N/A	-	DBHDS	Resolved - Corrective action is completed				
2017	80	2017-060	Continue to Upgrade Unsupported Technology	N/A	-	DBHDS	See Finding Number 2018-070				
2016	50	2016-034	Continue to Upgrade Unsupported Technology	N/A	-	DBHDS	See Finding Number 2017-060				
2015	61	2015-056	Upgrade Unsupported Technology	N/A	-	DBHDS	See Finding Number 2016-034				
2018	88	2018-072	Improve Controls over Payroll	N/A	-	DBHDS	Resolved - Corrective action is completed				
2017	92	2017-072	Improve Controls over Payroll	N/A	-	DBHDS	See Finding Number 2018-072				
2016	98	2016-076	Improve Controls over Payroll	N/A	-	DBHDS	See Finding Number 2017-072				
2015	92	2015-088	Improve Controls over Payroll	N/A	-	DBHDS	See Finding Number 2016-076				
2018	90	2018-073	Comply with Employment Eligibility Requirements	N/A	-	DBHDS	Corrective action is ongoing	DBHDS will ensure all facility Human Resources staff are trained on employment eligibility requirements, on how to fill out the I9, and on how to use E-verify. It should be noted that training was offered to staff in December 2018. Corrective actions will be completed by March 1, 2019.	The APA reviewed a new sample of facilities as part of their FY19 testing, training and other corrective actions were completed near the end of FY19, and errors were made in some instances.	Training has been completed and updated process put in place to ensure all HR staff that handle I9 functions are trained and stay up to date. HR staff attend I9 training offered by Feds as needed throughout year. This training is pushed out by DHRM when available.	No significant differences.
2018	91	2018-074	Comply with 1,508 Hour Rule for Wage Employees	N/A	-	DBHDS	Corrective action is ongoing	DBHDS will ensure all of its facility Human Resources offices track the 1,508 hour rule for wage employees. This has already been corrected at the facilities involved with the finding, and information will be sent to Human Resources staff at all facilities with reminders of the rule and how to track wage hours. This will be completed by March 1, 2019.	The FY19 APA testing noted one exception at Western State Hospital. The exception could have been prevented as controls worked appropriately, but a staffing decision was made to have an employee exceed their limit by a few hours. This is considered a performance issue and not a control issue by the agency.	Tracking handled by both HR, Fiscal and department heads to ensure that wage employees do not exceed the 1500 threshold.	No significant differences.
2018	92	2018-075	Improve Controls Surrounding At-Will Employees	N/A	-	DBHDS	Resolved - Corrective action is completed				
2018	96	2018-080	Improve Controls over the Purchasing Process	N/A	-	DBHDS	Corrective action is ongoing	The Fiscal Director at the applicable DBHDS facility will review the relevant CAPP Manual policies and procedures for the receipt of goods and services with	The APA reviewed a new sample of facilities as part of their FY19 testing and corrective actions were completed at the one facility noted with an exception in	Each of the corrective action items were implemented and tested through June 2019.	No significant differences.

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								<p>applicable Accounts Payable personnel and backups. Expenditure voucher samples will be pulled once a month for the period January through June 2019 to monitor compliance with CAPP Manual regulations. Expenditure audits will also be conducted during the FY 2019 ARMICS Internal Controls Review and Testwork. In August 2018, Fiscal and Procurement staff at the facility discovered the exception noted and "self-corrected" to comply with a new procurement regulation issued under Procurement Information Memoranda 98-034 dated July 1, 2017. Prior to the corrective action, the facility was not compliant with Memoranda 98-034 because Fiscal Staff were not forwarding purchase orders for eVA exempt vendors for medical services and prescription drugs to Procurement personnel to enter into eVA. To ensure future compliance, Fiscal personnel will meet with Procurement personnel to review the requirements of Memoranda 98-34 and any subsequent updates. Medical Services and prescription drug expenditure samples will be pulled once a month for the period January through June 2019 to monitor compliance. Medical Services and Prescription Drug purchases will also be reviewed during the FY 2019 ARMICS Internal Controls Review and Testwork.</p>			the prior year.
2018	99	2018-083	Improve Controls over the Commonwealth's Retirement Benefits System	N/A	-	DBHDS	Corrective action is ongoing	<p>All facilities have the identical policy; however, it is not always being followed properly. DBHDS will work with its facilities to ensure all employees are trained on the procedures.</p>	<p>The APA found that policies and procedures did not cover all the aspects they wanted and that some reconciliations had not been done timely or completely. There was also an issue with deleting access to VNAV timely.</p>	<p>Policies and procedures have been standardized for DBHDS facilities and Central Office. The access issue has been corrected. A revised VNAV reconciliation policy/procedure was sent out to all DBHDS HR managers on October 25, 2017. All DBHDS facilities submitted their revised VNAV reconciliation procedures by December 14, 2017. Training on the VNAV reconciliation was held on December 14, 2017. The VNAV reconciliation will be added to the ARMICS work completed by all DBHDS</p>	<p>FY 2018 Payroll audits performed by APA and Internal Audit showed some VNAV Reconciliation deficiencies are still occurring at some facilities. While all DBHDS facilities now have policies and procedures in place, it appears they are not always being properly followed. DBHDS will work with its facilities to ensure all employees are trained on the procedures.</p>

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										facilities and Central Office. Revised VNAV Reconciliation procedures have been received from all DBHDS facilities. These documents are being reviewed to ensure that they include all necessary steps in the reconciliation process. Update: FY 2018 Payroll audits performed by APA and Internal Audit showed some VNAV Reconciliation deficiencies are still occurring at some facilities. While all DBHDS facilities now have policies and procedures in place, it appears they are not always being properly followed. DBHDS will work with its facilities to ensure all employees are trained on the procedures.		
2017	98	2017-077	Improve Controls Over the Commonwealth's Retirement Benefits System	N/A	-	DBHDS	See Finding Number 2018-083					
2016	89	2016-068	Improve Controls over my VRS Navigator	N/A	-	DBHDS	See Finding Number 2017-077					
2015	85	2015-081	Improve Controls over the my VRS Navigator System	N/A	-	DBHDS	See Finding Number 2016-068					
2014	105	2014-063	Improve Controls Over VNAV	N/A	-	DBHDS	See Finding Number 2015-081					
Department of Health												
2018	45	2018-026	Improve Web Application Security	10.557	-	VDH	Corrective action is ongoing	The VDH technical team will work with VITA and OFHS program staff to implement or enhance security controls to mitigate the risks noted by APA.	Still in progress.	Reporting requirements currently being investigated. Audit Review Procedures to be developed and implemented based on this analysis. Estimated to be complete by July 31, 2019. Request has been made to VITA / Partnership to upgrade all web and applications servers to Windows 2016. Exception is on file for all database servers. Certification of hardware environment is expected by June 30, 2019. OIM staff will perform database and application installations by September 30, 2019. Vulnerability scans are conducted quarterly. Review and Remediation process is conducted based on results. Software vendor is engaged in providing specific remediation for specific items.	No differences.	
2018	54	2018-036	Improve Timely Removal of Critical System Access	N/A	-	VDH	Corrective action is ongoing	OHR and the process improvement project team implemented a new Staff Separation Process as of December 17, 2018. The process includes more timely notification of staff status changes, with reports to all	Still in progress.	OHR is in the process of reviewing the current procedures and implementing the necessary corrective actions to move toward compliance. OHR will evaluate and update policies and procedures, as necessary, to provide instruction for proper removal of staff that are separated or no longer need access. OHR	This finding was deemed by APA as ongoing as of June 30, 2019 as a result of it being a repeat finding for the FY2019 APA Audit.	

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								system administrators to facilitate timely removal of account access.		will provide communication re: policies and procedures to agency business partners, and managers for initiating and assuring proper separation actions.	
2017	43	2017-024	Improve Timely Removal of Critical Access	N/A	-	VDH	See Finding Number 2018-036				
2016	34	2016-020	Improve Timely Removal of Critical Access	N/A	-	VDH	See Finding Number 2017-024				
2015	31	2015-026	Improve Access Management for Critical Systems	N/A	-	VDH	See Finding Number 2016-020				
2014	62	2014-038	Improve Access Management to Information Systems	N/A	-	VDH	See Finding Number 2015-026				
2018	56	2018-037	Perform Financial System Access Reviews	N/A	-	VDH	Corrective action is ongoing	The Office of Financial Management (OFM) and the Office of Information Management (OIM) will update the procedure to include a process for all departments and local offices to complete the access review before the deadline. Also, OFM and OIM will update the procedure to include follow up steps as necessary to prevent tardy reviews.	Still in progress.	OIM and OFM are working together on the procedure.	No differences.
2018	69	2018-051	Perform Review of Service Organization Control Reports for Third-Party Service Providers	10.557	-	VDH	Resolved - Corrective action is completed				
2018	73	2018-055	Improve Contingency Management Program	N/A	-	VDH	Corrective action is ongoing	VDH will develop a plan to conduct annual COOP tests and coordinate the tests between OIM and OEP. VDH will ensure the annual tests include IT components and involve the offices and districts with the agency. Additionally, VDH senior leadership will review, evaluate, and prioritize the recovery of IT systems in the COOP.	Still in progress.	Next scheduled exercise planned for 20 January 20, 2020. Focus of this exercise will be prioritization of IT system recovery. Meeting was scheduled for 9 July 2019 is now scheduled for Jan 2020 between OIM, OEP, OIA to discuss which IT system(s), Central Offices, and Health Districts will be included in planned exercise. VDH is in initial stages of integrating IT system with overall Agency COOP. Updates and revisions are being planned to coincide and reflect VA EO 41. Recommend reassigning this audit point to OEP (Emergency Preparedness) as the steward of the VDH COOP.	No differences.
2018	94	2018-078	Develop and Implement Policy for Monitoring Part-Time Employee Hours	N/A	-	VDH	Corrective action is ongoing	The Office of Financial Management (OFM) is now timely posting the monitoring reports and will continue to do so going forward. Additionally, OFM	Still in progress.	OFM is working on this procedure.	No differences.

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								discussed the 1500 hour rule in October 2018 with the Business Managers and suggested additional monitoring methods such as using spreadsheets and internal accounting system reports. OFM will develop a procedure to notify supervisors when the report is available and to require supervisors to review the report.			
2018	111	2018-094	Comply with Federal Requirements over High-Risk Vendors	10.557	-	VDH	Corrective action is ongoing	The Division of Community Nutrition (DCN) will draft updated language for the Virginia Administrative Code to address the guidance provided on high risk vendors.	Still in progress.	Language has been drafted and submitted. No differences.	
2018	112	2018-095	Improve Controls over WIC Information System Access	10.557	-	VDH	Corrective action is ongoing	The IT Support Team within DCN will distribute the WIC Crossroads Access Report on a monthly basis (10th day of every month) with a five (5) day response period for the LHDs to review the report and denote the status of LHD staff with the Crossroads System. The responses will be recorded on an Excel spreadsheet by the 16th day of every month.	Still in progress.	The WIC Crossroads Access Report process has been implemented. As an additional measure of control, requests for new or changes to Crossroads user access must be reviewed and approved by the Nutrition Education Liaison. NOTE: This finding was deemed by APA as on-going as of June 30, 2019 as a result of it being a repeat finding for the FY2019 APA Audit VDH EPPI concurs that supervisors did not submit certifications in a timely manner. However, regarding the access to EPPIC, it is an external system VDH does not own the system and is in the process of determining if the contract will be renewed.	No differences.
2018	113	2018-096	Retain Documentation of WIC Financial Eligibility	10.557	-	VDH	Resolved - Corrective action is completed				
2018	114	2018-097	Ensure Adequate Separation of Duties when Certifying WIC Participants	10.557	-	VDH	Corrective action is ongoing	OFHS will work with the local health departments to ensure the prescribed separation of duties logs are utilized when circumstances preclude multiple parties from being involved in eligibility determination and the issuance of benefits.	Still in progress.	Policy has been drafted for review by USDA to address this finding. Once approval is obtained a process will be developed to roll out the changes to the field.	No differences.

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2018	115	2018-098	Comply with Virginia Administrative Code Requirements for Above-50-Percent Vendors	10.557	-	VDH	Corrective action is ongoing	VDH will draft updates to the Virginia Administrative Code to follow the federal regulations to review new applicants within the first 6 months of authorization to validate that they are not a 50 percent vendor.	Still in progress.	Language has been drafted and submitted.	No differences.
2018	116	2018-099	Develop Procedures to Ensure Price Limits Are Accurately Recorded	10.557	-	VDH	Corrective action is ongoing	The Division of Community Nutrition (DCN) will need to collaborate with our Crossroads MIS contractor, DXC, investigate this programming issue, determine the issue that was observed, and build controls. The problem has been reported to our MIS contractor. We (DCN) have discontinued the issuance of yogurt until this issue is addressed.	Still in progress.	DXC has been made aware of the issue and are researching.	No differences.

Department of Medical Assistance Services

2018	25	2018-009	Strengthen Controls over Year-End Accrual Reporting	N/A	-	DMAS	Corrective action is ongoing	In the time leading up to year-end financial reporting, DMAS experienced a loss of knowledgeable Fiscal staff. This resulted in the remaining skeletal staff completing both Federal and State reporting at the same time. Additionally, the Budget Division has been understaffed for several months. As a result, DMAS intends to increase staffing in the Fiscal and Budget Divisions to appropriate levels to allow for more extensive review of year-end reporting prior to submission. DMAS has already taken actions to improve staffing levels in the Fiscal Division. DMAS executive leadership has appointed an acting Fiscal Division Director. At the time of year-end reporting, the Fiscal Division Director was on extended leave, and an acting Division Director had not been appointed yet. Additionally, DMAS has created a new position in the Fiscal Division, the Fiscal Senior Advisor, to act as a back-up to the Division Director. These personnel actions will ensure that staff	Still working on the Corrective Action Work Plan and have not gone through another year end financial reporting process yet.	Budget division has developed a document titled "Accrual Process and Timeline". This document includes meeting with Fiscal in July to review current policies and methodology as well as an agreed upon timeline. It also entails three levels of review to include; Budget Operations Manager & Director, a consensus review with Fiscal and an executive level review by the CFO prior to submission to DOA. Fiscal division has updated year-end Fiscal Policies and Procedures Manual, Volume 14 – Year End and Accruals document to include coordination and review with the Budget Division no later than July, as well as, final executive level review by the CFO prior to submission to DOA.	No differences from previously reported CAWP
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								are available to conduct an executive level review on year-end submissions. In addition, DMAS has hired an outside consultant to complete federal reporting work until new staff for the Federal Reporting Unit can be recruited. The outside consultant will also provide training to the new Federal Reporting staff. These actions will ensure that GL and State Reporting staff are not also tasked with federal reporting. The Budget and Fiscal Divisions will meet in early August to discuss and document the approach they are taking to estimate accruals. This early level-setting meeting will allow the divisions to mutually set a schedule and approach to accrual estimation and avoid a time-crunch in early September that can lead to errors.			
2018	34	2018-017	Continue Improving the Accounts Receivable Collection Process	Medicaid Cluster	-	DMAS	Corrective action is ongoing	The untimely processing of accounts receivable (AR) transactions is directly associated with the use of manual processes to set up AR transactions. The volume of cases in the AR area are greater than what current staffing levels in that area are able to handle manually. The Fiscal Division has taken action to increase staffing levels in the AR Unit, and will soon be implementing a new system that will allow for automation of some components of the AR process, that will decrease the amount of time required for each AR transactions. Workflow Process Improvement: The Program Integrity (PI) Division partnered with the Information Management (IM) Division to leverage Medicaid Enterprise Systems (MES) to meet their needs with case management and analytics. PI is introducing a new system that will serve as an analytical tool to manage cases. When FADS goes live, Fiscal will partner with PI to determine system enhancements that will allow for an interface between the	Directly associated with the use of manual processes to set up the accounts receivable transactions.	Increased staffing levels in the AR Unit. Developed a new process to compile documents and refer cases to the Office of the Attorney General -Division of Debt Collection to be in compliance with OAG's new policy.	Developing new processes to send proper documentation to OAG- Office of Debt Collection.

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								new system and the AR system which will further automate the member receivable process. In the meantime, Fiscal has increased staffing with temporary resources to assist with member receivables. Provider Receivables: Fiscal continues to work on improving collections for provider receivables. Fiscal added two additional resources in provider receivable in the past 12 months. Member Receivables: Fiscal added an additional resource for the member (recipient) receivable collections and now have three resources working in this area. This area is still a very manual process until PI's system goes live. Fiscal plans to review methods that will efficiently track the receivables manually until then. Ultimately, the new system will interface with the AR system and help reduce the manual tasks.			
2017	107	2017-084	Improve the Accounts Receivable Collection	Medicaid	-	DMAS	See Finding Number 2018-017				
2016	103	2016-080	Continue Improving Accounts Receivable Collection Process	Medicaid Cluster	-	DMAS	See Finding Number 2017-084				
2018	59	2018-040	Remove Access to the Current Claims Processing System in a Timely Manner	Medicaid Cluster	-	DMAS	Corrective action is ongoing	OCS Access management team set up a new tracking, review, and suspend process in December 2018 to ensure timely removal of access to claims Processing System. OCS is working with HR, managers, and supervisors to have management directly notify OCS of exiting employees. HR has always notified OCS of employee terminations through the following standing operating procedures/processes: HR emails a weekly HR Infoshare - Staff Changes notification to all DMAS employees which includes OCS staff. This includes all employee terminations/separations. For immediate discharges/terminations, the HR Director or HR Benefits and Operations Manager emails directly OCS an "Advance Notice" email to alert OCS	OCS was not always notified of terminations.	A report view with tracking of exiting employees with status updates, date MMIS access was removed and analyst's comments was created in K2 to help access management team. The following was provided to CMS as evidence of CAP completion on May 22, 2019: Copy of new tracking, review process set up by OCS in Dec. 2018, with details of exiting employees starting from Dec. 2018 to May 22, 2019. Copy of the standing operating procedures/processes outlying the notification to OCS by HR Of employee terminations. Copy of the "Exit Clearance Automation Workflow process in K2", along with a copy of the instructions sent to DMAS workforce. Documentation (email, meeting minutes, etc.) of the notification to all DMAS workforce in January of the exit clearance workflow process being implemented. No exceptions were noted from since April 2019 during the review process.	OCS and HR implemented an Exit clearance workflow process to off-boarding process. OCS also starting performing their own reviews.

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								immediately that access needs to be terminated. HR's off boarding process requires manager and supervisors of exiting employees to initiate the Exit Clearance Form. All relevant divisions have to sign off on the form as applicable including OCS. HR and IM have worked together to complete the Exit Clearance Automation workflow process in K2. This process was launched on January 11, 2019. Instructions and training video were sent to all DMAS workforce members on January 11, 2019. This will automate the exit clearance process which was a manual process before. The exit notice will flow to OCS and HR. At the Management Team meeting on January 14, 2019, all division managers and EMT were notified that the Exit Clearance workflow process was implemented and that all of their managers and supervisors were required to initiate a separating employee's exit clearance through the SharePoint application.			
2017	34	2017-016	Remove Access to the Current Claims Processing System in a Timely Manner	Medicaid Cluster	-	DMAS	See Finding Number 2018-040				
2018	97	2018-081	Ensure Employees Complete Required Conflict of Interest Training	Medicaid Cluster	-	DMAS	Corrective action is ongoing	The Human Resources Division (HR) includes a reference to completion of an annual Statement of Economic Interests (SOEI) on all job postings for positions of trust. HR has also added a reference on the job posting about the required Conflict of Interest Act (COI) Training. In addition, employment offer letters state that employees in positions of trust must complete a SOEI at hire and annually thereafter. HR has also added information in employment offer letters about the COI training requirement and their responsibilities. Before new hires who will hold positions of trust start employment, HR sends an email	The reason that this is ongoing is that each required filer has a different anniversary date of when to complete the training and it a manual process to track and enforce that the employees take the training every 2 years. The Agency Director granted permission for HR to require that all SOEI filers complete the COI training in January 2020 and annually thereafter. HR initially planned to send an email to the filers when the Ethics Counsel sends notification to complete the SOEI. However, the Ethics Counsel has not posted the 2020 training HR will notify all SOEI filers to complete the training when the 2020	HR continues to do the following with regard to Conflict of Interest Training: 1. References completion of an annual Statement of Economic Interests (SOEI) on all job postings for positions of trust 2. States in employment offer letters that employees in positions of trust must complete a SOEI at hire and annually thereafter 3. States in employment offer letters that COI training must be completed and the employee's responsibilities 4. Sends an email to the new hire's personal email address to inform them about the required COI training and that they will have to complete the training within the first two months of employment 5. Sent an email on January 7, 2019 as a reminder to everyone that the COI training must be completed every two years. This will be sent annually in January.	No differences.

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								to their personal email addresses (since there is no COV account yet) to inform them that they have to complete the SOEI on or before the date of employment. HR includes information in the email about the required COI training and that they will have to complete the training within the first two months of employment. HR will follow-up on all new employees designated in positions of trust to ensure they complete the required COI training within two months of hire to ensure that they complete the training. HR has continued to work with the Ethics Council Coordinator regarding issues with the database and managing DMAS' information on positions of trust. HR also works with the Ethics Council Coordinator to answer questions that DMAS filers may have when they are completing a SOEI. In December 2018, HR performed the annual update to the Disclosure System and verified that the DMAS employees, associated positions, and contact information was correct in the system. On January 7, 2019, HR emailed all filers with notice that they are responsible for taking the COI training every two years.	training is available. The annual requirement in January will make it easier to ensure all SOEI filers complete the required training.	6. A reconciliation is performed quarterly between the VA Learning.	
2017	27	2017-009	Improve Collective Knowledge of Annual Accrual Reporting	N/A	-	DMAS	Resolved - Corrective action is completed				
2017	33	2017-015	Develop Processes to Facilitate the Controlling of Privileges in the Claims Processing System	Medicaid Cluster	-	DMAS	Resolved - Corrective action is completed				
2017	35	2017-017	Ensure Employees have Proper Access Roles within the Commonwealth's Procurement System	Medicaid Cluster	-	DMAS	Resolved - Corrective action is completed				
2017	66	2017-046	Review and Document Service Organization Control Reports of Third-Party Service Providers	Medicaid Cluster	-	DMAS	Resolved - Corrective action is completed				
2016	62	2016-043	Review and Document Service Organization Control Reports of Third-Party Service Providers	Medicaid Cluster	-	DMAS	See Finding Number 2017-046				

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2018	35	2018-018	Improve the Billing Process	N/A	-	DSS	Corrective action is ongoing	Procedures have been put into place to submit the Medicaid bills on a timely basis. The write-up of these procedures is in progress and requirements entered in the Employee Work Profile for the position responsible.	Corrective Action is ongoing.	Procedures were written to have the monthly invoices processed within 5 days of receipt of the LASER reports and the quarterly reconciliation to be processed within 14 days of the completion of cost allocation.	No significant difference.
2018	44	2018-025	Improve IT Risk Management and Contingency Planning Program	TANF Cluster	-	DSS	Corrective action is ongoing	DSS will develop a plan to document the final five data classifications, three risk assessments, and two system security plans. Further, DSS will develop a plan to test the Continuity of Operations Plan annually through a tabletop exercise and connectivity test of IT resources.	Partial repeat in 2019 APA report.	The Department of Social Services, Information Security and Risk Management Division is in the process of reviewing candidates for the unfilled Risk Manager position. The Risk Manager's job duties will include updating data classification for sensitive systems, conducting and updating risk assessments, conducting and updating system security plans, and developing corrective action plans for outstanding risks.	Completed IT contingency planning program aspect of IT risk management point.
2018	61	2018-042	Remove Separated Employee's Access to Critical Systems in a Timely Manner	TANF Cluster	-	DSS	Corrective action is ongoing	DSS will revise the Separation and Transfer Checklist to add blank rows under the system name list for division specific access removal and non-SAMS systems. DSS will reinforce through security awareness training the Personnel Transaction Form and Separation Checklist procedures for Division Security Officer in a timely manner. DSS OD will send quarterly reminders to supervisors to complete the PTF, Separation Checklists, and transfer forms.	Full repeat in 2019 APA report.	Virginia Department of Social Services (DSS), Department of Organizational Development (OD) and Department of Information Security and Risk Management (ISRM) concur with the above management point. ISRM has met with Organizational Development to develop a process to notify ISRM when an employee's employment status is changing (i.e., termination or transfer). This will help ISRM ensure that access is removed when an employee leaves DSS or moves to a position that no longer requires a given system access. ISRM will use exception reports in SAMS (e.g., LDAP to Personnel Data Mismatch, Possible Employee Transfer) to identify users that may have separated or transferred, and will remove the users' systems access. ISRM has updated the documented standard operating procedure (SOP) for terminating systems access. The SOP now identifies the system access that is not managed in SAMS (e.g., EPPIC ECC) and the corresponding State employee user groups (e.g., the Division of Child Care & Early Childhood Development, Young Williams). This will help ISRM ensure access is removed for EPPIC ECC when a user separates from DSS. ISRM will perform annual access reviews for EPPIC ECC to ensure that a) user accounts belong to current DSS employees with a valid business need for access; and b) a user has only the least amount of access required to perform assigned job	No significant differences.

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											functions. Further, Organizational Development will update the separation and transfer checklist to include Cardinal access removal, as well as any other systems not controlled by the central authentication system.
2018	72	2018-054	Develop Records Retention Requirements and Processes for Case Management System Electronic Records	TANF Cluster	-	DSS	Corrective action is ongoing	Change Request (CR435) developed for the records retention requirements. Design will begin by the 2nd Quarter 2019, An incremental methodology by Program AREA will be utilized for the development and implementation. The first program area will be completed by December 2019. (As of 2019, VACMS has not reached the 10 year requirement for the MA program).	Repeat in 2019 APA report.	The Virginia Department of Social Services, Division of Enterprise Systems has Change Request CR435: Records Purge and Retention tentatively on the schedule for November 2020 release and deployment. The business cites tentative due to IT leadership changes and the fact that agency priorities may cause adjustment to any and all scheduled changes.	No significant differences.
2018	75	2018-058	Continue Improving Database Security	TANF Cluster	-	DSS	Corrective action is ongoing	DSS Information Security and Risk Management will develop a plan to implement audit, logging, and monitoring security controls over databases in accordance with SEC501 requirements.	Repeat in 2019 APA report.	The Virginia Department of Social Services, Department of Information Systems and Department of Information Security and Risk Management are dedicating resources to implementing audit logging and monitoring over the databases.	No significant differences.
2017	51	2017-031	Improve Database Security for Financial Reporting System	N/A	-	DSS	See Finding Number 2018-058				
2017	52	2017-032	Continue Improving Database Security for Case Management System	Medicaid Cluster	-	DSS	See Finding Number 2018-058				
2016	32	2016-017	Improve Database Security	Medicaid Cluster	-	DSS	See Finding Number 2017-032				
2017	70	2017-050	Continue Improving Oversight of Third-Party Service Providers	Medicaid Cluster	-	DSS	Resolved - Corrective action is completed				
2016	63	2016-044	Improve Oversight of Third Party Service Providers	Medicaid Cluster	-	DSS	See Finding Number 2017-050				
2017	85	2017-064	Improve Policies, Procedures, and Plans for Backup and Restoration	Medicaid Cluster	-	DSS	Resolved - Corrective action is completed				
2016	76	2016-055	Improve Policies, Procedures, and Plans for Backup and Restoration	Medicaid Cluster	-	DSS	See Finding Number 2017-064				
2018	98	2018-082	Ensure Statement of Economic Interest Filers Complete Required Training	N/A	-	DSS	Corrective action is ongoing	DSS will revise written procedures to enhance management's ability to hold employees accountable. Revisions will include the following: updated the SOEI procedures to improve notification to new employees regarding the SOIE filing and training requirement on job	DSS employees in Positions of Trust were given incorrect guidance on the timeframe from completing the initial SOEI training. As a result, the employees thought they had more time to complete the training that the code required. DSS Board Members were inadvertently	DSS employees in Positions of Trust, who had not completed the training, were given the corrected instructions that the initial training should be completed within 2-months of hire. All identified employees have since completed the SOEI training. DSS Board Members were confirmed for the FY2020 cycle and will be added to the site during the enrollment FY2020 period.	The new corrective action resolved the discrepancies on when the SOEI training must be completed.

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								<p>postings. Future postings and offer letters will include statements regarding the annual requirement to complete SOEI filing and complete the training upon hire and every 24-months thereafter, as well as, a notice that failure to complete the filing may result in a \$250 fine to the selected candidate or employee. A statement of Economic Interests filing and SOEI training every 24-months will be included in the Employee Work Profile for an employee in a position of trust. OD will notify the Commissioner when an employee in a position of trust fails to complete the financial disclosure and/or training by the required date. The Commissioner will take the appropriate action to ensure the employee completes the SOEI requirements.</p>	<p>excluded from the list of SOEI Filers submitted on the Council site.</p>		
2017	104	2017-082	Obtain and Retain Statement of Economic Interest Training Records	N/A	-	DSS	See Finding Number 2018-082				
2018	104	2018-087	Improve Controls over Income Verification for the Temporary Assistance for Needy Family Program	TANF Cluster	-	DSS	Corrective action is ongoing	<p>The Division of Benefit Programs currently has an active change request with the Division of Enterprise Systems to automate the IEVS process. The process is identified as mandatory in the policy manual, therefore there is no need to update the guidance. Additional monitoring of agency processes will be put in place until the change request implementing automation is put in place.</p>	<p>Corrective Action is ongoing. The change request for this process to be automated is scheduled for August 2020.</p>		No significant difference.
2018	105	2018-088	Update the Work Verification Plan for the Temporary Assistance for Needy Family Program	TANF Cluster	-	DSS	Corrective action is ongoing	<p>The Work Verification Plan has been updated and will soon be submitted to ACF for approval.</p>	<p>Corrective Action is ongoing. The Work Verification Plan has been updated and will soon be submitted to ACF for approval.</p>		No significant differences.
2018	106	2018-089	Improve Controls over Federal Performance Reporting	TANF Cluster	-	DSS	Corrective action is ongoing	<p>Findings meeting with Business Areas scheduled for January 24, 2019. Determine if VaCMS Change Request or Defect Tickets need to be developed. Based on the findings defects will be schedule in a 2019 VaCMS release. If Change Request (CR) required, documentation for CR will be</p>	<p>Corrective action is ongoing. Changes were needed for the TANF Federal Report thru CR 483 which was implemented in the July 2019 VaCMS Release.</p>		No significant difference.

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								developed and the CR will be scheduled for a 2019 release.			
2018	107	2018-090	Obtain Federal Authorization before Deviating from Cash Management Requirements	TANF Cluster	-	DSS	Resolved - Corrective action is completed				
2018	108	2018-091	Improve Controls over Federal Reporting	SNAP Cluster	-	DSS	Corrective action is ongoing	Change Request (CR434) developed July 2018 to make changes to the FNS - 209 report. The changes will be included in the March 2019 release.	Corrective action is ongoing.	Changes were necessary for the FNS209 (SNAP Status Against Household Report) to enhance the functionality and provide user access to detailed data reports. This was implemented in the March 2019 release (CR 434).	No significant difference.
2018	109	2018-092	Improve Process and Controls over Subrecipient Monitoring	10.561, 93.558, 93.568, 93.778	-	DSS	Corrective action is ongoing	Organizational Development staff working with Deputy Commissioner to review, revise, create Department's new approach to subrecipient monitoring.	Corrective Action is ongoing.	DSS has hired a Subrecipient Monitoring Specialist who will monitor these Subrecipients.	No significant differences.
2018	110	2018-093	Ensure that Subrecipient Reviews Adhere to Monitoring Plan	10.561, 93.558, 93.568, 93.778	-	DSS	Corrective action is ongoing	Will be included in new Subrecipient monitoring plan.	Corrective Action is ongoing.	Finding 2017-032 was marked as FOIAE under §2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security controls. Corrective action updates will be provided to the Auditor of Public Accounts under separate cover.	No significant differences.

Department of Corrections

2018	64	2018-045	Perform Annual Access Review of Information System	N/A	-	DOC/CA	Resolved - Corrective action is completed				
2018	101	2018-084	Document Retirement Benefits System Reconciliations	N/A	-	DOC/CA	Corrective action is ongoing	The Office of Human Resources within the Department of Corrections (DOC) has a systematic process for reconciling essential retirement data between the Human Resources Information System and the Virginia Retirement Benefits System. DOC's Human Resource procedure was revised to include the appropriate process for maintaining documentation of the reconciliations between the two systems. Subsequently, the enhanced procedures for reconciliation between the human resources system and the retirement benefits system was distributed to Human Resource (HR) Officers and HR support staff at the annual	This finding was recently issued a "repeat finding" by the APA. The Department of Corrections did not expect to see the finding being tested so soon and sent a request to the APA on November 13th, 2019 explaining its concern of not having sufficient time to resolve this finding. The Department requested the APA wait until the following year to test the material due in part to the vast size and complexity of the DOC and the fact that as in previous years, many corrective action plans need time to be refined, checked to ensure processes are working as expected, obtain complete buy-in from staff needed to perform certain	The Department felt it needed more detail and therefore created Desk Procedures. The Desk Procedure allows HR employees to complete the Snapshot in the exact same way every time so it remains consistent. This written procedure provides step-by-step instructions describing HOW TO PERFORM THIS ACTIVITY, including the necessity of maintaining documentation of the monthly reconciliation between the two systems. Like SOPs, the desk procedure is designed to be brief, specific, easy to read and easy to understand. The action steps are simple to follow and provides a systematic process for reconciling essential retirement data between the Human Resources Information System and the Virginia Retirement Benefits System. The enhanced procedures were distributed to: (1) Human Resource Officers (HROs) during the fall 2018 HRO Conference; (2)	No Significant Differences.

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								conferences in the Fall of 2018. The updated procedure was also communicated to the Department's HR community during monthly staff meetings, outlined in a monthly HR newsletter, and distributed to HR staff by mass email. As the HR Office at Headquarters has reinforced the importance of thorough and timely reconciliations with Department HR staff, these actions will assist the Payroll Department in resolving credible compensation reconciliation in a timely manner. An internal HR procedure has been drafted that addresses how to perform and document reconciliations. This procedure will be finalized, approved by management, and shared with DOC staff by June 30, 2019. The Human Resources Director will generate a memo to the HROs with a copy to unit heads. The purpose of this memo will be to further emphasize the importance of clearing discrepancies prior to certifying the Virginia Retirement System snapshot.	tasks , and possibly re-evaluated before being considered "Completed". Based on the fact that the APA did not have its FY18 Exit Conference until December 3, 2019 and then began to audit issues from July 2018 thru June 2019, the DOC felt this particular finding did not have sufficient time for the corrective action process to be completed.	HR support staff during both conferences in 2018; (3) The HR Community (as a follow-up after the conferences) via email; (4) HROs monthly by our Benefits Analyst; and (5)The HR Community via our January 2019 newsletter. Additionally, the Department uses this written procedure for initial training for new HR team members and as a continuous training tool for existing HR employees. The HR Benefits Analyst has the duty of reviewing and updating the procedure each year to ensure it is relevant, current and accurate.	
2017	97	2017-076	Comply with 1,500 Hour Rule for Wage Employees	N/A	-	DOC/CA	Resolved - Corrective action is completed				
2017	105	2017-083	Improve Controls Over Building and Grounds Inventory at Fluvanna Correction Center for Women	N/A	-	DOC/CA	Resolved - Corrective action is completed				
Virginia Alcoholic Beverage Control Authority											
2018	64	2018-046	Improve Logical Access Controls for Users with Privileged Access	N/A	-	ABC	Corrective action is ongoing	There are multiple efforts underway to modernize our information system technology to comply with industry best practices. Additionally, ABC is in the process of drafting new security policies and procedures that will address the proper management of users with privileged access. While the technology modernization will span multiple fiscal years, ABC expects new security policies	Corrective Action is ongoing.	This corrective action remains on-going. ABC is in the process of rolling out an Identity Management System, which will ultimately be used to manage user access on a global scale. It is currently being rolled out for use with the new Financial Reporting System. Additionally, ABC has made significant progress updating information security policies and procedures since the transition to an authority. Related, Board approved, policies include a password management policy, risk management policy, and a	ABC Info Sec policies have been approved by the board and ABC is in the process of implementing them. ABC continues to use the Identity Management System for budget and financial systems, but it has not been implemented globally at this point. ABC intends to overhaul account management processes by developing procedures to implement new policies, specifically focusing on privileged access. These processes are tentatively scheduled to be completed by June 30, 2020.

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								and procedures to be implemented by the end of FY19. ABC will update our progress, on a quarterly basis, with the Virginia Department of Accounts (DOA).		continuous monitoring/logging policy. Additionally, ABC is targeting completion of an overall access management and asset management policy by the end of September, 2019.	
2017	63	2017-042	Improve Database Security	N/A	-	ABC	Resolved - Corrective action is completed				
Department of Motor Vehicles											
2018	62	2018-043	Ensure Timely Notification of Terminations and Transfers	N/A	-	DMV	Corrective action is ongoing	DMV understands the need for a comprehensive set of controls for ensuring proper de-provisioning of accounts when transferring or terminating users and is taking the necessary steps to bring our current technical controls into alignment with Commonwealth security standards. We are presently involved in a project with VITA's Multi-Source Integrator to implement two Identity Access Management platforms that, when fully configured, will meet all our access control needs. Our expected go-live for the new platforms is early to mid-2019.	Corrective Action is ongoing.	Working with SAIC(VITA MSI Vendor) on the implementation of Sailpoint for Identity and Access Management. Contracted for a Business Process Review of the Access Management Process.	No significant differences.
2018	81	2018-065	Improve Information Technology Change Management Program	N/A	-	DMV	Resolved - Corrective action is completed				
2017	74	2017-054	Improve Information Technology Change Management Program	N/A	-	DMV	See Finding Number 2018-065				
2017	23	2017-006	Improve Controls over Financial Reporting	N/A	-	DMV	Resolved - Corrective action is completed				
2016	16	2016-003	Improve Controls over Financial Reporting	N/A	-	DMV	See Finding Number 2017-006				
2017	89	2017-068	Continue Improving Application Security Controls	N/A	-	DMV	Resolved - Corrective action is completed				
2016	79	2016-058	Improve Application Security Controls	N/A	-	DMV	See Finding Number 2017-068				
2015	17	2015-008	Improve System Authentication Controls	N/A	-	DMV	See Finding Number 2016-058				
Department of Transportation											
2018	15	2018-001	Identify and Evaluate Changes to Previously Identified Component Units for Financial Reporting	N/A	-	VDOT	Resolved - Corrective action is completed				

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2018	16	2018-002	Evaluate Invoices for Goods or Services Provided Across Multiple Fiscal Years	N/A	-	VDOT	Resolved - Corrective action is completed				
2018	17	2018-003	Improve Policies over Service Concession Arrangements	N/A	-	VDOT	Resolved - Corrective action is completed				
2017	19	2017-004	Improve Internal Controls over Financial Reporting of Service Concession Arrangements	N/A	-	VDOT	See Finding Number 2018-003				
2018	33	2018-016	Enhance Review of Accounts Receivable for Financial Reporting	N/A	-	VDOT	Corrective action is ongoing	Fiscal Division will initiate processes to identify and report new and existing debt issued on behalf of others in which agreements to repay debt service are involved. Fiscal Division will continue to employ detailed review procedures on the Accounts Receivable submission and will add emphasis on the review of the long term debt column.	Correct Action is ongoing.	Fiscal Division worked internally to identify and report on accounts receivable related to any debt issued on behalf of an entity. A meeting with DOA will be scheduled for discussion and concurrence in early July. We have also updated our AR checklist to ensure that we place loan receivables in the long term AR instead of short term AR.	VDOT met internally to discuss corrective action on all AR related items.
2018	37	2018-020	Improve Financial Reporting of Infrastructure Assets with Proactive Policies and Procedures	N/A	-	VDOT	Corrective action is ongoing	Fiscal Division will strengthen current infrastructure capitalization procedures to incorporate the areas identified by the APA, including development of detailed desk procedures, and update them annually. Fiscal Division will review current processes for identification of reportable infrastructure and labelling and employ additional controls to ensure consistency and accuracy.	Corrective Action is ongoing.	Procedures in Progress.	Procedures in Review Stage.
2018	93	2018-076	Continue to Strengthen Internal Controls over the Employee Separation Process	N/A	-	VDOT	Resolved - Corrective action is completed				
2017	91	2017-071	Complete Separating Employee Checklists Timely	N/A	-	VDOT	See Finding Number 2018-076				
State Corporation Commission											
2014	56	2014-033	Improve Information Security Program	N/A	-	SCC	Corrective action is ongoing	The Commission will dedicate resources to improve the information security program, and will develop a plan to draft and implement the specific policies and procedures noted in the APA findings in accordance with the SEC501 standard. That plan will also address development of a gap analysis between the current information security program and the SEC501 standard.	Corrective Action is ongoing.	A repeatable process has been implemented to improve the ability to draft and approval process for standards. This has allowed for two policies to be completed within a compressed timeframe. Continued progress is being made to complete policies with the intent to meet the end of year goal. The resource leading this effort is out on extended FMLA leave so the 'Revised Estimated Completion Date' may need to be updated in the future.	No significant differences.

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Virginia Lottery

2018	43	2018-024	Improve Application and Database Controls over the Enterprise Resource Planning System	N/A	-	VAL	Resolved - Corrective action is completed				
2017	56	2017-036	Improve Application and Database Controls over the Enterprise Resource Planning System	N/A	-	VAL	See Finding Number 2018-024				
2016	25	2016-010	Improve Application and Database Controls over the Dynamics AX Financial System	N/A	-	VAL	See Finding Number 2017-036				
2018	82	2018-066	Improve Server Operating System Security	N/A	-	VAL	Corrective action is ongoing	Implementation of improved server security will be completed by June 30, 2019.	While significant progress was made, the APA noted a few additional tasks that should be completed for improved security.	The additional items were completed and implemented on September 12, 2019.	Additional security improvements were noted as needed by the auditors during the FY2019 review. These were completed before the auditors completed their audit, but after the audit period for which the report was issued.

FEDERAL AWARD FINDINGS

U. S. Department of Agriculture

2018	118	2018-026	Improve Web Application Security ⁽¹⁾	10.557	-	VDH	Corrective action is ongoing	The VDH technical team will work with VITA and OFHS program staff to implement or enhance security controls to mitigate the risks noted by APA.	Still in process.	Reporting requirements currently being investigated. Audit Review Procedures to be developed and implemented based on this analysis. Estimated to be complete by July 31, 2019. Request has been made to VITA / Partnership to upgrade all web and applications servers to Windows 2016. Exception is on file for all database servers. Certification of hardware environment is expected by June 30, 2019. OIM staff will perform database and application installations by September 30, 2019. Vulnerability scans are conducted quarterly. Review and Remediation process is conducted based on results. Software vendor is engaged in providing specific remediation for specific items.	No differences.
2018	118	2018-051	Perform Review of Service Organization Control Reports for Third-Party Service Providers ⁽¹⁾	10.557	-	VDH	Resolved - Corrective action is completed				
2018	118	2018-091	Improve Controls over Federal Reporting ⁽¹⁾	SNAP Cluster	-	DSS	Corrective action is ongoing	Change Request (CR434) developed July 2018 to make changes to the FNS - 209 report. The changes will be included in the March 2019 release.	Corrective action is ongoing.	Changes were necessary for the FNS209 (SNAP Status Against Household Report) to enhance the functionality and provide user access to detailed data reports. This was implemented in the March 2019 release (CR 434).	No significant difference.

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2018	118	2018-094	Comply with Federal Requirement over High-Risk Vendors ⁽¹⁾	10.557	-	VDH	Corrective action is ongoing	The Division of Community Nutrition (DCN) will draft updated language for the Virginia Administrative Code to address the guidance provided on high risk vendors.	Still in progress.	Language has been drafted and submitted.	No differences.
2018	118	2018-095	Improve Controls over WIC Information System Access ⁽¹⁾	10.557	-	VDH	Corrective action is ongoing	The IT Support Team within DCN will distribute the WIC Crossroads Access Report on a monthly basis (10th day of every month) with a five (5) day response period for the LHDs to review the report and denote the status of LHD staff with the Crossroads System. The responses will be recorded on an Excel spreadsheet by the 16th day of every month.	Still in progress.	The WIC Crossroads Access Report process has been implemented. As an additional measure of control, requests for new or changes to Crossroads user access must be reviewed and approved by the Nutrition Education Liaison. NOTE: This finding was deemed by APA as on-going as of June 30, 2019 as a result of it being a repeat finding for the FY2019 APA Audit VDH EPP1 concurs that supervisors did not submit certifications in a timely manner. However, regarding the access to EPPIC, it is an external system VDH does not own the system and is in the process of determining if the contract will be renewed.	No differences.
2018	118	2018-096	Retain Documentation of WIC Financial Eligibility ⁽¹⁾	10.557	-	VDH	Resolved - Corrective action is completed				
2018	118	2018-097	Ensure Adequate Separation of Duties when Certifying WIC Participants ⁽¹⁾	10.557	-	VDH	Corrective action is ongoing	OFHS will work with the local health departments to ensure the prescribed separation of duties logs are utilized when circumstances preclude multiple parties from being involved in eligibility determination and the issuance of benefits.	Still in progress.	Policy has been drafted for review by USDA to address this finding. Once approval is obtained a process will be developed to roll out the changes to the field.	No differences.
2018	118	2018-098	Comply with Virginia Administrative Code Requirements for Above-50-Percent Vendors ⁽¹⁾	10.557	-	VDH	Corrective action is ongoing	VDH will draft updates to the Virginia Administrative Code to follow the federal regulations to review new applicants within the first 6 months of authorization to validate that they are not a 50 percent vendor.	Still in progress.	Language has been drafted and submitted.	No differences.
2018	118	2018-099	Develop Procedures to Ensure Price Limits Are Accurately Recorded ⁽¹⁾	10.557	-	VDH	Corrective action is ongoing	The Division of Community Nutrition (DCN) will need to collaborate with our Crossroads MIS contractor, DXC, investigate this programming issue, determine the issue that was observed, and build controls. The problem has been reported the problem to our MIS contractor. We (DCN) have	Still in progress.	DXC has been made aware of the issue and are researching.	No differences.

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2018	119	2018-100	Ensure Timely Subrecipient Monitoring ⁽¹⁾	10.557	-	VDH	Resolved - Corrective action is completed				

U. S. Department of Commerce

2017	113	2017-089	Improve Controls over Federal Reporting	Economic Development Cluster	-	VSBFA	Corrective action is ongoing	Financing Authority should implement policies and procedures, to include a documented review process, over the reporting process to ensure accurate reporting of RLF information to EDA and retain all support for material amounts reported.	After consultation with APA, APA has determined that it prefers to leave the audit finding open in order to allow VSBFA to file additional semi-annual reports and thereby accumulate additional report history which can be audited by APA at a later date.	Detailed desk procedures for the preparation of the semi-annual ED209 report, which was the subject of this audit finding, were drafted in April 2019 and finalized in July 2019. These procedures are currently in use.	No significant differences.
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U. S. Department of Defense

2017	114	2017-090	Strengthen Internal Controls over Federal Awards	12.401	-	DMA	Corrective action is ongoing	Properly classify all expenses to the correct CFDA number. Update policies and procedures to address how DMA allocates costs by program, project, or facility. Maintain a comprehensive master listing of all term contracts. Conduct a data call for all subordinate procurement departments to identify current term contracts, ending dates, renewal dates etc... Develop and enforce an SOP that captures all term contracts and post them to a common location.	It took a lot longer to get guidance on using eVA as the central repository for contracts than we had planned.	The data has been collected and policies written and being staffed internally.	We had to adjust our policies and procedures based on continuing guidance from DGS.
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2017	116	2017-091	Comply with Statewide and Agency Procurement Policies and Procedures	12.401	-	DMA	Corrective action is ongoing	Obtain date stamps for all offices that receive bids/proposals and other procurement documents instead of hand writing date/time of receipt. Establish a system to ensure copies of bids are posted in a public area.	Corrective Action is ongoing.	Guidance was issued and has been written into draft policy.	We had to adjust our policies and procedures based on continuing guidance from DGS.
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U. S. Department of Education

2018	120	2018-101	Improve Compliance over Enrollment Reporting	Student Financial Assistance Programs Cluster	-	CVCC	Resolved - Corrective action is completed				
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						GMU	Corrective action is ongoing	Submit the first summer enrollment file within the first 30 days of the term, send the summer subsequent date within the first 45 days of the first file, and submit the last transmission no more than five days before the end of the term. Policies and procedures updated to reflect this change on January 31, 2019. Allocate more resources through cross training of staff to monitor the application of the "graduated" status to the National Student Loan Clearinghouse records following the submission of degree files. Select a sample of students who have had program changes. Review and update procedures used to update student records when processing change of program requests. Schedule regular monthly meetings between the Office of the Registrar and the Office of Student Financial Aid to review areas of weakness and ensure consistent reporting. Review and seek external guidance on dates to use for program level changes and other enrollment reporting challenges.	The finding was issued in early calendar 2019. The changes needed to correct the finding had to be implemented over the summer semester. As a result, this corrective action had not been completed as of June 30, 2019.	As of June 30, 2019, the first summer files had been submitted to NSLDS. As of June 30, 2019, the policy and initial "Grad Only" files had been sent.	No significant differences.
						JMU	Resolved - Corrective action is completed				
						NSU	Corrective action is ongoing	NSU Financial Aid Office personnel will work with the Registrar to ensure timely and accurate reporting of enrollment verification records as well as error batches from the National Clearinghouse. The following internal control procedures will be implemented to ensure compliance. An enrollment status code of 'withdrawal' will be implemented to capture students who unofficially withdraw during the 10-week and students who final grading periods resulted in all "F" grades. Reports will be generated to capture students who fail to return from each semester. All batches uploaded to the National Clearinghouse will be reviewed	Implementation of the plan was complete. Actions are ongoing through September 30th for sampling and monitoring to ensure compliance.	The Financial Aid Office has conducted a random sampling of students who withdrew from the University (officially and unofficially), graduated and who did not return from fall 2018 to spring 2019 to ensure that student enrollment verification status and dates matches in both the National Clearinghouse and on the National Student Loan Database System (NSLDS). In addition, both the Financial Aid and Registrar's Offices received submissions and errors emails from the Clearinghouse. NSU complies with the reporting timeline administered by the Clearinghouse. The ARMICS coordinator in the University's Controllors Office also receives notifications when a file is uploaded to the NSLDS. Financial aid concluding sampling of students who withdraw from the University. Designated staff members will continue the efforts of monitoring student enrollment verification data between NSU	Coordination between Financial Aid personnel and Registrar Office to included having designated staff monitor the enrollment verification data between the NSU submission, the Clearinghouse and NSLDS. In addition, the Registrar has created a unofficial withdrawal status code in Colleague to capture students who unofficially withdraws from the University. The Financial Aid Office conducted a 1-year random sample of students who withdrew (officially and unofficially) and who failed to return to the University fall 2018 to spring 2019 and verified that data submitted to the National Clearinghouse was linked to NSLDS. Our self-compliance evaluation process is available for review.

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								to ensure that they are accepted and free of errors. The Registrar Office will notify Financial Aid personnel of all batches sent to the National Clearinghouse during the 30-day process, 10-week and final grading periods, and between semesters breaks for verifying records in NSLDS.		submissions and the Clearinghouse and NSLDS.	
						NVCC	Corrective action is ongoing	NVCC has been working with the VCCS to ensure that the data extract used for enrollment reporting is correct. The Registrar's department will continue to educate faculty and staff on correctly entering enrollment data and class dates to ensure accurate enrollment reporting. Obtain clarification from Department of Education on program effective date and NSLDS reporting processes to ensure compliance.	Corrective Action is ongoing.	Continues to use a quality control workgroup and review process.	None.
						ODU	Corrective action is ongoing	ODU is working with our ERP vendor to determine the cause of the reporting discrepancies and to update their reporting logic within Banner.	Delay in Ellucian completing all necessary corrections to the NSLDS reporting software.	Ellucian has provided one update that corrected 95% of the reporting issues and that has been tested and moved into our live environment and is being used for reporting.	None
						PDCCC	Corrective action is ongoing	PDCCC management has implemented a quality control review process and workgroup. The Registrar, Financial Aid Coordinator, Dean of Student Affairs, and Return of Aid Processor workgroup will perform the following functions as noted on the calendar: review the NSLDS Roster, disseminate the NSLDS Reporting Manual to the QCR members, increase subsequent reporting to NSC, collaborate on the R2T4 report monthly, and review the graduation file. All corrective actions have been implemented with the exception of the March NSC training session in March 2019.	Corrective Action is ongoing.	Continues to use a quality control workgroup and review process.	None.
						RU	Corrective action is ongoing	The Registrar's Office immediately begun using the	Corrective Action is ongoing.	Internal validation is still be conducted. This item will not be marked complete	No significant differences.

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								conferral date for all students who are not enrolled in the term in which they graduate as standard practice. However, internal validation has not been conducted due to the timing of the availability of NSLDS data. This item will not be marked complete until validation has occurred. In addition, the Registrar's Office is working with Financial Aid to determine the best policy and procedure to ensure effective dates are not overridden in NSLDS due to submission batch data.		until validation has occurred. In addition, the Registrar's Office is still working with Financial Aid to determine the best policy and procedure to ensure effective dates are not overridden in NSLDS due to submission batch data.	
						TCC	Corrective action is ongoing	Inaccurate enrollment reporting was mostly found with data for students in the fall 2017 semester. In May 2018, The VCCS successfully implemented an updated file extract addressing students who have unofficially withdrawn as well as improvements with graduation reporting. The College submits an enrollment file to the NSC approximately every 21 days throughout a given semester, and extending beyond the semester not more than 25 days. The College also altered the timeline and order for graduation reporting, which went into effect in August 2018. Both of these changes have resolved the issues stated in the finding. The College will continue to diligently review the Enrollment Error reports and SSCR reports, as well as completing any necessary error resolution in a timely manner. The College will also ensure graduation information is reported timely and completely; with attention to any student reported by the NSC as not having had a graduation row applied to the record.	Corrective Action is ongoing.	Continues to use a quality control workgroup and review process.	None.
						UVA/AD	Resolved - Corrective action is completed				

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						VCU/AD	Corrective action is ongoing	To ensure that unofficial withdrawal enrollment updates are reported accurately and timely to NSLDS, the Office of Financial Aid will perform manual enrollment updates to NSLDS for all students who have withdrawn without official notification during a term/semester. This step has been added to the existing Return of Title IV procedure and will begin implementation at the conclusion of the fall 2018 term/semester. To rectify the graduation status finding, the Office of Records and Registration is sending amended enrollment files to the National Student Clearinghouse (NSC) to update the NSLDS. The office has also added a supplementary enrollment report for graduates only to the transmission schedule provided to the NSC each semester. In addition, quality control reviews will be conducted in collaboration with staff from the Offices of Financial Aid and Records and Registration at the end of each semester to ensure timely and accurate reporting at both the campus and program levels.	Processes was changed, but an error was discovered in the Banner process for a limited population of students.	Manual process is in place to correct the date errors on the limited population of students that are not handled properly in the Banner process.	Error identified has been corrected.
						VPIU/ID	Corrective action is ongoing	VPIU/ID has met with the National Student Clearinghouse and will begin providing a separate file to the Clearinghouse to ensure records are reported. The production of this file, testing with the National Student Clearinghouse, and creation of an auditing process will be completed.	The programs and processes were implemented in production, but it was not possible to retroactively correct FY 2019 data. Therefore, the APA could not test to determine if the correction was effectively implemented and said this comment would have to be continued into FY 2020.	The corrections made to the processes and procedures will be used to create the submission for Fall Semester of FY 2020 which will occur in February of 2020.	The corrections to the programs and processes could not be used to restate or correct data previously submitted for FY 2019 semesters. So the first submission where the new processes will be actually used will be for the submission for Fall Semester of FY 2020 in February 2020.
						VSU	Corrective action is ongoing	Generate report to capture students who fail to return from a given semester or term to ensure that the enrollment status for these students are reported accurately. Review all batches uploaded to the NSLDS to ensure that batches are accepted without errors,	University was in progress of implementing the CAW.	Reports have been generated to capture students who fail to return from a given semester or term to ensure their enrollment status is reported accurately and timely. In addition, all batches uploaded to NSLDS are being reviewed to ensure they are accepted without errors. Also, internal quality control reviews are being documented to ensure timely and	Initial corrective action implemented and appears to be working effectively.

