NEW ISSUE/BOOK-ENTRY

RATINGS: 2020A Infrastructure Revenue Bonds: Aaa (Moody's), AAA (S&P)
2020A Moral Obligation Bonds: Aa1 (Moody's), AA (S&P)
(See "Ratings" herein)

In the opinion of Bond Counsel, under current law and subject to the conditions described in "TAX MATTERS" herein, interest on the 2020A Tax-Exempt Bonds (i) is excludable from the gross income of the owners of the 2020A Tax-Exempt Bonds for purposes of federal income taxation, and (ii) is not a specific item of tax preference for purposes of the federal alternative minimum tax. In the opinion of Bond Counsel, under current law interest on the 2020A Taxable Bonds is ***includible*** *in gross income for federal income tax purposes. Bond Counsel is further of the opinion that interest on the 2020A Bonds is exempt from income taxation by the Commonwealth of Virginia (the "Commonwealth"). See "TAX MATTERS" herein regarding certain other tax considerations.*

$55,320,000 Infrastructure and State Moral Obligation Revenue Bonds (Virginia Pooled Financing Program) Series 2020A consisting of

$12,195,000 Infrastructure Revenue Bonds (Tax-Exempt) **$5,245,000 State Moral Obligation Revenue Bonds (Tax-Exempt)**

$37,880,000 Infrastructure Revenue Bonds (Taxable)

Dated: Date of Delivery **Due: November 1, as shown on the inside cover page**

This Official Statement has been prepared by the Virginia Resources Authority ("VRA") to provide information on the above-referenced bonds (collectively, the "2020A Bonds"). Selected information is presented on this cover page for the convenience of the user. To make an informed decision regarding the 2020A Bonds, a prospective investor should read this Official Statement in its entirety. Unless otherwise defined, all capitalized terms used on this cover page have the meanings assigned to them herein.

Security	*The 2020A Bonds are limited obligations of VRA, payable from (a) the payments under the Local Obligations, (b) the amounts held in certain funds and accounts and (c) the earnings, if any, derived from the investment of such funds and accounts, all as more fully described herein. The pledge and grant of payments under the Local Obligations securing the 2020A Moral Obligation Bonds is in all respects junior and subordinate to the pledge and grant securing the 2020A Infrastructure Revenue Bonds.* *Neither the Commonwealth nor any political subdivision thereof, including VRA, will be obligated to pay the principal of, premium, if any, or interest on the 2020A Bonds or other costs incident thereto except from the revenues, money or property of VRA pledged for such purpose. Neither the faith and credit nor the taxing power of the Commonwealth or any political subdivision thereof is pledged to the payment of the principal of, premium, if any, or interest on the 2020A Bonds.* ***VRA has no taxing power.***
Purpose	*The net 2020A Bond proceeds will be used to purchase or acquire the 2020A Local Obligations issued by the 2020A Local Governments to finance or refinance Qualified Projects.*
Issued Pursuant to	*Master Indenture of Trust dated as of December 1, 2003, as previously supplemented and amended and as further supplemented by a Forty-Seventh Supplemental Series Indenture of Trust dated as of June 1, 2020, between VRA and U.S. Bank National Association, as successor trustee.*
Interest Rates/Yields	*See inside cover pages.*
Redemption	*See inside cover pages.*
Interest Payment Dates	*May 1 and November 1, commencing November 1, 2020.*
Interest Computation	*360-day year comprised of 12 months of 30 days each.*
Denomination	*$5,000 or integral multiples thereof.*
Regular Record Date	*The 15th day of the month preceding each payment date.*
Registration	*Book-entry only through the facilities of The Depository Trust Company.*
Trustee	*U.S. Bank National Association, Richmond, Virginia.*
Bond Counsel	*McGuireWoods LLP, Richmond, Virginia.*
General Counsel	*Stephanie L. Hamlett, Esquire.*
Underwriters' Counsel	*Kutak Rock LLP, Richmond, Virginia.*
Financial Advisor	*Davenport & Company LLC, Richmond, Virginia.*
Conditions Affecting Issuance	*The 2020A Bonds are offered when, as and if issued, subject to, among other conditions, the approving legal opinion of McGuireWoods LLP, Bond Counsel.*
Closing/Delivery Date	*On or about June 3, 2020.*

Underwriters for 2020A Bonds:

Loop Capital Markets

BofA Securities **BAIRD**

Dated: May 20, 2020

VIRGINIA RESOURCES AUTHORITY

$12,195,000 Infrastructure Revenue Bonds
(Virginia Pooled Financing Program), Series 2020A (Tax-Exempt)
(Base CUSIP: 92818N) **

Maturity November 1	Principal Amount	Interest Rate	Yield	Price	CUSIP** Suffix
2021	$220,000	5.000%	0.390%	106.480	LG1
2022	225,000	5.000	0.480	110.822	LH9
2023	235,000	5.000	0.560	114.980	LJ5
2024	245,000	5.000	0.640	118.933	LK2
2025	275,000	5.000	0.740	122.554	LL0
2026	290,000	5.000	0.880	125.626	LM8
2027	310,000	5.000	0.980	128.667	LN6
2028	325,000	5.000	1.070	131.530	LP1
2029	800,000	5.000	1.130	134.458	LQ9
2030	830,000	5.000	1.240	136.616	LR7
2031	755,000	5.000	1.350	135.338*	LS5
2032	790,000	5.000	1.450	134.188*	LT3
2033	825,000	4.000	1.750	121.328*	LU0
2034	865,000	4.000	1.830	120.484*	LV8
2035	900,000	4.000	1.880	119.959*	LW6
2036	930,000	4.000	1.920	119.542*	LX4
2037	975,000	4.000	1.970	119.022*	LY2
2038	1,015,000	4.000	2.010	118.608*	LZ9
2039	1,045,000	4.000	2.050	118.196*	MA3
2040	340,000	4.000	2.090	117.785*	MB1

* Priced to the first optional redemption date of November 1, 2030.

** See the paragraph titled "Use of CUSIP Numbers in this Official Statement" in Section One - Summary of the 2020A Bonds and the Virginia Pooled Financing Program, regarding the use of CUSIP numbers in this Official Statement.

VIRGINIA RESOURCES AUTHORITY

$5,245,000 State Moral Obligation Revenue Bonds
(Virginia Pooled Financing Program), Series 2020A (Tax-Exempt)
(Base CUSIP: 92818N)**

Maturity November 1	Principal Amount	Interest Rate	Yield	Price	CUSIP** Suffix
2021	$70,000	5.000%	0.470%	106.363	MC9
2022	80,000	5.000	0.570	110.592	MD7
2023	90,000	5.000	0.660	114.614	ME5
2024	90,000	5.000	0.760	118.358	MF2
2025	100,000	5.000	0.880	121.723	MG0
2026	110,000	5.000	1.030	124.567	MH8
2027	110,000	5.000	1.130	127.437	MJ4
2028	120,000	5.000	1.220	130.128	MK1
2029	315,000	5.000	1.280	132.882	ML9
2030	340,000	5.000	1.390	134.877	MM7
2031	310,000	5.000	1.500	133.618*	MN5
2032	330,000	5.000	1.600	132.485*	MP0
2033	345,000	4.000	1.900	119.750*	MQ8
2034	355,000	4.000	1.980	118.918*	MR6
2035	370,000	4.000	2.030	118.402*	MS4
2036	385,000	4.000	2.070	117.990*	MT2
2037	400,000	4.000	2.120	117.479*	MU9
2038	415,000	4.000	2.160	117.071*	MV7
2039	655,000	4.000	2.200	116.665*	MW5
2040	255,000	4.000	2.240	116.261*	MX3

* Priced to the first optional redemption date of November 1, 2030.

** See the paragraph titled "Use of CUSIP Numbers in this Official Statement" in Section One - Summary of the 2020A Bonds and the Virginia Pooled Financing Program, regarding the use of CUSIP numbers in this Official Statement..