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								and/or correct errors that are reported. Each Semester, quality control reviews will be conducted in collaboration with staff from the Financial Aid Office to ensure timely and accurate reporting.		accurate reporting.	
2015	103	2015-098	Improve Compliance Over Enrollment Reporting	Student Financial Assistance Programs Cluster	-	CVCC NSU PDCCC	See Finding Number 2018-101 See Finding Number 2018-101 See Finding Number 2018-101				
2012	57	2012-046	Improve Reporting to National Student Loan Data System	Student Financial Assistance Programs	-	CVCC	See Finding Number 2014-089				
2018	123	2018-102	Properly Process Return of Title IV Calculations	Student Financial Assistance Programs Cluster	-	GMU	Resolved - Corrective action is completed				
						NSU	Corrective action is ongoing	NSU Financial Aid Office will amend its Return of Title IV Funds policy to include the following controls. Upon receipt of the 10-week and final grading reports from the Registrar's Office, notifications will be sent to students who receive all F grades. Students will be given five business days from the date of the letter and/email to respond. Once the letters/emails are sent, the Financial Aid staff will proceed with performing return of funds calculations, adjustments in aid, notification to Student Accounts and notification to students of revisions in their award. Financial Aid staff will reinstate aid upon receipt of written notification from students and professors that solidifies that the student earned the grades received by class attendance, tests and examinations and/or any assigned requirements. This process will eliminate performing return of funds calculations after receipt of notification from students and/or professors as well as during timeframes of institutional closure.	Implementation of the plan was complete. Actions are ongoing through September 30th for monitoring to ensure compliance.	The Financial Aid Office has followed the outlined process for 10-week and final grading reports from the Registrar's Office for both fall 2018 and spring 2019 semester. Copies of the 10-week and final grading reports will continue to be monitored to ensure that unofficial withdrawal are processed in compliance with federal guidelines. The Financial Aid Office will continue to monitor students who withdrawal (officially and unofficially) between data reported between the NSU's Student information System, the National Clearinghouse and NSLDS is being reported accurately.	The Return to Title IV Funds policy was amended and monitoring of the of the 10-week and final grading reports will continue to ensure compliance with federal guidelines. In addition, the Financial Aid Office sends unofficial notifications and process return of funds within 3-5 business days from receipt of the roster from the Registrar's Office. Our self-compliance evaluation process is available for review.
						ODU	Resolved - Corrective action is completed				

Fiscal Year	Page No.	Finding No.	Title of Finding	CFDA No.	Questioned Costs	State Agency	Current Status	Corrective Action and Applicable Deliverables	For Previous Findings Not Corrected or Partially Corrected		
									Reason for Recurrence	Corrective Action Taken to Date	Significant Differences Between Previously Reported Corrective Action
						UVA/AD	Resolved - Corrective action is completed				
2018	124	2018-103	Improve Notification of Awards to Students	Student Financial Assistance Programs Cluster	-	JMU	Resolved - Corrective action is completed				
						NSU	Corrective action is ongoing	Effective immediately, the Financial Aid Office has established communication management (CM) codes for all documents that are sent to students via hard copy and email to assist in the process and to store batches in a history file. The revised processes will update the student's communication log and store the date the notification was sent to the student.	Implementation of the plan was complete. Actions are on-going through September 30th for monitoring to ensure compliance.	Financial Aid's implementation of the "Process Handler" component of the Colleague Student Information System has provided for a systematic approach of sending email communications to students. The 14-day loan cancellation emails are sent to all Direct Student Loans borrowers (federal subsidized, unsubsidized, graduate PLUS and PLUS) after each loan disbursement. The Financial Aid has maintained copies of the weekly 14-day loan cancellation notification email listing for a period of one year after the audit finding. The Financial Aid Office will continue to utilize the "Process Handler" feature to ensure that 14-day cancellation notifications are email to all Direct Student Loans borrowers.	Communication management codes were established to assist in the process and storing batches in a history file. Our self-compliance evaluation process is available for review.
						UVA/AD	Resolved - Corrective action is completed				
2018	126	2018-104	Improve Reporting to the Common Origination and Disbursement System	Student Financial Assistance Programs Cluster	-	JMU	Resolved - Corrective action is completed				
						VSU	Corrective action is ongoing	Staff will no longer make adjustments directly on COD without the approval of Director or Associate Director. Improve documentation with software defects that will include a description of the issue requiring the manual update, corresponding date, and the ID of the impacted student.	University was in progress of implementing the CAW.	Staff are no longer making adjustments directly on COD without the approval of Director or Associate Director. Communications have been made to ensure sufficient documentation is maintained in the event of software defects.	Initial corrective action implemented and appears to be working effectively.
2018	127	2018-105	Promptly Return Unclaimed Aid to the Department of Education	Student Financial Assistance Programs Cluster	-	JMU	Resolved - Corrective action is completed				
2018	128	2018-106	Establish and Implement Policies and Procedures over Federal Reporting	84.419	-	DOE/COO	Resolved - Corrective action is completed				
2018	129	2018-107	Confirm that Subrecipients are not Suspended or Debarred	84.419	-	DOE/COO	Resolved - Corrective action is completed				
2016	106	2016-082	Continue to Improve IT Governance	84.126	-	DARS	Resolved - Corrective action is				

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2015	105	2015-099	Perform and Document Monthly Reconciliations of Direct Loans	Student Financial Assistance Programs Cluster	-	CVCC	Resolved - Corrective action is completed				

U. S. Department of Health and Human Services

2018	118	2018-017	Continue Improving the Accounts Receivable Collection Process ⁽³⁾	Medicaid Cluster	-	DMAS	Corrective action is ongoing	The untimely processing of accounts receivable (AR) transactions is directly associated with the use of manual processes to set up AR transactions. The volume of cases in the AR area are greater than what current staffing levels in that area are able to handle manually. The Fiscal Division has taken action to increase staffing levels in the AR Unit, and will soon be implementing a new system that will allow for automation of some components of the AR process, that will decrease the amount of time required for each AR transactions. Workflow Process Improvement: The Program Integrity (PI) Division partnered with the Information Management (IM) Division to leverage Medicaid Enterprise Systems (MES) to meet their needs with case management and analytics. PI is introducing a new system that will serve as an analytical tool to manage cases. When FADS goes live, Fiscal will partner with PI to determine system enhancements that will allow for an interface between the new system and the AR system which will further automate the member receivable process. In the meantime, Fiscal has increased staffing with temporary resources to assist with member receivables. Provider Receivables: Fiscal continues to work on improving collections for provider receivables. Fiscal added two additional resources in provider receivable in the past 12 months. Member Receivables: Fiscal added an additional resource for the	Directly associated with the use of manual processes to set up the accounts receivable transactions.	Increased staffing levels in the AR Unit. Developed a new process to compile documents and refer cases to the Office of the Attorney General -Division of Debt Collection to be in compliance with OAG's new policy.	Developing new processes to send proper documentation to OAG- Office of Debt Collection.
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Fiscal Year	Page No.	Finding No.	Title of Finding	CFDA No.	Questioned Costs	State Agency	Current Status	Corrective Action and Applicable Deliverables	For Previous Findings Not Corrected or Partially Corrected		
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								member (recipient) receivable collections and now have three resources working in this area. This area is still a very manual process until PI's system goes live. Fiscal plans to review methods that will efficiently track the receivables manually until then. Ultimately, the new system will interface with the AR system and help reduce the manual tasks.			
2017	107	2017-084	Improve the Accounts Receivable Collection Process	Medicaid Cluster	-	DMAS	See Finding Number 2018-017				
2016	103	2016-080	Continue Improving Accounts Receivable Collection Process	Medicaid Cluster	-	DMAS	See Finding Number 2017-084				
2018	118	2018-025	Improve IT Risk Management and Contingency Planning Program ⁽¹⁾	TANF Cluster	-	DSS	Corrective action is ongoing	DSS will develop a plan to document the final five data classifications, three risk assessments, and two system security plans. Further, DSS will develop a plan to test the Continuity of Operations Plan annually through a tabletop exercise and connectivity test of IT resources.	Partial repeat in 2019 APA report.	The Department of Social Services, Information Security and Risk Management Division is in the process of reviewing candidates for the unfilled Risk Manager position. The Risk Manager's job duties will include updating data classification for sensitive systems, conducting and updating risk assessments, conducting and updating system security plans, and developing corrective action plans for outstanding risks.	Completed IT contingency planning program aspect of IT risk management point.
2018	118	2018-040	Remove Access to the Claims Processing System in a Timely Manner ⁽¹⁾	Medicaid Cluster	-	DMAS	Corrective action is ongoing	OCS Access management team set up a new tracking, review, and suspend process in December 2018 to ensure timely removal of access to claims Processing System. OCS is working with HR, managers, and supervisors to have management directly notify OCS of exiting employees. HR has always notified OCS of employee terminations through the following standing operating procedures/processes: HR emails a weekly HR Infoshare - Staff Changes notification to all DMAS employees which includes OCS staff. This includes all employee terminations/separations. For immediate discharges/terminations, the HR Director or HR Benefits and	OCS was not always notified of terminations.	HR continues to do the following with regard to Conflict of Interest Training: References completion of an annual Statement of Economic Interests (SOEI) on all job postings for positions of trust States in employment offer letters that employees in positions of trust must complete a SOEI at hire and annually thereafter. States in employment offer letters that COI training must be completed and the employee's responsibilities. Sends an email to the new hire's personal email address to inform them about the required COI training and that they will have to complete the training within the first two months of employment. Sent an email on January 7, 2019 as a reminder to everyone that the COI training must be completed every two years. This will be sent annually in January. A reconciliation is performed quarterly between the VA Learning Center report of employees who have taken the COI training, and the PMIS	OCS and HR implemented an Exit clearance workflow process to off-boarding process. OCS also starting performing their own reviews.

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								Operations Manager emails directly OCS an "Advance Notice" email to alert OCS immediately that access needs to be terminated. HR's off boarding process requires manager and supervisors of exiting employees to initiate the Exit Clearance Form. All relevant divisions have to sign off on the form as applicable including OCS. HR and IM have worked together to complete the Exit Clearance Automation workflow process in K2. This process was launched on January 11, 2019. Instructions and training video were sent to all DMAS workforce members on January 11, 2019. This will automate the exit clearance process which was a manual process before. The exit notice will flow to OCS and HR. At the Management Team meeting on 14, 2019, all division their managers and supervisors were required to initiate a separating employee's exit clearance through the SharePoint application.		Database report of SOEI filers to identify any filers who have not completed their COI training. The HR Division Procedure regarding Conflict of Interest was updated in March 2019. An annual update to the Disclosure System is performed to verify that DMAS employees, associated positions and contact information is accurate.	
2017	34	2017-016	Remove Access to the Current Claims Processing System in a Timely Manner	Medicaid Cluster	-	DMAS	See Finding Number 2018-040				
2018	118	2018-042	Remove Separated Employees' Access to Critical Systems in a Timely Manner ⁽¹⁾	TANF Cluster	-	DSS	Corrective action is ongoing	DSS will revise the Separation and Transfer Checklist to add blank rows under the system name list for division specific access removal and non-SAMS systems. DSS will reinforce through security awareness training the Personnel Transaction Form and Separation Checklist procedures for Division Security Officer in a timely manner. DSS OD will send quarterly reminders to supervisors to complete the PTF, Separation Checklists, and transfer forms.	Full repeat in 2019 APA report.	Virginia Department of Social Services (DSS), Department of Organizational Development (OD) and Department of Information Security and Risk Management (ISRM) concur with the above management point. ISRM has met with Organizational Development to develop a process to notify ISRM when an employee's employment status is changing (i.e., termination or transfer). This will help ISRM ensure that access is removed when an employee leaves DSS or moves to a position that no longer requires a given system access. ISRM will use exception reports in SAMS (e.g., LDAP to Personnel Data Mismatch, Possible Employee Transfer) to identify users that may have separated or transferred, and will remove the users' systems access. ISRM has updated the documented standard operating procedure (SOP) for terminating systems access. The SOP now identifies the system access that is not managed in SAMS (e.g., EPPIC ECC) and the corresponding State employee user groups (e.g., the Division of Child Care & Early Childhood Development, Young Williams). This will	No significant differences.

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										help ISRM ensure access is removed for EPPIC ECC when a user separates from DSS. ISRM will perform annual access reviews for EPPIC ECC to ensure that a) user accounts belong to current DSS employees with a valid business need for access; and b) a user has only the least amount of access required to perform assigned job functions. Further, Organizational Development will update the separation and transfer checklist to include Cardinal access removal, as well as any other systems not controlled by the central authentication system.	
2018	118	2018-054	Develop Records Retention Requirements and Processes for Case Management System Electronic Records ⁽¹⁾	TANF Cluster	-	DSS	Corrective action is ongoing	Change Request (CR435) developed for the records retention requirements. Design will begin by the 2nd Quarter 2019, An incremental methodology by Program AREA will be utilized for the development and implementation. The first program area will be completed by December 2019. (As of 2019, VACMS has not reached the 10 year requirement for the MA program).	Repeat in 2019 APA report.	The Virginia Department of Social Services, Division of Enterprise Systems has Change Request CR435: Records Purge and Retention tentatively on the schedule for November 2020 release and deployment. The business cites tentative due to IT leadership changes and the fact that agency priorities may cause adjustment to any and all scheduled changes.	No significant differences.
2018	118	2018-058	Continue Improving Database Security ⁽¹⁾	TANF Cluster	-	DSS	Corrective action is ongoing	DSS Information Security and Risk Management will develop a plan to implement audit, logging, and monitoring security controls over databases in accordance with SEC501 requirements.	Repeat in 2019 APA report.	The Virginia Department of Social Services, Department of Information Systems and Department of Information Security and Risk Management are dedicating resources to implementing audit logging and monitoring over the databases.	No significant differences.
2018	118	2018-081	Ensure Employees Complete Required Conflict of Interest Training ⁽¹⁾	Medicaid Cluster	-	DMAS	Corrective action is ongoing	The Human Resources Division (HR) includes a reference to completion of an annual Statement of Economic Interests (SOEI) on all job postings for positions of trust. HR has also added a reference on the job posting about the required Conflict of Interest Act (COI) Training. In addition, employment offer letters state that employees in positions of trust must complete a SOEI at hire and annually thereafter. HR has also added information in employment offer letters about the COI training requirement and their responsibilities. Before new hires who will hold positions of	The reason that this is ongoing is that each required filer has a different anniversary date of when to complete the training and it a manual process to track and enforce that the employees take the training every 2 years. The Agency Director granted permission for HR to require that all SOEI filers complete the COI training in January 2020 and annually thereafter. HR initially planned to send an email to the filers when the Ethics Counsel sends notification to complete the SOEI. However, the Ethics Counsel has not posted the	HR continues to do the following with regard to Conflict of Interest Training: 1. References completion of an annual Statement of Economic Interests (SOEI) on all job postings for positions of trust 2. States in employment offer letters that employees in positions of trust must complete a SOEI at hire and annually thereafter 3. States in employment offer letters that COI training must be completed and the employee's responsibilities 4. Sends an email to the new hire's personal email address to inform them about the required COI training and that they will have to complete the training within the first two months of employment 5. Sent an email on January 7, 2019 as a reminder to everyone that the COI	No differences.

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								trust start employment, HR sends an email to their personal email addresses (since there is no COV account yet) to inform them that they have to complete the SOEI on or before the date of employment. HR includes information in the email about the required COI training and that they will have to complete the training within the first two months of employment. HR will follow-up on all new employees designated in positions of trust to ensure they complete the required COI training within two months of hire to ensure that they complete the training. HR has continued to work with the Ethics Council Coordinator regarding issues with the database and managing DMAS' information on positions of trust. HR also works with the Ethics Council Coordinator to answer questions that DMAS filers may have when they are completing a SOEI. In December 2018, HR performed the annual update to the Disclosure System and verified that the DMAS employees, associated positions, and contact information was correct in the system. On January 7, 2019, HR emailed all filers with notice that they are responsible for taking the COI training every two years.	2020 training HR will notify all SOEI filers to complete the training when the 2020 training is available. The annual requirement in January will make it easier to ensure all SOEI filers complete the required training.	training must be completed every two years. This will be sent annually in January. 6. A reconciliation is performed quarterly between the VA Learning	
2018	118	2018-087	Improve Controls over Income Verification for the Temporary Assistance for Needy Family Program ⁽¹⁾	TANF Cluster	-	DSS	Corrective action is ongoing	The Division of Benefit Programs currently has an active change request with the Division of Enterprise Systems to automate the IEVS process. The process is identified as mandatory in the policy manual, therefore there is no need to update the guidance. Additional monitoring of agency processes will be put in place until the change request implementing automation is put in place.	Corrective Action is ongoing.	The change request for this process to be automated is scheduled for August 2020.	No significant difference.
2018	118	2018-088	Update the Work Verification Plan for the Temporary Assistance for Needy Family Program ⁽¹⁾	TANF Cluster	-	DSS	Corrective action is ongoing	The Work Verification Plan has been updated and will soon be submitted to ACF for approval.	Corrective Action is ongoing.	The Work Verification Plan has been updated and will soon be submitted to ACF for approval.	No significant differences.

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2018	118	2018-089	Improve Controls over Federal Performance Reporting ⁽¹⁾	TANF Cluster	-	DSS	Corrective action is ongoing	Findings meeting with Business Areas scheduled for January 24, 2019. Determine if VaCMS Change Request or Defect Tickets need to be developed. Based on the findings defects will be schedule in a 2019 VaCMS release. If Change Request (CR)required, documentation for CR will be developed and the CR will be scheduled for a 2019 release.	Corrective action is ongoing.	Changes were needed for the TANF Federal Report thru CR 483 which was implemented in the July 2019 VaCMS Release.	No significant difference.
2018	118	2018-090	Obtain Federal Authorization before Deviating from Cash Management Requirements ⁽¹⁾	TANF Cluster	-	DSS	Resolved - Corrective action is completed				
2018	118	2018-092	Improve Process and Controls over Subrecipient Monitoring ⁽¹⁾	10.561, 93.558, 93.568, 93.778	-	DSS	Corrective action is ongoing	Organizational Development staff working with Deputy Commissioner to review, revise, create Department's new approach to subrecipient monitoring.	Corrective Action is ongoing.	DSS has hired a Subrecipient Monitoring Specialist who will monitor these Subrecipients.	No significant differences.
2018	118	2018-093	Ensure that Subrecipient Reviews Adhere to Monitoring Plan ⁽¹⁾	10.561, 93.558, 93.568, 93.778	-	DSS	Corrective action is ongoing	Will be included in new Subrecipient monitoring plan.	Corrective Action is ongoing.	Finding 2017-032 was marked as FOIAE under §2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security controls. Corrective action updates will be provided to the Auditor of Public Accounts under separate cover.	No significant differences.
2017	33	2017-015	Develop Processes to Facilitate the Controlling of Privileges in the Claims Processing System	Medicaid Cluster	-	DMAS	Resolved - Corrective action is completed				
2017	35	2017-017	Ensure Employees have Proper Access Roles within the Commonwealth's Procurement System	Medicaid Cluster	-	DMAS	Resolved - Corrective action is completed				
2017	66	2017-046	Review and Document Service Organization Control Reports of Third-Party Service Providers	Medicaid Cluster	-	DMAS	Resolved - Corrective action is completed				
2016	62	2016-043	Review and Document Service Organization Control Reports of Third-Party Service Providers	Medicaid Cluster	-	DMAS	See Finding Number 2017-046				
2017	70	2017-050	Continue Improving Oversight of Third-Party Service Providers	Medicaid Cluster	-	DSS	Resolved - Corrective action is completed				
2016	63	2016-044	Improve Oversight of Third Party Service Providers	Medicaid Cluster	-	DSS	See Finding Number 2017-050				

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2017	85	2017-064	Improve Policies, Procedures, and Plans for Backup and Restoration	Medicaid Cluster	-	DSS	Resolved - Corrective action is completed					
2016	76	2016-055	Improve Policies, Procedures, and Plans for Backup and Restoration	Medicaid Cluster	-	DSS	See Finding Number 2017-064					
2017	118	2017-092	Develop Procedures and Performance Expectations for Resolving Social Security Number Discrepancies	Medicaid Cluster	-	DMAS	Resolved - Corrective action is completed					
U. S. Department of Homeland Security												
2018	130	2018-108	Continue to Strengthen Internal Controls over Time and Effort Reporting for Federal Grants	97.042, 97.067	-	DEM	Corrective action is ongoing	Continue strengthening its internal controls over time and effort reporting for federal grants.	A process was in place to complete the reporting through a self certification and approved by the federal awarding agency. However, during the single audit APA cited that a system of internal control which provided reasonable assurance that the charges are accurate, allowable and properly allocated was needed.	Cardinal project codes have been added to TAL for each federal grant and are allocated by the staff that is working on the grant program; CIPPS project codes have been modified to match the cardinal project code to ensure a reconciliation between TAL and CIPPS can be completed and then reconciled to Cardinal.	TAL has been added to the reconciliation process for time and effort reporting.	
2016	118	2016-091	Strengthen Internal Controls over Time and Effort Reporting for Federal Grants	97.036	-	DEM	See Finding Number 2018-108					
2018	131	2018-109	Strengthen Internal Controls over Journal Entries	11.549, 20.703, 97.042, 97.067	\$251,648 (11.549-\$150,203, 97.042-\$3,189, 97.045-\$18,472, 97.029-\$9,265, 97.039-\$9,265)	DEM	Corrective action is ongoing	Strengthen internal controls over JE. And ensure the supporting documentation is valid.	During the subsequent review by APA there were three JEs in the test work that still needed clarification. Due to this, APA recommends that where the implementation steps are valid the process is still new and the finding will remain on-going.	DEM has implemented the checklist along with a through review process.	SOP's and process flow charts have been updated and staff trained on the new process that includes a checklist and review process.	
2018	132	2018-110	Improve Controls over Payroll Adjustments	97.039, 97.042, 97.067	\$464,392 (97.039-\$147,140, 97.042-\$21,142, 97.067-\$278,646, 97.029-\$14,910, 97.036-\$2,554)	DEM	Corrective action is ongoing	Improve controls over payroll adjustment in Cardinal; DEM nor APA were not aware that there is no audit trail within cardinal when changing the speed chart during the CIPPS conversion to Cardinal.	During APA's follow up the process was still ongoing and not enough time had lapsed to perform adequate testing.	Speed types in Cardinal have been reconciled to CIPPS to ensure that coding corresponds between CIPPS and Cardinal. If a speed type is changed there is an audit trail on the reason and correction in the payroll certification file.	If a speed is incorrect and needs to be corrected during payroll certification, supporting documentation for the correction is added to the payroll certification.	
2018	134	2018-111	Strengthen Internal Controls over Procurement to Ensure that Procurement Records are Complete	97.042, 97.067	-	DEM	Resolved - Corrective action is completed					
2018	135	2018-112	Improve Process for Allocating Overhead Costs	97.042, 97.067	-	DEM	Resolved - Corrective action is completed					

Fiscal Year	Page No.	Finding No.	Title of Finding	CFDA No.	Questioned Costs	State Agency	Current Status	Corrective Action and Applicable Deliverables	For Previous Findings Not Corrected or Partially Corrected		
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U. S. Department of Justice

2017	119	2017-093	Complete Risk Assessments for Subrecipients	16.575	-	DCJS	Resolved - Corrective action is completed				
2017	120	2017-094	Improve Internal Controls over Financial Reporting	16.575	-	DCJS	Corrective action is ongoing	DCJS has developed a review process to ensure that similar errors will not occur in the future. The quarterly federal financial reports submitted to the Department of Justice will be reviewed for accuracy and initialed by the preparer. The Manager of Grants Administration will then review and initial the reports. The Division Director of Finance and Administration will ensure compliance with this new process which will be immediately implemented.	DCJS based the match on literal interpretation of instructions given by OJP that said, ""Enter the total required recipient share for reporting period specified in line 9. The required recipient share should include all matching and cost sharing provided by recipients and third-party providers to meet the level required by the Federal agency. This amount should not include cost sharing and match amounts in excess of the amount required by the Federal agency (for example, cost overruns for which sharing or match than the level required by the Federal agency)."" DCJS reported the match for the period (QTR), but APA said it needed to be the (YTD) period. DCJS agree and will be reporting the YTD match up to the required amount based on the instructions above. DCJS did not initial reports.	Matched based on YTD expenditures for final FFY2016 Report.	Match based on YTD expenditures and not period (QTR) expenditures. Will initial reports.

(1) This Finding is also in the "Financial Statement Findings" Section of the "Summary Schedule of Prior Year Audit Findings."

COMMONWEALTH OF VIRGINIA
Schedule of Expenditures of Federal Awards
For the Fiscal Year Ended June 30, 2019

Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
U.S. DEPARTMENT OF AGRICULTURE						
Agricultural Research_Basic and Applied Research	10.001		2,905			1,579,634
Plant and Animal Disease, Pest Control, and Animal Care	10.025		1,244,318			1,745,129
Direct and Counter-cyclical Payments Program	10.055		1,270,033			1,270,033
Biofuel Infrastructure Partnership	10.117		2,267,746		2,267,746	2,267,746
Market Protection and Promotion	10.163		30,266			30,266
		301-16-017/301-18-111/301-17-034/301-18-				
		026/301-18-029/301-19-035				
Specialty Crop Block Grant Program - Farm Bill	10.170		90,824		81,243	522,547
Organic Certification Cost Share Programs	10.171		29,890			29,890
Local Food Promotion Program	10.172		46,659			48,193
Pass-Through From Virginia Aqua-Farmers Network						
Limited Liability Corporation	10.172			1,534		48,193
Trade Mitigation Program Eligible Recipient Agency						
Operational Funds	10.178		145,295			145,295
Grants for Agricultural Research, Special Research Grants	10.200	542209-19C15	194,908		6,041	1,525,864
Pass-Through From Auburn University	10.200			378,149		1,525,864
Pass-Through From Mississippi State University	10.200			35,575		1,525,864
Pass-Through From Southern Regional Aquaculture						
Center	10.200			2,887		1,525,864
Pass-Through From University of Florida	10.200			467		1,525,864
Pass-Through From University of Washington	10.200	542209-19C15		14,341		1,525,864
Sustainable Agriculture Research and Education	10.215					
Pass-Through From North Carolina State University	10.215			9,770		208,474
Pass-Through From Southern SARE	10.215			7,388		208,474
Pass-Through From University of Georgia	10.215			46,520		208,474
1890 Institution Capacity Building Grants	10.216		828,005		25,324	832,356
Higher Education - Institution Challenge Grants Program	10.217		53,872			53,872
Higher Education - Multicultural Scholars Grant Program	10.220		6,500			6,500
Community Food Projects	10.225		60,897			60,897
Agricultural and Rural Economic Research, Cooperative						
Agreements and Collaborations	10.250		188,183			313,827
Homeland Security_Agricultural	10.304					
Pass-Through From University of Florida	10.304			28,586		28,586
Agriculture and Food Research Initiative (AFRI)	10.310		163,942		56,321	6,252,006
Pass-Through From North Carolina State University	10.310			19,492		6,252,006
Pass-Through From University of Maine	10.310			78,333		6,252,006
Pass-Through From University of Tennessee	10.310			29,442		6,252,006
Beginning Farmer and Rancher Development Program	10.311		413,284		91,999	420,365
Pass-Through From Penn State University	10.311			1,848		420,365
Pass-Through From University of California, Santa Cruz	10.311			747		420,365
National Food Safety Training, Education, Extension,						
Outreach, and Technical Assistance Competitive Grants	10.328		193,406		72,055	260,550
Program						
Pass-Through From University of Florida	10.328			40,058		260,550
Pass-Through From University of Tennessee	10.328			27,086		260,550
Crop Protection and Pest Management Competitive						
Grants Program	10.329		178,101			254,894
Food Insecurity Nutrition Incentive Grants Program	10.331		32,806			37,553
Pass-Through From Local Environmental Agriculture						
Project Incorporated	10.331			4,747		37,553
Rural Community Development Initiative	10.446		18,522			18,522
Cooperative Agreements with States for Intrastate Meat						
and Poultry Inspection	10.475		2,137,064			2,137,064
Food Safety Cooperative Agreements	10.479		375,622			375,622
Cooperative Extension Service	10.500		8,865,917		114,446	12,156,862
Cooperative Extension Service	10.500	545073-19106	4,141		4,141	12,156,862
Pass-Through From Cornell University	10.500			8,934		12,156,862
Pass-Through From Kansas State University	10.500			32,907		12,156,862
Pass-Through From The Ohio State University	10.500			43,827		12,156,862
Pass-Through From University of Arkansas Cooperative						
Extension Service	10.500			57,690		12,156,862
Pass-Through From University of Georgia	10.500			5,371		12,156,862
Pass-Through From University of Idaho	10.500			12,423		12,156,862
Pass-Through From University of Minnesota	10.500			8,976		12,156,862
Expanded Food and Nutrition Education Program	10.514		4,567			4,567
CACFP Training Grants	10.536		19,216			19,216
Food Donation	10.550					
Pass-Through From Virginia Local Governments	10.550			16,465		16,465
Special Supplemental Nutrition Program for Women,						
Infants, and Children	10.557		76,641,355		4,168,815	76,641,355
Child and Adult Care Food Program	10.558		53,199,152		52,022,755	53,199,152
State Administrative Expenses for Child Nutrition	10.560		4,574,572		39,029	4,608,706
WIC Farmers' Market Nutrition Program (FMNP)	10.572		35,138		14,445	35,138
Team Nutrition Grants	10.574		195,693			195,693
Farm to School Grant Program	10.575		140,942			140,942

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Senior Farmers Market Nutrition Program	10.576		395,729		350,181	395,729
WIC Grants To States (WGS)	10.578		878,336			878,336
Child Nutrition Discretionary Grants Limited Availability	10.579		514,711		473,376	514,711
Fresh Fruit and Vegetable Program	10.582		3,790,447		3,790,447	3,790,447
Healthy, Hunger-Free Kids Act of 2010 Childhood Hunger Research and Demonstration Projects	10.592		779,646		506,015	779,646
Pilot Projects to Reduce Dependency and Increase Work Requirements and Work Effort under SNAP	10.596		3,596,350		228,713	3,596,350
Scientific Cooperation Exchange Program with China	10.614		11,753			11,753
Cooperative Forestry Assistance	10.664		2,807,074		597,269	3,205,962
Wood Utilization Assistance	10.674		38,129			379,496
Urban and Community Forestry Program	10.675		24,202			24,374
Pass-Through From University of Minnesota	10.675			172		24,374
Forest Legacy Program	10.676		1,339,696		41,224	1,339,696
Forest Stewardship Program	10.678		99,364		2,800	107,491
Pass-Through From National Fish & Wildlife Foundation	10.678			8,127		107,491
Forest Health Protection	10.680		1,034,254			1,660,371
National Fish and Wildlife Foundation	10.683		18,983		9,740	18,983
International Forestry Programs	10.684		191,193			191,193
Good Neighbor Authority	10.691		42,885			42,885
State & Private Forestry Hazardous Fuel Reduction Program	10.697		119,582			119,582
Cooperative Fire Protection Agreement	10.703		80,036			80,036
Technical Assistance and Training Grants	10.761		6,112			6,112
Rural Energy for America Program	10.868		17,440			17,440
Soil and Water Conservation	10.902		75,870		8,675	85,487
Pass-Through From National Fish & Wildlife Foundation	10.902			2,143		85,487
Environmental Quality Incentives Program	10.912		502,916			918,413
Pass-Through From Cornell University	10.912			82,017		918,413
Pass-Through From Sustainable Chesapeake	10.912			28,060		918,413
Pass-Through From Whatcom Conservation District	10.912			36,671		918,413
Regional Conservation Partnership Program	10.932		18,087			22,531
Technical Agricultural Assistance	10.960		26,501			64,662
Cochran Fellowship Program-International Training- Foreign Participant	10.962		224			224
Other Assistance	10.U01	15-CS-11330145-112	10,491			17,496
Other Assistance	10.U02	Agricultural Statistics Service	592			17,496
Other Assistance	10.U03	Food Distribution Salvage	6,413			17,496
Total Excluding Clusters Identified Below			170,080,757	1,070,753	64,972,800	
Child Nutrition Cluster:						
School Breakfast Program	10.553		98,244,980		97,350,011	98,244,980
National School Lunch Program	10.555		293,251,268		291,670,539	293,251,268
Special Milk Program for Children	10.556		89,843		89,843	89,843
Summer Food Service Program for Children	10.559		11,252,065		10,885,017	11,252,065
Total Child Nutrition Cluster			402,838,156	0	399,995,410	402,838,156
Food Distribution Cluster:						
Commodity Supplemental Food Program	10.565		3,583,171		2,841,959	3,583,171
Emergency Food Assistance Program (Administrative Costs)	10.568		2,414,892			2,414,892
Emergency Food Assistance Program (Food Commodities)	10.569		23,521,910		23,471,276	23,521,910
Total Food Distribution Cluster			29,519,973	0	26,313,235	29,519,973
Forest Service Schools and Roads Cluster:						
Schools and Roads - Grants to States	10.665		1,341,745		1,341,745	1,341,745
Total Forest Service Schools and Roads Cluster			1,341,745	0	1,341,745	1,341,745
SNAP Cluster:						
Supplemental Nutrition Assistance Program	10.551		1,012,909,235			1,012,909,235
State Administrative Matching Grants for the Supplemental Nutrition Assistance Program	10.561		122,914,123		95,026,297	122,914,123
Total SNAP Cluster			1,135,823,358	0	95,026,297	1,135,823,358
Research and Development:						
Agricultural Research_Basic and Applied Research	10.001		1,573,543			1,579,634
Pass-Through From CRDF Global	10.001			3,186		1,579,634
Plant and Animal Disease, Pest Control, and Animal Care	10.025		500,811		91,082	1,745,129
Wildlife Services	10.028		57,857		3,196	57,857
Federal-State Marketing Improvement Program	10.156					
Pass-Through From Purdue University	10.156			3,740		12,696
Pass-Through From University of Minnesota	10.156			8,956		12,696
Specialty Crop Block Grant Program - Farm Bill	10.170	301-16-015/301-18-025	333,041		58,744	522,547
Pass-Through From Cornell University	10.170			82,408		522,547
Pass-Through From Institute for Advanced Learning & Research	10.170			16,274		522,547

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Grants for Agricultural Research, Special Research Grants	10.200		789,390		40,793	1,525,864
Grants for Agricultural Research, Special Research Grants	10.200	418212-19C15	10,112		10,112	1,525,864
Grants for Agricultural Research, Special Research Grants	10.200	418592-19C15	9,000		9,000	1,525,864
Pass-Through From Cornell University	10.200			24,117		1,525,864
Pass-Through From Mississippi State University	10.200	418212-19C15 / 418592-19C15		40,073		1,525,864
Pass-Through From University of Florida	10.200			8,000		1,525,864
Pass-Through From University of Maine	10.200			18,845		1,525,864
Cooperative Forestry Research	10.202		928,419			928,419
Payments to Agricultural Experiment Stations Under the Hatch Act	10.203		4,501,793			4,501,793
Payments to 1890 Land-Grant Colleges and Tuskegee University	10.205		4,304,047			4,304,047
Animal Health and Disease Research	10.207		30,791			30,791
Sustainable Agriculture Research and Education	10.215		3,570			208,474
Pass-Through From Southern SARE	10.215			621		208,474
Pass-Through From University of Georgia	10.215			131,550		208,474
Pass-Through From University of Rhode Island	10.215			9,055		208,474
1890 Institution Capacity Building Grants	10.216					832,356
Pass-Through From Tuskegee University	10.216			4,351		832,356
Biotechnology Risk Assessment Research	10.219					85,653
Pass-Through From Purdue University	10.219			79,289		85,653
Pass-Through From The Research Foundation of State University of New York	10.219			6,364		85,653
Secondary and Two-Year Postsecondary Agriculture Education Challenge Grants	10.226		10,105			10,105
1994 Institutions Research Program	10.227					51,420
Pass-Through From University of Rhode Island	10.227	28598-Z5659005/0004939/062118		51,420		51,420
Agricultural and Rural Economic Research, Cooperative Agreements and Collaborations	10.250		118,931			313,827
Pass-Through From The Ohio State University	10.250			6,713		313,827
Consumer Data and Nutrition Research	10.253		35,197			42,812
Pass-Through From University of Kentucky	10.253			7,615		42,812
Agricultural Market and Economic Research	10.290		88,076			88,076
Integrated Programs	10.303		258,555		70,940	258,555
Specialty Crop Research Initiative	10.309		242,873		20,645	573,469
Pass-Through From Clemson University	10.309	417518-19837		249,192	13,234	573,469
Pass-Through From North Carolina State University	10.309			64,092		573,469
Pass-Through From Texas A&M University	10.309			17,312		573,469
Agriculture and Food Research Initiative (AFRI)	10.310		5,379,749		819,535	6,252,006
Pass-Through From Iowa State University	10.310			33,167		6,252,006
Pass-Through From Mississippi State University	10.310			255		6,252,006
Pass-Through From North Carolina State University	10.310	2016-67013-24469		17,582		6,252,006
Pass-Through From Ohio State University	10.310	2016-67019-25177		10,241		6,252,006
Pass-Through From Penn State University	10.310			2,252		6,252,006
Pass-Through From University of California, Davis	10.310			155,776		6,252,006
Pass-Through From University of Delaware	10.310			1,500		6,252,006
Pass-Through From University of Georgia	10.310			76,954		6,252,006
Pass-Through From University of Georgia Research Foundation Incorporated	10.310			61,793		6,252,006
Pass-Through From University of Kentucky Research Foundation	10.310			15,662		6,252,006
Pass-Through From University of Maryland	10.310			27,745		6,252,006
Pass-Through From University of Massachusetts	10.310					6,252,006
Medical Center	10.310			12,445		6,252,006
Pass-Through From University of Montana	10.310			101,016		6,252,006
Pass-Through From University of Nebraska	10.310			15,260		6,252,006
Pass-Through From University of Washington	10.310	2017-67015-26956/UWSC9982		42,463		6,252,006
Pass-Through From University of Tennessee	10.310			2,500		6,252,006
Pass-Through From West Virginia University	10.310			4,437		6,252,006
Beginning Farmer and Rancher Development Program	10.311					420,365
Pass-Through From University of Florida	10.311			4,486		420,365
Biomass Research and Development Initiative	10.312					262,701
Competitive Grants Program (BRDI)	10.312		40,434		16,928	262,701
Pass-Through From North Carolina Biotechnology Center	10.312			222,267		262,701
Women and Minorities in Science, Technology, Engineering, and Mathematics Fields	10.318		32,842			32,842
Sun Grant Program	10.320					64,148
Pass-Through From University of Tennessee	10.320	417962-19121		64,148	22,788	64,148
Crop Protection and Pest Management Competitive Grants Program	10.329					254,894
Pass-Through From North Carolina State University	10.329			54,438		254,894
Pass-Through From Rutgers, The State University of New Jersey	10.329			7,248		254,894
Pass-Through From University of Maryland	10.329			15,107		254,894

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers	10.443		210,927			210,927
Risk Management Education Partnerships	10.460		19,313			19,313
Cooperative Extension Service	10.500		3,053,656			12,156,862
Pass-Through From Kansas State University	10.500			16,259		12,156,862
Pass-Through From North Carolina State University	10.500			46,761		12,156,862
State Administrative Expenses for Child Nutrition	10.560		34,134			4,608,706
Foreign Market Development Cooperator Program	10.600		45,512			45,512
Forestry Research	10.652		477,137			478,223
Pass-Through From United States Endowment For Forestry & Communities	10.652			1,086		478,223
Cooperative Forestry Assistance	10.664		346,096			3,205,962
Pass-Through From Georgia Forestry Commission	10.664			52,792		3,205,962
Wood Utilization Assistance	10.674		334,472			379,496
Pass-Through From United States Endowment For Forestry & Communities	10.674			6,895		379,496
Forest Health Protection	10.680		626,117			1,660,371
Partnership Agreements	10.699		92,649			92,649
Soil and Water Conservation	10.902		1,699			85,487
Pass-Through From University of Rhode Island	10.902			5,775		85,487
Environmental Quality Incentives Program	10.912		209,229		15,400	918,413
Pass-Through From Pheasants Forever Incorporated	10.912	418141-19A65A		59,520		918,413
Regional Conservation Partnership Program	10.932		4,444			22,531
Agricultural Statistics Reports	10.950		282,290			282,290
Technical Agricultural Assistance	10.960		38,161		34,160	64,662
Other Assistance	10.RD	13-JV-11330145-045	734			344,927
Other Assistance	10.RD	14-JV-11330145-058	15,251			344,927
Other Assistance	10.RD	14-JV-11330145-108	23,716			344,927
Other Assistance	10.RD	15-CS-11330140-124	15,900			344,927
Other Assistance	10.RD	16-CS-11330140-100	23,198			344,927
Other Assistance	10.RD	16-CS-11330140-101	32,288			344,927
Other Assistance	10.RD	16-JV-11221639-184	43,501		3,781	344,927
Other Assistance	10.RD	16-JV-11330140-095	11,414			344,927
Other Assistance	10.RD	16-JV-11330145-074	115,630			344,927
Other Assistance	10.RD	18-CR-11272152-061	4,785			344,927
Other Assistance	10.RD	18-JV-11330145-046	1,023			344,927
Other Assistance	10.RD	AG-3A94-P-17-0094	7,628			344,927
Other Assistance	10.RD	AT-51245	1,800			344,927
Other Assistance	10.RD	Contract #W911W61720001	9,837			344,927
Pass-Through From Center for Produce Safety	10.RD	2019CPS12		38,222		344,927
Total Research and Development			25,331,677	2,009,225	1,230,338	
Total U.S. DEPARTMENT OF AGRICULTURE			1,764,935,666	3,079,978	588,879,825	
U.S. DEPARTMENT OF COMMERCE						
Band 14 Incumbent Spectrum Relocation	11.014		686,857			686,857
Cluster Grants	11.020		184,873			184,873
Economic Development_Technical Assistance	11.303		102,203		15,000	102,203
Interjurisdictional Fisheries Act of 1986	11.407		173,837			173,837
Sea Grant Support	11.417	NA18OAR4170083	1,445,940		55,428	3,194,629
Coastal Zone Management Administration Awards	11.419		2,618,216		619,288	3,013,075
Coastal Zone Management Estuarine Research Reserves	11.420		319,133			651,687
National Oceanic and Atmospheric Administration (NOAA)						
Cooperative Institutes	11.432					
Pass-Through From Mississippi State University	11.432			8,455		185,079
Cooperative Fishery Statistics	11.434		362,302			362,302
Unallied Management Projects	11.454		575,955			2,398,924
Chesapeake Bay Studies	11.457		58,189		18,747	386,614
Pass-Through From Virginia Resource-Use Educational Council	11.457			2,000		386,614
Unallied Science Program	11.472		391,733			556,644
Atlantic Coastal Fisheries Cooperative Management Act	11.474		220,938			220,938
State and Local Implementation Grant Program	11.549		160,958			160,958
Manufacturing Extension Partnership	11.611		3,709,058			3,765,258
Pass-Through From National Institute of Standards and Technology	11.611			56,200		3,765,258
Arrangements for Interdisciplinary Research Infrastructure	11.619		18,892		11,574	566,004
Science, Technology, Business and/or Education Outreach	11.620		13,784			68,032
Support for Annual Conference on Atmospheric Transport and Dispersion (AT&D) Modeling 2018-						
Other Assistance	11.U01	204628	2,495			157,307
Pass-Through From Global Science and Technology, Incorporated	11.U02	Brightness Temperature(01B-18B) and Gridded (01B-18a) and Mean Layer Temperature-DG133E-10-CQ-0034-203914-204538;1056132		38,813		157,307

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		AMSU-A Climate Data Record (CDR) Products Support-ST133017CQ0058-				
Pass-Through From Riverside Technology, Incorporated	11.U03	204778;1332KP19FNEEN003		12,369		157,307
Pass-Through From Southwest Virginia Community College	11.U04	SVCC-Blevins-CyberWorkforce		103,630		157,307
Total Excluding Clusters Identified Below			11,045,363	221,467	720,037	
Economic Development Cluster:						
Economic Adjustment Assistance	11.307		18,410,543			18,410,543
Total Economic Development Cluster			18,410,543	0	0	18,410,543
Research and Development:						
NOAA Mission-Related Education Awards	11.008					
Pass-Through From Science Museum of Virginia Foundation	11.008			126,167		126,167
Integrated Ocean Observing System (IOOS)	11.012					
Pass-Through From Rutgers University	11.012	NA16NOS0120020/0646/NA16NOS120020/5940		153,407		211,713
Pass-Through From Southeastern University Research Association	11.012	NA13NOS0120136 / 2013-002		58,306	4,318	211,713
Education Quality Award Ambassadorship	11.013		40,828			40,828
Broad Agency Announcement	11.015		97,291			175,201
Pass-Through From US Microwave Laboratories	11.015			77,910		175,201
Ocean Acidification Program (OAP)	11.017		79,703		44,773	79,703
Geodetic Surveys and Services (Geodesy and Applications of the National Geodetic Reference System)	11.400		9,338			9,338
Sea Grant Support	11.417	NA14OAR4170093	1,560,337		78,886	3,194,629
Pass-Through From Texas Agricultural and Mechanical University	11.417	NA16OAR4170181 / 18-04 548001-1000		64,625		3,194,629
Pass-Through From University of Maryland Center for Environment	11.417	NA14OAR4170090 / SA75281680-A C/ODR-1A		75		3,194,629
Pass-Through From University of Mississippi	11.417	18-08-009		9,430		3,194,629
Pass-Through From University of Southern Mississippi	11.417			113,429		3,194,629
Pass-Through From University of Washington	11.417	NA14OAR4170078 18 / UWSC9595		793		3,194,629
Coastal Zone Management Administration Awards	11.419		358,721		129,210	3,013,075
Coastal Zone Management Administration Awards	11.419	NA18NOS4190152-TASK 92.01	2,000		2,000	3,013,075
Pass-Through From Middle Peninsula Planning District	11.419	NA18NOS4190152 / TASK 92.03		7,031		3,013,075
Pass-Through From University of Michigan	11.419	NA14NOS419014Z/30003967309/NA14NOS419014		27,107		3,013,075
Coastal Zone Management Estuarine Research Reserves	11.420		293,071			651,687
Pass-Through From Narragansett Bay Natural Estuarine Research Reserve	11.420	3563877		39,483		651,687
Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	11.427		656,474		9,245	735,771
Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program	11.427	NA16NMF4270243	72,892		72,892	735,771
Pass-Through From Johns Hopkins University	11.427			4,422		735,771
Pass-Through From Rutgers University	11.427	NA17NMF4270210 / 0283		1,956		735,771
Pass-Through From University of Maryland Center for Environment	11.427	NA15NMF4270296 / SA07-5-29092		27		735,771
Climate and Atmospheric Research	11.431		760,468			799,808
Pass-Through From Clark University	11.431	NA16OAR4310153 / 2W003-7531		17,915		799,808
Pass-Through From Gulf of Maine Research Institute	11.431	NA15OAR4310120 / 10-COCA-15 VIMS		1,421		799,808
Pass-Through From Pennsylvania State University	11.431	NA18OAR4310302 / 5900-VIMS-NOAA-0302		20,004		799,808
National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	11.432					
Pass-Through From State Of Maryland	11.432			135,634		185,079
Pass-Through From University of Miami	11.432	NA15OAR4320064 / S1616		24,648		185,079
Pass-Through From University of Michigan	11.432	NA12OR4320071 / 3003712407		16,342		185,079
Marine Fisheries Initiative	11.433	NA15NMF4330153	246,195		108,822	246,195
Environmental Sciences, Applications, Data, and Education	11.440		9,800			9,800
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology	11.451					
Pass-Through From Troy University	11.451	NA17NOS4510100		183,063		209,158
Pass-Through From University Of Florida	11.451			26,095		209,158
Unallied Management Projects	11.454	NA16NMF4540043/NA14NMF4740362/014-1201/NA17NMF4540044	699,849		672,877	2,398,924
Pass-Through From Atlantic States Marine Fisheries Commission	11.454	NA14NMF47403262 / 014-1201		1,096,911		2,398,924
Pass-Through From University of Delaware	11.454	NA17NMF4540038 / 46086		26,209		2,398,924
Chesapeake Bay Studies	11.457	NA17NMF4570156	324,397		44,380	386,614
Pass-Through From Chesapeake Research Consortium	11.457	NA18NMF4570323 / NRCS18-				
Meteorologic and Hydrologic Modernization Development	11.467	VIMTC/NA15NMF4570252/NRCS-05		2,028		386,614
			72,909			80,498

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Pass-Through From Oregon Department of Geology and Mineral	11.467	NA18NWS4670076 / 632171932		7,589		80,498
Applied Meteorological Research	11.468		149,099		15,798	149,099
Congressionally Identified Awards and Projects	11.469		22,191			194,804
Pass-Through From Atlantic States Marine Fisheries Commission	11.469			172,613		194,804
Unallied Science Program	11.472		164,911			556,644
Office for Coastal Management	11.473		274,369		59,996	274,369
Center for Sponsored Coastal Ocean Research_Coastal Ocean Program	11.478		495,154		56,923	778,403
Center for Sponsored Coastal Ocean Research_Coastal Ocean Program	11.478	NA16NOS4780207/NA18NOS4780177/NA17NOS4780182/NA17NOS4780184	283,249		283,249	778,403
Coral Reef Conservation Program	11.482					
Pass-Through From National Fish and Wildlife Foundation	11.482	NA14NOS482014 / 0304.18.061120		6,355		6,355
Measurement and Engineering Research and Standards	11.609		846,843			846,843
Arrangements for Interdisciplinary Research Infrastructure	11.619					
Pass-Through From Iowa State University	11.619			547,112		566,004
Science, Technology, Business and/or Education Outreach	11.620		54,248			68,032
Other Assistance	11.RD	1305M319PNRMJ0144	43			348,215
		Extending the Atmospheric Temperature Climate Data Record from Polar Operational Environmental Satellites (POES) Microwave Sounders-JPSS/ATMS-				
Other Assistance	11.RD	1333MD18PNEED0043-204650	68,946			348,215
Other Assistance	11.RD	RA133R18SE0266	16,944			348,215
Pass-Through From Aerodyne Research Incorporated	11.RD	ARI 11427-1		75,176		348,215
		Investigating the attributes of Predicting Western U.S. Hydrological Response to Tropical Forcing During the Winters of 2015-2016 and 2016-2017-				
Pass-Through From INNOVIM, Limited Liability Company	11.RD	DG133W-12-CQ-0008/TO016-204490;18-GMU01		187,106		348,215
Total Research and Development			7,660,270	3,230,389	1,583,369	
Total U.S. DEPARTMENT OF COMMERCE			37,116,176	3,451,856	2,303,406	
U.S. DEPARTMENT OF DEFENSE						
Procurement Technical Assistance For Business Firms	12.002		829,096			829,096
Payments to States in Lieu of Real Estate Taxes	12.112		30,381		30,381	30,381
State Memorandum of Agreement Program for the Reimbursement of Technical Services	12.113		792,708			792,708
Basic and Applied Scientific Research	12.300		1,218,600			26,793,638
Pass-Through From HRL Laboratories Limited Liability Corporation	12.300			126,501		26,793,638
ROTC Language and Culture Training Grants	12.357					
Pass-Through From Institute of International Education	12.357			289,552		886,336
Pass-Through From Institute of International Education	12.357	PGO1801-JMU-07-PGO-051-PO1		403,458		886,336
Military Construction, National Guard	12.400		6,793,928			7,343,275
National Guard Military Operations and Maintenance (O&M) Projects	12.401		61,684,980			61,684,980
National Guard ChalleNGe Program	12.404		4,459,717			4,459,717
Basic Scientific Research	12.431		4,151			9,156,192
Economic Adjustment Assistance for State Governments	12.617		162,483			1,274,892
Pass-Through From Department of Defense Office of Economic Adjustment	12.617			1,112,409	943,179	1,274,892
Troops to Teachers Grant Program	12.620		346,534			346,534
Basic, Applied, and Advanced Research in Science and Engineering	12.630		154,168			4,502,794
Pass-Through From Technology Student Association	12.630			28,826		4,502,794
Uniformed Services University Medical Research Projects	12.750					
Pass-Through From The Henry M. Jackson Foundation	12.750			45,388		1,169,718
Air Force Defense Research Sciences Program	12.800		89,659			8,087,701
Language Grant Program	12.900		78,671			169,472
Mathematical Sciences Grants Program	12.901		19,999			110,988
Information Security Grant Program	12.902		614,714		161,930	974,341
GenCyber Grants Program	12.903		238,831			314,667
Research and Technology Development	12.910		482,620		248,697	6,663,361
Pass-Through From Massachusetts Institute of Technology	12.910	5710004093		299,994		6,663,361
Pass-Through From On Demand Pharmaceuticals Incorporated	12.910	2		528,043		6,663,361
Other Assistance	12.U01	18-1-0338	19,359			2,713,549