VIRGINIA RESOURCES AUTHORITY

$37,880,000 Infrastructure Revenue Bonds
(Virginia Pooled Financing Program), Series 2020A (Taxable)
(Base CUSIP: 92818N)*

Maturity November 1	Principal Amount	Interest Rate	Yield	Price	CUSIP* Suffix
2020	$635,000	1.200%	1.200%	100.000	MY1
2021	565,000	1.250	1.250	100.000	MZ8
2022	570,000	1.300	1.300	100.000	NA2
2023	580,000	1.400	1.400	100.000	NB0
2024	2,335,000	1.600	1.600	100.000	NC8
2025	2,365,000	1.650	1.650	100.000	ND6
2026	2,395,000	1.800	1.800	100.000	NE4
2027	2,420,000	1.850	1.850	100.000	NF1
2028	2,455,000	2.050	2.050	100.000	NG9
2029	2,500,000	2.100	2.100	100.000	NH7
2030	2,550,000	2.150	2.150	100.000	NJ3
2031	2,590,000	2.250	2.250	100.000	NK0
2032	2,645,000	2.350	2.350	100.000	NL8
2033	2,695,000	2.450	2.450	100.000	NM6
2034	2,755,000	2.550	2.550	100.000	NN4
2035	2,445,000	2.600	2.600	100.000	NP9

$5,380,000 3.100% 2020A Taxable Infrastructure Revenue Term Bonds due on November 1, 2042, Priced at 100.000% to Yield 3.100% CUSIP* Suffix NQ7

* See the paragraph titled "Use of CUSIP Numbers in this Official Statement" in Section One - Summary of the 2020A Bonds and the Virginia Pooled Financing Program, regarding the use of CUSIP numbers in this Official Statement.

Redemption Provisions

Optional Redemption of 2020A Bonds. The 2020A Bonds maturing on or after November 1, 2031, may be redeemed prior to their respective maturities, at the option of VRA, from any monies that may be made available for such purpose, either in whole or in part (in $5,000 increments), on any date and in such order as VRA may determine on and after November 1, 2030, at a redemption price equal to 100% of the principal amount of such 2020A Bonds to be redeemed together with the unpaid interest accrued thereon to the date fixed for redemption.

Mandatory Sinking Fund Redemption for the 2020A Taxable Infrastructure Revenue Bonds. The 2020A Taxable Infrastructure Revenue Bonds maturing on November 1, 2042, are subject to mandatory sinking fund redemption in part, on November 1 in the years and in the amounts set forth below, at a redemption price equal to 100% of the principal amount of such 2020A Taxable Infrastructure Revenue Bonds to be redeemed plus the unpaid interest accrued thereon to the date fixed for redemption, all in the manner provided in the Indenture:

Year	Amount
2036	$705,000
2037	725,000
2038	745,000
2039	765,000
2040	790,000
2041	815,000
2042 (final maturity)	835,000

****

The 2020A Bonds are being issued under exemptions from any registration requirements under the Securities Act of 1933, as amended, and any registration requirements under the securities laws of the Commonwealth.

No dealer, broker, salesman or other person has been authorized by VRA to give any information or to make any representations other than those contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon as having been authorized by VRA. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2020A Bonds by any person in any jurisdiction in which it is unlawful for such person to make an offer, solicitation or sale. This Official Statement is not to be construed as a contract or agreement between VRA and the purchasers or owners of any of the 2020A Bonds. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall under any circumstances create any implication that there has been no change in the affairs of VRA or in any other matters described herein since the date hereof or, as in the case of certain information incorporated herein from certain publicly available documents, since the date of such documents.

The information set forth herein has been obtained from VRA and other sources which are believed to be reliable, but such information is not guaranteed as to accuracy or completeness and is not to be construed as a representation by any of such sources as to information provided by any other source. All quotations from, and summaries and explanations of, provisions of law and documents herein do not purport to be complete and reference is made to such laws and documents for full and complete statements of their provisions. Any statements made in this Official Statement involving estimates or matters of opinion, whether or not expressly so stated, are intended merely as estimates or opinions and not as representations of fact.

This Official Statement contains statements which, to the extent they are not recitations of historical fact, constitute "forward-looking statements." In this respect, the words, "estimate," "project," "anticipate," "expect," "intend," "believe," and similar expressions identify forward-looking statements. A number of factors affecting VRA, the Commonwealth, and the Local Governments (as defined below) and their financial results could cause actual results to differ materially from those stated in the forward-looking statements. References to website addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such websites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement for purposes of, and as that term is defined in, SEC Rule 15c2-12.

The Underwriters, as hereinafter defined in the subsection "UNDERWRITING OF THE 2020A BONDS" in Section Four, may engage in transactions that stabilize, maintain or otherwise affect the price of the 2020A Bonds, including transactions to (i) over allot in arranging the sales of the 2020A Bonds and (ii) make purchases in sales of 2020A Bonds, for long or short accounts, on a when-issued basis or otherwise, at such prices, in such amounts and in such manner as the Underwriters may determine. Such stabilization, if commenced, may be discontinued at any time.

The Underwriters have provided the following sentence for inclusion in the Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibility to investors under federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

U.S. Bank National Association, as Trustee, has neither reviewed nor participated in the preparation of this Official Statement.

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OFFICIAL STATEMENT
of the
VIRGINIA RESOURCES AUTHORITY

$12,195,000
Infrastructure Revenue Bonds
(Virginia Pooled Financing Program),
Series 2020A (Tax-Exempt)

$5,245,000
State Moral Obligation Revenue Bonds
(Virginia Pooled Financing Program),
Series 2020A (Tax-Exempt)

$37,880,000
Infrastructure Revenue Bonds
(Virginia Pooled Financing Program),
Series 2020A (Taxable)

SECTION ONE: INTRODUCTION

The following introductory information is furnished solely to provide limited introductory information regarding the 2020A Bonds and the Virginia Pooled Financing Program and does not purport to be comprehensive. All such information is qualified in its entirety by reference to the more detailed descriptions appearing in this Official Statement, including the appendices hereto. All capitalized terms not otherwise defined shall have the meanings assigned to them as set forth in Appendix A.

General

This Official Statement (including the cover page, the inside cover page and the appendices hereto) is furnished to provide information concerning the above-referenced bonds (respectively, the "2020A Tax-Exempt Infrastructure Revenue Bonds" and "2020A Taxable Infrastructure Revenue Bonds" (collectively, the "2020A Infrastructure Revenue Bonds") and the "2020A Tax-Exempt Moral Obligation Bonds" (the "2020A Moral Obligation Bonds" and, together with the 2020A Infrastructure Revenue Bonds, the "2020A Bonds"). The above-referenced tax-exempt bonds will be referred to collectively as the "2020A Tax-Exempt Bonds" and the taxable bonds as the "2020A Taxable Bonds." The Virginia Resources Authority ("VRA") is issuing the 2020A Bonds to provide funding and refunding for its Virginia Pooled Financing Program. VRA has approved and authorized the use of this Official Statement in connection with the sale of the 2020A Bonds. The information speaks as of its date and is not intended to indicate future or continuing trends in the financial position of VRA, the Commonwealth of Virginia (the "Commonwealth") or any of the Local Governments, as hereinafter defined.

VRA's Board of Directors authorized the issuance of the 2020A Bonds pursuant to resolutions adopted on June 11, 2019 (collectively, the "2020A Resolution"). The 2020A Bonds are being issued pursuant to the Virginia Resources Authority Act (the "Act"), Chapter 21, Title 62.1 of the Code of Virginia of 1950, as amended (the "Virginia Code"), and a Master Indenture of Trust dated as of December 1, 2003, as previously supplemented and amended (the "Master Indenture"), between VRA and U.S. Bank National Association, as successor trustee (the "Trustee"), and as further supplemented by a Forty-Seventh Supplemental Series Indenture of Trust dated as of June 1, 2020 (the "Forty-Seventh Supplemental Series Indenture"), between VRA and the Trustee. The Master Indenture and the Forty-Seventh Supplemental Series Indenture are sometimes referred to collectively herein as the "Indenture."