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Other Assistance	12.U02	Enlisted to Medical Degree Preparatory Program (EMDP2): AY2014-2015/Year 1-HU0001-14-D-E005-203291	1,836,748			2,713,549
Other Assistance	12.U03	Essentials of Human Resource Management Training-209692	4,518			2,713,549
Other Assistance	12.U04	Future Issues in Facility Management Training-H98230-18-P-0091-209700	2,384			2,713,549
Other Assistance	12.U05	H98230-17-1-0230	191			2,713,549
Other Assistance	12.U06	H98230-18-1-0359	27,473			2,713,549
Other Assistance	12.U07	HDTRA1-18-P-0017	29,799			2,713,549
Other Assistance	12.U08	Human Resources Management Certificate Training-TNGGRP00012521-209693-209691	34,154			2,713,549
Other Assistance	12.U09	IPA20191900129065	80,492			2,713,549
Other Assistance	12.U10	Lu IPA	9,338			2,713,549
Other Assistance	12.U11	LU IPA 18-19	159,614			2,713,549
Other Assistance	12.U12	N00174-18-1-0005	137,934			2,713,549
Advancement of Science	12.U13	Science and Technology Policy Fellowship to Nadine Kabbani-204686;SAWD-WD-968		35,431		2,713,549
Pass-Through From BAE Systems Advanced Technologies, Incorporated	12.U14	Indatatech Mentor Protégé Program-W9113M-15-C-0018-203771;921390		54,077	14,328	2,713,549
Pass-Through From General Dynamics	12.U15	Bluehawk Mentor Protégé Program-HHM402-18-C-0012-204458;07ESM996632		50,974	41,400	2,713,549
Pass-Through From Leidos Incorporated	12.U16	Army Lockheed Martin-Time Systems MPP-W9113M-15-C-0003-203741;41N2253984		26,675		2,713,549
Pass-Through From Leidos Incorporated	12.U17	C. Anthony Cusack Mentor Protégé Program HM047615-C-0015-203778;P010180237/OA-G-212-14-01		41,650	16,900	2,713,549
Pass-Through From Manufacturing Techniques Incorporated	12.U18	Wearable and Remote Sensing Technology for Cognitive State Evaluation and Rehabilitation -W909MY-12-D-0008/0054-204652;PO36311		1,184		2,713,549
Pass-Through From Parsons Government Services Incorporated	12.U19	Parsons-Mobius Mentor Protégé Program-HQ0147-16-C-0021-203856;PO 0002331		62,700		2,713,549
Pass-Through From Raytheon Systems	12.U20	New England Die Cutting MPP-HQ0147-16-C-0031-204028;PO 4201382492		44,587		2,713,549
Pass-Through From Raytheon Systems	12.U21	Raytheon Aero Electronics MPP-W9113M-16-C-0027-204282;4201552628		3,429		2,713,549
Pass-Through From Raytheon Systems	12.U22	TRM Microwave MPP-HQ0147-16-C-0019-204029;HQ0147-16-C-0019		50,838		2,713,549
Total Excluding Clusters Identified Below			80,343,244	3,205,716	1,456,815	
Research and Development:						
Collaborative Research and Development	12.114		68,203		28,928	68,203
Estuary Habitat Restoration Program	12.130		53,963			53,963
Basic and Applied Scientific Research	12.300		20,406,732		3,062,894	26,793,638
Basic and Applied Scientific Research	12.300	W9126G-17-2-044	4,200		4,200	26,793,638
Pass-Through From Ahmic Aerospace Limited Liability Corporation	12.300			17,008		26,793,638
Pass-Through From Applied Research Associates Incorporated	12.300			139,771		26,793,638
Pass-Through From Applied Technologies Associates	12.300			93,264		26,793,638
Pass-Through From Brown University	12.300			458,653		26,793,638
Pass-Through From Cohen Veterans Bioscience	12.300			187,768		26,793,638
Pass-Through From Commonwealth Computer Research, Incorporated	12.300			20,046		26,793,638
Pass-Through From Cortana Corporation	12.300			419,178		26,793,638
Pass-Through From DCS Corporation	12.300			16,648		26,793,638
Pass-Through From Florida State University	12.300			575,505		26,793,638
Pass-Through From Georgia Institute of Technology	12.300			202,474		26,793,638
Pass-Through From GIRD Systems Incorporated	12.300			61,083		26,793,638
Pass-Through From Hearing Ergonomics & Acoustics Resources Limited Liability Corporation	12.300			33,054		26,793,638
Pass-Through From Innoveering Limited Liability Corporation	12.300			2,911		26,793,638
Pass-Through From Institute for Wildlife Studies	12.300			30,104		26,793,638
Pass-Through From Intelligent Automation Incorporated	12.300			7,218		26,793,638
Pass-Through From ITT Industries Incorporated	12.300			41,368		26,793,638
Pass-Through From LG2 Environmental Solutions Incorporated	12.300			35,531		26,793,638
Pass-Through From Lockheed Martin Corporation	12.300			9,931		26,793,638
Pass-Through From Lynntech Incorporated	12.300			18,740		26,793,638
Pass-Through From M4 Engineering Incorporated	12.300			82,500		26,793,638
Pass-Through From Mitre Corporation	12.300			1,683		26,793,638
Pass-Through From NanoSonic Incorporated	12.300			19,799		26,793,638
Pass-Through From Next Century Corporation	12.300			347,434		26,793,638
Pass-Through From North Carolina State University	12.300			295,511		26,793,638
Pass-Through From Northwestern University	12.300			278,038		26,793,638
Pass-Through From Ohio State University	12.300			174,428		26,793,638
Pass-Through From Prime Photonics Incorporated	12.300			145,812		26,793,638
Pass-Through From RE2 Incorporated	12.300			39,481		26,793,638

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Pass-Through From Rockwell Collins	12.300			4,189		26,793,638
Pass-Through From State Of Maryland	12.300			72,628		26,793,638
Pass-Through From Technology Service Corporation	12.300			19,405		26,793,638
Pass-Through From Toyon Research Corporation	12.300			142,703		26,793,638
Pass-Through From UES Incorporated	12.300			63,686		26,793,638
Pass-Through From Universal Technology Corporation	12.300			123,288		26,793,638
Pass-Through From University of Alabama	12.300			36,932		26,793,638
Pass-Through From University of California, Santa Barbara	12.300			517,869		26,793,638
Pass-Through From University of Pennsylvania	12.300			104,990		26,793,638
Pass-Through From University of Tennessee	12.300			196,974		26,793,638
Naval Medical Research and Development	12.340		20,266			100,079
Pass-Through From Henry M. Jackson Foundation	12.340			79,813		100,079
Basic Scientific Research - Combating Weapons of Mass Destruction	12.351		1,899,635		178,101	1,964,773
Pass-Through From CH2M Hill	12.351			16,006		1,964,773
Pass-Through From Stanford University	12.351			49,132		1,964,773
ROTC Language and Culture Training Grants	12.357					
Pass-Through From Institute of International Education	12.357			193,326	23,887	886,336
Military Construction, National Guard	12.400					
Pass-Through From Citizens United for Research in Epilepsy	12.400			549,347		7,343,275
Military Medical Research and Development	12.420		12,983,180		3,499,705	13,491,087
Pass-Through From Johns Hopkins University	12.420			4,116		13,491,087
Pass-Through From The Medical College of Wisconsin	12.420			12,721		13,491,087
Pass-Through From The University of Mississippi	12.420			59,528		13,491,087
Pass-Through From University of California San Francisco	12.420	W81XWH-14-2-0176		16,888		13,491,087
Pass-Through From University of California, Riverside	12.420			45,459		13,491,087
Pass-Through From University of Colorado	12.420			20,165		13,491,087
Pass-Through From University of Florida	12.420			7,144		13,491,087
Pass-Through From University of Michigan	12.420			62,732		13,491,087
Pass-Through From University of Pittsburgh	12.420			8,257		13,491,087
Pass-Through From University of Rochester	12.420			14,835		13,491,087
Pass-Through From Wake Forest University	12.420			13,945		13,491,087
Pass-Through From Wake Forest University Health Sciences	12.420			242,117		13,491,087
Basic Scientific Research	12.431		8,263,871		2,095,349	9,156,192
Basic Scientific Research	12.431	W911NF1810306	57,708		57,708	9,156,192
Pass-Through From Boston University	12.431			107,055		9,156,192
Pass-Through From California Institute of Technology	12.431			21,318		9,156,192
Pass-Through From Cornell University	12.431			53,003		9,156,192
Pass-Through From General Technical Services Limited Liability Corporation	12.431			5,613		9,156,192
Pass-Through From Mississippi State University	12.431			34,079		9,156,192
Pass-Through From North Carolina State University	12.431			178,482		9,156,192
Pass-Through From Old Dominion University Research Foundation	12.431			59,437		9,156,192
Pass-Through From Pennsylvania State University	12.431			16,495		9,156,192
Pass-Through From Signature Science, Limited Liability Company	12.431			9,563		9,156,192
Pass-Through From The University of Texas at Austin	12.431			63,902		9,156,192
Pass-Through From University of California, Santa Barbara	12.431			27,947		9,156,192
Pass-Through From University of Chicago	12.431			39,873		9,156,192
Pass-Through From University of Maryland Baltimore	12.431					
County	12.431			213,695		9,156,192
Pass-Through From Building Engineering and Science Talent	12.560			4,671		4,671
Language Training Center	12.579					
Pass-Through From Institute of International Education	12.579			77,038	30,336	77,038
Basic, Applied, and Advanced Research in Science and Engineering	12.630		4,304,431		406,269	4,502,794
Pass-Through From DCS Corporation	12.630			13,575		4,502,794
Pass-Through From University of Dayton	12.630			1,794		4,502,794
Legacy Resource Management Program	12.632		56,215			56,215
Uniformed Services University Medical Research Projects	12.750					
Pass-Through From Henry M. Jackson Foundation	12.750			1,124,330		1,169,718
Air Force Defense Research Sciences Program	12.800		6,373,165		1,797,467	8,087,701
Air Force Defense Research Sciences Program	12.800	FA9550-19-1-0066	7,701		7,701	8,087,701
Pass-Through From Ahmic Aerospace Limited Liability Corporation	12.800			19,465		8,087,701
Pass-Through From Asian Office of Aerospace Research and Development	12.800			141,879		8,087,701

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Pass-Through From Echo Ridge Limited Liability Corporation	12.800			20,187		8,087,701
Pass-Through From InnoSense Limited Liability Corporation	12.800			18,179		8,087,701
Pass-Through From KBRwyle	12.800			36,583		8,087,701
Pass-Through From Luna Innovations Incorporated	12.800			76,526		8,087,701
Pass-Through From M4 Engineering Incorporated	12.800			23,747		8,087,701
Pass-Through From MacAulay-Brown Incorporated	12.800			66,426		8,087,701
Pass-Through From NanoSonic Incorporated	12.800			31,829		8,087,701
Pass-Through From Ohio State University	12.800			448,436		8,087,701
Pass-Through From Pennsylvania State University	12.800			6,115		8,087,701
Pass-Through From Regents of the University of Michigan	12.800			262,653		8,087,701
Pass-Through From The Griffiss Institute	12.800			131,575		8,087,701
Pass-Through From The Ohio State University	12.800			51,158		8,087,701
Pass-Through From The University of Texas at Austin	12.800			163,417		8,087,701
Pass-Through From University of Arizona	12.800			10,945		8,087,701
Pass-Through From University of California at Berkeley	12.800			21,571		8,087,701
Pass-Through From University Of Pittsburgh	12.800			86,485		8,087,701
Language Grant Program	12.900		90,801			169,472
Mathematical Sciences Grants Program	12.901		90,989			110,988
Information Security Grant Program	12.902		359,627			974,341
GenCyber Grants Program	12.903		75,836			314,667
Research and Technology Development	12.910		3,937,498		2,005,268	6,663,361
Pass-Through From Brown University	12.910			53,558		6,663,361
Pass-Through From Institut Pasteur	12.910			39,750		6,663,361
Pass-Through From Millennium Space Systems	12.910			150		6,663,361
Pass-Through From Rutgers, The State University of New Jersey	12.910			39,421		6,663,361
Pass-Through From Texas A & M University	12.910			118,892		6,663,361
Pass-Through From Uncharted Software	12.910			200,269		6,663,361
Pass-Through From University of California, Santa Barbara	12.910			290,667		6,663,361
Pass-Through From University of Delaware	12.910			137,932		6,663,361
Pass-Through From University of Michigan	12.910			126,994		6,663,361
Pass-Through From University of Rochester	12.910			32,647		6,663,361
Pass-Through From University of Southern California	12.910			112,495		6,663,361
Pass-Through From Vencore Labs Incorporated	12.910			262,431		6,663,361
Other Assistance	12.RD	FA8750-15-C-0118	934,031		445,753	74,836,106
Other Assistance	12.RD	HR0011-15-C-0139	979,848		164,153	74,836,106
Other Assistance	12.RD	W81XWH-14-1-0367	872,483		131,116	74,836,106
Other Assistance	12.RD	W911NF-18-C-0019	1,445,133		464,498	74,836,106
Other Assistance	12.RD	17-C-0182	(439,510)			74,836,106
Other Assistance	12.RD	2018-18030100003	1,045,253			74,836,106
Other Assistance	12.RD	418267-20006	147,579			74,836,106
Other Assistance	12.RD	450512-20006	985,543			74,836,106
Other Assistance	12.RD	450522-20006	582,773			74,836,106
Other Assistance	12.RD	450595-20006	125,728			74,836,106
Other Assistance	12.RD	Academic Fellowship Program for the US Naval Observatory-N0018917DZ027-TO 198/277/412/414/415/405/667/649/711/984 - 204214 204216 204218 204219 204220 204488				
Other Assistance	12.RD	204580 204591 204642 204654	512,303			74,836,106
Other Assistance	12.RD	Agile Cognitive Assistants for Advanced Persistent Threat Detection-FA8750-17-C-0002-204086	276,883			74,836,106
Other Assistance	12.RD	AT-45065	223,869			74,836,106
Other Assistance	12.RD	AT-48395	1,031,570			74,836,106
Other Assistance	12.RD	AT-58726	229			74,836,106
Other Assistance	12.RD	CyberSecurity Curricula Development-H98230-17-1-0415-204322	60,246			74,836,106
Other Assistance	12.RD	D-1031/N00178-18-F-D465	197,943			74,836,106
Other Assistance	12.RD	D-1031/N00178-18-F-D473	30,048			74,836,106
Other Assistance	12.RD	D-1031/N00178-18-F-D474	18,617			74,836,106
Other Assistance	12.RD	D17AC00003	33,603		3,639	74,836,106
Other Assistance	12.RD	Democratizing DDoS Defenses Using Secure Indirection Networks-HR0011-16-C-0055-				
Other Assistance	12.RD	203809;56AKK	1,208,055		834,689	74,836,106
Other Assistance	12.RD	FA8650-18-C-7826	1,689,006		703,868	74,836,106
Other Assistance	12.RD	FA8750-19-C-0026	397,542		258,609	74,836,106
Other Assistance	12.RD	GG12102 PO#2124818	140,752			74,836,106
Other Assistance	12.RD	H98230-17-1-0398	9,427			74,836,106
Other Assistance	12.RD	HDTRA1-17-D-0023/HDTRA1170119	248,726			74,836,106
Other Assistance	12.RD	HDTRA1-17-F-0118 (D-0023)	1,335,919			74,836,106
Other Assistance	12.RD	Logical Vanishability through Hybrid Technology to Prevent Reverse Engineering-FA8650-15-C-7569-				
Other Assistance	12.RD	203705;0008797	587,862		296,452	74,836,106

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Other Assistance	12.RD	Mobile Unmanned/manned Distributed Lethality Airborne Network (MUDLAN), Joint Capabilities Technology Demonstration (JCTD) Phase 1-FA8075-Mulan Enhanced Rapid Integration for Transition-14-D-0014-204314-204439;SUB1123884	14,126,735		12,422,211	74,836,106
Other Assistance	12.RD	204606;FA8750-18-C-0129	18,342,837		17,883,181	74,836,106
Other Assistance	12.RD	N00014-18-P-1019	92,971			74,836,106
Other Assistance	12.RD	N00173-18-P-0186	88,514			74,836,106
Other Assistance	12.RD	N00173-18-P-0873	43,726			74,836,106
Other Assistance	12.RD	N00174-16-C-0035	85,270			74,836,106
Other Assistance	12.RD	N00178-13-D-1031 / N00178-18-F	40,484			74,836,106
Other Assistance	12.RD	N00421-16-2-B001	593,642			74,836,106
Other Assistance	12.RD	N00421-16-2-B001_P00008	184,525			74,836,106
Other Assistance	12.RD	N3239818P0331	71,745			74,836,106
Other Assistance	12.RD	N3239818P0338	61,303			74,836,106
Other Assistance	12.RD	N4175619C3508	1,553			74,836,106
Other Assistance	12.RD	N66001-17-C-4052	172,951		103,270	74,836,106
Other Assistance	12.RD	Pathway Inhibitor Development-W81XWH-17-C-0066-204160	106,161			74,836,106
Other Assistance	12.RD	Phosphoproteomic Profiling and Functional Characterization of Host Response to Pathogens through Intracellular and Intercellular Signaling-W81XWH-15-P-0098-203446	9,625			74,836,106
Other Assistance	12.RD	PO# 943005	51,983			74,836,106
Other Assistance	12.RD	PO#939161	56,396			74,836,106
Other Assistance	12.RD	Program Manager in Information Innovations Office at Defense Advanced Research Projects Agency (DARPA)-204202	38,816			74,836,106
Other Assistance	12.RD	Research Support Services for Cross-Domain Pseudo-Sensor for Enhanced ORM-N62271-17-P-1154-204349	51,115			74,836,106
Other Assistance	12.RD	SGS18-1021	31,043			74,836,106
Other Assistance	12.RD	Tustison IPA	15,311			74,836,106
Other Assistance	12.RD	US Department of Defense - W912HQ-18-C-0034	117,102			74,836,106
Other Assistance	12.RD	Vector Mapping of Ticks and Tick-Borne Pathogens of Mongolia-204722	21,238			74,836,106
Other Assistance	12.RD	W81XWH-14-C-0054	161,229			74,836,106
Other Assistance	12.RD	W81XWH-17-1-0487/PO0011025125	304,913			74,836,106
Other Assistance	12.RD	W81XWH-19-C-0074	10,359			74,836,106
Other Assistance	12.RD	W911QY-16-C-0106	149,810			74,836,106
Other Assistance	12.RD	W911W5-16-C-0007	568,084			74,836,106
Other Assistance	12.RD	W912HQ-18-C-0034	231,689			74,836,106
Other Assistance	12.RD	W912HQ-19-P-0001	4,625			74,836,106
Pass-Through From Advanced Technology International	12.RD	SUBCONTRACT 2018-511		90,291		74,836,106
Pass-Through From AIM Photonics	12.RD	SUNY Polytechnic AIM		152,932		74,836,106
Pass-Through From Akamai Technologies, Incorporated	12.RD	UVA-2019-01		16,635		74,836,106
Pass-Through From Alaire Technologies, Incorporated	12.RD	Atmospheric Boundary Layer Simulations-204543;1788		11,197		74,836,106
Pass-Through From Alion Science and Technology Corporation	12.RD	Joint Capabilities Embedded Technology Insertion and Integration-GS00Q14ADU401 OASIS-204740;SUB1139948-001		1,990,920	1,461,401	74,836,106
Pass-Through From Alion Science and Technology Corporation	12.RD	Mobile Unmanned/manned Distributed Lethality Airborne Network (MUDLAN), Joint Capabilities Technology Demonstration (JCTD) Phase 1-FA8075-14-D-0014-204314-204439;SUB1123884		207,292		74,836,106
Pass-Through From Ambercycle Incorporated	12.RD	AT-47475		106,730		74,836,106
Pass-Through From American Systems Corporation	12.RD	S19024_1		45,322		74,836,106
Pass-Through From Applied Research Associates, Incorporated	12.RD	PO17-01282 / S-271-002222.02		44,990		74,836,106
Pass-Through From Applied Signals Intelligence	12.RD	2018-VT-001		69,167		74,836,106
Pass-Through From ASSETT, Incorporated	12.RD	Situational Awareness for Mission Critical Ship Systems-N68335-18-C-0687-204609;AST2018-003		37,318		74,836,106
Pass-Through From AVID Limited Liability Corporation	12.RD	AVIDW15QKN14C0046VT		7,534		74,836,106
Pass-Through From Barron Associates, Incorporated	12.RD	528-SC01		97,627		74,836,106
Pass-Through From Barron Associates, Incorporated	12.RD	564-SC01		33,112		74,836,106
Pass-Through From Battelle Memorial Institute	12.RD	US001-0000566421		8,055		74,836,106
Pass-Through From Boeing Company	12.RD	1061-23		1,389,283		74,836,106
Pass-Through From Boeing Company	12.RD	PO#000477		602		74,836,106
Pass-Through From C2 Technologies, Incorporated	12.RD	eSchool of Graduate Professional Military Education Mixed Reality White Paper-GSQ1017EC0008-204625;G01180287		9,852		74,836,106
Pass-Through From CACI International Incorporated	12.RD	P000013304		38,435		74,836,106

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Pass-Through From CACI International Incorporated	12.RD	P000039542 Blockchaining Collaborative Data Management- H98230-18-D-008-204529-204761;1130225-		495,536		74,836,106
Pass-Through From Carnegie Mellon University	12.RD	400180		43,452		74,836,106
Pass-Through From CFD Research Corporation	12.RD	0318-204672;Proj #9348/Contract# 20180386 System to Evaluate and Assess Holistic Aircrew Workload (SEAHAWK)-N68335-18-C-0134-		1,227		74,836,106
Pass-Through From Charles River Analytics, Incorporated	12.RD	204481;SCI627201		104,799		74,836,106
Pass-Through From Christopher Reeve Foundation	12.RD	CTN14-2018(CS)		46,037		74,836,106
Pass-Through From Christopher Reeve Foundation	12.RD	CTN15-2019(C-PY) Support on United States Special Operations Command (USSOCOM) Data Interoperability-		10,060		74,836,106
Pass-Through From Cognitics, Incorporated	12.RD	H9240519P0010-204742;2019-18C-001 C2SIM Cyber Prototype-W31P4Q-16-A-0003-		8,862		74,836,106
Pass-Through From COLSA Corporation	12.RD	204475;HS-170196		116,015		74,836,106
Pass-Through From Combustion Research and Flow Technology, Incorporated	12.RD	P-00015.002/C716		37,775		74,836,106
Pass-Through From Corvid Technologies	12.RD	16-013 M67854-16-C-6581		26,050		74,836,106
Pass-Through From Corvid Technologies	12.RD	17-027 W911QX-17-C-0029 Tactical Immune System based on Dynamically Assigned Sense of Self-W56KGU-17-C-0077-		68,730		74,836,106
Pass-Through From CyberRock, Incorporated	12.RD	204501;1081466		60,272		74,836,106
Pass-Through From Decisive Analytics Corporation	12.RD	HDTRA1-17-C-0073-204702;PO 000001126		32,516		74,836,106
Pass-Through From Deep Learning Analytics	12.RD	VT-100117		9,329		74,836,106
Pass-Through From Draper	12.RD	SC001-0000001074		340,289		74,836,106
Pass-Through From Duke University	12.RD	313-0874 Dynamically Relocatable Mission Control And Performance-N68335-17-C-0629-204409;NAV001-		28,856		74,836,106
Pass-Through From DZYNE Technologies Incorporated	12.RD	001		7,297		74,836,106
Pass-Through From EA Engineering Science & Technology Incorporated	12.RD	LSO #18671		12,234		74,836,106
Pass-Through From Foundry Defense Systems, Incorporated	12.RD	Resilient Autonomous Secure Common Operating Picture-FA8650-18-P-9201-204442;601		7,627		74,836,106
Pass-Through From Freedom Photonics, Limited Liability Company	12.RD	N00-173-16-C-6007		65,060		74,836,106
Pass-Through From Freedom Photonics, Limited Liability Company	12.RD	S7061-01		50,191		74,836,106
Pass-Through From Freedom Photonics, Limited Liability Company	12.RD	S7139-01		38,815		74,836,106
Pass-Through From Galois Incorporated	12.RD	Jana: Ensuring Secure, Private, and Flexible Data Access-N66001-15-C-4070-203721;2015-015		66,252		74,836,106
Pass-Through From Gemini Technical Solutions JV, Limited Liability Company	12.RD	Gemini_Foresman_Gemini Contract		164,038		74,836,106
Pass-Through From Georgia Institute of Technology	12.RD	D8679-S7		36,600		74,836,106
Pass-Through From Georgia Institute of Technology	12.RD	Strategic Multilayer Assessment (SMA): Strategic Outcomes-W31P4Q-18-D-0002-204696;D8413-S1		113,163		74,836,106
Pass-Through From GIRD Systems Incorporated	12.RD	52-002-1018CF40		124,044		74,836,106
Pass-Through From Graf Research Corporation	12.RD	AT-52743		82,086		74,836,106
Pass-Through From GrammaTech, Incorporated	12.RD	Prime Con.#FA8750-14-C-0110		2,617		74,836,106
Pass-Through From Gxm Consulting Limited Liability Company	12.RD	418-UVA-0039 TaskOrder 001		43,747		74,836,106
Pass-Through From Gxm Consulting Limited Liability Company	12.RD	418-UVA-0039; TO#002		11,907		74,836,106
Pass-Through From HRL Laboratories, Limited Liability Company	12.RD	12105-162884-DS Exploring the Use of Innovative Performance Tests to Measure Personality Traits-W911NF-15-C-0216-		18,424		74,836,106
Pass-Through From Human Resources Research Organization	12.RD	204263;17-01 Inference Enterprise Multi-Modeling-2016-		5,000		74,836,106
Pass-Through From Innovative Decisions, Incorporated	12.RD	16031400006-203811;032016-SCITE-GMU		514,791		74,836,106
Pass-Through From Innoveering, Limited Liability Company	12.RD	GOYNE_UVA_INNOVEERING		42,406		74,836,106
Pass-Through From Innoveering, Limited Liability Company	12.RD	Innoveering-Goyne-DARPA		7,663		74,836,106
Pass-Through From Innoveering, Limited Liability Company	12.RD	STTR Contract FA8650-16-C-2715		57,683		74,836,106
Pass-Through From Intelligent Automation Incorporated	12.RD	INTELLIGENT AUTOMATION, INC Requirement analysis on Software-Defined Networking (SDN) deployment in federal agency network operation environment-FA8750-18-C-0062-		12,311		74,836,106
Pass-Through From Intelligent Automation, Incorporated	12.RD	204617;2369-2		33,041		74,836,106

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Pass-Through From Intelligent Fusion Technology, Incorporated	12.RD	Situational Awareness for Mission Critical Ship Systems using Probabilistic Knowledge Graph- N68335-18-C-0691-204569;048-01		35,240		74,836,106
Pass-Through From Iowa State University	12.RD	130186-PERIOD 2		71,521		74,836,106
Pass-Through From Johns Hopkins University	12.RD	120094		308,739		74,836,106
Pass-Through From Johns Hopkins University	12.RD	131973		71,354		74,836,106
Pass-Through From Johns Hopkins University	12.RD	151532		515,898		74,836,106
Pass-Through From Johns Hopkins University	12.RD	W81XWH-16-2-0060		9,781		74,836,106
Pass-Through From Johns Hopkins University	12.RD	National C3 (NC3) Architecture Modernization- N00024-13-D-6400-204603;136871		49,839		74,836,106
Pass-Through From Johns Hopkins University	12.RD	Navy Tactical Grid Experiment Naval Research Enterprise & Equipment-N00024-13-D-6400-204736;153366		1,127,491	204,840	74,836,106
Pass-Through From Keratin Biosciences, Incorporated	12.RD	W81XWH-15C-0084		16,458		74,836,106
Pass-Through From Knowledge Based Systems, Incorporated	12.RD	PaNIMI Quantum Probability Blotting Modeling- N00014-16-C-1056-204193;2017-GMU		76,841		74,836,106
Pass-Through From Kostas Research Institute at Northeastern University Limited Liability Corporation	12.RD	555009		88,285		74,836,106
Pass-Through From L3 Advanced Programs Incorporated	12.RD	PO 8379		379,796		74,836,106
Pass-Through From Laulima Systems	12.RD	NSC-16-0140-002		58,215		74,836,106
Pass-Through From LGS Innovations	12.RD	LGS171104		227,904		74,836,106
Pass-Through From Lightspin Technologies, Incorporated	12.RD	Lightspin_ N00253-17-C-0003		133,211		74,836,106
Pass-Through From Lockheed Martin Corporation	12.RD	4103969479		456,776		74,836,106
Pass-Through From Lockheed Martin Corporation	12.RD	P18-222219		852,390		74,836,106
Pass-Through From Lockheed Martin Corporation	12.RD	PO # 4103874198		47,259		74,836,106
Pass-Through From Luna Innovations Incorporated	12.RD	351801VT		581		74,836,106
Pass-Through From Luna Innovations Incorporated	12.RD	3598-DHA-1T/VT		56,177		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3272-NVY-2S		125,648		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3330-NVY-2S/UVA		63,088		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3349-ARM-2S/UVA		157,493		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3443-AFR-2S/UVA		90,869		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3571-DHA-1S/UVA		16,800		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3604-NVY-1T/UVA		31,343		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3614-NVY-1T/UVA		207		74,836,106
Pass-Through From Luna Innovations, Incorporated	12.RD	3632-AFR-1S/UVA		2,195		74,836,106
Pass-Through From M4 Engineering Incorporated	12.RD	AT-57834		18,726		74,836,106
Pass-Through From MacAulay-Brown Incorporated	12.RD	PO# DSC3133-01		35,822		74,836,106
Pass-Through From Manufacturing Techniques Incorporated	12.RD	Robust interference rejection in the NQR detection of explosives: the next generation atomic magnetometer and magnetometer array design W909MY-12-D0008/TO 0054-204680-204307;PO36700		244,179	48,112	74,836,106
Pass-Through From Manufacturing Techniques Incorporated	12.RD	Wearable Sensing Technology for Neuronal Training and Rehabilitation-W909MY-12-D-0008/024-204392;29381		11,158		74,836,106
Pass-Through From Marstel-Day Limited Liability Corporation	12.RD	MSA-17-0017-VT_CMI TO#01		26,849		74,836,106
Pass-Through From Marstel-Day Limited Liability Corporation	12.RD	TASK ORDER 3		13,018		74,836,106
Pass-Through From Marstel-Day Limited Liability Corporation	12.RD	TASK ORDER 4		80,019		74,836,106
Pass-Through From MC Technologies	12.RD	MCTech-Li-DigImg		5,975		74,836,106
Pass-Through From Ministry of Defense Israel	12.RD	PO 4440871955		23,317		74,836,106
Pass-Through From Mitre Corporation	12.RD	NO. 121979		1,379		74,836,106
Pass-Through From Morton Photonics Incorporated	12.RD	MP-UVA-01		27,170		74,836,106
Pass-Through From Nanohmics Incorporated	12.RD	N18A-T001		44,745		74,836,106
Pass-Through From NanoSonic Incorporated	12.RD	AF1-0009		7,860		74,836,106
Pass-Through From NanoSonic Incorporated	12.RD	AR-0117		3,020		74,836,106
Pass-Through From NanoSonic Incorporated	12.RD	AR-C0004		19,116		74,836,106
Pass-Through From NanoSonic Incorporated	12.RD	MD-7443		19,533		74,836,106
Pass-Through From National Institute of Building Sciences	12.RD	N62470-14-D-1030(X69) 418357-19C97		125,795	12,503	74,836,106
Pass-Through From National Institute of Building Sciences	12.RD	N62470-14-D-1030(X69) 418357-19C95		48,176	48,176	74,836,106
Pass-Through From National Institute of Building Sciences	12.RD	N62470-14-D-1030(X69) 418357-19138		1,657	1,657	74,836,106
Pass-Through From Next Century Corporation	12.RD	NC082817-VT-GORDIAN		493,679		74,836,106

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Pass-Through From Northrop Grumman Corporation	12.RD	8140000896		127,177		74,836,106
Pass-Through From Northrop Grumman Corporation	12.RD	8140000899		153,661		74,836,106
Pass-Through From ORSA Technologies Limited Liability Corporation	12.RD	SOT-VT-DAFD-16-03		1,563		74,836,106
Pass-Through From Palo Alto Research Center Incorporated	12.RD	Configuration Security (CONSEC)-FA8750-18-2-0147-204694;P314449		91,308		74,836,106
Pass-Through From Paragon NanoLabs, Incorporated	12.RD	Computational screening platform for predicting protein-DNA binding interfaces-W911SR-17-C-0010-204159;20170428-MASON-051-ISD-SBIRII		84,764		74,836,106
Pass-Through From Phase Sensitive Innovations, Incorporated	12.RD	Phase Sensitive Innov_Campbel Enhanced Cyber Defense by Leveraging Involuntary Analog Emissions-FA8650-16-C-7621-		74,563		74,836,106
Pass-Through From Power Fingerprinting, Incorporated	12.RD	203831;1050143		213,315		74,836,106
Pass-Through From Prime Photonics Incorporated	12.RD	ARM 02-205-VT/TO-11 Commercial-Off-The-Shelf (COTS) Approach to Information Security N00253-16-C-0007-		87,647		74,836,106
Pass-Through From Progeny Systems	12.RD	203960;PSC-0341		150,537		74,836,106
Pass-Through From QmagiQ Limited Liability Corporation	12.RD	AT-52731		17,288		74,836,106
Pass-Through From Raytheon Systems	12.RD	Anytime Reasoning and Analysis for Kill-Web Negotiation and Instantiation across Domains (ARAKNID)-FA8750-19-C-0056-204780;90072-PO		6,132		74,836,106
Pass-Through From Raytheon Systems	12.RD	Derived and Integrated Cyber Effects (DICE)-FA8750-17-C-0209-204279;14743/PO9500013553 Mobilizing the Micro-Ops: Securing Processor Architectures via Context-Sensitive Decoding-		107,181		74,836,106
Pass-Through From Regents of the University of California	12.RD	HR001118C0020-204437;97774952		127,624		74,836,106
Pass-Through From Rolls-Royce Corporation	12.RD	5003201794		5,671		74,836,106
Pass-Through From S D Miller and Associates Professional Limited Liability Corporation	12.RD	DOD C.NO. FA9550-18-C0003		3,759		74,836,106
Pass-Through From SA Photonics Limited Liability Corporation	12.RD	PO 2022VT1607;417974-19079		105,946	42,575	74,836,106
Pass-Through From Salem Research Institute Incorporated	12.RD	AT-43873		27,107		74,836,106
Pass-Through From Semiconductor Research Corporation	12.RD	2018-JU-2780		5,654,850	4,726,798	74,836,106
Pass-Through From Service Disabled Contracting Group, Incorporated	12.RD	Crane Island Eastern Expansion Oyster Mitigation Oyster Shell-String Survey;Prime contract number W91236-12-C-0024		714		74,836,106
Pass-Through From Signature Science, Limited Liability Company	12.RD	IS1018-004		10,238		74,836,106
Pass-Through From Signature Science, Limited Liability Company	12.RD	TO#IS1018-003/HHM402-17-D-0006		119,346		74,836,106
Pass-Through From Southwest Research Institute	12.RD	L99044RI		134,636		74,836,106
Pass-Through From Stevens Institute of Technology	12.RD	2102770-01/HQ0034-13-D-0004		109,396		74,836,106
Pass-Through From Stevens Institute of Technology	12.RD	2102813-01		320,287		74,836,106
Pass-Through From Stevens Institute of Technology	12.RD	2102828-01		145,264		74,836,106
Pass-Through From Stevens Institute of Technology	12.RD	2102876-05		19,333		74,836,106
Pass-Through From Systems and Technology Research	12.RD	SUBCONT 2019-0019		22,825		74,836,106
Pass-Through From Tasso Incorporated	12.RD	The HemoLink: A universal platform for blood collection, stabilization, and shipping-HDTRA117C0066-204352;01142051		636,728		74,836,106
Pass-Through From Texas A&M Engineering Experiment Station	12.RD	Subcontractor No. 28-S172882		8,998		74,836,106
Pass-Through From The Aerospace Corporation	12.RD	The Aerospace Corp_Fleming_SI Enabling and Securing Robotic Team Situational Awareness-W911NF-17-1-0447-204346;401285-5801		1,384		74,836,106
Pass-Through From The Board of Trustees of The Colorado School of Mines	12.RD	Multi-domain C2 (MD-C2) "Clean Sheet" Implementation-FA8750-15-3-6000-204783;SA		52,499		74,836,106
Pass-Through From The Griffiss Institute	12.RD	19036001-0013		35,531		74,836,106
Pass-Through From The Henry M. Jackson Foundation	12.RD	780506		17,437		74,836,106
Pass-Through From The Johns Hopkins University Applied Physics Laboratory	12.RD	145165		572,916		74,836,106
Pass-Through From The Mitre Corporation	12.RD	14-124925		41,302		74,836,106
Pass-Through From The Mitre Corporation	12.RD	Task Order 19-109405		10,000		74,836,106
Pass-Through From Theofanous & Company, Incorporated	12.RD	MAE-THEO-8459-14		116,215		74,836,106
Pass-Through From Thornton Tomasetti	12.RD	NN16146.00_TO0021_VT		4,093		74,836,106
Pass-Through From Tufts University	12.RD	101925-00001 // PO# EP0167949		11,572		74,836,106
Pass-Through From UES, Incorporated	12.RD	S-977-022-002		19,582		74,836,106

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Pass-Through From University of California, San Diego	12.RD	109870153/Invoice # S9002178		18,965		74,836,106
Pass-Through From University of Pennsylvania	12.RD	574173/PO#4175612		63,426		74,836,106
Pass-Through From University of Southern California	12.RD	101931436		120,448		74,836,106
Pass-Through From University of Southern California	12.RD	106614089		117,908		74,836,106
Pass-Through From University of Southern California	12.RD	SUBAWARD 109595960 Integrating Structural Theories of Revolution with Evolutionary Models to Predict Societal Resilience and Stability-W911NF-18-1-0138-204523;A18-0953-		93,550		74,836,106
Pass-Through From University Of Tennessee	12.RD	S001 Distributed System Pattern Discovery Using Time		28,880		74,836,106
Pass-Through From VECTARE Limited Liability Company	12.RD	Series Discords-203877;1154-00 REV A Information Assurance Research for Industrial Control and Logistics Systems (IARICL)-		97,815		74,836,106
Pass-Through From VECTARE Limited Liability Company	12.RD	204390;1194-00		50,126		74,836,106
Pass-Through From VECTARE Limited Liability Company	12.RD	Internet of Thing-204528-204712;1167-00-REV-A Cyber Security Applied Research and Experimentation Partner-W911NF-14-R-0001-		56,269		74,836,106
Pass-Through From Vencore Labs Incorporated	12.RD	204699;PO-0017309		18,609		74,836,106
Pass-Through From Viasat, Incorporated	12.RD	4179547		266,374		74,836,106
Pass-Through From Virginia Tech Applied Research Corporation	12.RD	SUBCONT/TO#0008		4,588		74,836,106
Pass-Through From Virginia Tech Applied Research Corporation	12.RD	SUBCONT/TO#0009		274,849		74,836,106
Pass-Through From Virginia Tech Applied Research Corporation	12.RD	TASK ORDER #0012		30,006		74,836,106
Total Research and Development			109,571,237	35,836,278	53,455,314	
Total U.S. DEPARTMENT OF DEFENSE			189,914,481	39,041,994	54,912,129	
U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT						
Housing Counseling Assistance Program	14.169		24,734			28,613
Pass-Through From Virginia Housing Development Authority	14.169			3,879		28,613
Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii	14.228		14,664,164		13,851,714	14,664,164
Emergency Solutions Grant Program	14.231		2,895,060		2,721,188	2,895,060
Supportive Housing Program	14.235		159,393		98,797	159,393
Home Investment Partnerships Program	14.239		8,358,972		7,825,489	8,358,972
Housing Opportunities for Persons with AIDS	14.241		768,821		736,498	768,821
Continuum of Care Program	14.267		122,308			122,308
Housing Trust Fund	14.275		1,652,978		1,625,847	1,652,978
Fair Housing Assistance Program_State and Local	14.401		319,917			319,917
Lead-Based Paint Hazard Control in Privately-Owned Housing	14.900					
Pass-Through From Federal HUD	14.900	0301-03610-SV0909-1184		11,636		11,636
Total Excluding Clusters Identified Below			28,966,347	15,515	26,859,533	
CDBG Disaster Recovery Grants:						
National Resilient Disaster Recovery Competition	14.272		10,836,972		10,556,814	10,843,778
Pass-Through From Coastal Community Resilience, Incorporated	14.272			6,806		10,843,778
Total CDBG Disaster Recovery Grants			10,836,972	6,806	10,556,814	10,843,778
CDBG Entitlement Grants Cluster:						
Community Development Block Grants/Entitlement Grants	14.218					
Pass-Through From Richmond City	14.218			95,248		95,248
Total CDBG Entitlement Grants Cluster			0	95,248	0	95,248
Research and Development:						
Healthy Homes Technical Studies Grants	14.906		230,213		42,465	230,213
Total Research and Development			230,213	0	42,465	
Total U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT			40,033,532	117,569	37,458,812	
U.S. DEPARTMENT OF THE INTERIOR						
Forests and Woodlands Resource Management	15.233		6,294			6,294
Regulation of Surface Coal Mining and Surface Effects of Underground Coal Mining	15.250		3,559,931		124,465	3,559,931
Abandoned Mine Land Reclamation (AMLR) Program	15.252		3,700,922		1,918,540	3,700,922
National Forest Acquired Lands	15.438		46,841			46,841
Fish and Wildlife Management Assistance	15.608		118,839		11,100	148,535
Cooperative Endangered Species Conservation Fund	15.615	301-18-043	221,648		4,594	316,195
Clean Vessel Act Program	15.616		164,278		134,456	164,278
Sportfishing and Boating Safety Act	15.622		89,798		89,111	89,798

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
State Wildlife Grants	15.634		1,148,181			1,181,477
Pass-Through From Southeastern Association of Fish and Wildlife Agencies	15.634	GS-F16AP00113-VAH		2,439		1,181,477
Undesirable/Noxious Plant Species	15.652		9,829			9,829
Endangered Species Conservation Recovery						
Implementation Funds	15.657		49,255			1,732,932
Natural Resource Damage Assessment, Restoration and Implementation	15.658		42,548			94,555
Endangered Species - Candidate Conservation Action Funds	15.660		1,172			1,172
National Cooperative Geologic Mapping Program	15.810		11,388			233,804
National Geological and Geophysical Data Preservation Program	15.814		26,423		26,407	26,423
National Land Remote Sensing_Education Outreach and Research	15.815					
Pass-Through From AmericaView Incorporated	15.815			3,218		3,218
Historic Preservation Fund Grants-In-Aid	15.904	DHR65030/0000112494/0000112098/0000111270	1,171,091		351,525	1,171,091
Outdoor Recreation_Acquisition, Development and Planning	15.916		639,579		634,448	639,579
Native American Graves Protection and Repatriation Act	15.922		12,760			12,760
National Maritime Heritage Grants Program	15.925	0000112157/0000113419	103,257		71,584	103,257
Civil War Battlefield Land Acquisition Grants	15.928		6,785,648		6,785,648	7,018,162
Civil War Battlefield Land Acquisition Grants	15.928	0000115207	232,514		232,514	7,018,162
Chesapeake Bay Gateways Network	15.930		116,858			116,858
Conservation Activities by Youth Service Organizations	15.931		70,532			70,532
National Trails System Projects	15.935		7,098			7,098
Cooperative Research and Training Programs Resources of the National Park System	15.945		149,217			1,408,576
Cultural Resources Management	15.946					
Pass-Through From Organization of American Historians	15.946			20,042		52,974
Historic Preservation Fund Grants to Provide Disaster Relief to Historic Properties Damaged by Hurricane Sandy	15.957	DHR68010	17,273		11,799	17,273
Other Assistance	15.U01	American Battle Monuments Commission (ABMC) Education Reimagined-D17PC00446-204327	59,653			59,653
Total Excluding Clusters Identified Below			18,562,827	25,699	10,396,191	
Fish and Wildlife Cluster:						
Sport Fish Restoration Program	15.605		5,552,912			5,560,148
Pass-Through From University of Hawaii	15.605	MA1357		7,236		5,560,148
Wildlife Restoration and Basic Hunter Education	15.611		12,449,625			12,493,456
Pass-Through From Tangled Bank Conservation	15.611			43,831		12,493,456
Enhanced Hunter Education and Safety Program	15.626		129,694			129,694
Total Fish and Wildlife Cluster			18,132,231	51,067	0	18,183,298
Research and Development:						
Hurricane Sandy Disaster Relief Coastal Resiliency Grants	15.153					
Pass-Through From The Trust for Tomorrow	15.153			16,375		16,375
Fish, Wildlife and Plant Conservation Resource Management	15.231					
Pass-Through From State of Nevada	15.231	HE-001		20,927		20,927
Wildland Fire Research and Studies Program	15.232		9,574			9,574
Science and Technology Projects Related to Coal Mining and Reclamation	15.255		27,926			27,926
Recreation Resources Management	15.524		27,667			27,667
SECURE Water Act Research Agreements	15.560		119,278			119,278
Fish and Wildlife Management Assistance	15.608		27,815			148,535
Pass-Through From State Of Maryland	15.608			1,881		148,535
Cooperative Endangered Species Conservation Fund	15.615					
Pass-Through From Georgia Department of Natural Resources	15.615	605-17010.6		35,423		316,195
Pass-Through From North Carolina Wildlife Resources Commission	15.615	WM-0247B		23,557		316,195
Pass-Through From The California Department of Fish and Wildlife	15.615	Grant agreement number P1510801		35,567		316,195
State Wildlife Grants	15.634		11,969			1,181,477
Pass-Through From Florida Fish and Wildlife Conservation	15.634			18,888		1,181,477
Marine Turtle Conservation Fund	15.645		10,528			10,528
Migratory Bird Monitoring, Assessment and Conservation	15.655		36,938			36,938
Endangered Species Conservation Recovery						
Implementation Funds	15.657		1,640,888			1,732,932
Pass-Through From Kentucky Waterways Alliance	15.657			42,789		1,732,932
Natural Resource Damage Assessment, Restoration and Implementation	15.658		52,007			94,555
National Fish and Wildlife Foundation	15.663					
Pass-Through From National Audubon Society	15.663			58,932		58,932

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Fish and Wildlife Coordination and Assistance Programs	15.664		99,297			110,611
Pass-Through From Tufts University	15.664			11,314		110,611
National Wetlands Inventory	15.665		39,578			39,578
Cooperative Ecosystem Studies Units	15.678		84,560		5,190	84,560
Assistance to State Water Resources Research Institutes	15.805		90,375			90,375
Earthquake Hazards Research Grants	15.807		127,933			127,933
U.S. Geological Survey_ Research and Data Collection	15.808		438,097			438,097
National Cooperative Geologic Mapping Program	15.810		222,416		115,635	233,804
Cooperative Research Units Program	15.812		394,410		10,124	394,410
Cooperative Research and Training Programs Resources of the National Park System	15.945		1,243,151		10,819	1,408,576
Pass-Through From National Park Service	15.945			16,208		1,408,576
Cultural Resources Management	15.946		30,987			52,974
Pass-Through From Organization of American						
Historians	15.946			1,945		52,974
Water Use and Data Research	15.981		55,853			55,853
Other Assistance	15.RD	140P8418P0082	9,500			167,115
Other Assistance	15.RD	Climate Communication Internships-P11AC30805/P12AC10261-202634	3,234			167,115
Other Assistance	15.RD	Fish and Wildlife Adaptation Fellowship Program-G18AC00356-204667	20,000			167,115
Other Assistance	15.RD	G16PX00275	16,416			167,115
Other Assistance	15.RD	National Park Service Resource Management Internship Program-P11AC30805/P13AC01450-203135	77,567			167,115
Other Assistance	15.RD	Visitor Perceptions of Climate Change in U.S. National Parks-P13AC01364/P11AC30805-203086	4,851			167,115
Pass-Through From Appalachian Trail Conservancy	15.RD	2014-2000-001;417633-19275		35,547	4,982	167,115
Total Research and Development			4,922,815	319,353	146,750	
Total U.S. DEPARTMENT OF THE INTERIOR			41,617,873	396,119	10,542,941	
U.S. DEPARTMENT OF JUSTICE						
Law Enforcement Assistance_Narcotics and Dangerous Drugs Training	16.004		105,753			105,753
Sexual Assault Services Formula Program	16.017		484,394		484,394	484,394
OVW Research and Evaluation Program	16.026		64,038			64,038
Community-Based Violence Prevention Program	16.123		14,988			14,988
Services for Trafficking Victims	16.320	Human Trafficking /110173;110173	116,972		11,838	116,972
Grants to Reduce Domestic Violence, Dating Violence, Sexual Assault, and Stalking on Campus	16.525		91,807			91,807
Juvenile Justice and Delinquency Prevention_Allocation to States	16.540		459,194		387,515	459,194
Missing Children's Assistance	16.543		369,859			369,859
State Justice Statistics Program for Statistical Analysis Centers	16.550		90,457			90,457
National Criminal History Improvement Program (NCHIP)	16.554		565,300			565,300
National Institute of Justice Research, Evaluation, and Development Project Grants	16.560		33,544			5,334,313
Crime Victim Assistance	16.575		45,978,707		41,304,616	45,978,707
Crime Victim Assistance/Discretionary Grants	16.582		745,511		218,769	745,511
Violence Against Women Formula Grants	16.588		3,594,825		2,819,082	3,594,825
Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program	16.590					
Pass-Through From Action Alliance	16.590			48,499		91,050
Pass-Through From Action Alliance	16.590	ICJR 110917;16-ICJR-OAG		23,683		91,050
Pass-Through From VA Sexual & Domestic Violence						
Action Alliance	16.590	16-ICJR-OCME		18,868		91,050
Residential Substance Abuse Treatment for State Prisoners	16.593		372,520		119,561	372,520
Project Safe Neighborhoods	16.609	PSN 112603;112603	183,416		19,251	183,416
Public Safety Partnership and Community Policing Grants	16.710		314,751			314,751
Juvenile Mentoring Program	16.726		18,174		2,750	100,659
Pass-Through From National 4-H Council	16.726			82,485		100,659
Edward Byrne Memorial Justice Assistance Grant Program	16.738		5,510,158		3,921,721	5,940,364
Edward Byrne Memorial Justice Assistance Grant Program	16.738	18-A4268AD11	39,870		39,870	5,940,364
Edward Byrne Memorial Justice Assistance Grant Program	16.738	Danville 112454;112454	116,454		44,471	5,940,364
DNA Backlog Reduction Program	16.741		1,160,099			1,160,099
Paul Coverdell Forensic Sciences Improvement Grant Program	16.742		167,017			167,017
Economic High-Tech and Cyber Crime Prevention	16.752		195,852			256,349
Second Chance Act Reentry Initiative	16.812		202,613			487,416
Second Chance Act Reentry Initiative	16.812	Smart Re-Entry 110172;110172	248,190		60,657	487,416

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
NICS Act Record Improvement Program	16.813		638,826			638,826
John R. Justice Prosecutors and Defenders Incentive Act	16.816		47,670			47,670
National Sexual Assault Kit Initiative	16.833		630,591			630,591
Comprehensive Opioid Abuse Site-Based Program	16.838		31			31
STOP School Violence	16.839		14,976			14,976
Equitable Sharing Program	16.922		1,220,798			1,220,798
Pass-Through From City of Huntington	16.U01	West Virginia Risk-Need-Responsivity 2017-RW-BX-0007-204601;PO 2019-380 Justice and Mental Health Collaboration Program (JMHC) Learning Community-204146;17-PA-161-2504		1,567	810	33,706
Pass-Through From Council Of State Governments	16.U02			19,977		33,706
Pass-Through From La Crosse County	16.U03	La Crosse County Risk-Need-Responsivity (RNR)-2017-RW-BX-0004-204600;205994-1803-00		1,567	810	33,706
Pass-Through From Maricopa County	16.U04	Maricopa County Risk-Need-Responsivity Project-204738-204367;PD13190000000628-1 Shelby County Risk-Need-Responsivity (RNR)-2017-RW-BX-0008-204748;PO 32965		8,796	4,539	33,706
Pass-Through From Shelby County Government	16.U05			1,799	1,260	33,706
Total Excluding Clusters Identified Below			63,797,355	207,241	49,441,914	
Research and Development:						
Legal Assistance for Victims	16.524	2017-WL-AX-0025	113,427		39,436	113,427
National Institute of Justice Research, Evaluation, and Development Project Grants	16.560		5,060,321		1,306,019	5,334,313
Pass-Through From American Institute for Research	16.560			113,780		5,334,313
Pass-Through From Jensen Hughes Incorporated	16.560			38,639		5,334,313
Pass-Through From National Opinion Research Center	16.560			40,585		5,334,313
Pass-Through From Texas A&M University	16.560			47,444		5,334,313
Criminal Justice Research and Development_Graduate Research Fellowships	16.562		460			460
Drug Court Discretionary Grant Program	16.585					
Pass-Through From Jefferson Parish	16.585			6,378	2,520	6,378
Edward Byrne Memorial Justice Assistance Grant Program	16.738					
Pass-Through From City of Galax, Virginia	16.738	Subaward Number: 18-A4218AD 15		103,585		5,940,364
Pass-Through From County of Fairfax	16.738			66,194		5,940,364
Pass-Through From Michigan State University	16.738			104,103		5,940,364
Edward Byrne Memorial Competitive Grant Program	16.751					
Pass-Through From County of Roanoke	16.751			64,607		64,607
Economic High-Tech and Cyber Crime Prevention	16.752		60,497			256,349
Second Chance Act Reentry Initiative	16.812					
Pass-Through From United Planning Organization	16.812			36,613		487,416
Byrne Criminal Justice Innovation Program	16.817					
Pass-Through From Berea College	16.817			5,969		26,565
Pass-Through From Local Initiatives Support Corporation	16.817			20,596		26,565
Vision 21	16.826					
Pass-Through From End Domestic Abuse Wisconsin	16.826			44,992		44,992
Other Assistance	16.RD	Research Assistantship Program-2017UR2652-204199	55,040			350,624
Pass-Through From American Institutes for Research Institute	16.RD	Juvenile Drug Court Systematic Review-2014-DC-BX-K001-203456;0373700102 PROJECT 03737 14-678-15		2,824		350,624
Pass-Through From Arkansas State University	16.RD	Philadelphia Supervision, Motivation, Accountability, Responsibility and Treatment (SMART) Probation 2013-SM-BX-0004-203189;928076		3,865		350,624
Pass-Through From City of Philadelphia	16.RD	Risk Assessment, De-Escalation and Referral (RADAR): A System Wide Information Sharing Approach to Increasing Public Safety in First Responder Crisis Management-203795;8427 National Reentry Resource Center (NRR) 2-2016-MU-BX-K011-204302-204169;17-LA-161-2528/2516		44,441		350,624
Pass-Through From City of Shoreline	16.RD	Alameda County Probation-Evaluation & Implementation Support to Alameda County-		33,992		350,624
Pass-Through From Council Of State Governments	16.RD	204213;14843 National Crime Gun Intelligence Center Initiative-		8,982		350,624
Pass-Through From County of Alameda	16.RD	E0000015346-204353;G-00691707		196,937	22,705	350,624
Pass-Through From Police Foundation	16.RD	09333-000-00-VPI-01		2,643		350,624
Pass-Through From Urban Institute	16.RD			1,900		350,624
Total Research and Development			5,289,745	989,069	1,370,680	
Total U.S. DEPARTMENT OF JUSTICE			69,087,100	1,196,310	50,812,594	
U.S. DEPARTMENT OF LABOR						
Labor Force Statistics	17.002		1,563,164			1,563,164
Compensation and Working Conditions	17.005		122,974			122,974

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Registered Apprenticeship Pass-Through From Shenandoah Valley Workforce	17.201					
Development Board	17.201			1,500		1,500
Unemployment Insurance	17.225		320,241,357			320,241,357
Senior Community Service Employment Program	17.235		1,698,613		1,565,700	1,698,613
Trade Adjustment Assistance	17.245		2,714,835			2,714,835
WIA Dislocated Workers	17.260					
Pass-Through From Bay Consortium	17.260			(13,527)		(13,483)
Pass-Through From Lynchburg WIB	17.260			44		(13,483)
H-1B Job Training Grants	17.268		744,240			1,039,851
Pass-Through From New River/Mount Rogers						
Workforce Investment Area Consortium Board	17.268			144,233		1,039,851
Pass-Through From West Virginia Education Policy						
Commission	17.268			151,378		1,039,851
Work Opportunity Tax Credit Program (WOTC)	17.271		468,696			468,696
Temporary Labor Certification for Foreign Workers	17.273		568,488			568,488
Workforce Investment Act (WIA) National Emergency Grants	17.277	LWIA 1 MOU 1-2016	325,256		54,421	325,256
Workforce Investment Act (WIA) Dislocated Worker						
National Reserve Demonstration Grants	17.280		13,167			13,167
Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants	17.282		1,174,390			1,174,390
		LWIA 3-MOU 1 2015/LWIA 6-MOU 1 2015/LWIA 8-MOU 1 2015/LWIA 9-MOU 1 2015/LWIA 11-MOU 1 2015/LWIA 12-MOU 1 2015/LWIA 16-MOU 1				
Workforce Innovation Fund	17.283	2015/LWIA 17-MOU 3 2015	2,724,896		1,033,611	2,724,896
Apprenticeship USA Grants	17.285		86,067			86,067
Occupational Safety and Health_Susan Harwood Training Grants	17.502		120,483			166,638
Occupational Safety and Health_State Program	17.503		3,990,018			3,990,018
Consultation Agreements	17.504		1,120,923			1,120,923
Mine Health and Safety Grants	17.600		332,728		19,211	332,728
Brookwood-Sago Grant	17.603		41,848			41,848
Other Assistance	17.U01	Equal Opportunity Employment commission 41302	7,938			7,938
Total Excluding Clusters Identified Below			<u>338,060,081</u>	<u>283,628</u>	<u>2,672,943</u>	
Employment Service Cluster:						
Employment Service/Wagner-Peyser Funded Activities	17.207		17,905,760		347,376	17,905,760
Local Veterans' Employment Representative Program	17.804		6,309,887			6,309,887
Total Employment Service Cluster			<u>24,215,647</u>	<u>0</u>	<u>347,376</u>	<u>24,215,647</u>
WIOA Cluster:						
		LWDA 2-17-04/LWDA 02-18-04/LWDA 3-17-04/LWDA 3-18-04/LWDA 4-17-04/LWDA 4-18-04/LWDA 6-17-04/LWDA 6-18-04/LWDA 7-17-04/LWDA 7-18-04/LWDA 8-17-04/LWDA 8-18-04/LWDA 9-17-04/LWDA 9-18-04/LWDA 11-17-04/LWDA 11-18-04/LWDA 12-17-04/LWDA 12-18-04/LWDA 13-17-04/LWDA 13-18-04/LWDA 14-17-04/LWDA 14-18-04/LWDA 15-17-04/LWDA 15-18-04/LWDA 16-17-04/LWDA 16-18-04/LWDA 17-17-04/LWDA 17-18-04				
WIA Adult Program	17.258		12,255,451		10,731,031	12,697,949
Pass-Through From Bay Consortium	17.258			(11,355)		12,697,949
Pass-Through From Bay Consortium Workforce		FY18-PY16-ES22VE-001/FY19-PY17-ES22VE-001/PY18-RCC18		343,207		12,697,949
Investment Board, Incorporated	17.258			46,958		12,697,949
Pass-Through From Opportunity, Incorporated	17.258	WIOA-OSO-PY17-1				
Pass-Through From South Central Workforce						
Investment Board	17.258			63,688		12,697,949
		04/LWDA 2-17-04/LWDA 02-18-04/LWA 3-16-03/LWDA 3-17-04/LWDA 3-18-04/LWA 4-16-04/LWDA 4-17-04/LWDA 4-18-04/LWDA 6-17-04/LWDA 6-18-04/LWDA 7-17-04/LWDA 7-18-04/LWDA 8-17-04/LWDA 8-18-04/LWA 9-16-03/LWDA 9-17-04/LWDA 9-18-04/LWDA 11-17-04/LWDA 11-18-04/LWDA 12-17-04/LWDA 12-18-04/LWDA 13-17-04/LWDA 13-18-04/LWDA 14-17-04/LWDA 14-18-04/LWA 15-16-03/LWDA 15-17-04/LWDA 15-18-04/SWYC-2/LWDA 16-17-04/LWDA 16-18-04/LWA 17-16-03/LWDA 17-17-04/LWDA 17-18-04				
WIA Youth Activities	17.259		14,768,736		12,547,801	15,910,656
WIA Youth Activities	17.259		322,946		25,729	15,910,656
Pass-Through From Bay Consortium Workforce		FY18-PY16-ES22VE-001/FY19-PY17-ES22VE-001/PY18-RCC18		168,659		15,910,656
Investment Board, Incorporated	17.259			208,048		15,910,656
Pass-Through From Opportunity, Incorporated	17.259	WIOA-OSY-PY17-1/WIOA-OSY-PY'18-1				
Pass-Through From South Central Workforce						
Investment Board	17.259			442,267		15,910,656

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		LWA 1-16-03/LWDA 1-17-01 VCV NCE/LWDA 1-17-03/LWDA 01-17-04/LWDA 01-18-04/LWDA 2-17-04/LWDA 2-17-01 VCV NCE/LWDA 02-18-04/LWDA 3-17-04/LWDA 3-17-01 VCV NCE/LWDA 3-18-04/LWDA 4-17-04/LWDA 4-17-01 VCV NCE/LWDA 4-18-04/LWIA-06-15-01-IWTRR/LWDA 6-17-04/LWDA 6-17-01 VCV NCE/LWD/LWDA 11-18-04A 6-18-04/LWDA 7-17-04/LWDA 7-17-01 VCV NCE/LWDA 7-18-04/LWDA 8-17-04/LWDA 8-17-01 VCV NCE/LWDA 8-18-04/LWIA-09-15-01-IWTRR/LWDA 9-17-04/LWDA 9-17-01 VCV NCE/LWDA 9-18-04/LWDA 11-17-04/LWDA 11-17-01 VCV NCE/LWDA 12-17-04/LWDA 12-18-04/LWDA 13-17-04/LWDA 13-17-01 VCV NCE/LWDA 13-18-04/LWDA 14-17-04/LWDA 14-17-01 VCV NCE/LWDA 14-18-04/LWA 15-16-03/LWDA 15-17-04/LWDA 15-17-01 VCV NCE/LWDA 15-18-04/LWIA-16-15-01-IWTRR/LWDA 16-17-04/LWDA 16-17-01 VCV NCE/LWDA 16-18-04/LWIA-17-15-01-IWTRR/LWDA 17-17-04/LWDA 17-17-01 VCV NCE/LWDA 17-18-04	13,835,928		10,009,984	15,628,311
WIA Dislocated Worker Formula Grants	17.278		1,614,530		15,628,311	
WIA Dislocated Worker Formula Grants	17.278				15,628,311	
Pass-Through From Bay Consortium Workforce		FY18-PY16-ES22VE-001/FY19-PY17-ES22VE-				
Investment Board, Incorporated	17.278	001/PY18-RCC18		94,537	15,628,311	
Pass-Through From Opportunity, Incorporated	17.278	WIOA-OSO-PY17-1-DLW		46,865	15,628,311	
Pass-Through From South Central Workforce						
Investment Board	17.278			36,451	15,628,311	
Total WIOA Cluster			42,797,591	1,439,325	33,314,545	44,236,916
Research and Development:						
Occupational Safety and Health_Susan Harwood Training Grants	17.502					
Pass-Through From University Of Florida	17.502			14,409	166,638	
Pass-Through From Western Carolina University	17.502			31,746	166,638	
Total Research and Development			0	46,155	0	
Total U.S. DEPARTMENT OF LABOR			405,073,319	1,769,108	36,334,864	
U.S. DEPARTMENT OF STATE						
Academic Exchange Programs - Undergraduate Programs	19.009		5,889,167		80,000	6,083,941
Pass-Through From International Research & Exchanges Board (IREX)	19.009			189,517		6,083,941
Pass-Through From Partners of the Americas Foundation	19.009	CBG-2016-R2-03		5,257		6,083,941
Academic Exchange Programs - Hubert H. Humphrey Fellowship Program	19.010					
Pass-Through From Institute of International Education	19.010			226,072		237,595
Pass-Through From Institute of International Education	19.010	IIE0138_VC_7.1.17		11,523		237,595
Professional and Cultural Exchange Programs - Special	19.012		104,288			188,798
Professional and Cultural Programs	19.040		24,993			943,923
Pass-Through From American Council on Education	19.040	18-251-JMU ACE US Japan COIL Initiative		2,110		943,923
Pass-Through From Partners of the Americas	19.040			19,990		943,923
Pass-Through From Volunteers in Asia	19.040			9,837		943,923
Pass-Through From World Learning	19.040			29,047		943,923
International Programs to Support Democracy, Human Rights and Labor	19.345		200,882		71,104	200,905
Academic Exchange Programs - Teachers	19.408					
Pass-Through From International Research and Exchanges Board	19.408	S-ECAGD-17-CA-1014		2,409		2,409
Professional and Cultural Exchange Programs - Citizen Exchanges	19.415		247,961		71,987	295,176
Pass-Through From Legacy International	19.415			47,215		295,176
Academic Exchange Programs - English Language Programs	19.421					
Pass-Through From Family Health International	19.421			191,863		191,863
Public Diplomacy Programs for Afghanistan and Pakistan Weapons Removal and Abatement	19.501		349,607			349,607
	19.800		1,166,939		7,620	1,166,939
Pass-Through From Family Health International	19.U01	Teaching English to Young Learners-S-ECAGD-47-CA-1056-204764;PO19000972/Project 102468.001		10,269		10,269
Total Excluding Clusters Identified Below			7,983,837	745,109	230,711	
Research and Development:						
Professional and Cultural Exchange Programs - Special	19.012		84,510			188,798
Professional and Cultural Programs						

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Environmental and Scientific Partnerships and Programs	19.017		1,500			1,500
The U.S. President's Emergency Plan for AIDS Relief Programs	19.029	37188-1060	222,137		52,923	263,176
Pass-Through From John Snow Incorporated	19.029	37188-1060		41,039		263,176
Public Diplomacy Programs	19.040	SEAPPD17GR0017/SIN65018GR0051	857,946		203,744	943,923
International Programs to Support Democracy, Human Rights and Labor	19.345					
Pass-Through From Center for International Media Assistance	19.345	742681		23		200,905
ECA Individual Grants	19.450		6,841			6,841
Global Counterterrorism Programs	19.701		209,284		28,536	209,284
		Membership renewal for Department of State, Bureau of Intelligence & Research, Office of the Geographer & Global Issues - Spatiotemporal Innovation Centers in support of the Secondary Cities Initiative-204573;19AQMM18P1532-				
Other Assistance	19.RD	17258SC001	100,000		97,500	634,689
Pass-Through From Development Services Group, Incorporated	19.RD	204599;ATP		534,689		634,689
Total Research and Development			1,482,218	575,751	382,703	
Total U.S. DEPARTMENT OF STATE			9,466,055	1,320,860	613,414	
U.S. DEPARTMENT OF TRANSPORTATION						
Airport Improvement Program	20.106		315,380			448,494
Highway Research and Development Program	20.200					
Pass-Through From City College of New York Institute	20.200	49325-A		1,922		4,845,352
Highway Training and Education	20.215		29,290			116,354
National Motor Carrier Safety Performance and Registration Information Systems Management	20.218		5,827,489			5,827,489
	20.231		95,040			95,040
Commercial Driver's License Program Improvement Grant	20.232		59,730			59,730
Commercial Motor Vehicle Operator Training Grants	20.235		52,197			52,197
Commercial Vehicle Information Systems and Networks	20.237		1,271,571			1,365,185
Fuel Tax Evasion-Intergovernmental Enforcement Effort	20.240		31,284			31,284
Railroad Safety	20.301		19,563			19,563
High-Speed Rail Corridors and Intercity Passenger Rail Service Capital Assistance Grants	20.319		3,517,229			3,517,229
Metropolitan Transportation Planning and State and Non-Metropolitan Planning and Research	20.505		3,170,279		2,868,778	3,170,279
Formula Grants for Rural Areas	20.509		19,298,516		18,715,677	19,298,516
Public Transportation Research	20.514		49,189			1,076,705
Rail Fixed Guideway Public Transportation System State Safety Oversight Formula Grant Program	20.528		234,268			234,268
Alcohol Open Container Requirements	20.607		18,005,640		9,527,409	18,005,640
Pipeline Safety Program State Base Grant	20.700		1,928,785			1,928,785
Interagency Hazardous Materials Public Sector Training and Planning Grants	20.703		216,155			216,155
Other Assistance	20.U01	Fatality Analysis & Reporting DTNH22-17	99,681			452,009
		Technical Support for Department of Transportation Positive Train Control Program-				
Pass-Through From Syntek Technologies Incorporated	20.U02	DTRF5316F00063-203973-204675;1066738		352,328		452,009
Total Excluding Clusters Identified Below			54,221,286	354,250	31,111,864	
Federal Transit Cluster:						
Bus and Bus Facilities Formula Program	20.526		97,212		97,212	122,140
Pass-Through From National Academy of Sciences	20.526			24,928		122,140
Total Federal Transit Cluster			97,212	24,928	97,212	122,140
Highway Planning and Construction Cluster:						
Highway Planning and Construction	20.205		1,133,504,823		114,370,052	1,133,660,136
Highway Planning and Construction	20.205	DHR68006	1,840		1,840	1,133,660,136
Pass-Through From Howard University	20.205			36,973		1,133,660,136
Pass-Through From WSP USA Incorporated	20.205			116,500		1,133,660,136
Recreational Trails Program	20.219		1,135,559		1,043,045	1,135,559
Federal Lands Access Program	20.224					
Pass-Through From Roanoke County	20.224			4,466		4,466
Total Highway Planning and Construction Cluster			1,134,642,222	157,939	115,414,937	1,134,800,161
Highway Safety Cluster:						
State and Community Highway Safety	20.600		9,561,339		3,382,323	9,864,594
Pass-Through From National Academy of Sciences	20.600			19,353		9,864,594
Pass-Through From Penn State University	20.600			44,006		9,864,594

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Pass-Through From TransAnalytics Limited Liability Corporation	20.600			144,967		9,864,594
Pass-Through From Transportation Research Center Incorporated	20.600			3,998		9,864,594
Pass-Through From Wake Forest University	20.600			90,931		9,864,594
Alcohol Impaired Driving Countermeasures Incentive Grants I	20.601		134,938		134,938	134,938
Occupant Protection Incentive Grants	20.602		350,422			350,422
National Priority Safety Programs	20.616		4,954,654		2,511,232	4,954,654
Total Highway Safety Cluster			15,001,353	303,255	6,028,493	15,304,608
Transit Services Programs Cluster:						
Enhanced Mobility of Seniors and Individuals with Disabilities	20.513		5,013,537		2,047,621	5,013,537
Job Access And Reverse Commute Program	20.516		19,058		19,058	19,058
Total Transit Services Programs Cluster			5,032,595	0	2,066,679	5,032,595
Research and Development:						
Airport Improvement Program	20.106					
Pass-Through From University of Maryland	20.106			133,114		448,494
Aviation Research Grants	20.108		445,552		74,981	641,692
Pass-Through From The University of Alabama in Huntsville	20.108			30,559		641,692
Pass-Through From University of Maryland	20.108			165,581		641,692
Air Transportation Centers of Excellence	20.109					
Pass-Through From University of North Dakota	20.109			39,575		39,575
Highway Research and Development Program	20.200		403,317		141,228	4,845,352
Pass-Through From Georgia Institute of Technology	20.200			20,795		4,845,352
Pass-Through From Iowa State University	20.200			32,838		4,845,352
Pass-Through From Minnesota Department Of Transportation Business Services	20.200			6,991		4,845,352
Pass-Through From National Academy of Sciences	20.200	417980-19A53		3,736,013	505	4,845,352
Pass-Through From National Academy of Sciences	20.200	417980-19C45		2,000	2,000	4,845,352
Pass-Through From National Academy of Sciences	20.200	417980-19C46		5,250	5,250	4,845,352
Pass-Through From National Academy of Sciences	20.200	418503-19406		48,462	48,462	4,845,352
Pass-Through From National Cooperative Highway Research Program	20.200	451529-19836		233,207	43,121	4,845,352
Pass-Through From National Cooperative Highway Research Program	20.200	417943-19C37		41,176	41,176	4,845,352
Pass-Through From National Cooperative Highway Research Program	20.200	417943-19C36		153,266	153,266	4,845,352
Pass-Through From Pennoni Associates Incorporated	20.200			6,659		4,845,352
Pass-Through From Texas Transportation Institute	20.200			88,408		4,845,352
Pass-Through From The National Academies of Sciences	20.200			13,011		4,845,352
Pass-Through From The University of North Carolina at Chapel Hill	20.200			9,897		4,845,352
Pass-Through From Transportation Research Board	20.200			4,401		4,845,352
Pass-Through From University of Illinois	20.200			31,993		4,845,352
Pass-Through From University of Missouri Columbia	20.200			2,178		4,845,352
Pass-Through From Wake Forest University Health Sciences	20.200			3,568		4,845,352
Highway Training and Education	20.215		33,885			116,354
Pass-Through From Inova Fairfax Hospital	20.215			53,179		116,354
Commercial Vehicle Information Systems and Networks	20.237		93,614			1,365,185
Railroad Safety Technology Grants	20.321		18,871			18,871
Public Transportation Research	20.514					
Pass-Through From Charles River Analytics Incorporated	20.514			179,745		1,076,705
Pass-Through From New York City Transit	20.514			327,840		1,076,705
Pass-Through From Science Applications International Corporation	20.514			198,022		1,076,705
Pass-Through From Washington State Insurance Pool	20.514			321,909		1,076,705
National Highway Traffic Safety Administration (NHTSA) Discretionary Safety Grants	20.614		79,828			91,035
Pass-Through From Crash Avoidance Metrics Partnership	20.614			11,207		91,035
University Transportation Centers Program	20.701		3,346,084		1,986,001	3,747,311
Pass-Through From Pennsylvania State University	20.701			17,113		3,747,311
Pass-Through From The Research Foundation of State University of New York	20.701			80,666		3,747,311
Pass-Through From University of Nevada Las Vegas	20.701			303,448		3,747,311

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Transportation Planning, Research and Education	20.931					
Pass-Through From Morgan State University	20.931			333,333		676,742
Pass-Through From North Carolina Agricultural & Technical State University	20.931			343,409		676,742
Other Assistance	20.RD	693JJ318C000005	2,283,256			8,048,574
Other Assistance	20.RD	693JJ618C000007	45,482			8,048,574
Other Assistance	20.RD	693JJ618C000013	95,152			8,048,574
Other Assistance	20.RD	DTFH6114D00012-204297 Armored Vehicle Stability Analysis- Corridor Based Tolling Strategies-204727;VTRC	128,718			8,048,574
Other Assistance	20.RD	114667	21,843		1,890	8,048,574
Other Assistance	20.RD	DTNH2215D00005/693JJ918F000115-204643 Crash Simulations between Non-Occupied Automated Driving Systems & Roadside Hardware-	150,256			8,048,574
Other Assistance	20.RD	DNTH2215D0004-0001	18,479			8,048,574
Other Assistance	20.RD	DTFH6116D00041-0002	203,893			8,048,574
Other Assistance	20.RD	DTFH6117C00009	128,605			8,048,574
Other Assistance	20.RD	DTFR5317C00021	114,584			8,048,574
Other Assistance	20.RD	DTMC7514D00011 TO7007	245,840			8,048,574
Other Assistance	20.RD	DTMC7514D00011-7005	17,237			8,048,574
Other Assistance	20.RD	DTMC7514D00011L-7006	73,515		62,291	8,048,574
Other Assistance	20.RD	DTMC7514D00011L-7009	61,530			8,048,574
Other Assistance	20.RD	DTMC7517F00058	692,021		147,200	8,048,574
Other Assistance	20.RD	DTMC7517F00064	143,142			8,048,574
Other Assistance	20.RD	DTMC7517F00066	88,331			8,048,574
Other Assistance	20.RD	DTNH22-11-D-00236L/0003	291,063			8,048,574
Other Assistance	20.RD	DTNH2215D00004/DTNH2217F00090	172,210			8,048,574
Other Assistance	20.RD	DTNH2215D00022/0001-2	131,501			8,048,574
Other Assistance	20.RD	DTNH2215D00022-0002	97,558			8,048,574
Other Assistance	20.RD	DTNH2215D00022-0003	27,816			8,048,574
Other Assistance	20.RD	DTNH2215D00022-0004	290,769		8,371	8,048,574
Other Assistance	20.RD	DTNH2217D00065/F00163/RQ01249 Material Model Development and Its Application Using Finite Element Methods in Engine Failure	255,451			8,048,574
Other Assistance	20.RD	Analysis-13-G-020-203093 Parameter Study of the Oblique Moving Deformable Barrier (OMDB) Test Procedure-	6,965			8,048,574
Other Assistance	20.RD	DTNH2215D00005/DTNH2217F00183-204342 Research assistance to the Department of State (DOS) to Develop & Optimize Effective Anti-Ram Devices-DTFH6114D000054-693JJ318F00336-	91,507			8,048,574
Other Assistance	20.RD	204666	63,072			8,048,574
Other Assistance	20.RD	Roadside Safety-DTFH6114D00012-203242	1,286,777			8,048,574
Other Assistance	20.RD	T.O.DTMC7517F00055 Trategic Highway Research Program 2 (SHRP2)	83,876			8,048,574
Other Assistance	20.RD	Research Support-DTFH6114D00054-203907	37,129			8,048,574
Pass-Through From Applied Research Associates Incorporated	20.RD	S-714-D00043-00205-VATECH		94,125		8,048,574
Pass-Through From Battelle Memorial Institute Pass-Through From Crash Avoidance Metrics Partnership	20.RD	PO US001-0000706573		24,970		8,048,574
Pass-Through From Engineering and Software Consultants, Incorporated	20.RD	PO CAMP0000002		10,694		8,048,574
Pass-Through From Intelligent Automation Incorporated	20.RD	Data Fusion and visualization for bridge management-DTFH61-14-D-00011-204657;18-48		52,144		8,048,574
Pass-Through From Leidos Incorporated	20.RD	SUBCONTRACT 2260-1 Public-Private Partnerships Procurement Guide and Training-DTFH61-13-D-00022, Task Order 0209-		40,329		8,048,574
Pass-Through From State Of Maryland	20.RD	204374;P010203904 Advancing Travel Behavior Information Gathering Through Public Domain Data-DTFH6116C00001-		3,344		8,048,574
Pass-Through From State Of Maryland	20.RD	203832;35500-Z9193101 Barrier Analysis of Event Tree Models for Aviation Safety-DTFAWA-11-D-00017; Delivery Order No.		82,105		8,048,574
Pass-Through From State Of Maryland	20.RD	004-204132;46351-Z9335101 Developing a Standard Process & Work Instruction for the Elicitation of Expert Judgement for Risk Analysis-DTFAWA-11-D-00017/DO 0047-		62,516		8,048,574
Pass-Through From State Of Maryland	20.RD	204357;54265-Z9097201 Wake Turbulence Research-Phase 4-DTFAWA-11-D-		25,000	25,000	8,048,574
Pass-Through From State Of Maryland	20.RD	00017-204347;53581-Z9089203 Application of Manual for Assessing Safety Hardware (MASH) Test Criteria to Breakaway Sign and Luminaire Support and Crashworthy Work- Zone Traffic Control Devices DTFH61-13-H-00024-		37,855		8,048,574
Pass-Through From The National Academies of Sciences	20.RD	203697;HR 03-119/PO SUB0000734		84,624	48,432	8,048,574
Pass-Through From Transportation Research Board	20.RD	HR 17-43 Coordinated Transit Response Planning and Operations Support Tools for Mitigating Impacts of All-Hazard Emergency Events-D2015-SRER-007-		48,876		8,048,574
Pass-Through From University of Chicago	20.RD	204041;FP062899-E		23,144		8,048,574

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Pass-Through From Wake Forest University	20.RD	WFUHS-330104		21,318		8,048,574
Pass-Through From Washington State Department of Transportation	20.RD	GCB 1973		89,952		8,048,574
Total Research and Development			11,768,729	7,679,809	2,789,174	
Total U.S. DEPARTMENT OF TRANSPORTATION			1,220,763,397	8,520,181	157,508,359	
DEPARTMENT OF TREASURY						
Equitable Sharing	21.016	Asset Forfeiture Funds - Federal Treasury Department of Treasury Equitable Sharing Program,	2,687,239		255,319	2,687,239
Other Assistance	21.U01	Assets Forfeiture Program	24,134			24,134
Total Excluding Clusters Identified Below			2,711,373	0	255,319	
Research and Development:						
Pass-Through From The MITRE Corporation	21.RD	Stratified Sampling Methods -TIRNO-99-D-00005-204406;0121331		199		199
Total Research and Development			0	199	0	
Total DEPARTMENT OF TREASURY			2,711,373	199	255,319	
APPALACHIAN REGIONAL COMMISSION						
Pass-Through From Industrial Development Authority, Wise County	23.001			70,283		70,283
Appalachian Area Development	23.002		3,644,000		2,658,509	3,680,521
Appalachian Research, Technical Assistance, and Demonstration Projects	23.011		237,108			241,365
Total Excluding Clusters Identified Below			3,881,108	70,283	2,658,509	
Research and Development:						
Appalachian Area Development	23.002		36,521			3,680,521
Appalachian Research, Technical Assistance, and Demonstration Projects	23.011					
Pass-Through From East Tennessee State University	23.011	Subaward Number: 18-132-1-S6.1		4,257		241,365
Pass-Through From East Tennessee State University	23.RD	18-132-1-S8.1		4,500		12,311
Pass-Through From The University of North Carolina at Chapel Hill	23.RD	5112014		7,811		12,311
Total Research and Development			36,521	16,568	0	
Total APPALACHIAN REGIONAL COMMISSION			3,917,629	86,851	2,658,509	
FEDERAL TRADE COMMISSION						
Research and Development:						
Other Assistance	36.RD	Interagency Personnel Act Agreement for Bruce Kobayashi-204993	231,555			403,715
Other Assistance	36.RD	Interagency Personnel Act Agreement for James Cooper-204542	172,160			403,715
Total Research and Development			403,715	0	0	
Total FEDERAL TRADE COMMISSION			403,715	0	0	
GENERAL SERVICES ADMINISTRATION						
Donation of Federal Surplus Personal Property	39.003		920,621			920,621
Total Excluding Clusters Identified Below			920,621	0	0	
Total GENERAL SERVICES ADMINISTRATION			920,621	0	0	
LIBRARY OF CONGRESS						
Books for the Blind and Physically Handicapped	42.001		32,628			32,628
Total Excluding Clusters Identified Below			32,628	0	0	
Research and Development:						
Other Assistance	42.RD	U.S. Library_Rogers_Dancing Th	33,597			33,597
Total Research and Development			33,597	0	0	
Total LIBRARY OF CONGRESS			66,225	0	0	
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION						
Science	43.001		107,394			11,037,773
Aeronautics	43.002		103,545			1,344,940
Exploration	43.003		48,440			92,092
Pass-Through From Baylor University	43.003			24,538		92,092
Space Operations	43.007		9,933			38,910
Education	43.008		12,852			195,512
Space Technology	43.012					
Pass-Through From University of Utah	43.012	SUB Number 10044107-VCU		35,659		556,412

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Other Assistance	43.U01	201112-VT	8,182			15,378
Pass-Through From Virginia Space Grant Consortium	43.U02	CK # 343168		7,196		15,378
Total Excluding Clusters Identified Below			290,346	67,393	0	
Research and Development:						
Science	43.001		8,171,191		1,325,076	11,037,773
Science	43.001	80NSSC17K0654	75,150		75,150	11,037,773
Pass-Through From Arizona State University	43.001			249,140		11,037,773
Pass-Through From Bay Area Environmental Research Institute	43.001			11,409		11,037,773
Pass-Through From Cambridge Climate Institute	43.001			57,430		11,037,773
Pass-Through From Cornell University	43.001			474		11,037,773
Pass-Through From Dixie State University	43.001			12,000		11,037,773
Pass-Through From Hampton University	43.001			45,300		11,037,773
Pass-Through From Johns Hopkins University	43.001			67,886		11,037,773
Pass-Through From Jones Edmunds & Associates	43.001					11,037,773
Pass-Through From Michigan State University	43.001			65,049		11,037,773
Pass-Through From microXact Incorporated	43.001			157,728		11,037,773
Pass-Through From NanoSonic Incorporated	43.001			695		11,037,773
Pass-Through From National Institute of Aerospace	43.001			75,345		11,037,773
Associates, Incorporated	43.001			460,492		11,037,773
Pass-Through From Pennsylvania State University	43.001	NNX14AF93G / 5232-VIMS-NASA-F93G		26,314		11,037,773
Pass-Through From Planetary Science Institute	43.001			15,037		11,037,773
Pass-Through From Science Systems & Applications	43.001					11,037,773
Incorporated	43.001			568,123		11,037,773
Pass-Through From Smithsonian Astrophysical Observatory	43.001	AR9-20011A		667		11,037,773
Pass-Through From Southwest Research Institute	43.001			325,493		11,037,773
Pass-Through From Space Science Institute	43.001			28,074		11,037,773
Pass-Through From Space Telescope Science Institute	43.001			53,361		11,037,773
Pass-Through From The Smithsonian Institution	43.001			20,024		11,037,773
Pass-Through From Universities Space Research Association	43.001			80,395		11,037,773
Pass-Through From University of California San Diego	43.001			15,857		11,037,773
Pass-Through From University of California, Berkeley	43.001			77,118		11,037,773
Pass-Through From University of California, Los Angeles	43.001	1000 G VB828		11,178		11,037,773
Pass-Through From University of Illinois	43.001			75,618		11,037,773
Pass-Through From University of Oklahoma	43.001			3,700		11,037,773
Pass-Through From University of Pennsylvania	43.001			6,896		11,037,773
Pass-Through From Virginia Space Grant Consortium	43.001			101,618		11,037,773
Pass-Through From Woods Hole Oceanographic Institution	43.001			71,617		11,037,773
Aeronautics	43.002		1,113,413		124,358	1,344,940
Pass-Through From University of Minnesota	43.002			122,082		1,344,940
Pass-Through From Virginia Space Grant Consortium	43.002			5,900		1,344,940
Exploration	43.003		10,526		92,092	92,092
Pass-Through From University Of Colorado	43.003			8,588		92,092
Space Operations	43.007		28,977			38,910
Education	43.008		53,476			195,512
Pass-Through From National Institute of Aerospace	43.008	C17-2D00-W&M		9,513		195,512
Pass-Through From National Institute of Aerospace	43.008					195,512
Associates, Incorporated	43.008			16,962		195,512
Pass-Through From Old Dominion University Research Foundation	43.008			30,917		195,512
Pass-Through From Old Dominion University Research Foundation	43.008					195,512
Pass-Through From Texas State University	43.008	18-226-100527-010		7,722		195,512
Pass-Through From The National Institute of Aerospace	43.008			51,647		195,512
Associates	43.008	Grant award C15-2B00-CNU/Sub-award activity number 2B05-CNU		4,118		195,512
Pass-Through From Virginia Space Grant Consortium	43.008			8,305		195,512
Space Technology	43.012		520,753		119,349	556,412
Other Assistance	43.RD	1615864	36,075			4,730,290
Other Assistance	43.RD	201104-VT	(1,944)			4,730,290
Other Assistance	43.RD	301006-VT	192,140			4,730,290
Other Assistance	43.RD	601028	125,508			4,730,290
Other Assistance	43.RD	601032	109,935			4,730,290
Other Assistance	43.RD	6563-VT	6,296			4,730,290
Other Assistance	43.RD	80LARC18C0011	33,932			4,730,290
Other Assistance	43.RD	Big data deep learning platform-80NSSC17P0612				4,730,290
Other Assistance	43.RD	204303	11,145			4,730,290
Other Assistance	43.RD	Planetary Defense-80NSSC19P0301 204753	49,571			4,730,290
Other Assistance	43.RD	RSA1584135	38,888			4,730,290

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Other Assistance	43.RD	Spatiotemporal Innovation Center Membership - Planetary Defense-80NSSC18P1856 204520	50,310			4,730,290
Other Assistance	43.RD	The Ionospheric Connection Explorer-NNG12FA45C-				4,730,290
Other Assistance	43.RD	418124-20002-204233	26,071			4,730,290
Pass-Through From Acoustical and Vibrations Engineering Consultants Incorporated	43.RD	TO 601035	103,648			4,730,290
	43.RD	PO 1137		43,010		4,730,290
Pass-Through From Catholic University of America	43.RD	Inter-cycle Variation of the Coronal Mass Ejection (CME) Occurrence Rate and Kinematic Properties-NNG11PL10A Task 103-204516;361303 SUB 8		79,069		4,730,290
Pass-Through From Catholic University of America	43.RD	Multi-spacecraft Observations and Modeling of Solar Energetic Particle Events-NNG11PL10A Task 103-204518;361375 SUB 2		13,918		4,730,290
Pass-Through From Catholic University of America	43.RD	Operations and science data support for the IRIS mission-NNG11PL10A-204519;361352 SUB 3		8,475		4,730,290
Pass-Through From Catholic University of America	43.RD	Space Physics Data Facility (SPDF) Science Support-NNG11PL10A Task 128-204514;361328 SUB 3		218,039		4,730,290
Pass-Through From Catholic University of America	43.RD	Support for Artificial Intelligence Stranding Analysis-NNG11PL10A Task 103-204517;361395 SUB 1		19,000		4,730,290
Pass-Through From Catholic University of America	43.RD	Understanding the Relations between Coronal Mass Ejections (CMEs) from remote-sensing observations and Interplanetary Coronal Mass Ejections (ICMEs) from in-situ observations-NNG11PL10A Task 600-204579;361600 SUB 1		27,329		4,730,290
Pass-Through From Hampton University	43.RD	06-001		211,900		4,730,290
Pass-Through From Hampton University	43.RD	HU-150015		51,349		4,730,290
Pass-Through From Intelligent Automation, Incorporated	43.RD	Metrosim and Airspace Concept Evaluation System (ACES) Testing to Support New York Novel Airspace Configurations (NYNAC)-NNX16CS70C-204345;2196-1		15,910		4,730,290
Pass-Through From Jacobs Technologies	43.RD	EN61016FMS		18,146		4,730,290
Pass-Through From Jet Propulsion Laboratory	43.RD	Geodesy and Cartography-201556;1345925		42,927		4,730,290
Pass-Through From Jet Propulsion Laboratory	43.RD	Local and Global Cartography and Landing Site Characterization-201553;1345487		36,405		4,730,290
Pass-Through From Jet Propulsion Laboratory	43.RD	Simulations of Radial Velocity Pre-Cursor Survey Yield for Future Direct Imaging Missions-204332;1582918		19,515	12,426	4,730,290
Pass-Through From Jet Propulsion Laboratory	43.RD	The Search for Black Holes in Low Metallicity Dwarf Galaxies: The Power of Keck NIRSPEC-201553;RSA 1607155		9,122		4,730,290
Pass-Through From Laser & Plasma Technologies, Limited Liability Company	43.RD	Laser&Plasma_Gupta_OpticFiber		34,380		4,730,290
Pass-Through From Laser & Plasma Technologies, Limited Liability Company	43.RD	LPTech-Mool-NASA Fiber Based		507		4,730,290
Pass-Through From Magnolia Optical Technologies, Incorporated	43.RD	NASAGR03		31,255		4,730,290
Pass-Through From Materials Research & Design	43.RD	NNX16C279C/NN07-01-Uva		36,143		4,730,290
Pass-Through From N5 Sensors Incorporated	43.RD	Nanoengineered Hybrid Gas Sensors for Spacesuit Monitoring-NNX17CJ01C-203988;NNX17CJ01C # NA-2126		71,686		4,730,290
Pass-Through From NanoSonic Incorporated	43.RD	NA-2143		21,612		4,730,290
Pass-Through From NanoSonic Incorporated	43.RD	NA-2143		10,363		4,730,290
Pass-Through From NanoSonic Incorporated	43.RD	NANO #N-A03C, W.NG		79,855		4,730,290
Pass-Through From NanoSonic Incorporated	43.RD	N-D05C		3,342		4,730,290
Pass-Through From Prime Photonics Incorporated	43.RD	NAS 02-406-TO 12		54,258		4,730,290
Pass-Through From Southwest Research Institute	43.RD	D99001L		62,698		4,730,290
Pass-Through From Space Telescope Science Institute	43.RD	48020		27,444		4,730,290
Pass-Through From Space Telescope Science Institute	43.RD	An Overmassive AGN in a Merging Dwarf Galaxy-NAS5-26555-204555;HST-GO-15319.007-A		4,604		4,730,290
Pass-Through From Space Telescope Science Institute	43.RD	HST-AR-13233.01-A		42,549		4,730,290
Pass-Through From Space Telescope Science Institute	43.RD	HST-AR-14451.001-A		17,743		4,730,290
Pass-Through From Space Telescope Science Institute	43.RD	HST-GO-14054.004-A		26,700		4,730,290
Pass-Through From Trident Vantage Systems	43.RD	Data System Sustaining Engineering and Support-NNG15CR65C-203775;TVS-2015-10-011		2,280,060		4,730,290
Pass-Through From Universities Space Research Association	43.RD	SOF 06-0071		7,621		4,730,290
Pass-Through From Universities Space Research Association	43.RD	SOF 06-0150		13,273		4,730,290
Pass-Through From University of California, Berkeley	43.RD	SUBCONTRACT 00009423		139,175		4,730,290
Pass-Through From University of Central Florida	43.RD	66016028-06		26,583		4,730,290

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Pass-Through From University of Colorado at Boulder	43.RD	SUBCONTRACT 1556355		55,444		4,730,290
Pass-Through From University Of Iowa	43.RD	204030;W000880292		85,477		4,730,290
Pass-Through From Vantage Partners Limited Liability Corporation	43.RD	VPL-PO-17-194		1,829		4,730,290
Total Research and Development			10,755,061	6,898,507	1,656,359	
Total NATIONAL AERONAUTICS AND SPACE ADMINISTRATION			11,045,407	6,965,900	1,656,359	
NATIONAL ENDOWMENT FOR THE HUMANITIES						
Promotion of the Arts_Grants to Organizations and Individuals	45.024		71,556			178,869
Promotion of the Arts_Partnership Agreements	45.025		709,500			709,500
Promotion of the Humanities_Federal/State Partnership	45.129		827,522			1,102,053
Promotion of the Humanities_Challenge Grants	45.130		13,533			13,533
Promotion of the Humanities_Division of Preservation and Access	45.149		192,298			280,023
Promotion of the Humanities_Research	45.161		126,003			882,233
Promotion of the Humanities_Teaching and Learning Resources and Curriculum Development	45.162		29,463			156,023
Promotion of the Humanities_Professional Development	45.163		161,257			194,673
Promotion of the Humanities_Public Programs	45.164		53,885			219,729
Promotion of the Humanities_Office of Digital Humanities Museums for America	45.169		320,231		15,000	428,228
Pass-Through From Institute of Museum & Library Services	45.301			76,235		76,235
Grants to States	45.310		3,652,550			3,652,550
National Leadership Grants	45.312		54,985		40,073	661,385
Laura Bush 21st Century Librarian Program	45.313		466,171		176,078	466,171
Other Assistance	45.U01	PC-15-8-058	22,468			49,811
Other Assistance	45.U02	PC-15-8-059	27,343			49,811
Total Excluding Clusters Identified Below			6,728,765	76,235	231,151	
Research and Development:						
Promotion of the Arts_Grants to Organizations and Individuals	45.024		107,313			178,869
Promotion of the Humanities_Federal/State Partnership	45.129		274,531			1,102,053
Promotion of the Humanities_Division of Preservation and Access	45.149		76,878			280,023
Pass-Through From University of Nebraska - Lincoln	45.149			10,847		280,023
Promotion of the Humanities_Fellowships and Stipends	45.160		128,582			128,582
Promotion of the Humanities_Research	45.161		756,230		75,429	882,233
Promotion of the Humanities_Teaching and Learning Resources and Curriculum Development	45.162		126,560			156,023
Promotion of the Humanities_Professional Development	45.163		33,416			194,673
Promotion of the Humanities_Public Programs	45.164		165,844			219,729
Promotion of the Humanities_Office of Digital Humanities National Leadership Grants	45.169		107,997		20,376	428,228
Pass-Through From Indiana University	45.312		559,735		261,421	661,385
Pass-Through From University of Nebraska	45.312			15,193		661,385
Total Research and Development			2,337,086	57,512	357,226	661,385
Total NATIONAL ENDOWMENT FOR THE HUMANITIES			9,065,851	133,747	588,377	
NATIONAL SCIENCE FOUNDATION						
Engineering Grants	47.041		528,665			21,107,334
Pass-Through From Oregon State University	47.041			88,153		21,107,334
Pass-Through From University of Washington	47.041			21,133		21,107,334
Mathematical and Physical Sciences	47.049		81,824			14,828,234
Geosciences	47.050		380,706			10,890,289
Pass-Through From Fort Hays State University	47.050			19,012		10,890,289
Pass-Through From National Science Foundation	47.050			6,672		10,890,289
Computer and Information Science and Engineering	47.070		171,658		13,377	24,624,539
Pass-Through From The George Washington University	47.070			7,350		24,624,539
Biological Sciences	47.074		55,775		1,248	9,797,230
Social, Behavioral, and Economic Sciences	47.075		270,472			2,462,464
Education and Human Resources	47.076		4,195,859		196,499	22,964,656
Education and Human Resources	47.076	1735301	10,114		10,114	22,964,656

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Other Assistance	47.U01	Interagency Personnel Act Agreement for Anthony Kelly-EHR-1460631-203356	24,888			41,498
Other Assistance	47.U02	Interagency Personnel Act Agreement for Margret Hjalmarson-1461865-203355	10,333			41,498
Pass-Through From Louisiana Transportation Research Center	47.U03	DOTLT1000101		6,277		41,498
Total Excluding Clusters Identified Below			5,730,294	148,597	221,238	
Research and Development:						
Engineering Grants	47.041		18,653,842		937,146	21,107,334
Engineering Grants	47.041	1266065	40,000		40,000	21,107,334
Pass-Through From Arizona State University	47.041			5,540		21,107,334
Pass-Through From Ball State University	47.041			64,341		21,107,334
Pass-Through From Clemson University	47.041			176,122		21,107,334
Pass-Through From Columbia University	47.041			23,554		21,107,334
Pass-Through From Health Network Research Group, Limited Liability Company	47.041			58,344		21,107,334
Pass-Through From Iowa State University	47.041			19,512		21,107,334
Pass-Through From Iowa State University	47.041	4206034A		6,807		21,107,334
Pass-Through From Li Industries Incorporated	47.041			91,735		21,107,334
Pass-Through From North Carolina State University	47.041			518,421		21,107,334
Pass-Through From North Dakota State University	47.041			14,247		21,107,334
Pass-Through From Penn State University	47.041			20,038		21,107,334
Pass-Through From Techverse Incorporated	47.041			87,824		21,107,334
Pass-Through From University of Akron	47.041			22,481		21,107,334
Pass-Through From University of Arizona	47.041			2,000		21,107,334
Pass-Through From University of Delaware	47.041			37,312		21,107,334
Pass-Through From University of Maryland	47.041			308,045		21,107,334
Pass-Through From University Of Oklahoma	47.041			129,620		21,107,334
Pass-Through From University of Pittsburgh	47.041	0051478 (011872-1)		46,222		21,107,334
Pass-Through From University of South Carolina	47.041	16-3108		1,398		21,107,334
Pass-Through From University of South Carolina	47.041	18-3442		16,261		21,107,334
Pass-Through From University of South Carolina	47.041	18-3443		5,941		21,107,334
Pass-Through From University of South Carolina	47.041	18-3445		9,543		21,107,334
Pass-Through From University of Washington	47.041			2,189		21,107,334
Pass-Through From University of Wisconsin	47.041			84,325		21,107,334
Pass-Through From Wake Forest University	47.041	1463865		6,714		21,107,334
Pass-Through From Zebra Analytix Incorporated	47.041			17,005		21,107,334
Mathematical and Physical Sciences	47.049		14,417,380		67,212	14,828,234
Pass-Through From Cornell University	47.049			131,689		14,828,234
Pass-Through From Georgia State University	47.049	Georgia State SP00013054		22,199		14,828,234
Pass-Through From The Regents of the University of California, Santa	47.049			5,965		14,828,234
Pass-Through From University of Houston	47.049			3,035		14,828,234
Pass-Through From University of Nebraska	47.049			6,401		14,828,234
Pass-Through From University of Notre Dame	47.049			4,000		14,828,234
Pass-Through From University of Wisconsin	47.049	Subaward number 193405394		139,297		14,828,234
Pass-Through From Wichita State University	47.049			16,444		14,828,234
Geosciences	47.050		9,630,514		730,417	10,890,289
Geosciences	47.050	714711/1504270	99,980		10,890,289	10,890,289
Geosciences	47.050	1427125	6,980		6,980	10,890,289
Pass-Through From Columbia University	47.050			196,613		10,890,289
Pass-Through From Columbia University	47.050	PLR-1440435 / 2GG008855		55,869		10,890,289
Pass-Through From Consortium for Ocean Leadership, Incorporated	47.050	SA 15-23		2,205		10,890,289
Pass-Through From DePaul University	47.050			70,296		10,890,289
Pass-Through From Johns Hopkins University	47.050			18,500		10,890,289
Pass-Through From Massachusetts Institute of Technology	47.050			92,685		10,890,289
Pass-Through From Research Foundation of CUNY	47.050			82,194		10,890,289
Pass-Through From The Field Museum	47.050			8,201		10,890,289
Pass-Through From University of Arizona	47.050	ICER 1642894;AZ:344931		7,726		10,890,289
Pass-Through From University of Illinois	47.050			40,684		10,890,289
Pass-Through From University of North Carolina-Chapel Hill	47.050			25,944		10,890,289
Pass-Through From University of Oregon	47.050	1524824		17,262		10,890,289
Pass-Through From University of Rhode Island	47.050	1435227 / 0004450/061418		1,178		10,890,289
Pass-Through From University of Southern California	47.050			25,713		10,890,289
Pass-Through From Woods Hole Oceanographic Institution	47.050			101,355		10,890,289
Computer and Information Science and Engineering	47.070		23,441,380		2,336,785	24,624,539
Pass-Through From Clemson University	47.070			63,912		24,624,539
Pass-Through From Emory University	47.070			30,906		24,624,539
Pass-Through From Florida International University	47.070	800006269-01UG		5,929		24,624,539
Pass-Through From Indiana University	47.070			110,700		24,624,539
Pass-Through From Regents of the University of California	47.070			88,147		24,624,539
Pass-Through From Regents of the University of Colorado	47.070			24,227		24,624,539
Pass-Through From Rensselaer Polytechnic Institute	47.070			15,126		24,624,539

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Pass-Through From The Ohio State University	47.070			18,244		24,624,539
Pass-Through From University of Arizona	47.070			154,891		24,624,539
Pass-Through From University of California, San Diego	47.070			50,684		24,624,539
Pass-Through From University of Colorado	47.070			26,605		24,624,539
Pass-Through From University of Illinois	47.070			3,091		24,624,539
Pass-Through From University of Michigan	47.070			100,203		24,624,539
Pass-Through From University of Minnesota	47.070			87,653		24,624,539
Pass-Through From University of North Carolina at Greensboro	47.070			20,806		24,624,539
Pass-Through From Utah State University	47.070			194,084		24,624,539
Pass-Through From Worcester Polytechnic Institute	47.070			8,943		24,624,539
Biological Sciences	47.074		9,276,224		934,086	9,797,230
Biological Sciences	47.074	1754692	5,861		5,861	9,797,230
Pass-Through From Cary Institute of Ecosystem Studies Incorporated	47.074			71,500		9,797,230
Pass-Through From Duke University	47.074			157,433		9,797,230
Pass-Through From Oregon State University	47.074			14,408		9,797,230
Pass-Through From Randolph Macon College	47.074			24		9,797,230
Pass-Through From Rocky Mountain Bird Observatory	47.074			2,735		9,797,230
Pass-Through From Texas A&M University	47.074			67,592		9,797,230
Pass-Through From University of Georgia	47.074			105,335		9,797,230
Pass-Through From University of Michigan	47.074			1,734		9,797,230
Pass-Through From University of Michigan	47.074	DEB-1353908		20,727		9,797,230
Pass-Through From University of South Florida	47.074			5,671		9,797,230
Pass-Through From Wake Forest University	47.074	18 002		12,211		9,797,230
Social, Behavioral, and Economic Sciences	47.075		2,081,843		109,253	2,462,464
Social, Behavioral, and Economic Sciences	47.075	1740951	11,026		11,026	2,462,464
Pass-Through From American Educational Research Association	47.075			19,632		2,462,464
Pass-Through From American Sociological Association	47.075			4,335		2,462,464
Pass-Through From Council of Graduate Schools	47.075			3,706		2,462,464
Pass-Through From Rutgers University	47.075			14,891		2,462,464
Pass-Through From University of Colorado at Boulder	47.075			14,631		2,462,464
Pass-Through From University of Indiana	47.075	Subaward Number: 18-027-3		4,451		2,462,464
Pass-Through From University Of Michigan	47.075			37,477		2,462,464
Education and Human Resources	47.076		17,320,090		1,959,868	22,964,656
Education and Human Resources	47.076	DUE-1525593/DUE-1446258	104,982		104,982	22,964,656
Education and Human Resources	47.076	University of San Diego	19,556		19,556	22,964,656
Education and Human Resources	47.076	University of Tennessee	44,434		44,434	22,964,656
Education and Human Resources	47.076	EP2942251/EP2960161	18,216		18,216	22,964,656
Pass-Through From American Association of Community Colleges	47.076	AACC-138900-06		3,718		22,964,656
Pass-Through From Cold Spring Harbor Laboratory	47.076	42100114		9,959		22,964,656
Pass-Through From Columbus State Community College	47.076	1718-004		53,885		22,964,656
Pass-Through From George Washington University	47.076	16-528		18,875		22,964,656
Pass-Through From Howard University	47.076			114,900		22,964,656
Pass-Through From Howard University	47.076	DRL-1510347/0008783-1000058591		29,379		22,964,656
Pass-Through From Johnson C. Smith University	47.076			2,406		22,964,656
Pass-Through From Mathematical Association of America	47.076	DUE-1726624		18,255		22,964,656
Pass-Through From Michigan State University	47.076			12,702		22,964,656
Pass-Through From Museum of Science and Industry	47.076			56,539		22,964,656
Pass-Through From North Dakota State University	47.076			7,146		22,964,656
Pass-Through From Ohio State University	47.076			2,165		22,964,656
Pass-Through From Old Dominion University Research Foundation	47.076	17-109-100607-010/17-111-100607-010		61,041		22,964,656
Pass-Through From South Dakota School of Mines & Technology	47.076			2,302		22,964,656
Pass-Through From Space Science Institute	47.076			84,586		22,964,656
Pass-Through From SRI International	47.076			212,770		22,964,656
Pass-Through From Stevens Institute of Technology	47.076			3,392		22,964,656
Pass-Through From The University of Texas at Austin	47.076			147,759		22,964,656
Pass-Through From University of Colorado	47.076			158,357		22,964,656
Pass-Through From University of District of Columbia	47.076			27,941		22,964,656
Pass-Through From University of Hawaii	47.076			19,434		22,964,656
Pass-Through From University of Maryland Baltimore County	47.076			70,840		22,964,656
Pass-Through From University of Pittsburgh	47.076	Subaward Number: CNVA00044209 (011628-2)		68,050		22,964,656
Pass-Through From University of San Diego	47.076			3,500		22,964,656
Pass-Through From Utah State University	47.076			27,968		22,964,656
Pass-Through From Westminster College	47.076	1626765		33,536		22,964,656

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Polar Programs	47.078					
Pass-Through From Clemson University	47.078			46,964		110,646
Pass-Through From University of Colorado at Boulder	47.078			63,682		110,646
Office of International and Integrative Activities	47.079		974,397		356,426	988,414
Pass-Through From CRDF Global	47.079			14,017		988,414
Office of Integrative Activities	47.083					
Pass-Through From Boise State University	47.083			59,684		93,355
Pass-Through From George Washington University	47.083			33,671		93,355
Other Assistance	47.RD	1540578	240,939			1,768,471
Other Assistance	47.RD	1747663	253,408			1,768,471
Other Assistance	47.RD	CBET-1902993	148,315			1,768,471
Other Assistance	47.RD	CHE-1551964	120,786			1,768,471
Other Assistance	47.RD	DGE-1324586	439,345			1,768,471
Other Assistance	47.RD	Interagency Personnel Act Agreement for Deborah				
Other Assistance	47.RD	Goodings-CMMI-1530886-203450	75,181			1,768,471
Other Assistance	47.RD	MCB-1517298	51,362			1,768,471
Other Assistance	47.RD	NNCO_Frieersdorf_IPA	261,936			1,768,471
Other Assistance	47.RD	VEF Nguyen	141,403		118,310	1,768,471
Pass-Through From Arizona State University	47.RD	ASUB00000218		4,335		1,768,471
Pass-Through From Gaité Limited Liability Corporation	47.RD	AGREEMENT DATED 11/14/16		814		1,768,471
Pass-Through From Massachusetts Institute of Technology	47.RD	PO# 249802		1,352		1,768,471
Pass-Through From NALA Systems Incorporated	47.RD	AT-55666		14,884		1,768,471
Pass-Through From University of Notre Dame	47.RD	203419UVA		14,411		1,768,471
Total Research and Development			97,879,380	5,918,859	7,900,538	
Total NATIONAL SCIENCE FOUNDATION			103,609,674	6,067,456	8,121,776	
SMALL BUSINESS ADMINISTRATION						
Small Business Development Centers	59.037		3,100,792		834,776	3,100,792
State Trade and Export Promotion Pilot Grant Program	59.061		178,755			178,755
Pass-Through From Community Business Partnership	59.U01	Veterans Business Opportunity Center (VBOC)- 203510;421371		236,691		236,691
Total Excluding Clusters Identified Below			3,279,547	236,691	834,776	
Research and Development:						
Federal and State Technology Partnership Program	59.058					
Pass-Through From MC Technologies	59.058			13,058		13,058
Total Research and Development			0	13,058	0	
Total SMALL BUSINESS ADMINISTRATION			3,279,547	249,749	834,776	
U.S. DEPARTMENT OF VETERAN'S AFFAIRS						
Veterans State Domiciliary Care	64.014		629,673			629,673
Veterans State Nursing Home Care	64.015		22,379,324			22,379,324
Burial Expenses Allowance for Veterans	64.101		1,102,137			1,102,137
Veterans Information and Assistance	64.115		3,987			3,987
All-Volunteer Force Educational Assistance	64.124		720,168			720,168
State Cemetery Grants	64.203		3,638,529			3,638,529
		For Us the Living: Learning from the Stories of the Alexandria National Cemetery-				
Other Assistance	64.U01	36C78618C0083/VA786J85067-204433	33,122			88,243
Other Assistance	64.U02	SalemVA_Krupnick_Banerjee	10,416			88,243
Other Assistance	64.U03	SalemVA_Krupnick_Srivastava	13,803			88,243
Other Assistance	64.U04	SalemVA_Krupnick_VA Qing Wang	801			88,243
Pass-Through From National History Day Incorporated	64.U05	National History Day Veterans Legacy Program- 204446;SUB 2044461-01009690		30,101	3,000	88,243
Total Excluding Clusters Identified Below			28,531,960	30,101	3,000	
Research and Development:						
Post-9/11 Veterans Educational Assistance	64.027		105,086			105,086
Other Assistance	64.RD	1866695	24,990			225,212
Other Assistance	64.RD	Asymptomatic Carotid Stenosis-36C24518S0009-				
Other Assistance	64.RD	POS12-D85020 204417	94,944			225,212
Other Assistance	64.RD	Sahu-IPA	43,071			225,212
Other Assistance	64.RD	SalemVA_Krupnick_Guo	8,996			225,212
Other Assistance	64.RD	SalemVA_Krupnick_Onyema	9,469			225,212
Other Assistance	64.RD	Stimson IPA	22,645			225,212
Other Assistance	64.RD	VA268-16-C-0013	21,097			225,212
Total Research and Development			330,298	0	0	
Total U.S. DEPARTMENT OF VETERAN'S AFFAIRS			28,862,258	30,101	3,000	
ENVIRONMENTAL PROTECTION AGENCY						
State Indoor Radon Grants	66.032		262,076			262,076