"Moral Obligation," as used in the preceding paragraphs and throughout this Official Statement, refers to the non-legally-binding "moral" obligation of the Commonwealth to maintain the required

balance in the Capital Reserve Fund securing the 2020A Moral Obligation Bonds and all other Moral Obligation Bonds issued under the Indenture as described under the heading "Capital Reserve Fund" in the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Moral Obligation Bonds" in Section Two.

Summary of the 2020A Bonds and the Virginia Pooled Financing Program

The Issuer	VRA, which was created by the Act and is organized and exists as a public body corporate and a political subdivision of the Commonwealth.
Principal Payments	November 1, as set forth on the inside cover pages.
Interest Payments	May 1 and November 1, commencing November 1, 2020.
Interest Calculation	360-day year comprised of 12 months of 30 days each.
Regular Record Date	The 15th day of the month preceding each payment date.
Authorized Denominations	$5,000 and integral multiples thereof.
Registration	Book-entry only through the facilities of The Depository Trust Company, New York, New York ("DTC").
Settlement	Same-day funds through DTC.
Closing/Delivery Date	On or about June 3, 2020.
Ratings	2020A Infrastructure Revenue Bonds: Aaa (Moody's), AAA (S&P) 2020A Moral Obligation Bonds: Aa1 (Moody's), AA (S&P) A more complete description of the ratings is provided in the subsection "RATINGS" in Section Four.
Optional Redemption	The 2020A Bonds maturing on or after November 1, 2031, are subject to optional redemption on and after November 1, 2030, at a redemption price equal to 100% of the principal amount of such 2020A Bonds to be redeemed together with the unpaid interest accrued thereon to the date fixed for redemption. See the heading "Redemption" in the subsection "DESCRIPTION OF THE 2020A BONDS" in Section Two.
Mandatory Sinking Fund Redemption	See the inside cover pages of this Official Statement and under the heading "Redemption" in the subsection "DESCRIPTION OF THE 2020A BONDS" in Section Two for a description of the mandatory sinking fund redemption provisions applicable to the 2020A Bonds.
Use of Proceeds	VRA will use the net proceeds of the 2020A Bonds (a) to purchase or acquire local bonds and financing leases (collectively, the "2020A Local Obligations") issued or entered into by certain Local Governments, as hereinafter defined (collectively, the "2020A Local Governments"), to

finance or refinance Qualified Projects (as hereinafter defined), (b) to provide for a deposit to the Capital Reserve Fund, as hereinafter defined, and (c) to pay costs of issuance related to the 2020A Bonds. Certain proceeds may also be applied to refund bonds VRA previously issued to finance deposits to the Capital Reserve Fund. See the subsection "PLAN OF FINANCE AND REFUNDING" in Section Two.

Virginia Pooled Financing Program

The Virginia Pooled Financing Program enables Virginia counties, cities, towns and qualifying authorities, political subdivisions and similar governmental entities (as more particularly defined in Appendix A, each a "Local Government"), to finance or refinance infrastructure and other projects specified under the Act (as more particularly defined in the subsection "VIRGINIA POOLED FINANCING PROGRAM" in Section Three, each a "Qualified Project"). See the subsection "VIRGINIA POOLED FINANCING PROGRAM" in Section Three.

Categories of Virginia Pooled Financing Program Bonds

VRA issues two categories of Virginia Pooled Financing Program Bonds under the Master Indenture: Infrastructure Revenue Bonds (the "Infrastructure Revenue Bonds") and State Moral Obligation Revenue Bonds (the "Moral Obligation Bonds"). Infrastructure Revenue Bonds and Moral Obligation Bonds are referred to collectively as the "Bonds."

Payment of the Bonds

The primary source of payment on the 2020A Bonds is the payments that VRA receives on Local Obligations.