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act	66.034		621,167			621,167
State Clean Diesel Grant Program	66.040		173,776		169,415	173,776
State Public Water System Supervision	66.432		1,995,000			1,995,000
Surveys, Studies, Investigations, Demonstrations, and Training Grants and Cooperative Agreements - Section 104(b)(3) of the Clean Water Act	66.436					
Pass-Through From Rural Community Assistance Partnership	66.436			12,999		12,999
Urban Waters Small Grants	66.440		2,186			2,186
Healthy Watersheds Consortium Grant Program	66.441		22,763			22,763
Water Quality Management Planning	66.454		130,983			130,983
Nonpoint Source Implementation Grants	66.460		2,715,343		1,287,939	2,715,343
Chesapeake Bay Program	66.466		7,929,238		1,063,612	8,908,720
Pass-Through From National Fish & Wildlife Foundation Beach Monitoring and Notification Program	66.466	544908-19B96		86,598	20,750	8,908,720
Implementation Grants	66.472		266,632		10,976	266,632
Performance Partnership Grants	66.605		9,097,141		25,000	9,148,286
Environmental Information Exchange Network Grant Program and Related Assistance	66.608		14,774			14,774
TSCA Title IV State Lead Grants Certification of Lead-Based Paint Professionals	66.707		224,018			224,018
Pollution Prevention Grants Program	66.708		6,841			6,841
Research, Development, Monitoring, Public Education, Training, Demonstrations, and Studies	66.716		16,093			16,093
Superfund State, Political Subdivision, and Indian Tribe Site-Specific Cooperative Agreements	66.802		401,039			401,039
Underground Storage Tank Prevention, Detection and Compliance Program	66.804		544,827			544,827
Leaking Underground Storage Tank Trust Fund Corrective Action Program	66.805		1,086,847			1,086,847
Superfund State and Indian Tribe Core Program	66.809		83,597			83,597
Cooperative Agreements	66.809		83,597			83,597
Brownfields Assessment and Cleanup Cooperative Agreements	66.818		147,102			147,102
Total Excluding Clusters Identified Below			25,741,443	99,597	2,577,692	
Clean Water State Revolving Fund Cluster: Capitalization Grants for Clean Water State Revolving Funds	66.458		37,196,401		36,293,750	37,196,401
Total Clean Water State Revolving Fund Cluster			37,196,401	0	36,293,750	37,196,401
Drinking Water State Revolving Fund Cluster: Capitalization Grants for Drinking Water State Revolving Funds	66.468		22,706,644		18,592,065	22,706,644
Total Drinking Water State Revolving Fund Cluster			22,706,644	0	18,592,065	22,706,644
Research and Development:						
National Clean Diesel Emissions Reduction Program	66.039		89,725		45,933	89,725
Long Island Sound Program	66.437			6,068		6,068
Pass-Through From National Audubon Society	66.437			6,068		6,068
Regional Wetland Program Development Grants	66.461		121,217			193,816
Pass-Through From Delaware Department of Natural Resources & Environmental Control	66.461			68,059		193,816
Pass-Through From New Hampshire Department of Environmental Services	66.461			4,540		193,816
Chesapeake Bay Program	66.466		691,791		64,507	8,908,720
Chesapeake Bay Program	66.466	451287-20012	9,217		9,217	8,908,720
Pass-Through From Chesapeake Bay Trust	66.466	43353		79,046		8,908,720
Pass-Through From Middle Peninsula Planning District	66.466	1511120 / 53964		6,047		8,908,720
Pass-Through From National Fish and Wildlife Foundation	66.466			76,184		8,908,720
Pass-Through From Pamunkey Indian Tribe Reservation	66.466	96331001 / 0603.17.057550 / 001		30,599		8,908,720
Senior Environmental Employment Program	66.508		7,625			7,625
Science To Achieve Results (STAR) Research Program	66.509		55,068			198,309
Pass-Through From Carnegie Mellon University	66.509			80,906		198,309
Pass-Through From Clark University	66.509			62,335		198,309
Office of Research and Development Consolidated Research/Training/Fellowships	66.511		565,252		100,378	565,252
Performance Partnership Grants	66.605		51,145		51,044	9,148,286
Total Research and Development			1,591,040	413,784	271,079	
Total ENVIRONMENTAL PROTECTION AGENCY			87,235,528	513,381	57,734,586	
NUCLEAR REGULATORY COMMISSION						
U. S. Nuclear Regulatory Commission Nuclear Education Grant Program	77.006		92,120			92,120

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008		565,393			934,508
Total Excluding Clusters Identified Below			657,513	0	0	
Research and Development:						
U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008		369,115			934,508
Total Research and Development			369,115			
Total NUCLEAR REGULATORY COMMISSION			1,026,628	0	0	
U.S. DEPARTMENT OF ENERGY						
State Energy Program	81.041		3,267,503		2,180,315	3,598,902
Weatherization Assistance for Low-Income Persons	81.042		4,064,529		3,406,565	4,064,529
Conservation Research and Development	81.086					
Pass-Through From Fraunhofer USA Incorporated	81.086	DE_EE0008223-VCU		24,224		4,183,293
Renewable Energy Research and Development	81.087		14,785		5,742	875,439
Pass-Through From CompRex Limited Liability Corporation	81.087			42,500		875,439
Technology	81.087			10,000		875,439
Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	81.117		537,362			613,450
Nuclear Energy Research, Development and Demonstration	81.121		55,000			3,089,594
Pass-Through From Massachusetts Institute of Technology	81.121			74,424		3,089,594
National Nuclear Security Administration (NNSA) Minority Serving Institutions (MSI) Program	81.123		34,951			3,808,613
Advanced Research Projects Agency - Energy	81.135		301,665		168,117	2,210,531
Pass-Through From University of Illinois	81.135	University of Illinois @Urbana Cham		62,718		2,210,531
Other Assistance	81.U01	AFC-7-70044-12	1,346			47,470
Other Assistance	81.U02	AHQ-9-92092-01	9,435			47,470
Pass-Through From The George Washington University	81.U03	18-SC35		31,672		47,470
Pass-Through From University of California at Berkeley	81.U04	LBNL 7425436/LBNL 7425436		5,017		47,470
Total Excluding Clusters Identified Below			8,286,576	250,555	5,760,739	
Research and Development:						
Inventions and Innovations	81.036					
Pass-Through From Oak Ridge Associated Universities Incorporated	81.036			24,463		24,463
State Energy Program	81.041		331,399		241,907	3,598,902
Office of Science Financial Assistance Program	81.049		9,880,444		257,135	11,292,951
Office of Science Financial Assistance Program	81.049	DE-SC0016263	41,192		41,192	11,292,951
Pass-Through From Aerosol Devices Incorporated	81.049			72,066		11,292,951
Pass-Through From Freedom Photonics, Limited Liability Company	81.049			36,685		11,292,951
Pass-Through From InnoSense Limited Liability Company	81.049			44,448		11,292,951
Pass-Through From Innovative Wireless Technologies Incorporated	81.049			101,653		11,292,951
Pass-Through From Intelligent Light	81.049			61,656		11,292,951
Pass-Through From Louisiana State University	81.049			64,517		11,292,951
Pass-Through From Luna Innovations Incorporated	81.049			26,942		11,292,951
Pass-Through From Mc Technologies Limited Liability Company	81.049			3,551		11,292,951
Pass-Through From NanoSonic Incorporated	81.049			38,774		11,292,951
Pass-Through From Ohio State University	81.049			216,822		11,292,951
Pass-Through From Ohio State University Research Foundation	81.049	60042071		27,265		11,292,951
Pass-Through From Pennsylvania State University	81.049			229,648		11,292,951
Pass-Through From Radiation Monitoring Devices, Incorporated	81.049			36,067		11,292,951
Pass-Through From Reservoir Labs, Incorporated	81.049			36,944		11,292,951
Pass-Through From Smithsonian Institution	81.049	CB96336601 / 15765		132,144		11,292,951
Pass-Through From University of Michigan	81.049			116,605		11,292,951
Pass-Through From University of North Carolina	81.049	5103980-DE-SC0015376		21,932		11,292,951
Pass-Through From University of Notre Dame	81.049			103,596		11,292,951
Nuclear Waste Disposal Siting	81.065					
Pass-Through From Vanderbilt University	81.065			307,971		307,971
Regional Biomass Energy Programs	81.079		191,682		102,410	191,682
Conservation Research and Development	81.086		3,342,391		585,339	4,183,293
Conservation Research and Development	81.086		7,941		7,941	4,183,293
Pass-Through From North Carolina State University	81.086	418513-19D25		547,941		4,183,293
Pass-Through From Rensselaer Polytechnic Institute	81.086			7,887		4,183,293
Pass-Through From University of California, Irvine	81.086			91,022		4,183,293

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Pass-Through From University of Houston	81.086			161,887		4,183,293
Renewable Energy Research and Development	81.087		617,723		9,500	875,439
Pass-Through From Rensselaer Polytechnic Institute	81.087			81,261		875,439
Pass-Through From University of Delaware	81.087			109,170		875,439
Fossil Energy Research and Development	81.089		1,555,297		287,854	3,832,544
Pass-Through From Advanced Resources International Incorporated	81.089			135,079		3,832,544
Pass-Through From Marshall Miller & Associates Incorporated	81.089			115,075		3,832,544
Pass-Through From Penn State University	81.089			81,783		3,832,544
Pass-Through From Southern States Energy Board	81.089			264,439		3,832,544
Pass-Through From University of Kentucky	81.089			1,157,277		3,832,544
Pass-Through From University of Utah	81.089			93,135		3,832,544
Pass-Through From West Virginia University	81.089			430,459		3,832,544
Defense Nuclear Nonproliferation Research	81.113		244		244	3,120
Pass-Through From University of Michigan	81.113			2,876		3,120
Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance	81.117		76,088		37,199	613,450
State Energy Program Special Projects	81.119		110,598		95,118	165,854
Pass-Through From Pacific Northwest National Laboratory	81.119			55,256		165,854
Nuclear Energy Research, Development and Demonstration	81.121		2,053,510		354,877	3,089,594
Pass-Through From Electric Power Research Institute	81.121	10005187		239,350		3,089,594
Pass-Through From Georgia Institute of Technology	81.121			97,455		3,089,594
Pass-Through From Oregon State University	81.121			46,600		3,089,594
Pass-Through From Pennsylvania State University	81.121	5293-VCU-DOE-8425		46,623		3,089,594
Pass-Through From Purdue University	81.121			51,331		3,089,594
Pass-Through From Stony Brook University	81.121			9,357		3,089,594
Pass-Through From Texas A&M University	81.121			97,513		3,089,594
Pass-Through From The Ohio State University	81.121			174,358		3,089,594
Pass-Through From The University of Tennessee	81.121	A16-0370-S002		25,224		3,089,594
Pass-Through From University of Florida	81.121			34,517		3,089,594
Pass-Through From University of Illinois	81.121			23,916		3,089,594
Pass-Through From University of Wisconsin at Madison	81.121	Sub Agreement 704K281		60,416		3,089,594
Electricity Delivery and Energy Reliability, Research, Development and Analysis	81.122		201,694			244,595
Pass-Through From Washington State University	81.122			42,901		244,595
National Nuclear Security Administration (NNSA) Minority Serving Institutions (MSI) Program	81.123		3,773,662		3,186,888	3,808,613
Predictive Science Academic Alliance Program	81.124					
Pass-Through From University of Illinois	81.124			84,743		84,743
Advanced Research Projects Agency - Energy	81.135		1,829,945		894,315	2,210,531
Pass-Through From SixPoint Materials Incorporated	81.135			16,203		2,210,531
Other Assistance	81.RD	1866714	72,545			6,983,162
Other Assistance	81.RD	1960744	243,784			6,983,162
Other Assistance	81.RD	200933	20,861			6,983,162
Other Assistance	81.RD	320777/DE-SC0012704	10,833			6,983,162
Other Assistance	81.RD	343861	37,590			6,983,162
Other Assistance	81.RD	344634	114,785			6,983,162
Other Assistance	81.RD	4000099824	29,861			6,983,162
Other Assistance	81.RD	4000101438	39,537			6,983,162
Other Assistance	81.RD	4000133430	85,389			6,983,162
Other Assistance	81.RD	4000143222	6,244			6,983,162
Other Assistance	81.RD	4000144686	19,320			6,983,162
Other Assistance	81.RD	4000144884	17,408			6,983,162
Other Assistance	81.RD	4000149894	6,229			6,983,162
Other Assistance	81.RD	4000150613	51,340			6,983,162
Other Assistance	81.RD	4000152854	47,161			6,983,162
Other Assistance	81.RD	4000156549	53,752			6,983,162
Other Assistance	81.RD	4000159607	33,619			6,983,162
Other Assistance	81.RD	4000160669	32,113			6,983,162
Other Assistance	81.RD	4000161786	23,290			6,983,162
Other Assistance	81.RD	4000162000	27,072			6,983,162
Other Assistance	81.RD	4000162162	107,545			6,983,162
Other Assistance	81.RD	4000163893	17,771			6,983,162
Other Assistance	81.RD	4000163962	26,821			6,983,162
Other Assistance	81.RD	4000164448	10,562			6,983,162
Other Assistance	81.RD	4000166318	3,783			6,983,162
Other Assistance	81.RD	4000166476	27,436			6,983,162
Other Assistance	81.RD	4000166522	29,512			6,983,162
Other Assistance	81.RD	4000166590	108,294			6,983,162
Other Assistance	81.RD	4000167926	14,059			6,983,162
Other Assistance	81.RD	4000168238	17,837			6,983,162
Other Assistance	81.RD	609502	1,369,764			6,983,162
Other Assistance	81.RD	622365	14			6,983,162
Other Assistance	81.RD	7350174	14,005			6,983,162
Other Assistance	81.RD	AFC-7-70023-01	1,095			6,983,162

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Other Assistance	81.RD	DE-AC09-09SR22505	32,318			6,983,162
Other Assistance	81.RD	Grain Boundary Diffusion in Electronic and Structural Materials-DE-FG02-01ER45871-200297 Nuclear Physics-JSA 07-C0317101; subcontract #	97,115			6,983,162
Other Assistance	81.RD	10C0418300	212,831			6,983,162
Other Assistance	81.RD	PO #650806	37,928			6,983,162
Other Assistance	81.RD	PO1983505	5,154			6,983,162
Other Assistance	81.RD	PO1983653	21,890			6,983,162
Other Assistance	81.RD	PO-351044	18,032			6,983,162
Other Assistance	81.RD	SPO: 1771991 Rev: 9	28,399			6,983,162
Pass-Through From Alliance for Sustainable Energy, Limited Liability Company	81.RD	Center for Advanced Photophysics: Theoretical Modeling of Quantum Dots and Quantum Dot Aggregates-DE-AC36-08GO28308-203720;XHA-5-52266-01/ER 132000		53,585		6,983,162
Pass-Through From Argonne National Laboratory	81.RD	7F-30113		39,251		6,983,162
Pass-Through From Argonne National Laboratory	81.RD	8F-30034		227,230		6,983,162
Pass-Through From Argonne National Laboratory	81.RD	Synthesize and Characterize Topological Materials-DE-AC02-06CH11357-204693;9F-60040		10,617		6,983,162
Pass-Through From Battelle Energy Alliance	81.RD	180192		42,587		6,983,162
Pass-Through From Battelle Energy Alliance	81.RD	182357		26,263		6,983,162
Pass-Through From Battelle Energy Alliance	81.RD	194640		101,168		6,983,162
Pass-Through From Battelle Energy Alliance	81.RD	CONTRACT 182317		12,609		6,983,162
Pass-Through From Battelle Energy Alliance, Limited Liability Company	81.RD	179572		132,265	56,813	6,983,162
Pass-Through From Battelle Pacific Northwest National Laboratory	81.RD	CONTRACT 398502		56,871		6,983,162
Pass-Through From Battelle Pacific Northwest National Laboratory	81.RD	DE-AC05-76RL01830		14,199		6,983,162
Pass-Through From Bechtel Marine Propulsion	81.RD	PURCHASE ORDER 129409;418531-19337		131,918	34,153	6,983,162
Pass-Through From Bechtel Marine Propulsion	81.RD	PURCHASE ORDER 7015060		1,692		6,983,162
Pass-Through From Bowie State University	81.RD	2112		30,051		6,983,162
Pass-Through From Delta Products Corporation	81.RD	AT-52196		60,010		6,983,162
Pass-Through From General Electric Global Research	81.RD	401107732		123,085		6,983,162
Pass-Through From General Motors Limited Liability Corporation	81.RD	PO 4300226098		161,870		6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies Limited Liability Corporation	81.RD	N0000274995;418494-19528		54,926	10,500	6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies Limited Liability Corporation	81.RD	N000268299		95,604		6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies Limited Liability Corporation	81.RD	N000271400		74,746		6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies Limited Liability Corporation	81.RD	N000302395		27,772		6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies Limited Liability Corporation	81.RD	PO N000296396		66,610		6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies Limited Liability Corporation	81.RD	PO# NOO0181541		17,942		6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies Limited Liability Corporation	81.RD	PURCHASE ORDER N000270409		150,526		6,983,162
Pass-Through From Honeywell Federal Manufacturing & Technologies, Limited Liability Company	81.RD	N000294511		26,494		6,983,162
Pass-Through From Idaho National Laboratory	81.RD	RELEASE NO. 1; MAS AGMT 178370		11,499		6,983,162
Pass-Through From Iowa State University	81.RD	SC-19-498		22,513		6,983,162
Pass-Through From Jefferson Science Associates, Limited Liability Company	81.RD	16-C0252		53,052		6,983,162
Pass-Through From Lawrence Livermore National Laboratory	81.RD	B622260		149,239		6,983,162
Pass-Through From Lawrence Livermore National Laboratory	81.RD	B624010		18,243		6,983,162
Pass-Through From Lawrence Livermore National Laboratory	81.RD	B630386		51,289		6,983,162
Pass-Through From Lawrence Livermore National Laboratory	81.RD	B631014		25,000		6,983,162
Pass-Through From Lawrence Livermore National Laboratory	81.RD	B632951		52,696		6,983,162
Pass-Through From Lawrence Livermore National Laboratory	81.RD	B633200		69,059		6,983,162
Pass-Through From Lawrence Livermore National Laboratory	81.RD	B634389		474		6,983,162
Pass-Through From Los Alamos National Laboratory	81.RD	438557		41,034		6,983,162

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Pass-Through From Los Alamos National Laboratory	81.RD	463281		42,268		6,983,162
Pass-Through From Los Alamos National Security, Limited Liability Company	81.RD	301950		75,299		6,983,162
Pass-Through From Luna Innovations, Incorporated	81.RD	Subgrant No. 3316-DOE-1S/UVA		22,570		6,983,162
Pass-Through From Nanohmics Incorporated	81.RD	Nanohmics_Zebarjadi_EN-ECE		10,267		6,983,162
Pass-Through From Navarro Research & Engineering	81.RD	LMCP5739		78,115		6,983,162
Pass-Through From Pacific Northwest National Laboratory	81.RD	334567		224,163		6,983,162
Pass-Through From Pacific Northwest National Laboratory	81.RD	397595		166,396		6,983,162
Pass-Through From Pacific Northwest National Laboratory	81.RD	448598		8,824		6,983,162
Pass-Through From Pacific Northwest National Laboratory	81.RD	451975		4,397		6,983,162
Pass-Through From Pacific Northwest National Laboratory	81.RD	CaWater2015 Atmospheric Rivers and their Teleconnections-DE-AC05-76RL01830-				
Pass-Through From Palo Alto Research Center	81.RD	204256;363460		37,222		6,983,162
Pass-Through From Red Wire Technology	81.RD	SUBCONTRACT NO. 312696		24,786		6,983,162
Pass-Through From Rmd Instruments Corporation	81.RD	AT-51468		87,650		6,983,162
Pass-Through From Sandia National Laboratories	81.RD	C19-04		15,999		6,983,162
Pass-Through From Sandia National Laboratories	81.RD	Anomaly Detection and Surety for Safeguards Data-DE-NA0003525-204776;PO2017098		8,903		6,983,162
Pass-Through From Sandia National Laboratories	81.RD	Fractional Differential Operators for Features Detection in the Subsurface-DE-NA0003525-204733;PO1808381		22,235		6,983,162
Pass-Through From Savannah River Nuclear Solutions Limited Liability Corporation	81.RD	0000412820		12,860		6,983,162
Pass-Through From Savannah River Nuclear Solutions Limited Liability Corporation	81.RD	TOA VP100004; PO 0000399128		10,069		6,983,162
Pass-Through From Savannah River Nuclear Solutions Limited Liability Corporation	81.RD	TOA VPI00002;PO 0000372989		34,817		6,983,162
Pass-Through From Savannah River Nuclear Solutions Limited Liability Corporation	81.RD	TOA VPI00003;PO0000372991		24,589		6,983,162
Pass-Through From Seaforth, Limited Liability Company	81.RD	Seaforth		600		6,983,162
Pass-Through From TECHSOURCE, Incorporated	81.RD	Systems Engineering Support for National Nuclear Safety-DE-DT013591-204456;PO13591		7,174		6,983,162
Pass-Through From The Regents of the University of California	81.RD	7387766		32,974		6,983,162
Pass-Through From Triad National Security Limited Liability Corporation	81.RD	537299		17,357		6,983,162
Pass-Through From Triad National Security, Limited Liability Company	81.RD	301950		26,418		6,983,162
Pass-Through From Triad National Security, Limited Liability Company	81.RD	520126		55,182		6,983,162
Pass-Through From United Technologies Research Center	81.RD	NO. 1240814		151,320		6,983,162
Pass-Through From University of Chicago Argonne, Limited Liability Company	81.RD	Development Support for POLARIS Transportation System Model-DE-AC02-06CH11357-204042;7F-30006		96,720		6,983,162
Pass-Through From University of Houston	81.RD	No. R-18-0073		25,565		6,983,162
Pass-Through From UT-Battelle Limited Liability Corporation	81.RD	4000157790		51,833		6,983,162
Pass-Through From UT-Battelle Limited Liability Corporation	81.RD	4000160799		5,095		6,983,162
Pass-Through From UT-Battelle Limited Liability Corporation	81.RD	4000162266		92,066		6,983,162
Pass-Through From Vanderbilt University	81.RD	Assessment of Infection Induced Inflammation in The Blood Barrier and Utility of Anti-Inflammatory Strategies-DE-ACS2-06NA25396-				
Pass-Through From VLNComm Limited Liability Company	81.RD	204410;UNIV59912		83,469		6,983,162
Pass-Through From West Virginia University	81.RD	EE-VLN-9694-17		16,679		6,983,162
Total Research and Development	81.RD	17-098-VPI		394		6,983,162
			27,188,708	9,897,067	6,203,385	
Total U.S. DEPARTMENT OF ENERGY			35,475,284	10,147,622	11,964,124	
U.S. DEPARTMENT OF EDUCATION						
Adult Education - Basic Grants to States	84.002		13,691,924		9,870,679	13,691,924
Title I Grants to Local Educational Agencies	84.010		253,707,149		250,582,771	253,854,322
Migrant Education_State Grant Program	84.011		754,680		542,315	754,680
Title I State Agency Program for Neglected and Delinquent Children and Youth	84.013		1,106,694		500,152	1,106,694
Higher Education_Institutional Aid	84.031		13,362,810			13,362,810
Career and Technical Education -- Basic Grants to States	84.048		24,952,684		18,746,039	25,055,972
Fund for the Improvement of Postsecondary Education	84.116			92		92

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Rehabilitation Services_Vocational Rehabilitation Grants to States	84.126		79,677,449		1,025,804	79,677,449
Rehabilitation Long-Term Training	84.129		348,848			348,848
National Institute on Disability and Rehabilitation Research	84.133		32,104			42,537
Migrant Education_Coordination Program	84.144		181,922		90,251	181,922
Rehabilitation Services_Independent Living Services for Older Individuals Who are Blind	84.177		690,934			690,934
Special Education-Grants for Infants and Families	84.181		11,431,402		7,811,293	11,431,402
Safe and Drug-Free Schools and Communities_National Programs	84.184		639,164		83,073	639,164
Supported Employment Services for Individuals with the Most Significant Disabilities	84.187		843,354			843,354
		885-86606-S196A160048/S196A170048/885-				
Education for Homeless Children and Youth	84.196	86606-S196A180048	1,174,233		916,409	1,174,233
Graduate Assistance in Areas of National Need	84.200		246,119			323,847
Centers for International Business Education	84.220		2,700			3,195
Pass-Through From Indiana University	84.220			495		3,195
Assistive Technology	84.224		2,516,302			2,516,302
Rehabilitation Services Demonstration and Training Programs	84.235		886,188		475,092	886,188
Rehabilitation Training_Continuing Education	84.264		12,326			133,620
Pass-Through From University of Wisconsin Stout	84.264	144-339099		121,294		133,620
Ready to Teach	84.286		88,525			88,525
Twenty-First Century Community Learning Centers	84.287		20,044,223		18,763,268	20,044,223
Education Research, Development and Dissemination	84.305	R305A160398	46,414		24,958	8,598,840
Special Education - State Personnel Development	84.323		1,336,374		674,633	1,336,374
Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325		333,301			1,360,638
Special Education_Technical Assistance and Dissemination to Improve Services and Results for Children with Disabilities	84.326		406,874			489,527
Pass-Through From Helen Keller National Center	84.326			82,653		489,527
Gaining Early Awareness and Readiness for Undergraduate Programs	84.334		3,694,354		3,510,354	3,694,354
Child Care Access Means Parents in School	84.335		1,768			18,106
Teacher Quality Partnership Grants	84.336		1,609,138		547,981	1,609,138
Rural Education	84.358		2,798,477		2,100,738	2,798,477
English Language Acquisition State Grants	84.365		13,510,862		12,695,958	13,510,862
Mathematics and Science Partnerships	84.366		1,426,246		281,211	1,426,246
Improving Teacher Quality State Grants	84.367		33,174,149		31,425,544	33,196,883
Pass-Through From National Writing Project	84.367			22,734		33,196,883
Grants for State Assessments and Related Activities	84.369		5,733,602			5,733,602
School Improvement Grants	84.377		388,819		375,789	388,819
Strengthening Minority-Serving Institutions	84.382		442,087			442,087
Investing in Innovation (i3) Fund	84.411					
Pass-Through From National Writing Project	84.411			78,294		140,044
Preschool Development Grants	84.419		18,615,010		17,376,459	18,615,010
Supporting Effective Educator Development Program	84.423		3,389,478			3,389,478
Student Support and Academic Enrichment Program	84.424		7,916,653		7,738,585	7,916,653
Other Assistance	84.U01	P016A180027	43,739			43,739
Total Excluding Clusters Identified Below			521,259,171	305,470	386,159,356	
Special Education Cluster (IDEA):						
Special Education_Grants to States	84.027		302,049,655		270,645,766	302,051,851
Pass-Through From Ohio University	84.027			2,196		302,051,851
Special Education_Preschool Grants	84.173		8,629,533		6,697,429	8,713,099
Special Education_Preschool Grants	84.173	University of Lynchburg	51,388		51,388	8,713,099
Special Education_Preschool Grants	84.173	New River Valley Community Services Board	32,178		32,178	8,713,099
Total Special Education Cluster (IDEA)			310,762,754	2,196	277,426,761	310,764,950
Student Financial Assistance Programs:						
Federal Supplemental Educational Opportunity Grants	84.007		12,496,266			12,496,266
Federal Work-Study Program	84.033		11,626,778			11,626,778
Federal Perkins Loan - Federal Capital Contributions	84.038		54,526,815			54,526,815
Federal Pell Grant Program	84.063		406,374,650			406,374,650
Federal Direct Student Loans	84.268		1,247,931,236			1,247,931,236
Teacher Education Assistance for College and Higher Education Grants (TEACH Grants)	84.379		237,543			237,543
Postsecondary Education Scholarships for Veteran's Dependents	84.408		5,693			5,693
Total Student Financial Assistance Programs			1,733,198,981	0	0	1,733,198,981
Trio Cluster:						
TRIO_Student Support Services	84.042		5,717,823		326,953	5,717,823
TRIO_Talent Search	84.044		2,016,587			2,016,587
TRIO_Upward Bound	84.047		5,427,500		349,908	5,427,500
TRIO_Educational Opportunity Centers	84.066		483,270			483,270
Total Trio Cluster			13,645,180	0	676,861	13,645,180
Research and Development:						

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Title I Grants to Local Educational Agencies	84.010					
Pass-Through From Accomack County Public Schools	84.010			35,835		253,854,322
Pass-Through From Alexandria City Public Schools	84.010			69,009		253,854,322
Pass-Through From Hampton City Schools	84.010			42,329		253,854,322
Overseas Programs - Doctoral Dissertation Research Abroad	84.022		4,302			4,302
Career and Technical Education -- Basic Grants to States	84.048		103,288			25,055,972
National Institute on Disability and Rehabilitation Research	84.133		10,433			42,537
Graduate Assistance in Areas of National Need	84.200		77,728			323,847
Javits Gifted and Talented Students Education	84.206		1,561,460			1,561,460
Education Research, Development and Dissemination	84.305		7,657,155		1,892,194	8,598,840
Pass-Through From American Institutes for Research (AIR)	84.305			102,771		8,598,840
Pass-Through From Arizona State University	84.305			21,088		8,598,840
Pass-Through From Curators of the University of Missouri	84.305			1,187		8,598,840
Pass-Through From Fordham University	84.305			9,029		8,598,840
Pass-Through From Harvard University	84.305			8,355		8,598,840
Pass-Through From Northwestern University	84.305			28,385		8,598,840
Pass-Through From Temple University	84.305			7,914		8,598,840
Pass-Through From University of Connecticut	84.305			229,953		8,598,840
Pass-Through From University Of Illinois	84.305			126,981		8,598,840
Pass-Through From University of Maryland College Park	84.305	38670-Z2110001/R305A160280		44,591		8,598,840
Pass-Through From University of Missouri	84.305			10,331		8,598,840
Pass-Through From University of Nebraska	84.305			1,188		8,598,840
Pass-Through From University of North Carolina at Chapel Hill	84.305			52,312		8,598,840
Pass-Through From University of North Carolina at Chapel Hill	84.305	20150016		251,186		8,598,840
Research in Special Education	84.324		171,909			585,328
Pass-Through From Duquesne University	84.324	G1500085		224,081		585,328
Pass-Through From Old Dominion University Research Foundation	84.324			56,835		585,328
Pass-Through From University of Florida	84.324	UFDSP00011330		132,503		585,328
Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325		866,274			1,360,638
Pass-Through From University of Connecticut	84.325	3116-018447		28,102		1,360,638
Pass-Through From Vanderbilt University	84.325			132,961		1,360,638
Special Education_Educational Technology Media, and Materials for Individuals with Disabilities	84.327		245,782			245,782
Child Care Access Means Parents in School	84.335		16,338			18,106
Teacher Quality Partnerships, Recovery Act	84.405		168,237			168,237
Investing in Innovation (i3) Fund	84.411					
Pass-Through From Albemarle County	84.411			61,750		140,044
Pass-Through From American Institutes for Research Institute	84.RD	0430401417			1,013	1,013
Total Research and Development			10,882,906	1,679,689	1,892,194	
Total U.S. DEPARTMENT OF EDUCATION			2,589,748,992	1,987,355	666,155,172	
SCHOLARSHIP AND FELLOWSHIP FOUNDATIONS						
Other Assistance	85.U01	Communication for the Facility Manager Training- PO-730-0000418504 209687	1,876			100,365
Other Assistance	85.U02	Conservation Education Program-RC11-000147-0002-204422	86,077			100,365
Other Assistance	85.U03	Environmental Health & Safety Issues Training-PO-732-0000382733 209698	3,400			100,365
Other Assistance	85.U04	Facility Management Project Management Training- PO-732-0000382733 209699	3,624			100,365
Other Assistance	85.U05	Principles of Facilities Management Training-PO-730-0000418504 209688	2,345			100,365
Other Assistance	85.U06	Real Estate and Lease Management Training-PO-732-0000382733 209694	3,043			100,365
Total Excluding Clusters Identified Below			100,365	0	0	
Research and Development:						
MCC Foreign Assistance for Overseas Programs	85.002		28,847			28,847
Other Assistance	85.RD	Veteran's Day Survey- Stars and Stripes-204689	7,871			7,871
Total Research and Development			36,718	0	0	
Total SCHOLARSHIP AND FELLOWSHIP FOUNDATIONS			137,083	0	0	

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U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION						
National Historical Publications and Records Grants	89.003		39,800			676,424
Total Excluding Clusters Identified Below			39,800	0	0	
Research and Development:						
National Historical Publications and Records Grants	89.003		547,654			676,424
Pass-Through From Cumberland University	89.003			49,616		676,424
Pass-Through From State University of New York at Old Westbury	89.003			23,386		676,424
Pass-Through From University of Kentucky Research Foundation	89.003			15,968		676,424
Total Research and Development			547,654	88,970	0	
Total U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION			587,454	88,970	0	
DENALI COMMISSION						
2018 HAVA Election Security Grants	90.404		906,789			906,789
Total Excluding Clusters Identified Below			906,789	0	0	
Total DENALI COMMISSION			906,789	0	0	
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES						
Medical Reserve Corps Small Grant Program	93.008					
Pass-Through From National Association of County & City Health Officials	93.008			19,917		19,917
Special Programs for the Aging Title VII, Chapter 3_Programs for Prevention of Elder Abuse, Neglect, and Exploitation	93.041		102,272		102,272	102,272
Special Programs for the Aging Title VII, Chapter 2_Long Term Care Ombudsman Services for Older Individuals	93.042		293,603		293,603	293,603
Special Programs for the Aging Title III, Part D_Disease Prevention and Health Promotion Services	93.043		569,782		569,782	569,782
Special Programs for the Aging Title IV_and Title II_Discretionary Projects	93.048		575,635		142,426	582,459
Alzheimer's Disease Demonstration Grants to States	93.051		14,556		14,556	32,143
National Family Caregiver Support, Title III, Part E	93.052		4,203,930		3,992,509	4,203,930
Training in General, Pediatric, and Public Health Dentistry	93.059		286,917			286,917
Global AIDS	93.067					
Pass-Through From Republic of Rwanda, Minister of Health	93.067			38,282		38,282
Environmental Public Health and Emergency Response	93.070		583,952			583,952
Medicare Enrollment Assistance Program	93.071		649,994		622,484	649,994
Lifespan Respite Care Program	93.072		33,840			33,840
Birth Defects and Developmental Disabilities - Prevention and Surveillance	93.073		318,391			318,391
Hospital Preparedness Program (HPP) and Public Health Emergency Preparedness (PHEP) Aligned Cooperative Agreements	93.074		20,421,420		5,660,586	20,507,401
Cooperative Agreements to Promote Adolescent Health through School-Based HIV/STD Prevention and School-Based Surveillance	93.079		54,252			54,252
Blood Disorder Program: Prevention, Surveillance, and Research	93.080					
Pass-Through From Children's Hospital of Philadelphia Advancing System Improvements for Key Issues in Women's Health	93.080	PO#961931-RSUB		42,138		49,413
Pass-Through From Futures without Violence	93.088			6,320		6,320
Guardianship Assistance	93.090		12,020		10,287	12,020
Affordable Care Act (ACA) Personal Responsibility Education Program	93.092		1,252,994			1,252,994
Affordable Care Act (ACA) Health Profession Opportunity Grants	93.093					
Pass-Through From Goodwill Industries of the Valleys	93.093			266,566		266,566
Food and Drug Administration_Research	93.103		1,863,260		35,016	2,061,940
Pass-Through From Association of Food and Drug Officials	93.103	G-ST-1612-00350, G-1810-01553, G-ST-1710-01211, G-SP1810-06950, G-T-1810-06938, G-SP-1710-05801		25,839		2,061,940
Pass-Through From National Association of County & City Health Officials	93.103	5U50FD005933-03, 2019-012502		19,005		2,061,940

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Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED)	93.104		2,280,794		1,864,308	2,280,794
Area Health Education Centers Point of Service Maintenance and Enhancement Awards	93.107		881,270		402,968	881,270
Maternal and Child Health Federal Consolidated Programs	93.110		1,007,345		17,500	13,161,228
Pass-Through From Health Research, Incorporated	93.110			20,795		13,161,228
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.110			12,031,976		13,161,228
Pass-Through From University of Colorado - Denver	93.110			19,717		13,161,228
Project Grants and Cooperative Agreements for Tuberculosis Control Programs	93.116		1,340,532		248,633	1,340,532
Nurse Anesthetist Traineeships	93.124		130,951			130,951
Emergency Medical Services for Children	93.127		71,940			71,940
Cooperative Agreements to States/Territories for the Coordination and Development of Primary Care Offices	93.130		222,552			222,552
Injury Prevention and Control Research and State and Community Based Programs	93.136		5,107,934		591,788	5,125,152
Community Programs to Improve Minority Health Grant Program	93.137		426,885			426,885
NIEHS Hazardous Waste Worker Health and Safety Training	93.142					
Pass-Through From Duke University	93.142			30,110		30,110
AIDS Education and Training Centers	93.145		546			240,259
Pass-Through From University of Pittsburgh	93.145			214,288		240,259
Pass-Through From University of Pittsburgh	93.145	Univ of Pittsburgh #0050178		17,955		240,259
Pass-Through From University of Pittsburgh	93.145	Univ of Pittsburgh 0056096		7,470	4,428	240,259
Projects for Assistance in Transition from Homelessness (PATH)	93.150		1,373,376		1,346,004	1,373,376
Coordinated Services and Access to Research for Women, Infants, Children, and Youth	93.153		295,105			295,105
Grants to States for Loan Repayment Program	93.165		426,250			426,250
Research Related to Deafness and Communication Disorders	93.173		34,305			1,876,402
Graduate Psychology Education Program and Patient Navigator and Chronic Disease Prevention Program	93.191		454,032			454,032
Childhood Lead Poisoning Prevention Projects_State and Local Childhood Lead Poisoning Prevention and Surveillance of Blood Lead Levels in Children	93.197		140,454			140,454
Telehealth Programs	93.211		89,930		20,730	887,752
Research and Training in Complementary and Alternative Medicine	93.213					
Pass-Through From Carnegie Mellon University	93.213	R01AT008685		15,060		1,423,922
Family Planning_Services	93.217		3,962,628		118,826	3,962,628
Research on Healthcare Costs, Quality and Outcomes	93.226					
Pass-Through From University of Massachusetts	93.226			336		2,163,439
Traumatic Brain Injury State Demonstration Grant Program	93.234		288,219		150,000	288,219
Affordable Care Act (ACA) Abstinence Education Program	93.235		959,789		140,713	959,789
Grants to States to Support Oral Health Workforce Activities	93.236		272,703		137,705	272,703
State Capacity Building	93.240		271,324			271,324
State Rural Hospital Flexibility Program	93.241		392,188		216,966	392,188
Substance Abuse and Mental Health Services_Projects of Regional and National Significance	93.243		8,363,157		4,538,005	8,517,232
Pass-Through From County of Fairfax	93.243			5,072		8,517,232
Pass-Through From Hampton Newport News	93.243					
Community Service Board	93.243			34,758		8,517,232
Pass-Through From State of Delaware	93.243			4,032		8,517,232
Advanced Nursing Education Grant Program	93.247		370,167			1,035,874
Universal Newborn Hearing Screening	93.251		232,460			232,460
Poison Center Support and Enhancement Grant Program	93.253		190,401			349,535
Occupational Safety and Health Program	93.262					
Pass-Through From University of Kentucky Research Foundation	93.262			8,662		748,473
Pass-Through From University of New Mexico	93.262	3RZ08		230,519		748,473
Health Systems Strengthening and HIV/AIDS Prevention, Care and Treatment under the President's Emergency Plan for AIDS Relief	93.266		43,011		17,565	43,011
Immunization Cooperative Agreements	93.268		78,385,292		126,827	78,385,292
Adult Viral Hepatitis Prevention and Control	93.270		187,688			187,688
Drug-Free Communities Support Program Grants	93.276		118,692			124,565
Pass-Through From Blue Ridge Behavioral Healthcare	93.276			4,848		124,565

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Pass-Through From Piedmont Community Services Centers for Disease Control and Prevention_Investigations and Technical Assistance	93.276			1,025		124,565
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.283		366,903		41,247	366,903
Pass-Through From Stanford Research Institute International	93.286		102,724			2,794,240
State Partnership Grant Program to Improve Minority Health	93.286	PO 3546		2,877		2,794,240
Small Rural Hospital Improvement Grant Program	93.296		172,580			172,580
National State Based Tobacco Control Programs	93.301		184,763		166,260	184,763
Minority Health and Health Disparities Research	93.305		840,773		56,195	840,773
Pass-Through From University of Chicago	93.307			19,465		2,286,017
Early Hearing Detection and Intervention Information System (EHDI-IS) Surveillance Program	93.307					
Outreach Programs to Reduce the Prevalence of Obesity in High Risk Rural Areas	93.314		120,064			120,064
Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	93.319		61,345			61,345
State Health Insurance Assistance Program	93.323		5,069,372			5,122,237
Behavioral Risk Factor Surveillance System	93.324		984,767		689,169	984,767
	93.336		331,428			331,428
21st Century Cures Act - Beau Biden Cancer Moonshot	93.353					
Pass-Through From Health Research Incorporated Public Health Emergency Response: Cooperative Agreement for Emergency Response: Public Health Crisis Response	93.353			141,756		364,626
	93.354		1,222,920		20,055	1,222,920
Nurse Education, Practice Quality and Retention Grants	93.359		2,048,692		70,003	2,048,692
Sickle Cell Treatment Demonstration Program	93.365					
Pass-Through From Johns Hopkins University State Actions to Improve Oral Health Outcomes and Partner Actions to Improve Oral Health Outcomes Flexible Funding Model - Infrastructure Development and Maintenance for State Manufactured Food Regulatory Programs	93.365	Johns Hopkins-HRSA 2003633366		94,545		94,545
ACL Independent Living State Grants	93.366		206,386			206,386
Cancer Cause and Prevention Research	93.367		349,372			349,372
Pass-Through From University of Kentucky Research Foundation	93.369		456,889		456,889	456,889
Cancer Detection and Diagnosis Research	93.393			5,021		13,266,609
	93.394		1,140			3,434,601
The State Flexibility to Stabilize the Market Grant Program Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nations Health	93.413		170,756			170,756
Pass-Through From Association of State and Territorial Health Officials	93.421					
Pass-Through From Council of State & Territorial Epidemiologists	93.421	63-23351		18,625		24,296
NON-ACA/PPHF Building Capacity of the Public Health System to Improve Population Health through National Nonprofit Organizations	93.421	NU38OT000297-01		1,241		24,296
Pass-Through From Association of State and Territorial Health Officials	93.424					
Pass-Through From National Association of County & City Health Officials	93.424	5NU38OT000161-04-00, 83-10194		9,333		18,118
Improving the Health of Americans through Prevention and Management of Diabetes and Heart Disease and Stroke	93.424	2018-082702		8,785	329	18,118
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.426		1,156,854		764,137	1,156,854
Every Student Succeeds Act/Preschool Development Grants	93.433		34,591			2,473,310
Innovative State and Local Public Health Strategies to prevent and Manage Diabetes and Heart Disease and Stroke-	93.434		94,474			349,773
Food Safety and Security Monitoring Project	93.435		417,132		51,223	462,821
ACL Assistive Technology	93.448		609,620			609,620
Pregnancy Assistance Fund Program	93.464		556,948		258,083	556,948
Family to Family Health Information Centers	93.500		1,206,042		840	1,206,042
	93.504		99,400			99,400
The Affordable Care Act: Building Epidemiology, Laboratory, and Health Information Systems Capacity in the Epidemiology and Laboratory Capacity for Infectious Disease (ELC) and Emerging Infections Program (EIP) Cooperative Agreements;PPHF	93.521		31,863			31,863
PPHF Capacity Building Assistance to Strengthen Public Health Immunization Infrastructure and Performance financed in part by Prevention and Public Health Funds	93.539		106,916			106,916
Promoting Safe and Stable Families	93.556		5,898,882		5,260,940	5,898,882

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Child Support Enforcement	93.563		62,112,059		173,516	62,112,059
Child Support Enforcement Research	93.564		157,515		16,003	157,515
Refugee and Entrant Assistance_State Administered Programs	93.566		6,876,243		4,641,267	6,876,243
Low-Income Home Energy Assistance	93.568		91,178,512		16,184,420	91,227,084
Pass-Through From City of Richmond	93.568	City of Richmond		48,572		91,227,084
Community Services Block Grant	93.569		11,871,709		11,314,917	11,871,709
Refugee and Entrant Assistance_Discretionary Grants	93.576		118,010		98,775	118,010
Refugee and Entrant Assistance_Targeted Assistance Grants	93.584		367,951		322,910	367,951
State Court Improvement Program	93.586		908,640			908,640
Community-Based Child Abuse Prevention Grants	93.590		972,377		869,586	972,377
Grants to States for Access and Visitation Programs	93.597		142,460		142,460	142,460
Chafee Education and Training Vouchers Program (ETV)	93.599		417,796		376,854	417,796
Head Start	93.600		198,749		77,094	198,749
Assets for Independence Demonstration Program	93.602					
Pass-Through From Abt Associates	93.602	SS00-10-60011		9,974		9,974
Adoption Incentive Payments	93.603		241,779		178,615	241,779
Developmental Disabilities Basic Support and Advocacy Grants	93.630		1,560,638			1,560,638
Developmental Disabilities Projects of National Significance	93.631		258,683		95,652	282,574
University Centers for Excellence in Developmental Disabilities Education, Research, and Service	93.632		701,291			701,291
Children's Justice Grants to States	93.643		337,464		32,585	337,464
Stephanie Tubbs Jones Child Welfare Services Program	93.645		6,033,005		5,966,284	6,033,005
Child Welfare Research Training or Demonstration	93.648		17,225		32	17,225
Foster Care_Title IV-E	93.658		70,024,264		64,796,580	70,024,264
Adoption Assistance	93.659		62,719,648		60,396,014	62,719,648
Social Services Block Grant	93.667		60,564,284		53,673,901	60,564,284
Child Abuse and Neglect State Grants	93.669		1,843,590		404,892	1,843,590
Family Violence Prevention and Services/Domestic Violence Shelter and Supportive Services	93.671		2,474,363		2,358,848	2,474,363
Chafee Foster Care Independence Program	93.674		1,726,830		1,502,946	1,726,830
Mental and Behavioral Health Education and Training Grants	93.732		556,733			556,733
Capacity Building Assistance to Strengthen Public Health Immunization Infrastructure and Performance financed in part by the Prevention and Public Health Fund (PPHF)	93.733		15,036			15,036
Empowering Older Adults and Adults with Disabilities through Chronic Disease Self-Management Education Programs financed by Prevention and Public Health Funds (PPHF)	93.734		177,899		114,050	177,899
State Public Health Approaches for Ensuring Quitline Capacity Funded in part by Prevention and Public Health Funds (PPHF)	93.735		664,107		22,404	664,107
Elder Abuse Prevention Interventions Program	93.747		42,989			42,989
State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health financed in part by Prevention and Public Health Funding (PPHF)	93.757		1,608,642		760,922	1,608,642
Preventive Health and Health Services Block Grant funded solely with Prevention and Public Health Funds (PPHF)	93.758		1,077,155		105,433	1,077,155
Evidence-Based Falls Prevention Programs Financed Solely by Prevention and Public Health Funds (PPHF)	93.761		202,042		107,060	202,042
Alzheimers Disease Initiative: Specialized Supportive Services Project (ADI-SSS) thru Prevention and Public Health Funds (PPHF)	93.763		64,381		61,483	360,106
Children's Health Insurance Program	93.767		377,830,040		2,255,370	377,833,258
Pass-Through From VA Health Care Foundation	93.767	CMS-1ZO-16-001		3,218		377,833,258
Medicare_Hospital Insurance	93.773		16,900		16,900	16,900
Opioid STR	93.788		20,599,488		19,984,474	20,599,488
Money Follows the Person Rebalancing Demonstration	93.791		303,872		160,056	303,872
Organized Approaches to Increase Colorectal Cancer Screening	93.800		657,156		506,032	657,156
Hospital Preparedness Program (HPP) Ebola Preparedness and Response Activities	93.817		490,805		487,481	490,805
Cardiovascular Diseases Research	93.837		22,000			41,501,543
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		110,128			26,999,017
Biomedical Research and Research Training	93.859		48,915			29,577,309
Vision Research	93.867					
Pass-Through From Harvey Mudd College	93.867	1415-2073-01		10,408		4,525,878
Maternal, Infant and Early Childhood Home Visiting Grant Program	93.870		6,963,081		5,822,732	7,736,771
Pass-Through From Iowa Department of Public Health	93.870	UH4MC30710-01		773,690		7,736,771

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Medical Library Assistance	93.879					
Pass-Through From University of Maryland	93.879			16,987		808,087
Grants for Primary Care Training and Enhancement	93.884		662,113			662,113
Cancer Prevention and Control Programs for State, Territorial and Tribal Organizations	93.898		3,374,987		1,363,853	3,374,987
Grants to States for Operation of Offices of Rural Health	93.913		179,222		11,292	179,222
HIV Care Formula Grants	93.917		45,384,336		6,840,421	45,384,336
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	93.918		4,072,024			4,175,832
Healthy Start Initiative	93.926		746,607		294,210	746,607
Special Projects of National Significance	93.928		205,621			205,621
HIV Prevention Activities_Health Department Based	93.940		10,729,437		3,932,869	10,729,615
Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Virus Syndrome (AIDS) Surveillance Assistance Programs for Chronic Disease Prevention and Control	93.944		910,084		337,620	910,084
Cooperative Agreements to Support State-Based Safe Motherhood and Infant Health Initiative Programs	93.945		261,808		88,324	263,006
Block Grants for Community Mental Health Services	93.946		205,613			205,613
Block Grants for Prevention and Treatment of Substance Abuse	93.958		12,448,208		11,519,815	12,448,208
Pass-Through From Blue Ridge Behavioral Healthcare Coal Miners Respiratory Impairment Treatment Clinics and Services	93.959		42,069,325		38,301,880	42,479,868
Pass-Through From University of Massachusetts Boston	93.959			2,355		42,479,868
PPHF Geriatric Education Centers	93.965			20,202		20,202
Preventive Health Services_Sexually Transmitted Diseases Control Grants	93.969		801,384		147,119	818,517
Preventive Health and Health Services Block Grant	93.977		2,156,062		26,748	2,156,062
Maternal and Child Health Services Block Grant to the States	93.991		1,762,605		196,214	1,762,605
Other Assistance	93.994		10,934,944		2,215,929	10,934,944
Other Assistance	93.U01	CDC Vital Statistics 200-2017-92548	884,336			2,053,997
Other Assistance	93.U02	FDA Tobacco Compliance Checks	32,298			2,053,997
Other Assistance	93.U03	FP00008905/ 2R01MH084894-10	15,256			2,053,997
Other Assistance	93.U04	HHSF223201400088C-Option Year 3	322,641			2,053,997
Other Assistance	93.U05	HHSF223201710156C	12,297			2,053,997
Other Assistance	93.U06	Mammography FDA HHSF223201710063C/0002	152,280			2,053,997
Other Assistance	93.U07	NIMH Neuropathology HHSN271201700073C-02	237,236			2,053,997
Pass-Through From American Type Culture Collection	93.U08	Biomedical Research Laboratory (BRL) Space Use-HHSN272201600013C-204605;ATCC/DHHS/BRL Qingguo- HHSF223201810114C-Sub award		313,021		2,053,997
Pass-Through From University of Connecticut	93.U09	No.320787;320787		84,632		2,053,997
Total Excluding Clusters Identified Below			1,096,299,512	14,649,397	348,526,699	
Aging Cluster:						
Special Programs for the Aging_Title III, Part B_Grants for Supportive Services and Senior Centers	93.044		13,571,020		12,305,551	13,571,020
Special Programs for the Aging_Title III, Part C_Nutrition Services	93.045		13,059,493		13,059,493	13,059,493
Nutrition Services Incentive Program	93.053		1,958,773		1,958,773	1,958,773
Total Aging Cluster			28,589,286	0	27,323,817	28,589,286
CCDF Cluster:						
Child Care and Development Block Grant	93.575		96,567,401		22,125,422	96,573,318
Pass-Through From ChildSavers	93.575			5,917		96,573,318
Child Care Mandatory and Matching Funds of the Child Care and Development Fund	93.596		64,312,274			64,312,274
Total CCDF Cluster			160,879,675	5,917	22,125,422	160,885,592
Medicaid Cluster:						
State Medicaid Fraud Control Units	93.775		8,605,205			8,605,205
State Survey and Certification of Health Care Providers and Suppliers (Title XVIII) Medicare	93.777		9,426,765			9,426,765
Medical Assistance Program	93.778		6,143,736,233		106,096,620	6,143,736,233
Total Medicaid Cluster			6,161,768,203	0	106,096,620	6,161,768,203
Student Financial Assistance Programs:						
Nurse Faculty Loan Program (NFLP)	93.264		502,276			502,276
Health Professions Student Loans, Including Primary Care Loans/Loans for Disadvantaged Students						
Loans/Loans for Disadvantaged Students	93.342		10,884,619			10,884,619
Nursing Student Loans	93.364		1,881,304			1,881,304
Total Student Financial Assistance Programs			13,268,199	0	0	13,268,199
TANF Cluster:						
Temporary Assistance for Needy Families	93.558		110,632,511		80,932,988	110,632,511
Total TANF Cluster			110,632,511	0	80,932,988	110,632,511

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Research and Development: Special Programs for the Aging_Title IV_and Title II_Discretionary Projects	93.048					
Pass-Through From Georgia State University	93.048			6,824		582,459
Alzheimer's Disease Demonstration Grants to States	93.051		17,587			32,143
Innovations in Applied Public Health Research	93.061					
Pass-Through From Barron Associates, Incorporated	93.061			47,976		47,976
Chronic Diseases: Research, Control, and Prevention	93.068					
Pass-Through From New York University	93.068			68,052		68,052
Hospital Preparedness Program (HPP) and Public Health Emergency Preparedness (PHEP) Aligned Cooperative Agreements	93.074		85,981			20,507,401
Family Smoking Prevention and Tobacco Control Act Regulatory Research	93.077		4,909,658		1,427,895	5,010,074
Pass-Through From Florida International University	93.077	800006646 01UG		17,597		5,010,074
Pass-Through From University of Alabama	93.077	R01DA036027		18,790		5,010,074
Pass-Through From University of Minnesota	93.077			13,180		5,010,074
Pass-Through From University of Mississippi Medical Center	93.077			7,881		5,010,074
Pass-Through From University of Nevada Reno	93.077	UNR 18 11		14,054		5,010,074
Pass-Through From University of Texas MD Anderson Cancer Center Science Park	93.077	SUB 00004638 and 3000991323		17,979		5,010,074
Pass-Through From Wake Forest University	93.077			10,935		5,010,074
Blood Disorder Program: Prevention, Surveillance, and Research	93.080					
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.080			7,275		49,413
Research of the Responsible Conduct of Research (RCR) Healthy Marriage Promotion and Responsible Fatherhood Grants	93.085		12,898			12,898
Food and Drug Administration_Research	93.086		1,236,889		841,148	1,236,889
Pass-Through From Georgia Institute of Technology	93.103	GIT RG219-G3		59,204		2,061,940
Pass-Through From Interstate Shellfish Sanitation Conference	93.103	DE-SC0014413 / 16-SUBC-440-0000336870		9,212		2,061,940
Maternal and Child Health Federal Consolidated Programs	93.110		10,272			13,161,228
Pass-Through From Association of University Centers on Disabilities	93.110			4,661		13,161,228
Pass-Through From Children's Hospital of Philadelphia	93.110	27007-3209610518 CHOP		19,817		13,161,228
Pass-Through From Massachusetts General Hospital	93.110			42,699		13,161,228
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.110			3,946		13,161,228
Environmental Health	93.113		733,401		208,509	951,387
Pass-Through From Duke University	93.113	2036146		10,499		951,387
Pass-Through From East Carolina University	93.113	East Carolina University		9,256		951,387
Pass-Through From New York University	93.113			18,103		951,387
Pass-Through From Northwestern University	93.113			20,436		951,387
Pass-Through From University of New Mexico	93.113	3RT23		152,400		951,387
Pass-Through From University of North Carolina-Chapel Hill	93.113			7,292		951,387
Oral Diseases and Disorders Research	93.121		1,990,102		146,349	2,151,411
Pass-Through From Augusta University	93.121	30501-1		2,407		2,151,411
Pass-Through From University of Buffalo	93.121	R1115738		83,043		2,151,411
Pass-Through From University of California at San Francisco	93.121			12,215		2,151,411
Pass-Through From University of Iowa	93.121			49,862		2,151,411
Pass-Through From West Virginia University	93.121	12-842-VCU		13,782		2,151,411
Injury Prevention and Control Research and State and Community Based Programs	93.136					
Pass-Through From The Safe States Alliance	93.136			17,218		5,125,152
NIEHS Superfund Hazardous Substances_Basic Research and Education	93.143	1R01ES024245-01	199,075		5,374	245,104
Pass-Through From University Of Iowa	93.143			24,701		245,104
Pass-Through From Washington University	93.143			21,328		245,104
Human Genome Research	93.172		757,162			757,162
Research Related to Deafness and Communication Disorders	93.173		1,781,968			1,876,402
Pass-Through From Baylor College of Medicine	93.173			1,797		1,876,402
Pass-Through From Temple University	93.173	254910-VCU		17,534		1,876,402
Pass-Through From University of Colorado	93.173			40,798		1,876,402
Telehealth Programs	93.211		797,822		15,033	887,752
Research and Training in Complementary and Alternative Medicine	93.213		1,218,686		247,921	1,423,922
Pass-Through From University of Arizona	93.213			69,466		1,423,922
Pass-Through From Wake Forest University Health Sciences	93.213			16,312		1,423,922

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Pass-Through From Wayne State University	93.213			104,398		1,423,922
Research on Healthcare Costs, Quality and Outcomes	93.226		2,135,672		541,339	2,163,439
Pass-Through From The University of Iowa	93.226			6,565		2,163,439
Pass-Through From University of Pittsburgh	93.226			20,866		2,163,439
National Center on Sleep Disorders Research	93.233		515,253		93,415	714,462
Pass-Through From University of Connecticut	93.233			199,209		714,462
Mental Health Research Grants	93.242		9,501,704		682,429	11,391,218
Pass-Through From Boston University	93.242	4500001440		53,018		11,391,218
Pass-Through From Columbia University	93.242			37,310		11,391,218
Pass-Through From Curators of the University of Missouri	93.242			8,303		11,391,218
Pass-Through From Emory University	93.242	R01MH110364		30,410		11,391,218
Pass-Through From Johns Hopkins University	93.242			61,821		11,391,218
Pass-Through From Mayo Clinic	93.242			4,320		11,391,218
Pass-Through From Regents of the University of California	93.242			15,041		11,391,218
Pass-Through From The Salk Institute for Biological Studies	93.242			502,479		11,391,218
Pass-Through From University of California Los Angeles	93.242	0070-G-U8871		74,404		11,391,218
Pass-Through From University of North Carolina at Chapel Hill	93.242			142,413		11,391,218
Pass-Through From University of North Carolina at Chapel Hill	93.242	Univ of NC Chapel Hill 5101736		923		11,391,218
Pass-Through From University of Southern California	93.242			698,254		11,391,218
Pass-Through From University of Texas Southwestern Medical Center at Dallas	93.242			260,818		11,391,218
Substance Abuse and Mental Health Services_Projects of Regional and National Significance	93.243		110,213		27,044	8,517,232
Advanced Nursing Education Grant Program	93.247		647,914			1,035,874
Pass-Through From Old Dominion University Research Foundation	93.247			17,793		1,035,874
Poison Center Support and Enhancement Grant Program	93.253		159,134			349,535
Occupational Safety and Health Program	93.262		436,903			748,473
Pass-Through From Johns Hopkins University	93.262			15,744		748,473
Pass-Through From Mary Imogene Bassett Hospital	93.262			6,350		748,473
Pass-Through From The Center for Construction Research	93.262			38,751		748,473
Pass-Through From University Of Florida	93.262			1,813		748,473
Pass-Through From University of Kentucky Research Foundation	93.262			9,731		748,473
Alcohol Research Programs	93.273		5,677,508		746,929	6,157,954
Pass-Through From Beam Diagnostics Incorporated	93.273			93,863		6,157,954
Pass-Through From Michigan State University	93.273	Michigan State Univ		73,735		6,157,954
Pass-Through From The Research Foundation of State University of New York	93.273	1009189 72372/79064		266,979		6,157,954
Pass-Through From University of Maryland	93.273	Subaward 1300227A		24,885		6,157,954
Pass-Through From University of Washington	93.273			14,382		6,157,954
Pass-Through From Yale University	93.273			6,602		6,157,954
Drug Abuse and Addiction Research Programs	93.279		14,092,011		1,059,240	17,366,167
Pass-Through From Board of Regents of the University of Nebraska	93.279			29,973		17,366,167
Pass-Through From Case Western Reserve University	93.279	RESS11332		255,652		17,366,167
Pass-Through From Duke University	93.279			14,583		17,366,167
Pass-Through From Friends Research Institute Incorporated	93.279			45,191		17,366,167
Pass-Through From H Lee Moffitt Cancer Center and Research Institute	93.279	11-18127-99-01-G1		16,921		17,366,167
Pass-Through From Johns Hopkins University	93.279			22,283		17,366,167
Pass-Through From Medical University of South Carolina	93.279			164,270		17,366,167
Pass-Through From Ohio State University Research Foundation	93.279	Ohio State University 60048471		102,089		17,366,167
Pass-Through From Oregon Social Learning Center	93.279			59,048		17,366,167
Pass-Through From Saint Josephs Hospital and Medical Center	93.279	32661VCU		238,932		17,366,167
Pass-Through From Saint Louis University	93.279			2,797		17,366,167
Pass-Through From Scripps Research Institute	93.279			371,840		17,366,167
Pass-Through From Scripps Research Institute	93.279	5-53315		44,296		17,366,167
Pass-Through From The Jackson Laboratory	93.279			30,378		17,366,167
Pass-Through From The National Center on Addiction and Substance Abuse at Columbia University	93.279			24,008		17,366,167
Pass-Through From The University of Texas	93.279			224,718		17,366,167
Pass-Through From University of California San Francisco	93.279			12,638		17,366,167

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Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Pass-Through From University of Cincinnati	93.279			10,411		17,366,167
Pass-Through From University of Connecticut	93.279			16,170		17,366,167
Pass-Through From University of Connecticut	93.279	119437		196,474		17,366,167
Pass-Through From University of Kentucky Research Foundation	93.279	Univ of Kentucky Research Fnd		8,190		17,366,167
Pass-Through From University of Michigan	93.279	3004119992		632		17,366,167
Pass-Through From University of Minnesota	93.279	A005020802		1,154,710		17,366,167
Pass-Through From University of Pittsburgh	93.279			223,076		17,366,167
Pass-Through From University Of Tennessee	93.279			4,876		17,366,167
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		2,668,282			2,794,240
Pass-Through From New York University School of Medicine	93.286			10,166		2,794,240
Pass-Through From Rivanna Medical Limited Liability Company	93.286			10,191		2,794,240
Teenage Pregnancy Prevention Program	93.297					
Pass-Through From University of New Mexico	93.297			34,352		34,352
Minority Health and Health Disparities Research	93.307		2,031,044		528,078	2,286,017
Pass-Through From Functional Fluidics Limited Liability Corporation	93.307			9,311		2,286,017
Pass-Through From Johns Hopkins University	93.307			34,275		2,286,017
Pass-Through From Starship Health Technologies	93.307	REPEAT Project		13,230		2,286,017
Pass-Through From University of North Carolina at Chapel Hill	93.307	5106999		113,487		2,286,017
Pass-Through From University of North Carolina-Chapel Hill	93.307			14,992		2,286,017
Pass-Through From University of Pittsburgh	93.307			339		2,286,017
Pass-Through From Wayne State University	93.307			49,874		2,286,017
Trans-NIH Research Support	93.310		1,258,117		10,413	1,913,900
Trans-NIH Research Support	93.310	417736-19858	4,396		4,396	1,913,900
Trans-NIH Research Support	93.310	418491-19858	13,187		13,187	1,913,900
Pass-Through From Augusta University Research Institute Incorporated	93.310			13,160		1,913,900
Pass-Through From Harvard University	93.310			91,260		1,913,900
Pass-Through From Pennsylvania State University	93.310			5,826		1,913,900
Pass-Through From The Translational Genomics Research Institute	93.310			34,297		1,913,900
Pass-Through From University at Buffalo	93.310	417736-19858 / 418491-19858		493,657		1,913,900
Protecting and Improving Health Globally: Building and Strengthening Public Health Impact, Systems, Capacity and Security	93.318		175,806		80,229	175,806
Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	93.323		52,865			5,122,237
National Center for Advancing Translational Sciences	93.350		4,113,989		121,279	4,154,105
Pass-Through From Dystonia Medical Research Foundation	93.350	Dystonia Coalition-DMRF		3,258		4,154,105
Pass-Through From University of California	93.350			36,858		4,154,105
Research Infrastructure Programs	93.351		1,569,795		514,152	1,569,795
21st Century Cures Act - Beau Biden Cancer Moonshot	93.353					
Pass-Through From Acomhal Research Incorporated	93.353			85,109		364,626
Pass-Through From Dana-Farber Cancer Institute, Incorporated	93.353			137,761		364,626
Nursing Research	93.361		1,680,279		259,392	1,916,563
Pass-Through From Emory University	93.361			44,285		1,916,563
Pass-Through From Georgetown University	93.361	412561-GR412519-VCU		30,439		1,916,563
Pass-Through From ICON Clinical Research, Incorporated	93.361			4,203		1,916,563
Pass-Through From Mayo Clinic Rochester	93.361			31,436		1,916,563
Pass-Through From University of Alabama	93.361	1R01NR01615		116,834		1,916,563
Pass-Through From University of Tennessee	93.361			9,087		1,916,563
Cancer Cause and Prevention Research	93.393		11,689,706		2,931,318	13,266,609
Cancer Cause and Prevention Research	93.393	459117-19B88	12,393		12,393	13,266,609
Cancer Cause and Prevention Research	93.393	459117-19367	20,007		20,007	13,266,609
Pass-Through From Fred Hutchinson Cancer Research Center	93.393			184,165		13,266,609
Pass-Through From Health Research Incorporated	93.393					
Roswell Park Division	93.393			33,076		13,266,609
Pass-Through From Imol Radiopharmaceuticals, Limited Liability Company	93.393			11,778		13,266,609
Pass-Through From Medical University of South Carolina	93.393	459117-19367 / 459117-19B88		385,888		13,266,609
Pass-Through From Temple University	93.393	261854-VCU		24,348		13,266,609
Pass-Through From The George Washington University	93.393			46,382		13,266,609
Pass-Through From The University of Texas M.D. Anderson Cancer Center	93.393			95,379		13,266,609
Pass-Through From University of Minnesota	93.393			397,976		13,266,609
Pass-Through From University of North Carolina at Chapel Hill	93.393	5106264		59,451		13,266,609
Pass-Through From University of Pennsylvania	93.393			35,097		13,266,609

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Pass-Through From University of Southern California	93.393	University of Pittsburgh		186,167		13,266,609
Pass-Through From University of Utah	93.393			60,231		13,266,609
Pass-Through From University of Washington	93.393			5,616		13,266,609
Pass-Through From Wake Forest University	93.393	WFUHS114410		13,928		13,266,609
Cancer Detection and Diagnosis Research	93.394		3,038,655		508,463	3,434,601
Pass-Through From Columbia University	93.394			11,830		3,434,601
Pass-Through From Duke University	93.394			77,024		3,434,601
Pass-Through From Johns Hopkins University	93.394			4,122		3,434,601
Pass-Through From Regents of the University of California	93.394			36,597		3,434,601
Pass-Through From Rutgers, The State University of New Jersey	93.394			90,079		3,434,601
Pass-Through From University of Arizona	93.394			9,681		3,434,601
Pass-Through From University of California Los Angeles	93.394	1625 G SA393 UCLA		165,473		3,434,601
Cancer Treatment Research	93.395		8,569,207		1,517,871	10,910,873
Pass-Through From Alliance for Clinical Trials in Oncology Foundation	93.395	Phase II/III biomarker driving master		53		10,910,873
Pass-Through From BrachyFoam Limited Liability Corporation	93.395			15,387		10,910,873
Pass-Through From BrachyFoam, Limited Liability Company	93.395			12,022		10,910,873
Pass-Through From Children's Hospital of Philadelphia	93.395	U10CA098543		21,810		10,910,873
Pass-Through From Courier Therapeutics Incorporated	93.395			76,592		10,910,873
Pass-Through From Curators of the University of Missouri	93.395			77,681		10,910,873
Pass-Through From ECOG-ACRIN Cancer Research Group	93.395			13,395		10,910,873
Pass-Through From FirstString Research Incorporated	93.395			117,760		10,910,873
Pass-Through From Georgetown University	93.395			34,483		10,910,873
Pass-Through From H Lee Moffitt Cancer Center and Research Institute	93.395	HHSN261200622008C		8,868		10,910,873
Pass-Through From Health Research Incorporated	93.395	55-0669-22		237,975		10,910,873
Pass-Through From John Wayne Cancer Institute	93.395			19		10,910,873
Pass-Through From Johns Hopkins University	93.395			354,278		10,910,873
Pass-Through From Memorial Sloan-Kettering Cancer Center	93.395			16,770		10,910,873
Pass-Through From Montefiore Medical Center	93.395			58,800		10,910,873
Pass-Through From National Surgical Adjuvant Breast and Bowel Program	93.395	NSABP-B-51		75		10,910,873
Pass-Through From NRG Oncology Foundation Incorporated	93.395			32,833		10,910,873
Pass-Through From NRG Oncology Foundation Incorporated	93.395	NRG BN001		2,133		10,910,873
Pass-Through From NRG Oncology Foundation Incorporated	93.395	NRG G1002		140		10,910,873
Pass-Through From NRG Oncology Foundation Incorporated	93.395	NRG Oncology NSABP-B-52		46,270		10,910,873
Pass-Through From NRG Oncology Foundation Incorporated	93.395	NRG-GY004		16		10,910,873
Pass-Through From Temple University	93.395	256353-VCU		319,672		10,910,873
Pass-Through From The University of Texas	93.395			13,851		10,910,873
Pass-Through From University Health Network	93.395	FCC# 410002753		109,934		10,910,873
Pass-Through From University Health Network	93.395	NCI 10021		1,663		10,910,873
Pass-Through From University Health Network	93.395	NCI 9984		5,030		10,910,873
Pass-Through From University Health Network	93.395	NCI10104		4,055		10,910,873
Pass-Through From University Health Network	93.395	NCI9881		3,050		10,910,873
Pass-Through From University of Central Florida	93.395			43,518		10,910,873
Pass-Through From University of Central Florida	93.395	69016060-01		176,070		10,910,873
Pass-Through From University of Maryland	93.395			11,472		10,910,873
Pass-Through From University Of Pittsburgh	93.395			27,684		10,910,873
Pass-Through From VoltMed Incorporated	93.395			32,879		10,910,873
Pass-Through From Wake Forest University Health Sciences	93.395			465,428		10,910,873
Cancer Biology Research	93.396		6,830,767		615,176	7,135,279
Pass-Through From Georgetown University	93.396			95,163		7,135,279
Pass-Through From Lehigh University	93.396			2,069		7,135,279
Pass-Through From Ohio State University Research Foundation	93.396	Ohio State University 60047689		134,520		7,135,279
Pass-Through From Penn State University	93.396			18,665		7,135,279
Pass-Through From University of North Carolina at Chapel Hill	93.396			54,095		7,135,279
Cancer Centers Support Grants	93.397		2,344,204			2,402,270
Pass-Through From Albert Einstein College of Medicine	93.397					2,402,270
BronxCreed	93.397	Building Research Capacity		28,200		2,402,270
Pass-Through From Leidos Biomedical Research	93.397			20,898		2,402,270
Pass-Through From NRG Oncology Foundation, Incorporated	93.397			324		2,402,270

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Pass-Through From University of Kentucky Research Foundation	93.397			8,644		2,402,270
Cancer Research Manpower	93.398		2,025,249			2,025,249
Cancer Control	93.399					
Pass-Through From National Surgical Adjuvant Breast and Bowel Program	93.399	NSABP TEED		16		16
Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation's Health	93.421					
Pass-Through From The National Association of Chronic Disease Direct	93.421			4,430		24,296
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		2,397,324		644,895	2,473,310
Pass-Through From American Institutes for Research Institute	93.433			14,438		2,473,310
Pass-Through From Craig Hospital	93.433			6,293		2,473,310
Pass-Through From Shepherd Center Incorporated Every Student Succeeds Act/Preschool Development Grants	93.433	SHEP-18-0008		20,664		2,473,310
	93.434		228,760			349,773
Pass-Through From Iowa State University Innovative State and Local Public Health Strategies to prevent and Manage Diabetes and Heart Disease and Stroke-	93.434			26,539		349,773
Developmental Disabilities Projects of National Significance	93.435		45,689			462,821
Alzheimer's Disease Initiative: Specialized Supportive Services Project (ADI-SSS) thru Prevention and Public Health Funds (PPHF)	93.631		23,891			282,574
Cardiovascular Diseases Research	93.763		295,725			360,106
	93.837		37,601,097		4,621,158	41,501,543
Pass-Through From Barron Associates, Incorporated	93.837			23,877		41,501,543
Pass-Through From Bloodworks Northwest	93.837			418,264		41,501,543
Pass-Through From Boston University	93.837			99,348		41,501,543
Pass-Through From Columbia University	93.837			182,060		41,501,543
Pass-Through From Houston Methodist Research Institute	93.837	R01HL115003		7,094		41,501,543
Pass-Through From Johns Hopkins University	93.837			418,952		41,501,543
Pass-Through From Key Technologies	93.837			6,227		41,501,543
Pass-Through From La Jolla Institute for Allergy & Immunology	93.837			638,103		41,501,543
Pass-Through From Massachusetts General Hospital	93.837	REPRIEVE A5332		2,162		41,501,543
Pass-Through From National Marrow Donor Program	93.837			10,613		41,501,543
Pass-Through From Northeastern University	93.837	500532-78051		48,421		41,501,543
Pass-Through From Ohio State University Research Foundation	93.837	Ohio State Univ #60034668		2,241		41,501,543
Pass-Through From Soundpipe, Limited Liability Company	93.837			127,558		41,501,543
Pass-Through From State Of Maryland	93.837			190,457		41,501,543
Pass-Through From Temple University	93.837			213,810		41,501,543
Pass-Through From The Children's Hospital of Philadelphia	93.837			25,175		41,501,543
Pass-Through From The Icahn School of Medicine at Mount Sinai	93.837			94,067		41,501,543
Pass-Through From The Washington University	93.837			29,591		41,501,543
Pass-Through From University of Alabama at Birmingham	93.837			27,423		41,501,543
Pass-Through From University of California, San Diego	93.837			68,250		41,501,543
Pass-Through From University of Connecticut	93.837			91,009		41,501,543
Pass-Through From University of Florida	93.837			197,626		41,501,543
Pass-Through From University of Houston System	93.837	R-15-0052		47,930		41,501,543
Pass-Through From University of Houston System	93.837	R-17-0024		24,235		41,501,543
Pass-Through From University of Minnesota	93.837	N005339719		6,537		41,501,543
Pass-Through From University of Mississippi Medical Center	93.837			46,375		41,501,543
Pass-Through From University of Pittsburgh	93.837			89,279		41,501,543
Pass-Through From University of Tennessee Health Science Center	93.837			7,239		41,501,543
Pass-Through From University of Washington	93.837			41,156		41,501,543
Pass-Through From Vanderbilt University	93.837			130,635		41,501,543
Pass-Through From Wake Forest University	93.837			339,807		41,501,543
Pass-Through From Wake Forest University	93.837	WFUHS 110947		5,500		41,501,543
Pass-Through From Wake Forest University Health Sciences	93.837			217,425		41,501,543
Lung Diseases Research	93.838		5,606,116		240,360	6,680,889
Pass-Through From Albany Medical College	93.838			1,640		6,680,889
Pass-Through From Barron Associates	93.838	Barron Associates		24,302		6,680,889
Pass-Through From Case Western Reserve University	93.838			91,381		6,680,889
Pass-Through From Columbia University	93.838			47,821		6,680,889

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Pass-Through From Covenant Therapeutics, Limited Liability Company	93.838			29,081		6,680,889
Pass-Through From Duke University	93.838	2033236		1,278		6,680,889
Pass-Through From Medical University of South Carolina	93.838			4,936		6,680,889
Pass-Through From Pennsylvania State University	93.838			18,955		6,680,889
Pass-Through From Quench Medical Incorporated	93.838	Subaward Number FP00006951		33,732		6,680,889
Pass-Through From Seattle Children's Hospital	93.838	11141SUB		1,820		6,680,889
Pass-Through From University of Pennsylvania	93.838			123,197		6,680,889
Pass-Through From University of Pittsburgh	93.838			134,591		6,680,889
Pass-Through From University of Washington	93.838			434		6,680,889
Pass-Through From Wake Forest University	93.838			176,595		6,680,889
Pass-Through From Wake Forest University	93.838	WFUHS 118489		42,950		6,680,889
Pass-Through From Wake Forest University	93.838	WFUHS Z12631		77,699		6,680,889
Pass-Through From Wake Forest University	93.838	WFUHS Z15480		62,838		6,680,889
Pass-Through From Wake Forest University Health Sciences	93.838			87,719		6,680,889
Pass-Through From Weill Cornell Medical College Corporation	93.838			36,853		6,680,889
Pass-Through From Wynnvision Limited Liability Corporation	93.838			76,951		6,680,889
Blood Diseases and Resources Research	93.839		2,286,062		682,675	2,733,025
Pass-Through From Blood Center of Wisconsin	93.839			165,167		2,733,025
Pass-Through From Bloodworks Northwest	93.839			38,344		2,733,025
Pass-Through From Curators of the University of Missouri	93.839			7,572		2,733,025
Pass-Through From ECOG-ACRIN Cancer Research Group	93.839			45,220		2,733,025
Pass-Through From Emory University	93.839			42,840		2,733,025
Pass-Through From National Marrow Donor Program	93.839			3,488		2,733,025
Pass-Through From NRG Oncology Foundation Incorporated	93.839	60061715		19,220		2,733,025
Pass-Through From Ohio State University Research Foundation	93.839	60034668 Ohio State/NMDP#0301		3,882		2,733,025
Pass-Through From Rutgers The State University	93.839			8,001		2,733,025
Pass-Through From Rutgers The State University	93.839	Sub 0156 Project ID 814216		4,218		2,733,025
Pass-Through From The Washington University	93.839			17,107		2,733,025
Pass-Through From University of Pennsylvania	93.839			78,285		2,733,025
Pass-Through From Washington University	93.839	Washington University		13,619		2,733,025
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	93.840		18,445			182,704
Pass-Through From The Washington University	93.840			164,259		182,704
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		6,258,200		1,094,718	6,694,762
Pass-Through From Brigham and Womens Hospital	93.846	RAR067738A		40,473		6,694,762
Pass-Through From Indiana University Purdue University Indianapolis	93.846	IN4687717VCU PO 1503449		60,010		6,694,762
Pass-Through From University of Pittsburgh	93.846	0046874-126426-1		51,516		6,694,762
Pass-Through From University of Rochester	93.846			30,831		6,694,762
Pass-Through From University of Rochester	93.846	417165-G		32,424		6,694,762
Pass-Through From University of Rochester	93.846	417166G/UR FAO GR500987		221,308		6,694,762
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		23,868,420		4,316,600	26,999,017
Pass-Through From Augusta University	93.847	32307 4		57,579		26,999,017
Pass-Through From Baylor College of Medicine	93.847			25,302		26,999,017
Pass-Through From Cedars-Sinai Medical Center	93.847			36,890		26,999,017
Pass-Through From George Washington University	93.847			276,569		26,999,017
Pass-Through From Institute of International Education	93.847			56,004		26,999,017
Pass-Through From Medical University of South Carolina	93.847			55,781		26,999,017
Pass-Through From Ohio State University	93.847	60056887		38,025		26,999,017
Pass-Through From Research Institute at Nationwide Children's Hospital	93.847			9,909		26,999,017
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.847			7,400		26,999,017
Pass-Through From The Emmes Corporation	93.847			657		26,999,017
Pass-Through From University of Cincinnati	93.847			65,952		26,999,017
Pass-Through From University of Hawaii	93.847			180,081		26,999,017
Pass-Through From University of Iowa	93.847			7,565		26,999,017
Pass-Through From University of Michigan	93.847			721		26,999,017
Pass-Through From University of North Carolina at Chapel Hill	93.847	5104371		24,987		26,999,017
Pass-Through From University of North Carolina at Chapel Hill	93.847	5107990-UNC at Chapel Hill		13,285		26,999,017
Pass-Through From University of North Carolina-Chapel Hill	93.847			43,875		26,999,017
Pass-Through From University of Pittsburgh	93.847			12,604		26,999,017
Pass-Through From University of South Florida	93.847			1,038,368		26,999,017
Pass-Through From University of South Florida	93.847	06-T48		16,627		26,999,017

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Pass-Through From University of Tennessee Health Science Center	93.847			593,158		26,999,017
Pass-Through From University of Texas Southwestern Medical Center at Dallas	93.847	1-170916		17,284		26,999,017
Pass-Through From University of Texas Southwestern Medical Center at Dallas	93.847	161115STOP ALF PO 837		6,000		26,999,017
Pass-Through From University of Texas Southwestern Medical Center at Dallas	93.847	161116-Registry		121,029		26,999,017
Pass-Through From University of Texas Southwestern Medical Center at Dallas	93.847	GMO160224		7,519		26,999,017
Pass-Through From University of Utah	93.847			23,466		26,999,017
Pass-Through From University of Utah	93.847	10035127		12,165		26,999,017
Pass-Through From Wake Forest University	93.847			35,836		26,999,017
Pass-Through From Wake Forest University Health Sciences	93.847			30,182		26,999,017
Pass-Through From Wynnvision Limited Liability Corporation	93.847	Wynnvision LLC		205,649		26,999,017
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		26,740,259		4,625,025	28,323,619
Pass-Through From Albert Einstein College of Medicine BronxCreed	93.853	R37NS043209		69,675		28,323,619
Pass-Through From Amuza Incorporated	93.853			13,906		28,323,619
Pass-Through From Axion Biosystems	93.853			177,661		28,323,619
Pass-Through From Brown University	93.853			14,857		28,323,619
Pass-Through From Cincinnati Children's Hospital Medical Center	93.853			25,338		28,323,619
Pass-Through From Duke University	93.853			1,937		28,323,619
Pass-Through From Emory University	93.853	Grant number 1R01NS102306-01		55,302		28,323,619
Pass-Through From Enzerna Biosciences Limited Liability Company	93.853			57,582		28,323,619
Pass-Through From Georgia State University	93.853			58,590		28,323,619
Pass-Through From Health Quality Innovators	93.853	1P1CMS331587-01-00		74,232		28,323,619
Pass-Through From Massachusetts General Hospital	93.853			46,768		28,323,619
Pass-Through From Massachusetts General Hospital	93.853	SURE-PD3		24,857		28,323,619
Pass-Through From Mayo Clinic	93.853			126,097		28,323,619
Pass-Through From Mayo Clinic Jacksonville	93.853			16,094		28,323,619
Pass-Through From MedStar Health Research Institute	93.853			86,822		28,323,619
Pass-Through From National Multiple Sclerosis Society	93.853	RR-1601-07444		60,902		28,323,619
Pass-Through From Northwestern University	93.853			2,339		28,323,619
Pass-Through From Novoron Bioscience Incorporated	93.853			3,347		28,323,619
Pass-Through From Regents of the University of Colorado	93.853			52,921		28,323,619
Pass-Through From Research Foundation of the City University of New York	93.853	Subaward Number CM00000592-00		31,594		28,323,619
Pass-Through From Somatocor Pharmaceuticals	93.853			227		28,323,619
Pass-Through From Tufts University	93.853			7,068		28,323,619
Pass-Through From University of California at San Francisco	93.853			180		28,323,619
Pass-Through From University of California San Francisco	93.853			23,898		28,323,619
Pass-Through From University of Cincinnati	93.853			26,900		28,323,619
Pass-Through From University of Medicine & Dentistry of New Jersey	93.853			6,332		28,323,619
Pass-Through From University of Miami	93.853			9,119		28,323,619
Pass-Through From University of Minnesota	93.853			25,637		28,323,619
Pass-Through From University Of Pittsburgh	93.853			165,688		28,323,619
Pass-Through From University of Rochester	93.853			1,762		28,323,619
Pass-Through From University of Wisconsin at Madison	93.853	Univ of Wisconsin Madison		824		28,323,619
Pass-Through From Yale University	93.853			41,007		28,323,619
Pass-Through From Yeshiva University	93.853	310309		273,897		28,323,619
Allergy, Immunology and Transplantation Research	93.855		24,630,652		2,026,794	27,840,488
Pass-Through From Albert Einstein College of Medicine BronxCreed	93.855	Yeshiva University		17,282		27,840,488
Pass-Through From Brigham and Womens Hospital	93.855			1,000		27,840,488
Pass-Through From Childrens Hospital and Research Center at Oakland	93.855			127,528		27,840,488
Pass-Through From George Washington University	93.855			128,249		27,840,488
Pass-Through From Georgia State University	93.855			54,208		27,840,488
Pass-Through From Indiana University	93.855			62,007		27,840,488
Pass-Through From Indoor Biotechnologies, Incorporated	93.855			65,313		27,840,488
Pass-Through From Institute of Clinical Research	93.855	M11-RI-018-704-1		42,667		27,840,488
Pass-Through From Integrated Biotherapeutics, Incorporated	93.855			100,369		27,840,488
Pass-Through From Johns Hopkins University	93.855			41,504		27,840,488

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Pass-Through From Massachusetts General Hospital	93.855	REPRIEVE KURITZKES PS#115077		290		27,840,488
Pass-Through From Mayo Clinic	93.855			102,825		27,840,488
Pass-Through From National Jewish Health	93.855			62,394		27,840,488
Pass-Through From Northwestern University	93.855			283,970		27,840,488
Pass-Through From Rutgers, The State University of New Jersey	93.855			115,393		27,840,488
Pass-Through From Texas Biomedical Research Institute	93.855			17,591		27,840,488
Pass-Through From The Henry M. Jackson Foundation	93.855			46,048		27,840,488
Pass-Through From The University of Texas Health Science Center at Houston	93.855			11,967		27,840,488
Pass-Through From The Washington University	93.855			411,809		27,840,488
Pass-Through From University of Alabama	93.855	00507881-001		139,267		27,840,488
Pass-Through From University of California, San Diego	93.855			27,066		27,840,488
Pass-Through From University of Cincinnati	93.855			43,827		27,840,488
Pass-Through From University of Maryland	93.855			672,500		27,840,488
Pass-Through From University of Maryland	93.855	Univ of MD-1528 SR00005145		46,941		27,840,488
Pass-Through From University of North Carolina at Chapel Hill	93.855	University of NC at Chapel Hill		11,532		27,840,488
Pass-Through From University of North Texas Health Science Center Fort Worth	93.855			113,373		27,840,488
Pass-Through From University of Wisconsin	93.855			35,515		27,840,488
Pass-Through From Vanderbilt University	93.855			155,563		27,840,488
Pass-Through From Wake Forest University	93.855			42,207		27,840,488
Pass-Through From Wake Forest University Health Sciences	93.855			99,100		27,840,488
Pass-Through From Yale University	93.855			130,531		27,840,488
Microbiology and Infectious Diseases Research	93.856		92,082			92,082
Biomedical Research and Research Training	93.859		27,440,439		1,055,968	29,577,309
Biomedical Research and Research Training	93.859	1R15GM116180-01	14,049		14,049	29,577,309
Biomedical Research and Research Training	93.859	1R01GM113233-01	112,819		112,819	29,577,309
Pass-Through From Carnegie-Mellon University	93.859			46,958		29,577,309
Pass-Through From Colorado State University	93.859			127,932		29,577,309
Pass-Through From East Carolina University	93.859			16,077		29,577,309
Pass-Through From Enzerna Biosciences Incorporated	93.859			8,560		29,577,309
Pass-Through From IP Advantage, Limited Liability Company	93.859			286		29,577,309
Pass-Through From Johns Hopkins University	93.859			109,231		29,577,309
Pass-Through From The Ohio State University	93.859			99,176		29,577,309
Pass-Through From University of Chicago	93.859			51,106		29,577,309
Pass-Through From University of Florida	93.859	UFDSP00011124		35,838		29,577,309
Pass-Through From University of Kentucky	93.859			141,976		29,577,309
Pass-Through From University of Massachusetts	93.859					29,577,309
Pass-Through From University of Michigan	93.859	WA00537621-Univ of Mass		49,276		29,577,309
Pass-Through From University of Texas S.W. Medical Center At Dallas	93.859			308,322		29,577,309
Pass-Through From University of Utah	93.859			555,913		29,577,309
Pass-Through From University of Washington	93.859			74,136		29,577,309
Child Health and Human Development Extramural Research	93.865		10,063,167		1,706,591	11,652,822
Pass-Through From Boston University	93.865			448,938		11,652,822
Pass-Through From Cedars-Sinai Medical Center	93.865			31,923		11,652,822
Pass-Through From Duke University	93.865			70,807		11,652,822
Pass-Through From Family Health International 360	93.865			56,313		11,652,822
Pass-Through From Indiana University	93.865			100,526		11,652,822
Pass-Through From Johns Hopkins University	93.865			67,396		11,652,822
Pass-Through From Medical University of South Carolina	93.865	MUSC17-077-88465		14,100		11,652,822
Pass-Through From Michigan State University	93.865			24,698		11,652,822
Pass-Through From Northwestern University	93.865			135,683		11,652,822
Pass-Through From Pennsylvania State University	93.865	VCUHD083323		156,333		11,652,822
Pass-Through From Pennsylvania State University	93.865	VCUHD089922		15,434		11,652,822
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.865			112,391		11,652,822
Pass-Through From University of California, Los Angeles	93.865			60,931		11,652,822
Pass-Through From University of Florida	93.865			91,084		11,652,822
Pass-Through From University of Maryland	93.865			23,306		11,652,822
Pass-Through From University of Pennsylvania	93.865			11,160		11,652,822
Pass-Through From University of Texas at Dallas	93.865			6,378		11,652,822
Pass-Through From University of Utah	93.865	University of Utah U00127991		1,338		11,652,822
Pass-Through From University of Washington	93.865			15,324		11,652,822
Pass-Through From University of Wisconsin at Madison	93.865			30,033		11,652,822
Pass-Through From Yale University	93.865			115,559		11,652,822
Aging Research	93.866		5,441,736		107,171	6,730,726
Pass-Through From Barron Associates, Incorporated	93.866			12,094		6,730,726

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Pass-Through From Emory University	93.866			162,833		6,730,726
Pass-Through From Kent State University	93.866			23,116		6,730,726
Pass-Through From Northern California Institute for Research & Education	93.866			113,244		6,730,726
Pass-Through From Northwestern University	93.866			7,476		6,730,726
Pass-Through From Pennsylvania State University	93.866			14,744		6,730,726
Pass-Through From Psychology Software Tools Incorporated	93.866			52,419		6,730,726
Pass-Through From Syracuse University	93.866	29218-04806-502		29,344		6,730,726
Pass-Through From Texas A&M University	93.866			10,568		6,730,726
Pass-Through From The Icahn School of Medicine at Mount Sinai	93.866			5,781		6,730,726
Pass-Through From University of Alabama at Birmingham	93.866			15,064		6,730,726
Pass-Through From University of California Davis	93.866			5,494		6,730,726
Pass-Through From University of California San Diego	93.866	64889135		30,451		6,730,726
Pass-Through From University of California San Diego	93.866	68211593		36,637		6,730,726
Pass-Through From University of California, San Francisco	93.866			7,049		6,730,726
Pass-Through From University of North Carolina-Chapel Hill	93.866			18,416		6,730,726
Pass-Through From University of Oklahoma	93.866	RS20140892-04		14		6,730,726
Pass-Through From University Of Pennsylvania	93.866			243,675		6,730,726
Pass-Through From University of South Carolina	93.866	16-2928		88,663		6,730,726
Pass-Through From University Of Wisconsin	93.866			158,292		6,730,726
Pass-Through From Vanderbilt University	93.866			179,038		6,730,726
Pass-Through From Wake Forest University Health Sciences	93.866			74,578		6,730,726
Vision Research	93.867		3,960,037		174,961	4,525,878
Pass-Through From Children's National Medical Center	93.867			30,177		4,525,878
Pass-Through From Jaeb Center for Health Research	93.867	V-3-11		3,516		4,525,878
Pass-Through From Mount Sinai School of Medicine	93.867			1,117		4,525,878
Pass-Through From Northwestern University	93.867			222,685		4,525,878
Pass-Through From The University of Alabama at Birmingham	93.867			297,938		4,525,878
Medical Library Assistance	93.879		733,802			808,087
Pass-Through From University of Maryland Baltimore	93.879			1,687		808,087
Pass-Through From University of Maryland, Baltimore Rural Health Care Services Outreach, Rural Health Network Development and Small Health Care Provider Quality Improvement Program	93.879	1600679		55,611		808,087
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	93.912		18,593			18,593
HIV Prevention Activities_Health Department Based Assistance Programs for Chronic Disease Prevention and Control	93.918		103,808			4,175,832
Block Grants for Prevention and Treatment of Substance Abuse	93.940		178			10,729,615
PPHF Geriatric Education Centers	93.945		1,198			263,006
International Research and Research Training	93.959		408,188			42,479,868
Pass-Through From Tulane University	93.969		17,133			818,517
Other Assistance	93.989		419,590		111,372	428,784
Other Assistance	93.989			9,194		428,784
Other Assistance	93.RD	75D30118C02910	213,749		95,652	4,839,222
Other Assistance	93.RD	200-2017-96194	424,978		132,062	4,839,222
Other Assistance	93.RD	200-2014-59646	239,980		23,840	4,839,222
Other Assistance	93.RD	200-2014-59669	63,750		12,500	4,839,222
Other Assistance	93.RD	75D30118C02904	182,318		66,458	4,839,222
Other Assistance	93.RD	75D30118C02905	133,369			4,839,222
Other Assistance	93.RD	75D30118C02917	323,237			4,839,222
Other Assistance	93.RD	HHSF223201610253P	1,841			4,839,222
Other Assistance	93.RD	HHSN269201800762P	4,623			4,839,222
Other Assistance	93.RD	Interagency Personnel Act Agreement for Lisa Chin-3078487-204095	12,789			4,839,222
Other Assistance	93.RD	Interagency Personnel Act for Randall Keyser-204378	58,525			4,839,222
Other Assistance	93.RD	Intergovernmental Personnel Act Assignment Agreement for Liansheng Tang-204441	56,664			4,839,222
Other Assistance	93.RD	John Collins Interagency Personnel Agreement-3700573-204391	12,705			4,839,222
Other Assistance	93.RD	Research Support for Youth Tobacco Education Campaigns-IP1256596-204438	101,862			4,839,222
Pass-Through From Alliance for Clinical Trials in Oncology Foundation	93.RD	A021501		6,059		4,839,222
Pass-Through From Alliance for Clinical Trials in Oncology Foundation	93.RD	A021502		12,945		4,839,222
Pass-Through From Alliance for Clinical Trials in Oncology Foundation	93.RD	A051301		605		4,839,222

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Pass-Through From Alliance Foundation Trials, Limited Liability Company	93.RD	AFT-16		16,362		4,839,222
Pass-Through From American Society of Nephrology	93.RD	AT-51822;418589-19858		107,355	68,112	4,839,222
Pass-Through From Barron Associates, Incorporated	93.RD	549-SC01		10,327		4,839,222
Pass-Through From Brigham & Women's Hospital, Incorporated	93.RD	A011202		12,679		4,839,222
Pass-Through From Brigham & Women's Hospital, Incorporated	93.RD	A031201		4,763		4,839,222
Pass-Through From Brigham & Women's Hospital, Incorporated	93.RD	A061202		5,605		4,839,222
Pass-Through From Brigham & Women's Hospital, Incorporated	93.RD	A071102		5,410		4,839,222
Pass-Through From Brigham & Women's Hospital, Incorporated	93.RD	A071401		10,304		4,839,222
Pass-Through From Brigham & Women's Hospital, Incorporated	93.RD	NRG A041202		7,382		4,839,222
Pass-Through From Brigham & Women's Hospital, Incorporated	93.RD	VA009		7,725		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	CIRB EA6134		15,125		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	CIRB LUNGMAP		358		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	EA1151 TMIST		99,800		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	EA5161		15,976		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	EA5162		7,306		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	EA8153		3,897		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	ECOG-ACRIN		18,226		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	ECOG-ACRIN Cancer Research Gro		37,069		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	MASTER AGREEMENT		48,858		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	PROTOCOL EA4151		8,771		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	S1400		8,480		4,839,222
Pass-Through From ECOG-ACRIN Cancer Research Group	93.RD	S1900A		674		4,839,222
Pass-Through From Fast-Track Drugs and Biologics, Limited Liability Company	93.RD	HHSN2750008-1078-NCIG7-UVA		164,422		4,839,222
Pass-Through From Frontier Science & Technology Research Foundation	93.RD	PSAUVAGW00		5		4,839,222
Pass-Through From HemoShear, Limited Liability Company	93.RD	HHSN261201500023C;SBIR Project Validation of the HemoShear Tumor Microenvironment System (TMeS) for drug discovery and development-Contract Number:		15,747		4,839,222
Pass-Through From HemoShear, Limited Liability Company	93.RD	HHSN26120150023C-204101;HSTX 0001		72,860		4,839,222
Pass-Through From Infectious Disease Research Institute	93.RD	CF1097-UVA-Base		222,977		4,839,222
Pass-Through From Intelligent Fiber Optic Systems	93.RD	Sonomyographic Control of Fiber-Optically Sensorized Prosthetic Fingers for Graded Force Actuation-1R41NS107149-01A1-204670;01188226 Offender Re-Entry and Age of First Violent Conviction Risk-Need-Responsivity Program-HHSS283201200002I/HHSS28342005T-204129-		21,642		4,839,222
Pass-Through From JBS International, Incorporated	93.RD	204421;E2044211-868680		31,551	4,566	4,839,222
Pass-Through From Johns Hopkins University	93.RD	9944 Phase 2		3,139		4,839,222
Pass-Through From Johns Hopkins University	93.RD	ETCTN #10010		216		4,839,222
Pass-Through From Johns Hopkins University	93.RD	ETCTN 10026		20,929		4,839,222
Pass-Through From Johns Hopkins University	93.RD	ETCTN 9950		7,165		4,839,222
Pass-Through From Johns Hopkins University	93.RD	ETCTN10139		33,204		4,839,222
Pass-Through From Johns Hopkins University	93.RD	JHU 2002934099		3,191		4,839,222
Pass-Through From Massachusetts General Hospital	93.RD	NN102		277		4,839,222
Pass-Through From Massachusetts General Hospital	93.RD	NN103		35,954		4,839,222
Pass-Through From Massachusetts General Hospital	93.RD	NN104		34,554		4,839,222
Pass-Through From Mentoring in Medicine, Incorporated	93.RD	Mentoring in Med_Valdez_Educat		15,001		4,839,222
Pass-Through From New England Research Institutes	93.RD	U01HL107407		18,011		4,839,222
Pass-Through From North Carolina State University	93.RD	2017-1498-01		35,061		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	GOG-286B		7,669		4,839,222

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Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	MASTER RIVERSIDE		4,500	4,500	4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-GU002		272		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-GY004		505		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-GY005		5,429		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-GY007		5,394		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-GY009		34,680		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-GY014		2,030		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-GY016		391		4,839,222
Pass-Through From NRG Oncology Foundation, Incorporated	93.RD	NRG-HN004		5,181		4,839,222
Pass-Through From Pennsylvania State University	93.RD	UVADA036107		4,992		4,839,222
Pass-Through From PPD Development, Incorporated	93.RD	NCTN HPSI		72,342		4,839,222
Pass-Through From RetiVue, Limited Liability Company	93.RD	RetiVue-Netland-ROP Screening		21,643		4,839,222
Pass-Through From SWOG (Southwest Oncology Group)	93.RD	SWOG S1500		1,048		4,839,222
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.RD	1UG1CA189955		1,405		4,839,222
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.RD	U10CA098543		12,283		4,839,222
Pass-Through From The Children's Hospital of Philadelphia (CHOP)	93.RD	U10CA180886		30,061		4,839,222
Pass-Through From The Icahn School of Medicine at Mount Sinai	93.RD	CTSN Tricuspid Trial		61,849		4,839,222
Pass-Through From The Mitre Corporation	93.RD	1-127012		11,913		4,839,222
Pass-Through From The National Academies of Sciences	93.RD	Tobacco Regulatory Science Fellowship-204335;200008588		9,618		4,839,222
Pass-Through From The University of Texas M.D. Anderson Cancer Center	93.RD	PO# 3000926710		2,491		4,839,222
Pass-Through From The University of Texas Southwestern Medical Center	93.RD	GMO170502/PO#0000001566B		91,467		4,839,222
Pass-Through From University of Alaska Anchorage	93.RD	P0527771		47,301		4,839,222
Pass-Through From University of Alaska Anchorage	93.RD	P0535907		7,500		4,839,222
Pass-Through From University of Chicago	93.RD	FP043521-02-C		699,462		4,839,222
Pass-Through From University of Chicago	93.RD	FP043521-02-A		511,033		4,839,222
Pass-Through From University of North Carolina-Chapel Hill	93.RD	5110291		8,339		4,839,222
Pass-Through From University of North Carolina-Chapel Hill	93.RD	5110487		38,589		4,839,222
Pass-Through From University of Rochester	93.RD	416476-G		38,684		4,839,222
Pass-Through From University of South Florida	93.RD	Site #3309		27,759		4,839,222
Pass-Through From Urban Institute	93.RD	09412-000-00-VPI-01		20,035		4,839,222
Pass-Through From Vysnova Partners, Incorporated	93.RD	SC-2017-3035-010-001		15,000		4,839,222
Total Research and Development			275,869,030	35,447,623	35,121,825	
Total U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES			7,847,306,416	50,102,937	620,127,371	
CORPORATION FOR NATIONAL AND COMMUNITY SERVICE						
State Commissions	94.003		364,506		5,466	364,506
AmeriCorps	94.006		3,603,389		3,241,510	3,603,389
Training and Technical Assistance	94.009		203,675		112,978	203,675
Social Innovation Fund Pay for Success	94.024					
Pass-Through From University of Utah	94.024	University of Utah		34,908		34,908
Total Excluding Clusters Identified Below			4,171,570	34,908	3,359,954	
Research and Development:						
Social Innovation Fund	94.019					
Pass-Through From WINGS for kids, Incorporated	94.019			79,658	79,658	79,658
National Service and Civic Engagement Research Competition	94.026		194,926			194,926
Total Research and Development			194,926	79,658	79,658	
Total CORPORATION FOR NATIONAL AND COMMUNITY SERVICE			4,366,496	114,566	3,439,612	
EXECUTIVE OFFICE OF THE PRESIDENT						
High Intensity Drug Trafficking Areas Program	95.001		3,641,519			3,788,484
Pass-Through From MercyHurst University	95.001	HIDTA 110512;G19WB0004A		146,965		3,788,484

COMMONWEALTH OF VIRGINIA
Schedule of Expenditures of Federal Awards
For the Fiscal Year Ended June 30, 2019

Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Total Excluding Clusters Identified Below			3,641,519	146,965	0	
Research and Development:						
Research and Data Analysis	95.007					
Pass-Through From State Of Maryland	95.007			49,729		49,729
Total Research and Development			0	49,729	0	
Total EXECUTIVE OFFICE OF THE PRESIDENT			3,641,519	196,694	0	
SOCIAL SECURITY ADMINISTRATION						
Disability Insurance/SSI Cluster:						
Social Security_Disability Insurance	96.001		47,599,366			47,599,366
Total Disability Insurance/SSI Cluster			47,599,366	0	0	47,599,366
Research and Development:						
Other Assistance	96.RD	AT-52281	6,212			64,534
Other Assistance	96.RD	AT-52282	58,322			64,534
Total Research and Development			64,534	0	0	
Total SOCIAL SECURITY ADMINISTRATION			47,663,900	0	0	
DEPARTMENT OF HOMELAND SECURITY						
Non-Profit Security Program	97.008		73,652		73,652	73,652
Boating Safety Financial Assistance	97.012		1,811,297			1,811,297
Community Assistance Program State Support Services						
Element (CAP-SSSE)	97.023		168,050			168,050
Flood Mitigation Assistance	97.029		2,220,355		1,784,219	2,220,355
Disaster Grants - Public Assistance (Presidentially Declared Disasters)	97.036		3,463,360		989,770	3,463,360
Hazard Mitigation Grant	97.039		2,694,869		2,540,456	2,694,869
National Dam Safety Program	97.041		275,029			275,029
Emergency Management Performance Grants	97.042		7,774,048		3,147,352	7,774,048
State Fire Training Systems Grants	97.043		9,020			9,020
Assistance to Firefighters Grant	97.044		188,167			188,167
Cooperating Technical Partners	97.045		94,228			94,228
Pre-Disaster Mitigation	97.047		157,756		105,155	157,756
Port Security Grant Program	97.056		66,554			66,554
Homeland Security Grant Program	97.067		8,022,700		5,281,440	10,951,647
Pass-Through From District of Columbia	97.067	17UASI579-01, 17UASI581-01, 18UASI581-01, 17UASI582-01		355,140		10,951,647
Pass-Through From Office of the Deputy Mayor for Public Safety	97.067	UASI791		2,573,807		10,951,647
Earthquake Consortium	97.082		6,325			6,325
Preparing for Emerging Threats and Hazards	97.133		104,896			104,896
Other Assistance	97.U01	70RSAT18C00000016	232,579			319,137
Other Assistance	97.U02	Professional Business Writing Training-EMW-2019-TR-546IMOA-209689	1,300			319,137
Other Assistance	97.U03	Rising Leaders Development Program 2-30182080TD125-209697	85,258			319,137
Total Excluding Clusters Identified Below			27,449,443	2,928,947	13,922,044	
Research and Development:						
Centers for Homeland Security	97.061		3,114,392		1,345,515	3,115,094
Pass-Through From University of Houston	97.061			702		3,115,094
Homeland Security Research, Development, Testing, Evaluation, and Demonstration of Technologies Related to Nuclear Threat Detection	97.077		198,793		123,181	198,793
Other Assistance	97.RD	HSHQDC-17-C-80010	163,683			419,192
Other Assistance	97.RD	Interagency Personnel Act Agreement for Michael Hieb-204489	191,610			419,192
Other Assistance	97.RD	Leadership Development at the United States Secret Service- 204436	17,488			419,192
Other Assistance	97.RD	Tools for Automated Detection and Assessment of Security Vulnerabilities in Mobile Applications-HSHQDC-14-C-80040-203368;UC78319	17,574		10,767	419,192
Pass-Through From Signature Science, Limited Liability Company	97.RD	IS1018-001		22,562		419,192
Pass-Through From The Campbell Collaboration	97.RD	What works in Preventing Terrorism and Radicalization: Campbell Crime and Justice Group Systematic Reviews-204758;543274		6,275		419,192
Total Research and Development			3,703,540	29,539	1,479,463	
Total DEPARTMENT OF HOMELAND SECURITY			31,152,983	2,958,486	15,401,507	
UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT						
USAID Foreign Assistance for Programs Overseas	98.001					
Pass-Through From Institute of International Education	98.001			89,479	39,726	9,981,663
Pass-Through From World Learning	98.001			87,467		9,981,663
Total Excluding Clusters Identified Below			0	176,946	39,726	

COMMONWEALTH OF VIRGINIA
Schedule of Expenditures of Federal Awards
For the Fiscal Year Ended June 30, 2019

Federal Agency, Federal Program Name, Cluster Name, or Name of Pass-Through Entity	CFDA Number	Additional Award Information or Identifying Number Assigned by the Pass-Through Entity	Direct Award Expenditures	Pass Through Entity Award Expenditures	Amount Provided to Subrecipients	Program Total or Cluster Total
Research and Development:						
USAID Foreign Assistance for Programs Overseas	98.001		8,030,716		2,775,492	9,981,663
USAID Foreign Assistance for Programs Overseas	98.001	AID-OAA-A-12-00096	1,626,913		1,626,913	9,981,663
Pass-Through From Johns Hopkins University	98.001			48,740		9,981,663
Pass-Through From Kansas State University	98.001			15,841		9,981,663
Pass-Through From National Academy of Sciences	98.001			33,502		9,981,663
Pass-Through From University of Georgia	98.001			2,011		9,981,663
Pass-Through From University of Notre Dame	98.001	202809CWM		25,678		9,981,663
Pass-Through From World Wildlife Fund Incorporated	98.001			21,316		9,981,663
Pass-Through From Tibetan Buddhist Resource Center	98.011					9,981,663
Pass-Through From USAID Development Partnerships for University	98.011			436,546		436,546
Cooperation and Development	98.012					
Pass-Through From Michigan State University	98.012			21,458		21,458
Other Assistance	98.RD	685-A-00-10-00194-00	1,187,929			1,191,784
Pass-Through From Purdue University	98.RD	41060000-8000021024		3,855		1,191,784
Total Research and Development			<u>10,845,558</u>	<u>608,947</u>	<u>4,402,405</u>	
Total UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT			<u>10,845,558</u>	<u>785,893</u>	<u>4,442,131</u>	
OTHER FEDERAL ASSISTANCE						
Other Assistance	99.U01	American Battle Monuments Commission (ABMC) Education Hosting and Maintenance- 204561	9,600			116,038
Other Assistance	99.U02	Managing Your Business Enterprise (MYBE) Training: 201817110100001-209690 209695 209701	36,591			116,038
Other Assistance	99.U03	Trade in Value Added Database Project-ITC-CN-16- 0006 204024	69,847			116,038
Total Excluding Clusters Identified Below			<u>116,038</u>	<u>0</u>	<u>0</u>	
Research and Development:						
Other Assistance	99.RD	Co-Arg: Cogent Argumentation System with Crowd Elicitation-16112300009-204077;002040722	790,226		121,416	1,039,408
Other Assistance	99.RD	Federal Deposit Insurance Corporation (FDIC) Summer 2018 Research Support-204512	27,719			1,039,408
Other Assistance	99.RD	U.S. Securities and Exchange Commission (SEC) Visit: 204240	50,289			1,039,408
Pass-Through From Rutgers University	99.RD	Cyber Security Risk Management for Connected Railroads-DTFR5317C00018-204358;E2042933		171,174		1,039,408
Total Research and Development			<u>868,234</u>	<u>171,174</u>	<u>121,416</u>	
Total OTHER FEDERAL ASSISTANCE			<u>984,272</u>	<u>171,174</u>	<u>121,416</u>	
Grand Total			<u>14,602,968,801</u>	<u>139,495,056</u>	<u>2,332,870,379</u>	
Total Research and Development Cluster for All Federal Agencies			<u>610,194,525</u>	<u>112,056,912</u>	<u>120,486,341</u>	<u>722,251,437</u>
Total for Student Financial Assistance Program Cluster			<u>1,746,467,180</u>	<u>0</u>	<u>0</u>	<u>1,746,467,180</u>

The accompanying notes to the Schedule of Federal Expenditures of Federal Awards are an integral part of this schedule.