VRA expects to structure the specific amounts payable under the Local Obligations to be sufficient in timing and amount, when combined with the investment earnings and balances expected to be transferred from the Capital Reserve Fund and certain other funds and accounts described herein, to provide for the full and timely payment of the debt service on the Bonds and VRA's annual administrative fees and charges when due (the "Administrative Charges"). See the subsection "VIRGINIA POOLED FINANCING PROGRAM" in Section Three.

Infrastructure Revenue Bond Security

The 2020A Infrastructure Revenue Bonds and all other Infrastructure Revenue Bonds are limited obligations of VRA secured by a senior lien on all Local Obligation payments. Infrastructure Revenue Bonds are also secured by an Operating Reserve Fund, which had a market value of approximately $7,760,000 as of March 31, 2020. See the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in Section Two.

Operating Reserve Fund

The Operating Reserve Fund is available to the Trustee in the event that there are insufficient funds available to pay debt service on the Infrastructure Revenue Bonds. See the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in Section Two.

Moral Obligation Bond Security

The 2020A Moral Obligation Bonds and all other Moral Obligation Bonds are limited obligations of VRA secured by a junior lien on all Local Obligation payments. Moral Obligation Bonds are also secured by the Capital Reserve Fund. See the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in Section Two.

Capital Reserve Fund	The Capital Reserve Fund is funded in an amount at least equal to the maximum annual debt service on the Moral Obligation Bonds and is available to the Trustee in the event that there are insufficient funds available to pay debt service on the Moral Obligation Bonds. As of March 31, 2020, the Capital Reserve Fund had a market value of approximately $83,420,024.78. The Commonwealth has a Moral Obligation to replenish any deficiency in the Capital Reserve Fund. See the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in Section Two.
Security for Local Obligations	Local Obligations are secured by one or more of the following pledges: • General Obligation • Revenue • Moral Obligation (of a Local Government) • Special Fund • Financing Lease See the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in Section Two.
State Aid Intercept	VRA is authorized by law and has covenanted in the Master Indenture to take any and all action to cause the interception of the state aid provided to certain Local Governments that fail to make a payment on their Local Obligations when due. **The intercept provision applies only to counties, cities and towns, and does not apply to other types of Local Governments, including regional or local authorities.** VRA has never had to use this remedy. See the information under the heading "Commonwealth Aid Intercept Provision" in the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in Section Two.
Capitalization Structure of the Virginia Pooled Financing Program	VRA's current practice is to structure the Virginia Pooled Financing Program so that approximately $0.70 of each $1.00 borrowed is funded through Infrastructure Revenue Bonds and approximately $0.30 of each $1.00 borrowed is funded through Moral Obligation Bonds. **VRA is not obligated to maintain this structure, and there can be no assurances that VRA will maintain this structure in the future.** See the subsection "THE VIRGINIA POOLED FINANCING PROGRAM" in Section Three.
Outstanding Infrastructure Revenue Bonds	As of March 31, 2020, $1,728,905,000 principal amount of the Infrastructure Revenue Bonds was outstanding.* Each Infrastructure Revenue Bond, including each 2020A Infrastructure Revenue Bond, is payable and secured on a parity basis with all other Infrastructure Revenue Bonds. See the subsections "ADDITIONAL INDEBTEDNESS" and "PRIOR SERIES OF BONDS" in Section Two.

* This amount does not account for the issuance of the 2020A Bonds or the defeasance of any obligations to be refunded by the 2020A Bonds.