COMMONWEALTH OF VIRGINIA
NOTES TO THE SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
FOR THE YEAR ENDED JUNE 30, 2019

PURPOSE OF THE SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) issued by the Office of Management and Budget (OMB), requires a schedule of expenditures of federal awards showing total federal expenditures for each federal financial assistance program as identified in the Catalog of Federal Domestic Assistance (CFDA). The accompanying schedule includes all expenditures of federal awards of the Commonwealth of Virginia's departments, institutions, authorities, and component units except for the entities that were not audited by the Auditor of Public Accounts. Other auditors issued reports for the following organizations within the Commonwealth: Virginia Port Authority Including Virginia International Terminals; Institute for Advanced Learning and Research; Virginia Outdoors Foundation; Science Museum of Virginia Foundation; Virginia Housing Development Authority (VHDA); Virginia Resources Authority; Fort Monroe Authority; Commission on Virginia Alcohol Safety Action Program; and the Division of Capitol Police.

1. SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation

The information in the accompanying "Schedule of Expenditures of Federal Awards" is presented in accordance with the Uniform Guidance. The schedule presents a summary of direct award expenditures, pass-through entity award expenditures, and amounts provided to subrecipients by federal department and CFDA Number.

Federal Financial Assistance – The Single Audit Act Amendments of 1996 (Public Law 104-156) and the Uniform Guidance define federal financial assistance as grants, loans, loan guarantees, property (including donated surplus property), cooperative agreements, interest subsidies, insurance, food commodities, direct appropriations, or other assistance. Nonmonetary federal assistance, including food stamps, food commodities, and surplus property, is considered federal assistance and, therefore, is reported on the "Schedule of Expenditures of Federal Awards." Federal financial assistance does not include direct federal cash assistance to individuals. Solicited contracts in a contractor relationship between the Commonwealth of Virginia and the federal government for which the federal government procures tangible goods or services are not considered to be federal financial assistance.

Direct Award Assistance – Assistance received directly from the Federal government or received in a pass-through relationship from other State entities is classified as direct award expenditures on the “Schedule of Expenditures of Federal Awards.”

Pass-Through Entity Federal Assistance – Assistance received in a pass-through relationship from entities other than the Federal government or other State entities is classified as pass-through entity award expenditures on the “Schedule of Expenditures of Federal Awards.”

Amounts Provided to Subrecipients Assistance – Assistance disbursed by the Commonwealth of Virginia to non-state subrecipients is classified as amount provided to subrecipients on the “Schedule of Expenditures of Federal Awards.”

Major Programs – The Single Audit Act Amendments of 1996 and the Uniform Guidance establish the criteria to be used in defining major programs. Major programs for the Commonwealth of Virginia were determined using a risk-based approach in accordance with the Uniform Guidance.

Catalog of Federal Domestic Assistance Number – The Catalog of Federal Domestic Assistance (CFDA) is a government-wide compendium of individual federal programs. Each program included in the catalog is assigned a five-digit program identification number (CFDA Number) and program name. The accompanying schedule and footnotes reflect the program names and CFDA numbers assigned by the <https://beta.sam.gov> website. Programs without a CFDA number are labeled as Other Assistance and presented using the federal agency’s two-digit prefix followed by U and a two-digit number. If the federal program is part of the Research and Development Cluster (R&D) and the specific program is not known, the federal agency’s two-digit prefix followed by RD is presented. The CFDA numbers used in this audit period were retrieved on July 3, 2019.

Cluster of Programs – Closely related programs that share common compliance requirements are grouped into clusters of programs. A cluster of programs is considered as one federal program for determining major programs. The following are the clusters administered by the Commonwealth:

Aging	Forest Service School and Roads
CCDF	Highway Planning and Construction
CDBG-Disaster Recovery Grants	Highway Safety
CDBG-Entitlement Grants	Medicaid
Child Nutrition	Research and Development
Clean Water State Revolving Fund	SNAP
Disability Insurance/SSI	Special Education (IDEA)
Drinking Water State Revolving Fund	Student Financial Assistance Programs
Economic Development	TANF
Employment Service	Transit Services Programs
Federal Transit	TRIO
Fish and Wildlife	WIOA
Food Distribution	

Student Financial Assistance and Research and Development clusters expend funds from several Federal departments. The amounts expended for these clusters are reported under the appropriate federal department in the accompanying schedule and are also summarized as follows.

The total amount expended for Student Financial Assistance was \$1,746,467,180 consisting of the following federal departments:

<u>Federal Department</u>	<u>Amount Expended</u>
Department of Education	\$1,733,198,981
Department of Health and Human Services	13,268,199
Total	<u><u>\$1,746,467,180</u></u>

The total direct amount expended for Research and Development was \$610,194,525 consisting of the following federal departments:

<u>Federal Department</u>	<u>Amount</u> <u>Expended</u>
U.S. Department Of Agriculture	\$ 25,331,677
U.S. Department Of Commerce	7,660,270
U.S. Department Of Defense	109,571,237
U.S. Department Of Housing And Urban Development	230,213
U.S. Department Of The Interior	4,922,815
U.S. Department Of Justice	5,289,745
U.S. Department Of State	1,482,218
U.S. Department Of Transportation	11,768,729
Appalachian Regional Commission	36,521
Federal Trade Commission	403,715
Library Of Congress	33,597
National Aeronautics And Space Administration	10,755,061
National Endowment For The Humanities	2,337,086
National Science Foundation	97,879,380
U.S. Department Of Veteran'S Affairs	330,298
Environmental Protection Agency	1,591,040
Nuclear Regulatory Commission	369,115
U.S. Department Of Energy	27,188,708
U.S. Department Of Education	10,882,906
Scholarship And Fellowship Foundations	36,718
U.S. National Archives And Records Administration	547,654
U.S. Department Of Health And Human Services	275,869,030
Corporation For National And Community Service	194,926
Social Security Administration	64,534
Department Of Homeland Security	3,703,540
United States Agency For International Development	10,845,558
Other Federal Assistance	868,234
Total	<u>\$ 610,194,525</u>

B. Basis of Accounting

Federal program expenditures included in the accompanying schedule are presented using the cash basis of accounting. Under the cash basis of accounting, expenditures are recognized when cash is disbursed rather than when the obligation is incurred. Federal non-cash assistance and loan/loan guarantee program activities are presented as described in Notes 1C and 1D.

C. Non-Cash Assistance

The Commonwealth of Virginia participated in several federal programs in which non-cash benefits are provided through the state to eligible program participants. These include:

Food Distribution Programs (CFDA Numbers 10.555, 10.558, 10.559, 10.565, 10.569) The value of food commodities was calculated using the U.S. Department of Agriculture’s Food and Nutrition Service commodity price lists. The accompanying schedule includes commodity distributions of:

<u>CFDA #</u>	<u>Amount</u>
10.555	\$ 33,030,435
10.558	\$ 4,085
10.559	\$ 246,026
10.565	\$ 2,841,959
10.569	\$ 23,572,245

The accompanying schedule does not include Commonwealth-stored undistributed food commodities of:

<u>CFDA #</u>	<u>Amount</u>
10.555	\$ 24,197
10.569	\$ 31,836

Donation of Federal Surplus Personal Property (CFDA Number 39.003) – Donated federal surplus property is valued at 23.3 percent of the original acquisition cost as assigned by the federal government. The amount included in the accompanying schedule reflects distribution to other governmental entities during the year ended June 30, 2019. Administrative expenditures of \$321,012 are not included in the accompanying schedule. The value of surplus property on hand at June 30, 2019 totaled \$791,607.

Childhood Immunization Grants (CFDA Number 93.268) – The U.S. Department of Health and Human Services purchases and distributes immunizations through McKesson, the federal national distribution vendor, directly to our local health departments, private physicians and other providers. The amount presented in the accompanying schedule reflects the cost of immunizations to the federal government of \$72,638,796. The remaining amount of \$5,728,331 is administrative cost incurred by the Department of Health. The value of inventory on hand at June 30, 2019 is \$1,977,954 held by the local Health Departments and \$15,209,541 held by other providers.

D. Loan/Loan Guarantee Programs

Federal Perkins Loans - Federal Capital Contributions (CFDA Number 84.038) – The amount in the accompanying schedule includes administrative costs during the fiscal year as well as the outstanding balance of loans receivable at June 30, 2019. Balances outstanding at the end of the audit period were \$53,521,959.

Health Professions Student Loans, Including Primary Care Loans/Loans for Disadvantaged Students (CFDA Number 93.342) – The amount in the accompanying schedule includes administrative costs during the fiscal year as well as the outstanding balance of loans receivable at June 30, 2019. Balances outstanding at the end of the audit period were \$9,157,236.

Nurse Faculty Loan Program (CFDA Number 93.264) – The amount in the accompanying schedule includes administrative costs during the fiscal year as well as the outstanding balance of loans receivable at June 30, 2019. Balances outstanding at the end of the audit period were \$485,584.

Nursing Student Loans (CFDA Number 93.364) – The amount in the accompanying schedule includes administrative costs during the fiscal year as well as the outstanding balance of loans receivable at June 30, 2019. Balances outstanding at the end of the audit period were \$2,162,263.

Economic Adjustment Assistance (CFDA Number 11.307) – The amount in the accompanying schedule reflects the cash on hand and the outstanding balance of loans receivable from subrecipients at June 30, 2019. Balances outstanding at the end of the audit period were \$20,023,687.

E. Emergency Unemployment Benefits

The amount included in the accompanying schedule for Unemployment Insurance (CFDA Number 17.225) includes \$38,475,799 administrative costs, \$6,451,974 federal unemployment benefits paid to federal employees, a recoupment of \$541,327 in Temporary Extended Unemployment Compensation overpayments, \$274,488,521 state unemployment benefits paid to non-federal employees and \$1,366,391 in federal benefits paid to Trade Act impacted workers.

F. Program Expenditures

Certain transactions relating to federal financial assistance may appear in the records of more than one state recipient agency. To avoid duplication and the overstatement of the aggregate level of federal financial assistance expended by the Commonwealth of Virginia, the following policies have been adopted:

1. When federal financial assistance is received by one state recipient agency and redistributed to another state agency (i.e., a pass-through of funds by the primary recipient state agency to a subrecipient state agency), the federal financial assistance will be reflected as expenditures by the subrecipient state agency.
2. When federal financial assistance is received by one state agency to purchase goods or services from another state agency, the federal financial assistance will be reflected as expenditures by the recipient (purchaser) agency.

2. DE MINIMIS INDIRECT COST RATE

For the year ended June 30, 2019, only the Department of Game and Inland Fisheries, Department of Forensic Science and the Southern Virginia Higher Education Center have elected to use the de minimis indirect cost rate per Section 200.414 of the Uniform Guidance.

APPENDICES

LISTING OF FINDINGS
GROUPED BY TOPIC

Finding Topic/Report Header		
Finding Number	Finding Title	Applicable To
Financial Accounting and Reporting		
2019-001	Improve Controls Over Financial Reporting	Department of Human Resource Management
2019-002	Strengthen Controls over Year-End Accrual Reporting	Department of Medical Assistance Services
2019-003	Improve Financial Reporting for Accounts Receivable	Department of Medical Assistance Services
2019-004	Improve Controls over SNAP Payments	Department of Social Services
2019-005	Dedicate Resources to Timely Update of CAPP Manual Topics	Department of Accounts
2019-006	Improve Controls Over Financial Systems Reconciliations	Department of Behavioral Health and Developmental Services
2019-007	Process Expense Reimbursements in the Commonwealth's Accounting and Financial Reporting System	Department of Behavioral Health and Developmental Services
2019-008	Perform an Evaluation and Analysis of Potential Asset Retirement and Pollution Remediation Obligations	Department of Behavioral Health and Developmental Services
2019-009	Improve Review Process for Individual Facility Leave Liability Submissions	Department of Behavioral Health and Developmental Services
2019-010	Improve Financial Reporting of Infrastructure Assets	Department of Transportation
2019-011	Improve Financial Reporting Classification within Net Position	Department of Transportation
2019-012	Improve Policies and Procedures over Unclaimed Property Reconciliations	Department of the Treasury
2019-013	Improve the Expense Allocation Process	Department of Health
Access Control		
2019-014	Develop and Implement Compliant Application Access Management Procedures	Department of Behavioral Health and Developmental Services
2019-015	Promptly Remove Commonwealth's Accounting and Financial Reporting System User Access	Department of Behavioral Health and Developmental Services
2019-016	Develop Access Profile Descriptions and Improve Monitoring Controls over the Internal Attendance and Leave System	Department of Behavioral Health and Developmental Services
2019-017	Improve Access Controls over the Commonwealth's Payroll System	Department of Behavioral Health and Developmental Services
2019-018	Improve Controls Over Access to the Commonwealth's Retirement Benefits System	Department of Behavioral Health and Developmental Services
2019-019	Improve Timely Removal of Critical System Access	Department of Health
2019-020	Perform System Access Reviews	Department of Health
2019-021	Improve Segregation of Duties Controls over the Payroll and Human Resources System	University of Virginia
2019-022	Improve Process for Terminating Access to the Commonwealth's Retirement Benefits System	University of Virginia
2019-023	Improve Patient Accounting, Billing, and Management System Segregation of Duties	University of Virginia-Medical Center
2019-024	Remove Separated Employee Access in a Timely Manner	Department of Medical Assistance Services
2019-025	Continue to Improve Controls Over Role Access	Department of Taxation
2019-026	Continue to Improve Information System Access Controls	Department of the Treasury
2019-027	Improve Access Controls to Critical Systems	Department of Social Services
2019-028	Continue Improving Controls for Processing Access Terminations and Changes	Department of Motor Vehicles
2019-029	Perform Annual Access Review of Information Systems	Department of Corrections-Central Administration
2019-030	Improve Logical Access Controls for Users with Privileged Access	Virginia Alcoholic Beverage Control Authority
2019-031	Improve Database Security	Department of Transportation
2019-032	Implement Process for Ongoing Monitoring of System Access	Department of Education - Central Office Operations
Multiple Information System Security Control Families		
2019-033	Improve Web Application Security	Department of Accounts
2019-034	Improve the Budget System Database Governance and Security	Department of Planning and Budget
2019-035	Improve Web Application Security	Department of Behavioral Health and Developmental Services
2019-036	Improve Access Controls over the Internal Accounting and Patient Revenue Systems	Department of Behavioral Health and Developmental Services
2019-037	Improve Web Application Security	Department of Social Services
2019-038	Improve IT Change and Configuration Management Process	Department of Social Services
2019-039	Improve Web Application Security	Department of Health
2019-040	Improve Server Operating System Security	Virginia Lottery
2019-041	Improve Vulnerability Remediation Efforts	Department of Education - Central Office Operations; Virginia Information Technologies Agency
2019-042	Improve Web Application Security	Department of Education - Central Office Operations
2019-043	Improve Database Security	Virginia Alcoholic Beverage Control Authority
2019-044	Improve Database Security	Virginia Employment Commission
Contingency Planning		
2019-045	Improve IT Contingency Management Program	Department of Behavioral Health and Developmental Services
2019-046	Improve Disaster Recovery for Sensitive Systems	Department of Behavioral Health and Developmental Services
2019-047	Improve Contingency Management Program	Department of Health
2019-048	Improve the Disaster Recovery Plan	Department of Health
2019-049	Develop Records Retention Requirements and Processes for Case Management System	Department of Social Services
2019-050	Continue to Improve Disaster Recovery Planning Documentation	Department of Taxation
System and Services Acquisition		
2019-051	Complete and Approve the System Security Plan	Department of Medical Assistance Services
2019-052	Develop a Process to Maintain Oversight for Third-Party Providers	Department of Social Services
2019-053	Create Processes for Review and Assessment of Third-Party Service Provider's Controls	Department of Behavioral Health and Developmental Services
2019-054	Practice Oversight of Service Providers Throughout the Lifecycle of a Project	Department of Motor Vehicles
Awareness and Training		
2019-055	Improve Security Awareness Training Program	University of Virginia-Academic Division
2019-056	Improve Security Awareness Training Program	Virginia Alcoholic Beverage Control Authority

LISTING OF FINDINGS
GROUPED BY TOPIC

Finding Topic/Report Header		
Finding Number	Finding Title	Applicable To
System and Communications Protection		
2019-057	Improve Web Application Security Controls	Department of Human Resource Management
2019-058	Improve Web Application Security	Department of the Treasury
Audit and Accountability		
2019-059	Continue Improving Database Security	Department of Social Services
2019-060	Continue Improving Database Security	Department of Education - Central Office Operations
Configuration Management		
2019-061	Dedicate Resources to Support Information Security Program	Department of Behavioral Health and Developmental Services
2019-062	Develop Baseline Configurations for Information Systems	Department of Behavioral Health and Developmental Services
Planning		
2019-063	Continue Improving IT Risk Management Program	Department of Social Services
System and Information Integrity		
2019-064	Mitigate Server Vulnerabilities	Department of Taxation; Virginia Information Technologies Agency
Risk Assessment		
2019-065	Complete a Risk Assessment for Each Sensitive System	Department of Taxation
Media Protection		
2019-066	Improve IT Asset Surplus Process	Virginia Commonwealth University
Human Resources and Payroll		
2019-067	Comply with Employment Eligibility Requirements	Department of Behavioral Health and Developmental Services
2019-068	Perform Reconciliation between the Commonwealth's Payroll and the Accounting and Financial Reporting Systems	Department of Behavioral Health and Developmental Services
2019-069	Improve Controls over Payroll Certifications	Department of Behavioral Health and Developmental Services
2019-070	Retain Documentation of Property Collection and Removal of Terminated Employee Badge Access	Department of Behavioral Health and Developmental Services
2019-071	Ensure Terminated Employees Are Properly Classified in the Payroll System	Department of Behavioral Health and Developmental Services
2019-072	Properly Approve and Monitor Administrative Employee Overtime	Department of Behavioral Health and Developmental Services
2019-073	Strengthen the Employee Off-Boarding Process	Department of Health
2019-074	Enhance the Overtime Reporting Process	Department of Health
2019-075	Develop and Implement Policy for Monitoring Part-time Employee Hours	Department of Health
2019-076	Improve Timesheet Approval Process	University of Virginia-Academic Division
2019-077	Implement Internal Controls to Terminate Benefits for Employees Convicted of a Felony	Department of Motor Vehicles
Retirement System Member Data		
2019-078	Perform and Document Commonwealth's Retirement Benefits System Reconciliations	Department of Behavioral Health and Developmental Services
2019-079	Improve Documentation and Timeliness of Retirement Benefits System Reconciliations	Department of Corrections-Central Administration
2019-080	Perform Monthly Reconciliations of the Payroll and Retirement Systems	Department of Health
2019-081	Ensure Completion of the Commonwealth's Retirement Benefits System Reconciliation Process	University of Virginia
2019-082	Improve Internal Controls for Reviewing Exceptions in the Commonwealth's Retirement System	Department of Motor Vehicles
Statement of Economic Interests		
2019-083	Ensure Employees Complete Required Conflict of Interest Training	Department of Medical Assistance Services
2019-084	Ensure Compliance with Conflict of Interests Act	Department of Social Services
2019-085	Comply with the Conflicts of Interest Act	Department of Health
2019-086	Develop Policies and Procedures to Ensure Compliance with Conflict of Interest Act Requirements	University of Virginia
2019-087	Improve the Process to Identify Individuals in a Position of Trust	Virginia Polytechnic Inst. and State University
Other Grants Management		
2019-088	Improve Controls over the Income Verification for the TANF Program	Department of Social Services
2019-089	Improve Controls over SNAP Federal Reporting	Department of Social Services
2019-090	Ensure Subrecipient Reviews Adhere to Monitoring Plan	Department of Social Services
2019-091	Continue to Improve Controls over Subrecipient Monitoring	Department of Social Services
Procurement and Contract Management		
2019-092	Ensure Performance Evaluations are Completed for Professional Service Contracts	Department of Transportation
2019-093	Improve Controls for Ensuring Quality Improvement Recommendations are Implemented	Department of Transportation
2019-094	Improve Controls over the Purchasing Process	Department of Behavioral Health and Developmental Services
Revenue and Accounts Receivable		
2019-095	Continue Improving the Overpayment Collection Process	Department of Medical Assistance Services
2019-096	Implement Separation of Duties over Accounts Receivable Resulting from Dealership Transactions	Department of Motor Vehicles
Expenses and Accounts Payable		
2019-097	Improve Process for Payment of Risk Management Invoices	Department of the Treasury
Third-Party Service Providers		
2019-098	Improve Service Organization Control Report Review Policies and Procedures	Department of the Treasury
Student Financial Assistance		
2019-099	Improve Reporting to National Student Loan Data System	Virginia Commonwealth University

LISTING OF FINDINGS
GROUPED BY TOPIC

Finding Topic/Report Header		
Finding Number	Finding Title	Applicable To
Federal Award Findings and Questioned Costs		
2019-100	Improve Controls over TANF Federal Performance Reporting	Department of Social Services
2019-101	Ensure Family Services Subrecipient Reviews Adhere to Monitoring Plan	Department of Social Services
2019-102	Implement Opioid Grant Sub-Recipient Monitoring	Department of Behavioral Health and Developmental Services
2019-103	Provide Federal Award Requirements to Subrecipients	Department of Behavioral Health and Developmental Services
2019-104	Improve the Case Management System Access Review Process	Department for Aging and Rehabilitative Services
2019-105	Improve the Eligibility Determination Process for Vocational Rehabilitation	Department for Aging and Rehabilitative Services
2019-106	Improve Processes to Comply with the Conflicts of Interest Act	Department for Aging and Rehabilitative Services; Department for the Blind and Vision Impaired
2019-107	Improve Documentation to Show Compliance	Department for Aging and Rehabilitative Services; Department for the Blind and Vision Impaired
2019-108	Improve Oversight of Third-Party Service Providers	Department for Aging and Rehabilitative Services

LISTING OF FINDINGS
GROUPED BY APPLICABLE ENTITY

Applicable To		
Finding Number	Finding Title	Finding Topic/Report Header
Department for Aging and Rehabilitative Services		
2019-104	Improve the Case Management System Access Review Process	Federal Award Findings and Questioned Costs
2019-105	Improve the Eligibility Determination Process for Vocational Rehabilitation	Federal Award Findings and Questioned Costs
2019-106	Improve Processes to Comply with the Conflicts of Interest Act	Federal Award Findings and Questioned Costs
2019-107	Improve Documentation to Show Compliance	Federal Award Findings and Questioned Costs
2019-108	Improve Oversight of Third-Party Service Providers	Federal Award Findings and Questioned Costs
Department for the Blind and Vision Impaired		
2019-106	Improve Processes to Comply with the Conflicts of Interest Act	Federal Award Findings and Questioned Costs
2019-107	Improve Documentation to Show Compliance	Federal Award Findings and Questioned Costs
Department of Accounts		
2019-005	Dedicate Resources to Timely Update of CAPP Manual Topics	Financial Accounting and Reporting
2019-033	Improve Web Application Security	Multiple Information System Security Control Families
Department of Behavioral Health and Developmental Services		
2019-006	Improve Controls Over Financial Systems Reconciliations	Financial Accounting and Reporting
2019-007	Process Expense Reimbursements in the Commonwealth's Accounting and Financial Reporting System	Financial Accounting and Reporting
2019-008	Perform an Evaluation and Analysis of Potential Asset Retirement and Pollution Remediation Obligations	Financial Accounting and Reporting
2019-009	Improve Review Process for Individual Facility Leave Liability Submissions	Financial Accounting and Reporting
2019-014	Develop and Implement Compliant Application Access Management Procedures	Access Control
2019-015	Promptly Remove Commonwealth's Accounting and Financial Reporting System User Access	Access Control
2019-016	Develop Access Profile Descriptions and Improve Monitoring Controls over the Internal Attendance and Leave System	Access Control
2019-017	Improve Access Controls over the Commonwealth's Payroll System	Access Control
2019-018	Improve Controls Over Access to the Commonwealth's Retirement Benefits System	Access Control
2019-035	Improve Web Application Security	Multiple Information System Security Control Families
2019-036	Improve Access Controls over the Internal Accounting and Patient Revenue Systems	Multiple Information System Security Control Families
2019-045	Improve IT Contingency Management Program	Contingency Planning
2019-046	Improve Disaster Recovery for Sensitive Systems	Contingency Planning
2019-053	Create Processes for Review and Assessment of Third-Party Service Provider's Controls	System and Services Acquisition
2019-061	Dedicate Resources to Support Information Security Program	Configuration Management
2019-062	Develop Baseline Configurations for Information Systems	Configuration Management
2019-067	Comply with Employment Eligibility Requirements	Human Resources and Payroll
2019-068	Perform Reconciliation between the Commonwealth's Payroll and the Accounting and Financial Reporting Systems	Human Resources and Payroll
2019-069	Improve Controls over Payroll Certifications	Human Resources and Payroll
2019-070	Retain Documentation of Property Collection and Removal of Terminated Employee Badge Access	Human Resources and Payroll
2019-071	Ensure Terminated Employees Are Properly Classified in the Payroll System	Human Resources and Payroll
2019-072	Properly Approve and Monitor Administrative Employee Overtime	Human Resources and Payroll
2019-078	Perform and Document Commonwealth's Retirement Benefits System Reconciliations	Retirement System Member Data
2019-094	Improve Controls over the Purchasing Process	Procurement and Contract Management
2019-102	Implement Opioid Grant Sub-Recipient Monitoring	Federal Award Findings and Questioned Costs
2019-103	Provide Federal Award Requirements to Subrecipients	Federal Award Findings and Questioned Costs
Department of Corrections-Central Administration		
2019-029	Perform Annual Access Review of Information Systems	Access Control
2019-079	Improve Documentation and Timeliness of Retirement Benefits System Reconciliations	Retirement System Member Data
Department of Education - Central Office Operations		
2019-032	Implement Process for Ongoing Monitoring of System Access	Access Control
2019-041	Improve Vulnerability Remediation Efforts	Multiple Information System Security Control Families
2019-042	Improve Web Application Security	Multiple Information System Security Control Families
2019-060	Continue Improving Database Security	Audit and Accountability
Department of Health		
2019-013	Improve the Expense Allocation Process	Financial Accounting and Reporting
2019-019	Improve Timely Removal of Critical System Access	Access Control
2019-020	Perform System Access Reviews	Access Control
2019-039	Improve Web Application Security	Multiple Information System Security Control Families
2019-047	Improve Contingency Management Program	Contingency Planning
2019-048	Improve the Disaster Recovery Plan	Contingency Planning
2019-073	Strengthen the Employee Off-Boarding Process	Human Resources and Payroll
2019-074	Enhance the Overtime Reporting Process	Human Resources and Payroll
2019-075	Develop and Implement Policy for Monitoring Part-time Employee Hours	Human Resources and Payroll
2019-080	Perform Monthly Reconciliations of the Payroll and Retirement Systems	Retirement System Member Data
2019-085	Comply with the Conflicts of Interest Act	Statement of Economic Interests

LISTING OF FINDINGS
GROUPED BY APPLICABLE ENTITY

Applicable To		
Finding Number	Finding Title	Finding Topic/Report Header
Department of Human Resource Management		
2019-001	Improve Controls Over Financial Reporting	Financial Accounting and Reporting
2019-057	Improve Web Application Security Controls	System and Communications Protection
Department of Medical Assistance Services		
2019-002	Strengthen Controls over Year-End Accrual Reporting	Financial Accounting and Reporting
2019-003	Improve Financial Reporting for Accounts Receivable	Financial Accounting and Reporting
2019-024	Remove Separated Employee Access in a Timely Manner	Access Control
2019-051	Complete and Approve the System Security Plan	System and Services Acquisition
2019-083	Ensure Employees Complete Required Conflict of Interest Training	Statement of Economic Interests
2019-095	Continue Improving the Overpayment Collection Process	Revenue and Accounts Receivable
Department of Motor Vehicles		
2019-028	Continue Improving Controls for Processing Access Terminations and Changes	Access Control
2019-054	Practice Oversight of Service Providers Throughout the Lifecycle of a Project	System and Services Acquisition
2019-077	Implement Internal Controls to Terminate Benefits for Employees Convicted of a Felony	Human Resources and Payroll
2019-082	Improve Internal Controls for Reviewing Exceptions in the Commonwealth's Retirement System	Retirement System Member Data
2019-096	Implement Separation of Duties over Accounts Receivable Resulting from Dealership Transactions	Revenue and Accounts Receivable
Department of Planning and Budget		
2019-034	Improve the Budget System Database Governance and Security	Multiple Information System Security Control Families
Department of Social Services		
2019-004	Improve Controls over SNAP Payments	Financial Accounting and Reporting
2019-027	Improve Access Controls to Critical Systems	Access Control
2019-037	Improve Web Application Security	Multiple Information System Security Control Families
2019-038	Improve IT Change and Configuration Management Process	Multiple Information System Security Control Families
2019-049	Develop Records Retention Requirements and Processes for Case Management System	Contingency Planning
2019-052	Develop a Process to Maintain Oversight for Third-Party Providers	System and Services Acquisition
2019-059	Continue Improving Database Security	Audit and Accountability
2019-063	Continue Improving IT Risk Management Program	Planning
2019-084	Ensure Compliance with Conflict of Interests Act	Statement of Economic Interests
2019-088	Improve Controls over the Income Verification for the TANF Program	Other Grants Management
2019-089	Improve Controls over SNAP Federal Reporting	Other Grants Management
2019-090	Ensure Subrecipient Reviews Adhere to Monitoring Plan	Other Grants Management
2019-091	Continue to Improve Controls over Subrecipient Monitoring	Other Grants Management
2019-100	Improve Controls over TANF Federal Performance Reporting	Federal Award Findings and Questioned Costs
2019-101	Ensure Family Services Subrecipient Reviews Adhere to Monitoring Plan	Federal Award Findings and Questioned Costs
Department of Taxation		
2019-025	Continue to Improve Controls Over Role Access	Access Control
2019-050	Continue to Improve Disaster Recovery Planning Documentation	Contingency Planning
2019-064	Mitigate Server Vulnerabilities	System and Information Integrity
2019-065	Complete a Risk Assessment for Each Sensitive System	Risk Assessment
Department of the Treasury		
2019-012	Improve Policies and Procedures over Unclaimed Property Reconciliations	Financial Accounting and Reporting
2019-026	Continue to Improve Information System Access Controls	Access Control
2019-058	Improve Web Application Security	System and Communications Protection
2019-097	Improve Process for Payment of Risk Management Invoices	Expenses and Accounts Payable
2019-098	Improve Service Organization Control Report Review Policies and Procedures	Third-Party Service Providers
Department of Transportation		
2019-010	Improve Financial Reporting of Infrastructure Assets	Financial Accounting and Reporting
2019-011	Improve Financial Reporting Classification within Net Position	Financial Accounting and Reporting
2019-031	Improve Database Security	Access Control
2019-092	Ensure Performance Evaluations are Completed for Professional Service Contracts	Procurement and Contract Management
2019-093	Improve Controls for Ensuring Quality Improvement Recommendations are Implemented	Procurement and Contract Management
University of Virginia		
2019-021	Improve Segregation of Duties Controls over the Payroll and Human Resources System	Access Control
2019-022	Improve Process for Terminating Access to the Commonwealth's Retirement Benefits System	Access Control
2019-081	Ensure Completion of the Commonwealth's Retirement Benefits System Reconciliation Process	Retirement System Member Data
2019-086	Develop Policies and Procedures to Ensure Compliance with Conflict of Interest Act Requirements	Statement of Economic Interests
University of Virginia-Academic Division		
2019-055	Improve Security Awareness Training Program	Awareness and Training
2019-076	Improve Timesheet Approval Process	Human Resources and Payroll
University of Virginia-Medical Center		
2019-023	Improve Patient Accounting, Billing, and Management System Segregation of Duties	Access Control

LISTING OF FINDINGS
GROUPED BY APPLICABLE ENTITY

Applicable To		
Finding Number	Finding Title	Finding Topic/Report Header
Virginia Alcoholic Beverage Control Authority		
2019-030	Improve Logical Access Controls for Users with Privileged Access	Access Control
2019-043	Improve Database Security	Multiple Information System Security Control Families
2019-056	Improve Security Awareness Training Program	Awareness and Training
Virginia Commonwealth University		
2019-066	Improve IT Asset Surplus Process	Media Protection
2019-099	Improve Reporting to National Student Loan Data System	Student Financial Assistance
Virginia Employment Commission		
2019-044	Improve Database Security	Multiple Information System Security Control Families
Virginia Information Technologies Agency		
2019-041	Improve Vulnerability Remediation Efforts	Multiple Information System Security Control Families
2019-064	Mitigate Server Vulnerabilities	System and Information Integrity
Virginia Lottery		
2019-040	Improve Server Operating System Security	Multiple Information System Security Control Families
Virginia Polytechnic Institute and State University		
2019-087	Improve the Process to Identify Individuals in a Position of Trust	Statement of Economic Interests

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ACRONYMS FOR AUDITOR'S SECTION

Acronym	Definition
ABC	Virginia Alcoholic Beverage Control Authority
ACF	Administration of Children and Families
APSPM	Agency Procurement and Surplus Property Manual
ARMICS	Agency Risk Management and Internal Control Standards
BIA	Business Impact Analysis
CAFR	Comprehensive Annual Financial Report
CAPP	Commonwealth Accounting Policies and Procedures
CE	Consultative Examination
CFDA	Code of Federal Domestic Assistance
C.F.R.	Code of Federal Regulations
CIS	Center for Internet Security
COIA	Conflict of Interests Act
COOP	Continuity of Operations Plan
COV	Commonwealth of Virginia
CP	Contingency Plan
CSB	Community Service Board
CUEC	Complementary User Entity Control
DBHDS	Department of Behavioral Health and Developmental Services
DI	Disability Insurance
DRP	Disaster Recovery Plan
EBT	Electronic Benefits Transfer
ECOS	Enterprise Cloud Oversight Service
FAMIS	Family Access to Medical Insurance Security
FNS	Food and Nutrition Service
FOIA	Freedom of Information Act
FOIAE	Freedom of Information Act Exempt
GASB	Governmental Accounting Standards Board
HIPAA	Health Insurance Portability and Accountability Act
HIV	Human Immunodeficiency Virus
HR	Human Resources
IEC	International Electrotechnical Commission
IEVS	Income Eligibility and Verification System
ISO	Information Security Officer
IT	Information Technology
ITS	Information Technology Services
LMS	Learning Management System
MOU	Memorandum of Understanding
NIST	National Institute of Standards and Technology
NSLDS	National Student Loan Data System
OPEB	Other Postemployment Benefits
Partnership	VITA's Contractual Partnership with Various IT Service Providers
POMS	Program Operations Manual System
QAA	Quality Assurance and Accountability

Acronym	Definition
SaaS	Software as a Service
SAS	Shared Administrative Services
SAT	Security Awareness Training
Security Standard	Commonwealth's Information Security Standard, SEC 501
SI	System and Information Integrity
SNAP	Supplemental Nutrition Assistance Program
SOC	Service Organization Control
SOEI	Statement of Economic Interests
SOR	State Opioid Response
SSI	Supplemental Security Income
SSP	System Security Plan
STR	State Targeted Response
TANF	Temporary Assistance for Needy Families
UI	Unemployment Insurance
VITA	Virginia Information Technologies Agency
VR	Vocational Rehabilitation
VRS	Virginia Retirement System
WIC	Women, Infants, and Children



COMMONWEALTH of VIRGINIA

DAVID A. VON MOLL, CPA
COMPTROLLER

Office of the Comptroller

P. O. BOX 1971
RICHMOND, VIRGINIA 23218-1971

March 9, 2020

Department of Health and Human Services
Office of Inspector General
Office of Audit Services
National External Audit Review Center
1100 Walnut Street, Suite 850
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To Whom It May Concern:

In addition to promptly taking corrective action on all findings, in accordance with CFR §200.511 Audit findings follow-up (c) *Corrective action plan*, the State Comptroller of Virginia (auditee) has prepared, in a document separate from the auditor's findings described in CFR §200.516 Audit findings, a corrective action plan to address each audit finding included in the current year auditor's report. The corrective action plan also cites findings relating to the financial statements, which are required to be reported in accordance with *Generally Accepted Government Auditing Standards*. The corrective action plan cites the reference number the auditor assigned to each auditing finding, name(s) of the contact person(s) responsible for corrective action, the corrective action planned, and the anticipated completion date. The corrective action plan does not express a disagreement with any of the audit findings nor does it disclose that corrective action is not required.

Certain corrective actions planned are not contained in this corrective action plan because they contain descriptions of security mechanisms and are Freedom of Information Act Exempt under §2.2-3705.2 of the *Code of Virginia*. Federal awarding agencies or pass-through entities needing such information in formulating their management decisions as required by CFR §200.521 Management decision, should communicate with the contact person responsible for the respective corrective action planned to address the audit finding.

The Commonwealth of Virginia Single Audit Report for the Year Ended June 30, 2019 containing all findings can be found at www.apa.virginia.gov or is available from the Federal Audit Clearinghouse web site.

If you have any questions, please contact our office at (804) 225-2109.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Von Moll".

David A. Von Moll
State Comptroller of Virginia

COMMONWEALTH OF VIRGINIA
Corrective Action Plan
For the Year Ended June 30, 2019

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Improve Controls Over Financial Reporting 2019-001 DHRM	Responsible Contact Person(s): Richard Whitfield - DHRM Contracts and Finance Director Jian Martin - DHRM Fiscal Officer Nga Huynh - DHRM Financial Analyst Corrective Action Planned: For FY20: Allocation percentage and census data has been delivered to Actuary and Actuary agreed to deliver the actuary report, collection methodology, & appendixes on April 1, 2020. DHRM is scheduled to complete FY20 schedule of benefit payment, Sample Journal entry, & note disclosures by May 1, 2020. For FY21 and forward: Allocation percentage and census data will be delivered to Actuary no later than November 1. Actuary agreed to deliver the actuary report, collection methodology, & appendixes on March 1. DHRM is to complete schedule of benefit payment, Sample Journal entry, & note disclosures by May 1. Contract modification will be finished by March 1, 2020 to address FY20 and future contract years deadline. Estimated Completion Date: 3/31/2020	No
Strengthen Controls over Year-End Accrual Reporting 2019-002 DMAS	Responsible Contact Person(s): Shionda Scott - Co-Acting Fiscal Division Director Mike Harlow - Co-Acting Fiscal Division Director Corrective Action Planned: The Budget, Fiscal, and Provider Reimbursement Divisions will meet by August 15, 2020 to discuss and document the approach to be taken for estimating accruals. This early meeting will allow the divisions to set a schedule and approach to accrual estimation; even though key accruals will not be available until after September 1st. This lead time will help staff accumulate, compile, and review the accruals data as it comes in. We met with the Department of Accounts and APA on November 19, 2020 to clarify reporting periods. The Budget Division will update the accrual spreadsheets to provide greater detail on the source(s) and calculations of the data in accordance with the Chief Financial Officer's Excel governance plan by September 1, 2020. This will create accountability for the data and provide a more efficient and effective review by management. To mitigate potential variance in the methodology for calculating an estimate of a Private Hospital Enhanced Rate Payment liability, the Provider Reimbursement Division will report all supplemental payment information to the Budget division for the previous fiscal year by August 31st. This will allow Budget to more accurately estimate the Private Hospital Enhanced Rate Payment liability. The Budget Division will document its management review of the accruals prior to submission to the Fiscal Division. The Fiscal Division will document the CFO's review and approval of the year-end accrual reporting plan by September 1, 2020. As new programs and/or revenue are implemented in DMAS, the Fiscal and Budget Divisions will contact the Department of Accounts to ensure proper treatment of revenues and expenditures as well as the Department of Planning and Budget for any appropriation concerns. Estimated Completion Date: 9/30/2020	No
Improve Financial Reporting for Accounts Receivable 2019-003 DMAS	Responsible Contact Person(s): Shionda Scott - Co-Acting Fiscal Division Director Mike Harlow - Co-Acting Fiscal Division Director Corrective Action Planned: The DMAS Internal Audit Division will conduct an analysis of the historical collection data as part of its scope during an audit of Accounts Receivable processes. This analysis will help substantiate an updated process for estimate uncollectible accounts. The audit is scheduled to conclude in May 2020, wherein the Accounts Receivable Manager will be able to use the analysis to update the fiscal collections policies and procedures for reasonably estimating the uncollectible accounts by June 30, 2020. The policy will be reviewed and approved by the CFO by June 10, 2020 with an implementation date of July 1, 2020. Estimated Completion Date: 9/30/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Improve Controls over SNAP Payments 2019-004 DSS</p>	<p>Responsible Contact Person(s): Ida Witherspoon - Chief Financial Officer Corrective Action Planned: DSS does not have sufficient controls over payments made for the Supplemental Nutrition Assistance program (SNAP). Social Services' Division of Enterprise Systems (Enterprise Systems) and Finance did not initially resolve the discrepancies between the systems and therefore could not provide support for \$234 million out of \$1,013 million (23%) that was paid out by the vendor and drawn down from the federal government. After APA brought this issue to management's attention, Finance and Enterprise Systems were able to work together to provide evidence that the total amount authorized by the case management system reasonably agreed to the total amount the vendor put on the EBT cards. Since the audit, Finance has worked with Information Technology to correct the VaCMS EBT Reconciliation Report to properly account for all transaction types. The beginning balance has been updated in VaCMS and the report and reconciliation process are currently working. Finance will bring discrepancies between VaCMS and Conduent to the attention of Information Technology management within 24 hours of discovery for research of the underlying information. If the discrepancy cannot be resolved, Finance will also bring this to the attention of Benefit Programs management and the CFO. Finance has also begun requiring supervisor approval of the SNAP EBT on the monthly reconciliation. Estimated Completion Date: 1/31/2020</p>	<p>No</p>
<p>Dedicate Resources to Timely Update of CAPP Manual Topics 2019-005 DOA</p>	<p>Responsible Contact Person(s): Amanda Simpson - Director of Compliance Oversight and Federal Reporting Corrective Action Planned: DOA acknowledges the importance of updating the Commonwealth Accounting Policies and Procedures (CAPP) Manual, and DOA agrees that the topics cited were not updated by June 30, 2019. However, DOA disagrees with the severity of the impact related to these topics. DOA prioritized the CAPP topics when the new accounting system was placed in service and all topics with substantive changes were updated. The five topics that remained were assessed as low priority since no substantive changes that would impact either accounting or reporting accuracy were required. As a mitigating control, Cardinal Job Aids and/or training materials provided guidance to effectively provide assistance with any terminology or coding changes that the agencies might require. These topics were updated by December 31, 2019. Regarding the payroll CAPP topics, DOA does not plan to divert resources from the Human Capital Management (HCM) Project to update CAPP topics for CIPPS and the associated payroll business processes, which are scheduled to be replaced in October of 2021. Management does not believe this would be an appropriate use of the agency's limited resources. To mitigate any associated risk, DOA is providing detailed and specific payroll processing guidance via Payroll Bulletins to agency fiscal and payroll personnel. DOA will revise all Payroll topics as the new HCM module is placed in service. Estimated Completion Date: 12/31/2019</p>	<p>No</p>
<p>Improve Controls Over Financial Systems Reconciliations 2019-006 DBHDS</p>	<p>Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting Corrective Action Planned: All facilities are aware of current reconciliation requirements. DBHDS will work with facilities to improve reconciliation documentation and ensure standard recon sign-offs are performed. DBHDS Finance has already established quarterly facility CFO meetings where these issues will be presented and resolved. Documentation requirements will be formalized. Training will be provided as necessary. Estimated Completion Date: 2/20/2020</p>	<p>No</p>
<p>Process Expense Reimbursements in the Commonwealth's Accounting and Financial Reporting System 2019-007 DBHDS</p>	<p>Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting, John Moore - Director of Fiscal Services and Grants Management Corrective Action Planned: CVTC will be closed effective June 2020. This finding was the result of staffing shortages for a facility in transition. Estimated Completion Date: 2/1/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Perform an Evaluation and Analysis of Potential Asset Retirement and Pollution Remediation Obligations 2019-008 DBHDS	Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting, John Moore - Director of Fiscal Services and Grants Management Corrective Action Planned: DBHDS will continue its standard process and procedure of communicating GASB requirements to its facilities related to asset retirement to include criteria for ARO. This will also include coordination with our facilities with reasonableness checks and with our Office of A and E Services to ensure that ARO issues are not present. Estimated Completion Date: 2/1/2020	No
Improve Review Process for Individual Facility Leave Liability Submissions 2019-009 DBHDS	Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting Corrective Action Planned: DBHDS has developed a comparative analysis tool that will be used by each facility when computing leave liability. The tool provides the previous year's leave liability total by fund and program and will be used to compare to the current year leave liability calculation. The Central Office will use a consolidated version of this tool to determine that leave calculations are reasonable. Estimated Completion Date: 7/1/2020	No
Improve Financial Reporting of Infrastructure Assets 2019-010 VDOT	Responsible Contact Person(s): Greg Lehman- Assistant Controller of General Accounting and Financial Reporting Corrective Action Planned: VDOT will improve and update our procedures and methodology for reporting of Infrastructure. This includes working with other divisions to better understand the data in ancillary systems as it relates to the reporting categories VDOT use for financial reporting. We are also working with other states to knowledge share and identify best practices. Estimated Completion Date: 6/30/2020	No
Improve Financial Reporting Classification within Net Position 2019-011 VDOT	Responsible Contact Person(s): Greg Lehman - Assistant Controller of General Accounting and Financial Reporting Corrective Action Planned: VDOT will update our internal procedures to ensure refinanced debt is appropriately allocated within net position. Estimated Completion Date: 6/30/2020	No
Improve Policies and Procedures over Unclaimed Property Reconciliations 2019-012 TD	Responsible Contact Person(s): Vicki Bridgeman - Director of Unclaimed Property Corrective Action Planned: The Unclaimed Property Division (UCP) will improve its reconciliation procedures to ensure a timely review and a clear audit trail. These improved procedures will follow guidance provided in the CAPP manual. Estimated Completion Date: 6/30/2020	No
Improve the Expense Allocation Process 2019-013 VDH	Responsible Contact Person(s): Stacey Ferrer - Director of Financial Management Corrective Action Planned: Office of Financial Management will evaluate the current practice and implement the necessary procedures to ensure that the review of the allocation process is performed annually and expenses are properly allocated among the appropriate funding streams. Estimated Completion Date: 7/1/2020	No
Develop and Implement Compliant Application Access Management Procedures 2019-014 DBHDS	Responsible Contact Person(s): Robert Hobbelman - CIO, Gerald Bullock - Acting CISO Corrective Action Planned: DBHDS will work with its facilities to ensure their procedures match the Agency's existing Policy. Estimated Completion Date: 10/1/2020	No
Promptly Remove Commonwealth's Accounting and Financial Reporting System User Access 2019-015 DBHDS	Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting Corrective Action Planned: DBHDS will work with our security function to address these issues. Specifically, DBHDS Finance will review current internal access procedures for reasonableness and make changes where appropriate. Communication among offices as to timing of termination has been a contributing factor - DBHDS will make process improvements related to separation of employees. Estimated Completion Date: 7/1/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Develop Access Profile Descriptions and Improve Monitoring Controls over the Internal Attendance and Leave System 2019-016 DBHDS	Responsible Contact Person(s): Robert Hobbelman - CIO, Don Tyson - IT Manager Corrective Action Planned: DBHDS will develop access capability descriptions for access profiles for the internal time, attendance and leave system. In addition, a process will be developed and implemented to ensure all DBHDS facilities and Central Office performs and documents a complete review of all users at least annually. Central Office will also review all facility submissions to ensure completeness of access reviews. Estimated Completion Date: 8/1/2020	No
Improve Access Controls over the Commonwealth's Payroll System 2019-017 DBHDS	Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting, John Moore - Director of Fiscal Services and Grants Management Corrective Action Planned: DBHDS Finance will work with our security function to address these issues. Specifically it will review current internal procedures for reasonableness and make changes where appropriate. Given that the environment is one of frequent turnover this will require coordination with the security function to establish adequate but reasonable time frames for removal from the system. Given DBHDS's operating environment, 24 hours may not be achievable. Estimated Completion Date: 7/1/2020	No
Improve Controls Over Access to the Commonwealth's Retirement Benefits System 2019-018 DBHDS	Responsible Contact Person(s): Stacy Pendleton - HR Director Corrective Action Planned: Will review VRS user roles and requirements for access. Will train on requirement to disable access within 24 hours of separation. DBHDS met with the APA to discuss these findings. We will provide a training presentation at the HR Forum in April. Estimated Completion Date: 5/1/2020	No
Improve Timely Removal of Critical System Access 2019-019 VDH	Responsible Contact Person(s): Rebecca Bynum - Director of Human Resources Corrective Action Planned: The Office of Human Resources (OHR) will evaluate and update policies and procedures, as necessary, to provide instruction for proper removal of staff that are separate or no longer need access. OHR will provide communication re: policies and procedures to agency business partners, including managers responsible for initiating and assuring proper separation actions. Estimated Completion Date: 6/20/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Perform System Access Reviews 2019-020 VDH	<p>Responsible Contact Person(s): Diana Jordan - Director of Disease Prevention, Paula Garrett - Director of Community Nutrition, Stacey Ferrer - Director of Financial Management</p> <p>Corrective Action Planned: During the review period, three data systems have been in use to support the Ryan White (RW) related activities: E2Virginia recorded client level data for services other than the AIDS Drug Assistance Program (ADAP). User reviews for this system were conducted by email on a quarterly basis. The Division of Disease Prevention (DDP) Redcap RW module replaced E2Virginia. The DDP Redcap users are reviewed monthly on a rolling basis that is determined by the date the respective user was given access. The ADAP Database records client level data for individuals receiving medication, premium and co-payment assistance. The ADAP data manager did not complete all reviews. She was assigned to immediately perform and document a user access review. This was completed. Job descriptions for EP245, her supervisor (EP236), and the unit manager responsible for the Ryan White Program (EP237) were revised to clearly document that users reviews must be completed at least quarterly and signed by these positions by November 26, 2019. The next quarterly use review required prompting by the Division Director in order for EP245, EP236, and EP237 to complete. The Division Director will monitor until staff have completed 3 successive quarterly reviews without prompting. Until September 2019, the Business Analyst was sending out Crossroads User Access reports to all 35 Health districts individually and the coordinators responded if the report is correct or any changes needs to be made or any user must be deactivated from their Health District and changes were made based on their response accordingly. Since October 2019 there's a new process in place on how Crossroads access must be provided for each LA staff from the Health District. Each users role was reviewed to ensure they had the appropriate access based on their position. New access is provided for each staff member based on their roles and responsibilities once appropriate training is completed. This process is managed by the Nutrition Education Liaison. Currently, the Business Analyst generates one consolidated Local Agency User access report on a monthly basis and uploads them on our internal website. An email is sent to all 35 Health Districts Coordinators to have them review their Health District report and lets the Business Analyst know of any changes or any staff member's access deactivation. Responses are only needed if they find an error or need any changes/corrections. OFM will evaluate the current practice and implement the necessary procedures to ensure that all reviews are done in a timely manner with the appropriate level of review and sign-off.</p> <p>Estimated Completion Date: 10/24/2020</p>	No
Improve Segregation of Duties Controls over the Payroll and Human Resources System 2019-021 UVA	<p>Responsible Contact Person(s): Augie Maurelli, AVP for Financial Operations</p> <p>Corrective Action Planned: As noted, the University has proactively engaged an external consultant for a post-implementation review of segregation of duties associated with our HCM implementation. UVA Finance, ITS, HR, and Internal Audit have begun to evaluate and address the recommendations received in the report and will continue to do so through FY2020. UVA Finance will take the lead in addressing segregation of duties conflicts and creating an ongoing process in accordance with FIN-021 and ISO 27002, for evaluating, granting, and monitoring future access to the system, as well as resolving conflicts.</p> <p>Estimated Completion Date: 6/30/2020</p>	No
Improve Process for Terminating Access to the Commonwealth's Retirement Benefits System 2019-022 UVA	<p>Responsible Contact Person(s): David King, Senior HR Specialist for Benefits</p> <p>Corrective Action Planned: The University is developing an internal protocol with managers of the respective teams across Human Resources and Payroll to ensure the security administrator is notified in writing of a termination of anyone with current access to the system. Furthermore, the University will check the access list regularly and compare against active termination records to ensure that access is terminated timely.</p> <p>Estimated Completion Date: 1/1/2020</p>	No
Improve Patient Accounting, Billing, and Management System Segregation of Duties 2019-023 UVAH	<p>Responsible Contact Person(s): Mark Pulcinski</p> <p>Corrective Action Planned: The Medical Center continues to implement the processes in order to demonstrate appropriate segregation of duties within the Patient Billing system, therefore strengthening internal controls within the Medical Center, while minimizing risk.</p> <p>Estimated Completion Date: 6/30/2020</p>	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Remove Separated Employee Access in a Timely Manner 2019-024 DMAS	Responsible Contact Person(s): William Burnette - Information Security Officer, Office of Compliance and Security Corrective Action Planned: In January 2019, DMAS implemented a K-2 Workflow to ensure all divisions receive uniform notification and acknowledge when they completed the assigned tasks. This gives more visibility to the process. In December 2019, the CISO Office of Compliance and Security (OCS) notified all agency supervisors of the gaps arising out of delayed notification. OCS will continue to work with HR on improving the K2 WorkFlow process to ensure supervisors and managers are properly following the exit clearance process. HR has been monitoring the system to ensure all separated employees have been entered into the system. HR includes this process in the quarterly HR Compliance and Process Training for DMAS Managers. OCS reviewed its process and identified a control gap. OCS changed the process to ensure system access is removed before signing off in the K-2 workflow that the task was completed. Access is removed on the last day of work which meets or exceeds the Security Standard. OCS Updated its policy to accurately state that access must be removed within 24 hours after separation. Estimated Completion Date: 3/31/2020	No
Continue to Improve Controls Over Role Access 2019-025 TAX	Responsible Contact Person(s): Patricia Higgins - Assistant Commissioner, Vengatesh Agaram - Assistant Commissioner Corrective Action Planned: Phase I (Jan-March 2020): Assemble a leadership workgroup to review circumstances surrounding the 14 of 35 roles accessed which provided excess authority of employee job duties. Goal is to identify communication, technology and operational breakdowns and opportunities for strengthening controls. Phase II (April-May 2020): Prioritize specific steps and initiatives to further strengthen controls, reduce unnecessary critical access, and ensure least privilege is maintained. These efforts may include technology enhancements, training and educational opportunities, policy and procedure changes, ongoing monitoring and review of roles, and memorialized documentation. Phase III (June-August 2020): Implementation of enhancements to include; communications, training and education, systems changes, and post recertification quality review. Estimated Completion Date: 8/30/2020	No
Continue to Improve Information System Access Controls 2019-026 TD	Responsible Contact Person(s): Vicki Bridgeman, Director of Unclaimed Property Deborah Edwards, Information Security Officer Corrective Action Planned: Treasury will continue to improve policies and procedures to include a timely review of its detective controls. Additionally, Treasury will continue to utilize least privilege and separation of duties when assigning access to systems. Estimated Completion Date: 6/30/2020	No
Improve Access Controls to Critical Systems 2019-027 DSS	Responsible Contact Person(s): Barry Davis - Director of Information Security and Risk Management Stephanie Larson - Director, Organizational Development Corrective Action Planned: DSS does not have sufficient policies and procedures in place to ensure access is granted based on least privilege, access is removed timely, includes accurate conflicting access roles and periodic reviews of access are completed. ISRM has met with Organizational Development to develop a process to notify ISRM when an employee's employment status is changing (i.e., termination or transfer). This will help ISRM ensure that access is removed when an employee leaves DSS or moves to a position that no longer requires a given system access. ISRM will use exception reports in SAMS (e.g., LDAP to Personnel Data Mismatch, Possible Employee Transfer) to identify users that may have separated or transferred, and will remove the users' systems access. ISRM has updated the documented standard operating procedure (SOP) for terminating systems access. The SOP now identifies the system access that is not managed in SAMS (e.g., EPPIC ECC) and the corresponding State employee user groups (e.g., the Division of Child Care & Early Childhood Development, Young Williams). This will help ISRM ensure access is removed for EPPIC ECC when a user separates from DSS. ISRM will perform annual access reviews for EPPIC ECC to ensure that a) user accounts belong to current DSS employees with a valid business need for access; and b) a user has only the least amount of access required to perform assigned job functions. Further, Organizational Development will update the separation and transfer checklist to include Cardinal access removal, as well as any other systems not controlled by the central authentication system. Estimated Completion Date: 9/1/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Continue Improving Controls for Processing Access Terminations and Changes 2019-028 DMV	Responsible Contact Person(s): Beau Hurley - Chief IT Security & Agency Risk Management Corrective Action Planned: The Department of Motor Vehicles understands the need for timely account disablement for separating employees and has made significant progress on our internal controls. In the evaluation of the controls supporting this process we considered all technical controls and those requiring human interaction. Estimated Completion Date: 6/30/2020	No
Perform Annual Access Review of Information Systems 2019-029 DOC/CA	Responsible Contact Person(s): Lucinda Childs-White / Human Resources Director Corrective Action Planned: The Department of Corrections established an annual control process for reviewing users' access. At the end of the performance year, supervisors were required to review their employees' "Employee Work Profile". During this annual process, supervisors reviewed and updated the Computer Application Access Checklist to ensure that accesses were modified as needed. The Office of Human Resources at Headquarters strengthened the operational controls of our systems by implementing an annual validation cross check of user access to our Attendance/Leave and Human Resource (HR) systems. These additional measures have been included in the aforementioned procedure. This internal procedure was provided to all applicable personnel, discussed in monthly HR staff meetings, documented in the monthly HR newsletter, and electronically housed in a shared access platform by June 30, 2019. Our remaining time and attendance system will not require additional cross check verification, as it is linked to the HR system. When employees are removed from the HR system, their access to the time and attendance system is automatically removed. Therefore, when HR cross checks the HR system, the time and attendance system will also be cross checked and reviewed. Estimated Completion Date: 6/30/2020	No
Improve Logical Access Controls for Users with Privileged Access 2019-030 ABC	Responsible Contact Person(s): Paul Williams, CIO Corrective Action Planned: ABC will update account management of users with privileged access. Additionally, there is a concerted effort to adopt and implement the security standards now that the appropriate policies have been implemented. Virginia ABC will update our progress, on a quarterly basis, with the Virginia Department of Accounts (DOA). Estimated Completion Date: 6/30/2020	No
Improve Database Security 2019-031 VDOT	Responsible Contact Person(s): David Caudill - Division Administrator for Tolling Division Theresa Hadden - Division Administrator for Information Technology Corrective Action Planned: The APA identified that a database security control for a sensitive system's database did not meet the security standard. VDOT had addressed that control by assigning an independent database administrator from the VDOT Central Office Information Technology Division to independently review the log files generated by the project team members. Based on the APA's feedback, VDOT have modified our log file review process to change the independent reviewers to the Division Head and Designee who are the application business owners. The new process automatically generates audit log files daily and emails the files to the business owner and designee. ITD will conduct training on reviewing the audit logs and has developed a procedure that provides guidance on how to review and identify anomalies. Upon completion of the business owner review, the log files are stored on the VDOT file server and retained for 12 months. Estimated Completion Date: 1/30/2020	No
Implement Process for Ongoing Monitoring of System Access 2019-032 DOE/COO	Responsible Contact Person(s): Sandra Curwood - Director of School Nutrition Corrective Action Planned: Management is aware of the importance of removing temporary system access following the completion of tasks. In addition, management has begun development of formal policies and procedures for periodic monitoring of existing user access to ensure that accurate access and rights are maintained for systems in our School Nutrition Programs. Management would like to note that the system access in this case did not affect school divisions' previous approvals for participation in particular school nutrition programs, nor the reimbursement rates for the programs in which they were approved to participate. Estimated Completion Date: 6/30/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Improve Web Application Security 2019-033 DOA</p>	<p>Responsible Contact Person(s): Pam Tauer - CTO Corrective Action Planned: Ticket RITM0189384 opened on January 23, 2020 requesting the security configuration setting be reviewed and modified by Service Provider to align with the Commonwealth's SEC501 Security Standard. Estimated Completion Date: 3/6/2020</p>	<p>No</p>
<p>Improve the Budget System Database Governance and Security 2019-034 DPB</p>	<p>Responsible Contact Person(s): Michelle Vucci - Associate Director for Administrative Services Corrective Action Planned: DPB has worked with its external vendor to convert its staff augmentation contract to a defined statement of work agreement that clearly delineates base level operations and maintenance support, which includes optional support to address activities that may fall outside the baseline operations agreement. This statement of work has finalized and is moving through the procurement process. Estimated Completion Date: 4/30/2020</p>	<p>No</p>
<p>Improve Web Application Security 2019-035 DBHDS</p>	<p>Responsible Contact Person(s): Robert Hobbelman - CIO, Don Tyson - IT Manager Corrective Action Planned: DBHDS plans to have the administrator cross train other IT developers to support the system as secondary and tertiary resource for backup administrator support. The application is in the process of moving to a cloud based platform. DBHDS is currently updating the risk assessment to ensure sufficient mitigating controls are in place. The administrator has been moved, Daily, Weekly, Monthly and Yearly tasks documentation has been requested and will be used to create a reference document for cross training additional DBHDS staff. Estimated Completion Date: 7/1/2020</p>	<p>No</p>
<p>Improve Access Controls over the Internal Accounting and Patient Revenue Systems 2019-036 DBHDS</p>	<p>Responsible Contact Person(s): Robert Hobbelman - CIO, Don Tyson - IT Manager Corrective Action Planned: DBHDS will improve access controls. This will include continuing to conduct security monitoring activities at all regions and facilities and ensuring they are sufficiently documented. Estimated Completion Date: 8/1/2020</p>	<p>No</p>
<p>Improve Web Application Security 2019-037 DSS</p>	<p>Responsible Contact Person(s): Roland Rivera - Deputy Commissioner Technology Barry Davis - Director of Information Security and Risk Management Corrective Action Planned: DSS does not configure a sensitive web application in accordance with the Security Standard. Social Services should develop a plan to implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard in a timely manner. Doing this will help to ensure Social Services secures the web application to protect its sensitive and mission critical data. The Division of Enterprise Systems will dedicate resources to remediate security patch issues, scan vulnerabilities, continuous monitoring and logging, header sanitization, and encryption. Estimated Completion Date: 9/1/2020</p>	<p>No</p>
<p>Improve IT Change and Configuration Management Process 2019-038 DSS</p>	<p>Responsible Contact Person(s): Roland Rivera - Deputy Commissioner Technology Corrective Action Planned: DSS does not follow an IT change and configuration management process that includes all elements required by the Security Standard. Change management is a key control to evaluate, approve, and verify configuration changes to security components. Social Services should develop a plan to implement the controls discussed in the communication marked FOIAE in accordance with the Security Standard in a timely manner. DIS and ISRM will dedicate resources to monitor activity of privileged users authorized to make changes to production environments. Estimated Completion Date: 9/1/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Improve Web Application Security 2019-039 VDH</p>	<p>Responsible Contact Person(s): Suresh Soundararajan - Chief Information Officer, Stephanie Williams-Haynes - Information Security Officer Corrective Action Planned: CrossRoads application is subject to releases as scheduled by the CrossRoads's states' user group. The technology upgrade will allow the state to switch. This technology upgrade is currently planned for release 2.5 which the user group has scheduled for EARLY 2021. A finalized schedule for release 2.5 is due to the user group in LATE 2020. DXC (software vendor) notified in July 2019 of vulnerabilities identified in Quarterly VITA scan. The current status of this ticket is "XR Approved for Release Management; CR or Ticket is fully approved and ready assignment to a release". Health will perform an additional, more detailed, scan in QA environment during April 2020. Following this scan, VDH will open additional tickets with DXC for each URL scanned. March 2020 - Update : VDH is currently working to procure a sole source contract with DXC LLC to cloud host the Application and enhance and maintain the application. The new contract is expected to be signed by March 31, 2020. The vendor has worked with VITA and obtained ECOS approval. VDH and the vendor sanitized the header information for the web application September 23, 2019. Office of Information Management developed a change management procedure and process to include system impact analysis and supporting documentation on all Health's IT systems. Director of Information is coordinating with Office of Information to incorporate. The baseline configuration was reviewed and updated on September 10, 2019 and will be reviewed on an annual basis or as changes to architecture occur. VDH is now receiving backup emails from VITA. Estimated Completion Date: 6/1/2021</p>	<p>No</p>
<p>Improve Server Operating System Security 2019-040 VAL</p>	<p>Responsible Contact Person(s): David Harris - IT Operations Manager, Paul Battle - Information Security Manager Corrective Action Planned: CIS Benchmarks have been applied to the Financial Management System and documentation has been prepared to explain any deviations. Estimated Completion Date: 6/26/2019</p>	<p>No</p>
<p>Improve Vulnerability Remediation Efforts 2019-041 DOE/COO</p>	<p>Responsible Contact Person(s): Tim Tillman - CISO Corrective Action Planned: Management recognizes the concerns outlined in the report. DOE will continue to work with the Partnership (i.e., Virginia Information Technologies Agency) to ensure that installation of current security patches and other updates for its IT systems and workstations are conducted. DOE will also monitor additional resources that may be provided by the Partnership in support of improving this area. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Improve Web Application Security 2019-042 DOE/COO</p>	<p>Responsible Contact Person(s): Tim Tillman - CISO Corrective Action Planned: Management would like to note that this finding was corrected during the course of the audit. Management will ensure that this information remains in the corrected status for future reviews and audits. Estimated Completion Date: 12/31/2019</p>	<p>No</p>
<p>Improve Database Security 2019-043 ABC</p>	<p>Responsible Contact Person(s): Paul Williams, CIO Corrective Action Planned: ABC will adopt the appropriate benchmark in order to align with industry best practice and implement the controls and configurations within our capability. For any that remain, Virginia ABC will document our business needs, explore mitigating, compensating controls, and will pursue security exceptions as may be necessary. Virginia ABC will update our progress, on a quarterly basis, with the Virginia Department of Accounts (DOA). Estimated Completion Date: 12/31/2020</p>	<p>No</p>
<p>Improve Database Security 2019-044 VEC</p>	<p>Responsible Contact Person(s): David Portner, Information Technology Director Corrective Action Planned: Due to the FOIA exempt nature of this finding, the detailed planned corrective actions have not been included. The VEC is taking corrective actions to address the weaknesses; one of the weaknesses has been completed and work is continuing to remediate the remaining four weaknesses. Estimated Completion Date: 6/30/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Improve IT Contingency Management Program 2019-045 DBHDS	Responsible Contact Person(s): Robert Hobbelman - CIO Corrective Action Planned: DBHDS is changing the infrastructure to a more cloud based architecture which will provide greater availability of resources. This change is based on approved cloud based funding. Continuity of Operations Plans and Disaster Recovery Plans are changing to support the new infrastructure. Estimated Completion Date: 6/30/2020	No
Improve Disaster Recovery for Sensitive Systems 2019-046 DBHDS	Responsible Contact Person(s): Robert Hobbelman - CIO Corrective Action Planned: DBHDS will submit a Request for Service (RFS) to SAIC to request a cost estimate to subscribe to the tier 1 support model for all its infrastructure. The previous quoted costs prohibited the ability to financially support the need. Estimated Completion Date: 6/30/2020	No
Improve Contingency Management Program 2019-047 VDH	Responsible Contact Person(s): Suresh Soundararajan - Chief Information Officer, Stephanie Williams-Haynes - Information Security Officer Corrective Action Planned: Office of Information Management will continue to work with VDH senior leadership on the agency's Continuity Program. VDH ISOs have successfully completed the Business Impact Analysis (BIA) for 2019 to include a list of primary business functions with management approvals on the BIAs. VDH leadership also established an IT systems prioritization group to identify mission essential functions, identified the tier levels for disaster recovery services, and IT systems prioritization. The Office of Emergency Preparedness (OEP) and the Office of Information Management (OIM) have scheduled an Agency COOP test and exercise to include IT systems in March 2020. Agency-wide COOP test will be planned. Estimated Completion Date: 3/31/2020	No
Improve the Disaster Recovery Plan 2019-048 VDH	Responsible Contact Person(s): Suresh Soundararajan - Chief Information Officer, Stephanie Williams-Haynes - Information Security Officer Corrective Action Planned: Agency Head has signed off on the 11 IT sensitive systems and tier 4 disaster recovery services for these system. Estimated Completion Date: 6/1/2020	No
Develop Records Retention Requirements and Processes for Case Management System 2019-049 DSS	Responsible Contact Person(s): Deborah Vaughn - Enterprise Systems Corrective Action Planned: Social Services did not make progress to develop and implement electronic records retention requirements for its case management system. Federal regulations require different record retention requirements for different federal programs. Additionally, the Virginia Public Records Act (§ 42.1-91 of the Code of Virginia) requires each agency to be responsible for ensuring that its public records are preserved, maintained, and accessible throughout their lifecycle, including converting and migrating electronic records as often as necessary so that information is not lost due to hardware, software, or media obsolescence or deterioration. The Virginia Department of Social Services, Division of Enterprise Systems has Change Request CR435: Records Purge and Retention tentatively on the schedule for November 2020 release and deployment. The business cites tentative due to IT leadership changes and the fact that agency priorities may cause adjustment to any and all scheduled changes. Estimated Completion Date: 11/30/2020	No
Continue to Improve Disaster Recovery Planning Documentation 2019-050 TAX	Responsible Contact Person(s): Ed Cooper - Deputy CTO Corrective Action Planned: Tax is working to update the Contingency Plan (CP) and Disaster Recovery Plan (DRP) to reflect Business Impact Analysis (BIA) business requirements. Due to delayed responses from VITA regarding the Disaster Recovery contract offerings to include definition of Recovery Time Objectives (RTO), the project completion date will be impacted. Estimated Completion Date: 8/30/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Complete and Approve the System Security Plan 2019-051 DMAS</p>	<p>Responsible Contact Person(s): William Burnette - Information Security Officer, Office of Compliance and Security Mike Jones - Acting Chief Information Officer, Information Management Division Corrective Action Planned: DMAS OCS reviewed the latest update received from Conduent in January 2020 and communicated the major gaps in February 2020. OCS has approved 147 out of 450 controls but many are still not at a maturity level that OCS expects for a compliant system. Over the next quarter, DMAS OCS (Don Danielson) will work with Conduent through direct weekly meetings with the SMEs at Conduent to review individual controls. DMAS OCS will validate the documentation that supports the controls. The next check point for phase 1 will be March 31, 2020 with a goal of over 200 controls approved. DMAS OCS will approve the SSP after it thoroughly reviews the documentation and ensures that the SSP meets the COV Information Security Standards (SEC501-11.1 PL-2 – System Security Plan). OCS will set deadlines for Conduent with the overall completion date to be June 30, 2020, and will work with the DMAS Contract Monitor for Conduent to prioritize this requirement. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Develop a Process to Maintain Oversight for Third-Party Providers 2019-052 DSS</p>	<p>Responsible Contact Person(s): Roland Rivera - Deputy Commissioner Technology Barry Davis - Director of Information Security and Risk Management Corrective Action Planned: DSS does not have a formal process to manage its third-party Software as a Service (SaaS) providers that fall under the Virginia Information Technologies Agency's (VITA) Enterprise Cloud Oversight Service (ECOS). Social Services uses VITA's ECOS to assist the agency with gaining assurance that its SaaS providers implement the minimum security requirements required by the Commonwealth's Hosted Environment Information Security Standard, SEC525 (Hosted Environment Security Standard). The Virginia Department of Social Services (DSS), Department of Information Systems (DIS), Department of Information Security and Risk Management (ISRM), and Department of General Services (DGS) will dedicate resources to developing a formal policy, procedure, and process to review and maintain VITA ECOS documentation. Procedures will detail a process to monitor and maintain the VITA ECOS oversight program of third-party SaaS providers. DSS will develop procedures to address inadequate security controls identified in VITA ECOS documentation. ISRM will coordinate with DGS to develop a policy that ensures security compliance is enforced as part of the vendor's contractual obligations. Estimated Completion Date: 9/1/2020</p>	<p>No</p>
<p>Create Processes for Review and Assessment of Third-Party Service Provider's Controls 2019-053 DBHDS</p>	<p>Responsible Contact Person(s): Dan Hinderliter - Director of Procurement and Administrative Services Corrective Action Planned: DBHDS has already implemented update requirement language and boilerplate documents to address future contracts. Estimated Completion Date: 2/14/2020</p>	<p>No</p>
<p>Practice Oversight of Service Providers Throughout the Lifecycle of a Project 2019-054 DMV</p>	<p>Responsible Contact Person(s): Beau Hurley - Chief IT Security & Agency Risk Management DMV will include a higher degree of oversight from the moment the vendor has the ability to present risk to the agency and work with the Commonwealth CISO on possible changes that we could make to Commonwealth Security Standards to establish more concrete requirements on what needs to be reviewed as part of vendor oversight. Estimated Completion Date: 5/1/2020</p>	<p>No</p>
<p>Improve Security Awareness Training Program 2019-055 UVA/AD</p>	<p>Responsible Contact Person(s): Jason C. Belford, Chief Information Security Officer Corrective Action Planned: As part of its risk-based approach to information security, the University will revise its policies, standards, and guidelines concerning general security awareness training to align more closely with ISO 27002. The University will update its requirements to "recommend" general security training for all employees and will continue to encourage all employees to successfully complete the general security training. Employees accessing Highly Sensitive Data (HSD) will continue to be required to complete security awareness training. Estimated Completion Date: 6/1/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Improve Security Awareness Training Program 2019-056 ABC</p>	<p>Responsible Contact Person(s): Paul Williams, CIO ABC will require users to take annual security awareness training within a set time of assignment and will produce monthly tracking reports communicated to directors throughout the organization and quarterly reports to the Virginia ABC Board. All users who have not completed training after the set period of time will have their accounts disabled until the training is complete. Virginia ABC will also establish a program for new hires to take training as an integrated part of the current new employee orientation. Virginia ABC will also conduct role-based security training for all appropriate employees. Virginia ABC will update our progress, on a quarterly basis, with the Virginia Department of Accounts (DOA). Estimated Completion Date: 12/31/2020</p>	<p>No</p>
<p>Improve Web Application Security Controls 2019-057 DHRM</p>	<p>Responsible Contact Person(s): Bradley Paul - DHRM IT Systems Architect Maurice Coles - DHRM InfoSec Security Analyst Corrective Action Planned: DHRM Information Technology Systems Operations staff is working with VITA/SAIC partnership to review and replace the depreciated encryption protocols and to review the web server headers, assuring the sanitization is done and implemented by the partnership; DHRM Information Security staff is monitoring the progress. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Improve Web Application Security 2019-058 TD</p>	<p>Responsible Contact Person(s): Deborah Edwards - Information Security Officer Corrective Action Planned: Treasury will develop a plan to address the control discussed in the communication marked FOIAE in accordance with the Security Standard in a timely manner. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Continue Improving Database Security 2019-059 DSS</p>	<p>Responsible Contact Person(s): Roland Rivera - Deputy Commissioner Technology Barry Davis - Director of Information Security and Risk Management Corrective Action Planned: DSS continues to not perform certain security procedures over the databases supporting its financial reporting system and case management system in accordance with the Security Standard and industry best practices. We communicated the weaknesses for both systems to management in a separate document marked Freedom of Information Act Exempt (FOIAE) under § 2.2-3705.2 of the Code of Virginia due to its sensitivity and description of security controls. The Virginia Department of Social Services, Department of Information Systems and Department of Information Security and Risk Management are dedicating resources to implementing audit logging and monitoring over the databases. Estimated Completion Date: 9/1/2020</p>	<p>No</p>
<p>Continue Improving Database Security 2019-060 DOE/COO</p>	<p>Responsible Contact Person(s): Tim Tillman - CISO Corrective Action Planned: Management is aware of the importance of meeting the requirement in the Commonwealth Security Standard to ensure confidentiality, integrity and availability of data within the database or the information it reports. DOE has made significant improvements in database security since the 2018 audit. DOE continues to work with the Partnership and due to the lack of responsiveness is in the process of pursuing alternative software through a 3rd party to report this information in order to achieve compliance with the Security Standard. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Dedicate Resources to Support Information Security Program 2019-061 DBHDS</p>	<p>Responsible Contact Person(s): Robert Hobbelman - CIO Corrective Action Planned: DBHDS IT has conducted a review of current applications and certified approximately 133 sensitive systems. DBHDS management will analyze staff requirements to maintain current applications and implement information security controls efficiently. Based on the analysis result, staffing will be increased to necessary levels to meet the audit finding objectives. Estimated Completion Date: 2/18/2021</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Develop Baseline Configurations for Informations Systems 2019-062 DBHDS	Responsible Contact Person(s): Robert Hobbelman - CIO Corrective Action Planned: DBHDS is will be resubmitting to SAIC a request to receive all the base configurations from the infrastructure side. Estimated Completion Date: 6/30/2020	No
Continue Improving IT Risk Management Program 2019-063 DSS	Responsible Contact Person(s): Barry Davis - Director of Information Security and Risk Management Corrective Action Planned: DSS does not have documentation supporting the IT System and Data Sensitivity Classifications for one system (2.5%) out of a total of 40 sensitive systems. The Security Standard, section 4, requires Social Services classify the IT system as sensitive if any type of data handled by the system is sensitive based on confidentiality, integrity, or availability. The Department of Social Services, Information Security and Risk Management Division is in the process of reviewing candidates for the unfilled Risk Manager position. The Risk Manager’s job duties will include updating data classification for sensitive systems, conducting and updating risk assessments, conducting and updating system security plans, and developing corrective action plans for outstanding risks. Estimated Completion Date: 9/1/2020	No
Mitigate Server Vulnerabilities 2019-064 TAX	Responsible Contact Person(s): Simon Xue - CISO Corrective Action Planned: TAX leadership formally communicates the status of this issue with VITA executive management each quarter. Estimated Completion Date: 6/30/2021	No
Complete a Risk Assessment for Each Sensitive System 2019-065 TAX	Responsible Contact Person(s): Simon Xue - CISO Corrective Action Planned: Virginia Tax will implement a risk assessment plan that will assess and report risks of sensitive systems as required by SEC 501. Estimated Completion Date: 9/1/2020	No
Improve IT Asset Surplus Process 2019-066 VCU	Responsible Contact Person(s): Dan Haan - Chief Information Security Officer Corrective Action Planned: VCU utilizes a three tiered policy framework to govern its operations related to information technology and information management that includes top level policies, middle tier technology standards, and the technical operational baselines. As such, the Media Sanitization Baseline is a set of technical operational procedures that is governed by the Computer and Network Resource Use Policy and Information Security Policy, enforced through the Data Handling and Storage standards. The aforementioned standard is up for its triennial update and VCU will modify the standard to provide additional clarification on IT asset disposal. Further, VCU will review and update as necessary, its media sanitization baseline to include additional guidance on media sanitization and destruction. Estimated Completion Date: 6/30/2020	No
Comply with Employment Eligibility Requirements 2019-067 DBHDS	Responsible Contact Person(s): Stacy Pendleton - HR Director Corrective Action Planned: DBHDS will ensure all facility Human Resources staff are trained on employment eligibility requirements, on how to fill out the I9, and on how to use E-verify. It should be noted that training was offered to staff in December 2018. In 2020 we will continue to offer training on completing the I9 process. USCIS is offering training in March and April on the I9 - this information has been shared with field HR. Estimated Completion Date: 5/1/2020	No
Perform Reconciliation between the Commonwealth’s Payroll and the Accounting and Financial Reporting Systems 2019-068 DBHDS	Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting Corrective Action Planned: This issue is one of post payroll certification. DBHDS Finance has developed a checklist that each facility will be required to complete and sign indicating that all post payroll certification functions have been performed. DBHDS Finance has quarterly CFO meetings where this issue will be raised. DBHDS Finance will provide appropriate training and assessment as necessary. Estimated Completion Date: 2/20/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Improve Controls over Payroll Certifications 2019-069 DBHDS</p>	<p>Responsible Contact Person(s): Andrew Diefenthaler - Chief Financial Officer, Ken Gunn - Director of Budget Execution and Financial Reporting Corrective Action Planned: DBHDS will address the need to adjust specific procedures in this area at our quarterly CFO meetings this year. Specific and standardized procedures across all facilities and the Central Office will be developed. Estimated Completion Date: 7/1/2020</p>	<p>No</p>
<p>Retain Documentation of Property Collection and Removal of Terminated Employee Badge Access 2019-070 DBHDS</p>	<p>Responsible Contact Person(s): Stacy Pendleton - HR Director Corrective Action Planned: DBHDS HR staff met with the APA to review these findings. Termination process/policy will be updated and shared with all facilities. Training will be provided and presentations will be given at the DBHDS HR Forum in April. Estimated Completion Date: 5/1/2020</p>	<p>No</p>
<p>Ensure Terminated Employees Are Properly Classified in the Payroll System 2019-071 DBHDS</p>	<p>Responsible Contact Person(s): Stacy Pendleton - HR Director Corrective Action Planned: Training on CAPP Manual Topic 50320 will be reviewed at the DBHDS HR Forum in April. Information will be shared with payroll staff for training. Estimated Completion Date: 5/1/2020</p>	<p>No</p>
<p>Properly Approve and Monitor Administrative Employee Overtime 2019-072 DBHDS</p>	<p>Responsible Contact Person(s): Stacy Pendleton - HR Director Corrective Action Planned: Training on DHRM policies regarding hours of work and OT will be reviewed at the DBHDS HR Forum. Estimated Completion Date: 5/1/2020</p>	<p>No</p>
<p>Strengthen the Employee Off-Boarding Process 2019-073 VDH</p>	<p>Responsible Contact Person(s): Stacey Ferrer - Director of Financial Management Corrective Action Planned: The Office of Information Management will work with HR on improving the internal controls around the agency's staff separation process. Estimated Completion Date: 6/1/2020</p>	<p>No</p>
<p>Enhance the Overtime Reporting Process 2019-074 VDH</p>	<p>Responsible Contact Person(s): Stacey Ferrer - Director of Financial Management Corrective Action Planned: The Office of Information Management will work with the business units on the proper way to complete the overtime form. Estimated Completion Date: 6/1/2020</p>	<p>No</p>
<p>Develop and Implement Policy for Monitoring Part-time Employee Hours 2019-075 VDH</p>	<p>Responsible Contact Person(s): Stacey Ferrer - Director of Financial Management Corrective Action Planned: The Office of Information Management will evaluate the current practice and implement the necessary procedures to ensure that part time employees' time are monitored and does not exceed the threshold. Estimated Completion Date: 6/1/2020</p>	<p>No</p>
<p>Improve Timesheet Approval Process 2019-076 UVA/AD</p>	<p>Responsible Contact Person(s): Paul Grisdale, Payroll Director Corrective Action Planned: The University will review the timesheet approval process and take the necessary steps to create adequate timesheet controls. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Implement Internal Controls to Terminate Benefits for Employees Convicted of a Felony 2019-077 DMV</p>	<p>Responsible Contact Person(s): Catey Dickensheets - Director of Human Resources Corrective Action Planned: DMV has now put in place an internal process that will keep HR apprised of all pending court cases involving current and former employees that may result in the initiation of the VRS process. DMV management is confident that moving forward, the agency will initiate the benefits forfeiture process in a timely manner. Estimated Completion Date: 10/1/2019</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Perform and Document Commonwealth's Retirement Benefits System Reconciliations 2019-078 DBHDS	Responsible Contact Person(s): Stacy Pendleton - HR Director Corrective Action Planned: All facilities have the identical policy; however, it is not always being followed properly. DBHDS will work with its facilities to ensure all employees are trained on the procedures. DBHDS has reached out to VRS for further training and draft policy/process on the VNAV process. This will allow CO to better train and audit the facilities compliance with this requirement. DBHDS HR staff met with the APA to discuss this finding. APA gave guidance on what was missing in policy/process. Estimated Completion Date: 6/30/2020	No
Improve Documentation and Timeliness of Retirement Benefits System Reconciliations 2019-079 DOC/CA	Responsible Contact Person(s): Lucinda Childs-White / Human Resources Director Corrective Action Planned: The Office of Human Resources within the Department of Corrections (DOC) has a systematic process for reconciling essential retirement data between the Human Resources Information System and the Virginia Retirement Benefits System. DOC's Human Resource procedure was revised to include the appropriate process for maintaining documentation of the reconciliations between the two systems. Subsequently, the enhanced procedures for reconciliation between the human resources system and the retirement benefits system was distributed to Human Resource (HR) Officers and HR support staff at the annual conferences in the Fall of 2018. The updated procedure was also communicated to the Department's HR community during monthly staff meetings, outlined in a monthly HR newsletter, and distributed to HR staff by mass email. As the HR Office at Headquarters has reinforced the importance of thorough and timely reconciliations with Department HR staff, these actions assisted the Payroll Department in resolving credible compensation reconciliation in a timely manner. An internal HR procedure has been drafted that addresses how to perform and document reconciliations. This procedure was finalized, approved by management, and shared with DOC staff by June 30, 2019. The Human Resources Director generated a memo to the HROs with a copy to unit heads. The purpose of this memo was to further emphasize the importance of clearing discrepancies prior to certifying the Virginia Retirement System snapshot. Estimated Completion Date: 6/30/2020	No
Perform Monthly Reconciliations of the Payroll and Retirement Systems 2019-080 VDH	Responsible Contact Person(s): Stacey Ferrer - Director of Financial Management Corrective Action Planned: VDH has implemented the monthly review process. Estimated Completion Date: 1/20/2020	No
Ensure Completion of the Commonwealth's Retirement Benefits System Reconciliation Process 2019-081 UVA	Responsible Contact Person(s): Mary Carter - Retirement Plan Administration Associate, Erica Wheat - HR Manager Benefits Leave and Payroll, David King - Senior HR Specialist for Benefits Corrective Action Planned: The University implemented a new Human Resources and Payroll System during the fiscal year and the integration with the Commonwealth's Retirement Benefits System was one of the most complex integration in its tenant. Accordingly, a significant amount of resources and testing was required to ensure a clean, production quality dataset prior to reconciliation. The University has hired a full-time dedicated resource to handle reconciliations and work is underway to catch up past due reconciliations. Estimated Completion Date: 6/30/2020	No
Improve Internal Controls for Reviewing Exceptions in the Commonwealth's Retirement System 2019-082 DMV	Responsible Contact Person(s): Catey Dickensheets - Director of Human Resources Corrective Action Planned: DMV has since hired a new Compensation and Benefits Manager who is currently documenting a process for reviewing and reconciling discrepancies, establishing and training a main point of contact within DMV as well as a back-up, and developing a means to retain supporting documentation. DMV continues to partner with Virginia Retirement System in order to receive automated reconciliation reports in a timely, routine manner. Estimated Completion Date: 6/1/2020	No

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Ensure Employees Complete Required Conflict of Interest Training 2019-083 DMAS</p>	<p>Responsible Contact Person(s): Kathleen Guinan - Human Resources Division Director Corrective Action Planned: The Human Resources Division (HR) includes a reference to completion of an annual Statement of Economic Interests (SOEI) on all job postings for positions of trust. HR has also added a reference on the job postings about the required Conflict of Interest Act (COI) Training. In addition, employment offer letters state that employees in positions of trust must complete a SOEI at hire and annually thereafter. Senior management has agreed that DMAS will require SOEI filers to complete the COI Training annually rather than every two years. Tracking anniversary dates for each filer's two-year window is cumbersome and inefficient. Filers also have difficulty remembering when they last took the training. Going forward, we will require filers to take the training (once updated by the Council and the OAG) by March 30, 2020 each year. HR has also added information in employment offer letters about the COI training requirement and their responsibilities. Before new hires who will hold positions of trust start employment, HR sends an email to their personal email addresses (since no COV account yet) to inform them that they have to complete the SOEI on or before the date of employment. HR includes information in the email about the required COI training and that they will have to complete the training within the first two months of employment. HR will follow-up on all new employees designated in positions of trust to ensure they complete the required COI training within two months of hire to ensure that they complete the training. Email follow-up with employees will include copies to managers and directors so that as the APA states, employee will be held "accountable." HR has continued to work with the Ethics Council Coordinator regarding issues with the database and managing DMAS' information on positions of trust. HR also works with the Ethics Council Coordinator to answer questions that DMAS filers may have when they are completing a SOEI. In December 2019, HR performed the annual update to the Disclosure System and verified that the DMAS employees, associated positions, and contact information was correct in the system. On January 7, 2020, HR initiated notifications from the Disclosure System for completion of the SOEI. It is an extremely manual process to track the COI training because the COI training on the Virginia Learning Center (VLC) does not interface with the Ethics Council's Disclosure System. The systems also do not notify filers when training has not been completed. The VLC report only reflects those who took the training not those who did not take the training. The Virginia Learning Center (VLC) site was not updated is with the most up-to-date version (2020) until mid-February. HR will announce that the COI training for 2020 must be completed by March 31, 2020 and will follow-up to ensure all SOEI filers complete the training. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Ensure Compliance with Conflict of Interests Act 2019-084 DSS</p>	<p>Responsible Contact Person(s): Stephanie Larson - Director, Organizational Development Corrective Action Planned: Human Resources did not properly identify all employees and board members holding a position of trust, to ensure required disclosures were properly filed. DSS employees in Positions of Trust, who had not completed the training, were given the corrected instructions that the initial training should be completed within 2-months of hire. All identified employees have since completed the SOEI training. DSS Board Members were confirmed for the FY2020 cycle and will be added to the site during the enrollment FY2020 period. Estimated Completion Date: 2/28/2020</p>	<p>No</p>
<p>Comply with the Conflicts of Interest Act 2019-085 VDH</p>	<p>Responsible Contact Person(s): Jamie Porter - SBS Director Corrective Action Planned: VDH updated the SOEI Orientation/Training notification process. VDH is also in discussion with the Office of Information Management (OIM) to explore an improved automated notification system. Estimated Completion Date: 6/20/2020</p>	<p>No</p>
<p>Develop Policies and Procedures to Ensure Compliance with Conflict of Interest Act Requirements 2019-086 UVA</p>	<p>Responsible Contact Person(s): Tom Kim, Manager of HR Business Operations Corrective Action Planned: The University of Virginia will make the following corrective actions: By January 10, 2020, notify employees to complete SOEI training. By January 10, 2020, notify employees to file their SOEI. By March 31, 2020, implement a process that would require SOEI training for SOEI identified positions, and implement a process for continuous monitoring of completion. By March 31, 2020, implement a process through which new employees will file the SOEI and complete training as they are hired. Estimated Completion Date: 3/31/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Improve the Process to Identify Individuals in a Position of Trust 2019-087 VPISU/ID</p>	<p>Responsible Contact Person(s): Bryan Garey - VP for Human Resources Corrective Action Planned: Assign coordinator for SOEI program (completed October 1, 2019). Complete review of all 17,506 employees, including review with COI team to include their list (complete by December 20, 2019). Update SOEI spreadsheet identifying all required positions (complete by Dec 30, 2019). Review of new hires/terms (monthly, starting in December 2019, and monthly thereafter through 2020). Add/review required positions and initiate communication with new hires (monthly starting in December 2019 through 2020). Review monthly those who have completed the new hire requirement (monthly starting in December 2019 through 2020). Notify employee two times then senior management if the employee has not completed form or training completed for annual requirements. Explore the possibility of adding SOEI tag to position descriptions in Page Up (complete review by March 31, 2020 – if feasible, complete by May 1, 2020). Explore options for onboarding communication. Report those who do not complete the required training to senior management (Provost or SVP as appropriate) for further review (start in January 2020 with the annual reporting date). Estimated Completion Date: 5/1/2020</p>	<p>No</p>
<p>Improve Controls over the Income Verification for the TANF Program 2019-088 DSS</p>	<p>Responsible Contact Person(s): Toni Washington - Director of Benefit Programs Corrective Action Planned: Social Services does not have adequate controls in place to ensure accurate federal reporting for two TANF performance reports, the ACF-199 "TANF Data Report" and ACF-209 "SSP-MOE Data Report". These reports are submitted quarterly and utilize a case management system to create the reports. The Division of Benefit Programs currently has an active change request with the Division of Enterprise Systems to automate the IEVS process. The process is identified as mandatory in the policy manual, therefore there is no need to update the guidance. Additional monitoring of agency processes will be put in place until the change request implementing automation is put in place. Estimated Completion Date: 5/31/2020</p>	<p>No</p>
<p>Improve Controls over SNAP Federal Reporting 2019-089 DSS</p>	<p>Responsible Contact Person(s): Deborah Vaughn - Enterprise Systems Corrective Action Planned: Finance does not have adequate controls in place to ensure accurate federal quarterly reporting on the FNS-209 "Status of Claims Against Households" Report (FNS-209). Since the audit, Finance has worked with Information Technology to correct the VaCMS EBT Reconciliation Report to properly account for all transaction types. The beginning balance has been updated in VaCMS and the report and reconciliation process are currently working. Finance will bring discrepancies between VaCMS and Conduent to the attention of Information Technology management within 24 hours of discovery for research of the underlying information. If the discrepancy cannot be resolved, Finance will also bring this to the attention of Benefit Programs management and the CFO. Finance has also begun requiring supervisor approval of the SNAP EBT on the monthly reconciliation. DSS would be able to report their data monthly and have the capability to edit their "initial" and "interim" monthly aggregate data submittals, as well as designate when the data are available to meet the quarterly reporting requirements. Estimated Completion Date: 9/30/2020</p>	<p>No</p>
<p>Ensure Subrecipient Reviews Adhere to Monitoring Plan 2019-090 DSS</p>	<p>Responsible Contact Person(s): Ross McDonald - Director of Compliance Corrective Action Planned: DSS Division of Family Services (Family Services) cannot provide assurance that Adoption Assistance and Title IV-E Foster Care subrecipient monitoring reviews are completed timely and in accordance with Family Services' Subrecipient Monitoring plan and related processes. According to DSS policy, each subrecipient is to be monitored onsite at least once every three years. The DFS is unique in that subrecipients can be any agency, nonprofit, or any other state agency awarded federal funding to administer federal programs. Mechanisms to award federal funding include grants, memorandums of agreement (MOA), and requests for application (RFA). Due to differences in funding mechanisms, subrecipients classify as local agencies or non-local agencies. However, a Subrecipient staff has been hired as of December 25, 2019 and already reviewing departmental monitoring plans and process. Subrecipient monitoring involves conducting on-site and desk reviews, the collection and analysis of critical documents, and reporting the findings by each program unit's requirements of the review to the DFS subrecipient monitoring coordinator. Estimated Completion Date: 9/1/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Continue to Improve Controls over Subrecipient Monitoring 2019-091 DSS</p>	<p>Responsible Contact Person(s): Ross McDonald - Director of Compliance Corrective Action Planned: DSS continues to not provide assurance that audits are performed and reviewed for all subrecipients expending \$750,000 or more and that management is making timely decisions based on the results of the audit report reviews. According to OMB Circular A-133, A pass-through entity shall monitor the activities of subrecipients as necessary to ensure that Federal awards are used for authorized purposes in compliance with laws, regulations, and the provisions of contracts or grant agreements and that performance goals are achieved. The condition in part, requires the subrecipient that expects to expend more than \$750,000 in federal funds during their fiscal year to submit on-line to the Federal Audit Clearinghouse the subrecipients auditor's report. Additional, RFA's also include a Cover Sheet in which the subrecipient identifies 1) expect to expend more than \$750,000 in federal funds during their fiscal year and 2) the subrecipient fiscal year. Furthermore, DSS Subrecipient staff has meet with all the department staff responsible for monitoring with the Administrators to address controls. Also our SharePoint database where all subrecipient documents are uploaded is being review and updated to remove access to staff who don't need to or left the agency. Estimated Completion Date: 9/30/2020</p>	<p>No</p>
<p>Ensure Performance Evaluations are Completed for Professional Service Contracts 2109-092 VDOT</p>	<p>Responsible Contact Person(s): Shailendra Patel - Division Administrator of Alternative Project Delivery, Mohammad Mirshahi - Deputy Chief Engineer Corrective Action Planned: On January 16, 2020, VDOT notified the respective contract owners of the responsibility to complete performance evaluations of contracts by the end of January and by the end of June. Each Division Administrator will certify the completion of the performance evaluations to the Alternative Project Delivery Division as specified above. Furthermore, the department is exploring the feasibility of developing automated reminders and reports through the existing contract system. With the addition of a tracking mechanism, VDOT believe that the agency will be in a better position to monitor compliance. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Improve Controls for Ensuring Quality Improvement Recommendations are Implemented 2019-093 VDOT</p>	<p>Responsible Contact Person(s): Kerry Bates - Division Administrator for Construction Division Corrective Action Planned: VDOT understands the importance of making sure that recommendations identified through the Construction Quality Improvement Program (CQIP) are implemented. VDOT will identify all CQIP reports that have pending follow-up activities that exceed 30 days and elevate them to the applicable District Construction Engineer and Assistant State Construction Engineer to ensure that they are completed; this will occur monthly. Further, this item will be discussed at the regularly scheduled District Construction Engineer Community of Practice meetings to ensure that CQIP follow-up activities are addressed. The Department will also look into the feasibility of employing an automated solution to ensure quality improvement recommendations are implemented in the future. Estimated Completion Date: 6/30/2020</p>	<p>No</p>

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<p>Improve Controls over the Purchasing Process 2019-094 DBHDS</p>	<p>Responsible Contact Person(s): Dan Hinderliter - Director of Procurement and Administrative Services Corrective Action Planned: The Fiscal Director at the applicable DBHDS facility will review the relevant CAPP Manual policies and procedures for the receipt of goods and services with applicable Accounts Payable personnel and backups. Expenditure voucher samples will be pulled once a month for the period January through June 2019 to monitor compliance with CAPP Manual regulations. Expenditure audits will also be conducted during the FY 2019 ARMICS Internal Controls Review and Testwork. The Annual Procurement Symposium will feature this finding as a topic, additionally it is being addressed at Facility Fiscal Officer and Facility Director meetings. In August 2018, Fiscal and Procurement staff at the facility discovered the exception noted and "self- corrected" to comply with a new procurement regulation issued under Procurement Information Memoranda 98-034 dated 7/1/17. Prior to the corrective action, the facility was not compliant with Memoranda 98-034 because Fiscal Staff were not forwarding purchase orders for eVA exempt vendors for medical services and prescription drugs to Procurement personnel to enter into eVA. To ensure future compliance, Fiscal personnel will meet with Procurement personnel to review the requirements of Memoranda 98-34 and any subsequent updates. Medical Services and prescription drug expenditure samples will be pulled once a month for the period January through June 2019 to monitor compliance. Medical Services and Prescription Drug purchases will also be reviewed during the FY 2019 ARMICS Internal Controls Review and Testwork. Estimated Completion Date: 4/17/2020</p>	<p>No</p>
<p>Continue Improving the Overpayment Collection Process 2019-095 DMAS</p>	<p>Responsible Contact Person(s): Shionda Scott - Co-Acting Fiscal Director Mike Harlow - Co-Acting Fiscal Director Corrective Action Planned: To ensure adequate resources, the Fiscal Division management will evaluate the staffing needs of the Accounts Receivable unit to ensure that not only the critical functions are performed but also adequate controls are in place for effective compliance with state policies. Fiscal already started by filling a staff vacancy to balance the workload of the unit. Also, Fiscal initiated the hiring process for a classified Accounts Receivable Manager and has screened the applicants. Interviews have been scheduled for February 2020. To address the recommendation to "evaluate its current policies, the Fiscal Division is utilizing the experience of the part time contract AR manager to review and update Accounts Receivable policies and procedures. The policies and procedures will be updated by May 1, 2020. This review will include the process of establishing a dollar threshold to guide collections efforts as well as clarify policy in terms of business days or calendar days. The DMAS CFO will review and approve the implementation of the proposed updated procedures by May 15, 2020. When the Accounts Receivable Manager is hired, this effort will support implementation before June 30, 2020. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Implement Separation of Duties over Accounts Receivable Resulting from Dealership Transactions 2019-096 DMV</p>	<p>Responsible Contact Person(s): Scott Cummings - Assistant Commissioner Financial Management & Administrative Services Corrective Action Planned: Staff from DMV Finance will work with Dealer Services to establish the right process controls for these receivables and payments. Identification will continue to be done by the Dealer Services Work Center, but collection will occur in the Accounts Receivable Department. Estimated Completion Date: 2/28/2020</p>	<p>No</p>
<p>Improve Process for Payment of Risk Management Invoices 2019-097 TD</p>	<p>Responsible Contact Person(s): Brian Parker - Director of Risk Management Corrective Action Planned: The Division of Risk Management (DRM) will strengthen internal controls to ensure prompt payment of invoices. These efforts include upgrading a part-time position to full-time, reallocating workload across existing resources, and emphasizing compliance with Code of Virginia §2.2-4347 and CAPP topic 21005. Estimated Completion Date: 6/30/2020</p>	<p>No</p>
<p>Improve Service Organization Control Report Review Policies and Procedures 2019-098 TD</p>	<p>Responsible Contact Person(s): Cliff Lewis - Internal Review Manager Corrective Action Planned: Treasury updated its SOC Report Policies and Procedures, provided training to applicable employees, and enhanced all supplemental documents related to SOC reviews. Treasury will continue to focus on maintaining updated policies and procedures. Estimated Completion Date: 6/30/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
<p>Improve Reporting to National Student Loan Data System 2019-099 VCU</p>	<p>Responsible Contact Person(s): Valerie Clem-Brown - Associate Director of Compliance and Reporting Corrective Action Planned: To ensure that unofficial withdrawal enrollment updates are reported accurately and timely to NSLDS, the Office of Financial Aid will perform manual enrollment updates to NSLDS for all students who have withdrawn without official notification during a term/semester. This step has been added to the existing Return of Title IV procedure and will begin implementation at the conclusion of the fall 2018 term/semester. To rectify the graduation status finding, the Office of Records and Registration is sending amended enrollment files to the National Student Clearinghouse (NSC) to update the NSLDS. The office has also added a supplementary enrollment report for graduates only to the transmission schedule provided to the NSC each semester. In addition, quality control reviews will be conducted in collaboration with staff from the Offices of Financial Aid and Records and Registration at the end of each semester to ensure timely and accurate reporting at both the campus and program levels. Estimated Completion Date: 3/31/2020</p>	<p>No</p>
<p>Improve Controls over TANF Federal Performance Reporting 2019-100 DSS</p>	<p>Responsible Contact Person(s): Deborah Vaughn - Enterprise Systems Corrective Action Planned: DSS does not have adequate controls in place to ensure accurate federal reporting for two TANF performance reports, the ACF-199 "TANF Data Report" and ACF-209 "SSP-MOE Data Report". Findings meeting with Business Areas scheduled for January 24, 2019. Determine if VaCMS Change Request or Defect Tickets need to be developed. Based on the findings defects will be schedule in a 2019 VaCMS release. If Change Request (CR) required, documentation for CR will be developed and the CR will be scheduled for a 2019 release and implemented in 2020. Estimated Completion Date: 9/30/2020</p>	<p>No</p>
<p>Ensure Family Services Subrecipient Reviews Adhere to Monitoring Plan 2019-101 DSS</p>	<p>Responsible Contact Person(s): Ross McDonald - Director of Compliance Corrective Action Planned: DSS is still not adhering to its established approach for monitoring subrecipients. During fiscal year 2019, DSS did not produce quarterly reports to brief Executive Management on subrecipient monitoring activities for each Division within DSS. Division Family Services (DFS) has updated its monitoring plans for FY20 which also includes Subrecipient Monitoring Training for the department and creates a local agency risk assessment tool. DFS has a plan called the DFS Subrecipient Monitoring Plan which guides the process for meeting subrecipient monitoring requirements. The DFS Subrecipient Monitoring Plan addresses the applicable unique attributes and requirements of each program unit; the primary focus is the use of a standard monitoring risk assessment instrument, standard programmatic review instrument, compliance, internal controls, sampling methodology, applicable Office of Management and Budget (OMB) Circulars and state guidance. The DFS Subrecipient Monitoring Plan should overall have only minor revisions from one state fiscal year to another. Estimated Completion Date: 9/1/2020</p>	<p>No</p>
<p>Implement Opioid Grant Sub-Recipient Monitoring 2019-102 DBHDS</p>	<p>Responsible Contact Person(s): Margaret Steele - Director of Adult Community Behavioral Health, Mike Zohab - SUD Operations Manager Corrective Action Planned: DBHDS' Division of Community Behavioral Health has begun the process of developing standardized subrecipient monitoring procedures as well as documentation standards for these procedures for the opioid grant to ensure that CSBs are properly following all requirements. Estimated Completion Date: 7/1/2020</p>	<p>No</p>
<p>Provide Federal Award Requirements to Subrecipients 2019-103 DBHDS</p>	<p>Responsible Contact Person(s): Margaret Steele - Director of Adult Community Behavioral Health, Mike Zohab - SUD Operations Manager Corrective Action Planned: DBHDS' Division of Community Behavioral Health has begun the process of providing CSBs with the federal requirements attached to their federal awards. Also, DBHDS' Division of Community Behavioral Health is in the process of developing standards to guide subrecipient monitoring over federal award to ensure that DBHDS will be able to properly monitor whether the CSB complies with federal regulations set forth in the contract. Estimated Completion Date: 7/1/2020</p>	<p>No</p>

Audit Finding Reference Number	Planned Corrective Action	Did Text contain a chart or table?
Improve the Case Management System Access Review Process 2019-104 DARS	Responsible Contact Person(s): Dale Batten - Division of Rehabilitation Services Director, Rick Mitchell - Deputy Commissioner for Services Corrective Action Planned: The Directors of Vocational Rehabilitation in coordination with the Information Systems staff will ensure that annual performs reviews will be documented within spreadsheet of users, update ISAA forms and make required changes in the case management system and ensure reviews are filed in appropriate location. Estimated Completion Date: 12/31/2020	No
Improve the Eligibility Determination Process for Vocational Rehabilitation 2019-105 DARS	Responsible Contact Person(s): Dale Batten - Division of Rehabilitation Services Director Corrective Action Planned: The Division of Rehabilitative Services Director has implemented revised procedures and system reporting to identify clients that are within 30 days of eligibility so that those cases are expedited by staff and management. Estimated Completion Date: 9/30/2020	No
Improve Processes to Comply with the Conflicts of Interest Act 2019-106 DARS	Responsible Contact Person(s): Wallica Gaines - Deputy Commissioner for Administration and Executive Assistant to the Commissioner of DARS Corrective Action Planned: The agencies will maintain a list of positions of trust and individuals that are required to complete the Statement of Economic Interest and develop training schedule for existing employees. New hires will complete training within two months after hire date. All individuals in positions of trust will complete the training every two years in accordance with the Code of Virginia. Estimated Completion Date: 12/31/2020	No
Improve Documentation to Show Compliance 2019-107 DARS	Responsible Contact Person(s): Leon Scales - DDS Director, John Thaniel - Chief Financial Officer and Chief Information Officer Corrective Action Planned: The DDS Director and CFO will provide additional training and communication with the appropriate staff to ensure the documentation is maintained and properly recorded and retained. Estimated Completion Date: 12/31/2020	No
Improve Oversight of Third-Party Service Providers 2019-108 DARS	Responsible Contact Person(s): Ned Campbell - Acting DSA Information Security Officer and Chief Information Officer Corrective Action Planned: The ISO and CIO will require that SOC reports are submitted annually from 3rd party contractors at annual renewal. Estimated Completion Date: 12/31/2020	No