Outstanding Moral Obligation Bonds	As of March 31, 2020, $821,610,000 principal amount of the Moral Obligation Bonds was outstanding.*
	Each Moral Obligation Bond, including each 2020A Moral Obligation Bond, is payable and secured on a parity basis with all other Moral Obligation Bonds. See the subsections "ADDITIONAL INDEBTEDNESS" and "PRIOR SERIES OF BONDS" in Section Two.
Investment Considerations	Prospective purchasers of the 2020A Bonds should be aware that investment in the 2020A Bonds entails some degree of risk and uncertainty, and all of the information presented in this Official Statement should be considered carefully before making a decision to invest in the 2020A Bonds. See the subsection "INVESTMENT CONSIDERATIONS" in Section Two.
Continuing Disclosure	Each of (a) VRA, (b) the Commonwealth and (c) any Local Government that becomes a "Material Local Government" will undertake to provide certain limited information at specified times under certain conditions to assist the Underwriters in complying with the provisions of Rule 15c2-12. As of the date hereof, no Local Government qualifies as a Material Local Government, and no Local Government has qualified as a Material Local Government within the past five years. Within the past five years, VRA has not complied in all respects with its respective prior continuing disclosure undertakings. See the subsection "CONTINUING DISCLOSURE UNDER RULE 15c2-12" in Section Four.
Additional Information	Any question concerning the content of this Official Statement should be directed to Stephanie L. Hamlett, Executive Director and General Counsel, Virginia Resources Authority, 1111 East Main Street, Suite 1920, Richmond, Virginia 23219 (804-644-3100) or Ty Wellford, Senior Vice President, Davenport & Company LLC, 901 East Cary Street, 15th Floor, Richmond, Virginia 23219 (804-697-2915).
Use of CUSIP Numbers in this Official Statement	The CUSIP (Committee on Uniform Securities Identification Procedures) numbers shown in this Official Statement are assigned by an organization not affiliated with VRA, and VRA is not responsible for the selection or use of the CUSIP numbers. The CUSIP numbers are included solely as a convenience to bondholders, and VRA makes no representation as to the correctness of such CUSIP numbers. CUSIP numbers assigned to securities may be changed at any time based on a number of factors. VRA has not agreed to, and there is no duty or obligation to, update this Official Statement to reflect any change or correction in the CUSIP numbers shown herein.

* This amount does not account for the issuance of the 2020A Bonds or the defeasance of any obligations to be refunded by the 2020A Bonds.

SECTION TWO: THE 2020A BONDS

AUTHORITY FOR ISSUANCE OF THE 2020A BONDS

The 2020A Bonds were authorized by the 2020A Resolution and are being issued pursuant to the Act and the Indenture. See Appendix A for a summary of certain provisions of the Indenture.

PLAN OF FINANCE AND REFUNDING

VRA will apply the proceeds of the 2020A Bonds, along with other available funds, to (a) purchase or acquire the 2020A Local Obligations issued or entered into by the 2020A Local Governments to finance or refinance Qualified Projects, (b) provide for a deposit to the Capital Reserve Fund, and (c) pay costs of issuance. The 2020A Local Obligations will be structured to provide for payments of debt service or rentals at levels that, when combined with the investment earnings and balances expected to be transferred from the Capital Reserve Fund and certain other funds and accounts described below, are sufficient in the aggregate to provide for the payment of the 2020A Bonds and VRA's Administrative Charges.

VRA and certain 2020A Local Governments will affect the refinancing of Qualified Projects by refunding and defeasing publicly-sold bonds of VRA and the 2020A Local Governments (the "Refunded Bonds"). The Refunded Bonds include all or a portion of the outstanding principal amount of certain maturities of the bond issues listed in Appendix J.

VRA and the above-referenced 2020A Local Governments will cause a portion of the proceeds of the 2020A Bonds, along with other available funds, if any, to be deposited under an Escrow Agreement dated as of the date of delivery of the 2020A Bonds (the "Escrow Agreement"), with U.S. Bank National Association as escrow agent (the "Escrow Agent"). The Escrow Agreement will provide for the establishment of initial cash balances and the investment of the remaining deposits in direct, non-callable obligations of or guaranteed by the United States Department of the Treasury (the "Escrowed Securities"). Based on the report of Bingham Arbitrage Rebate Services, Richmond, Virginia (the "Verification Agent"), the initial cash balance and the maturing principal of and interest on the Escrowed Securities will be sufficient without reinvestment to pay the principal of and premium, if any, and interest on the Refunded Bonds through the earlier of their respective maturity or redemption dates. See the subsection "VERIFICATION OF MATHEMATICAL COMPUTATIONS" in Section Four.

DESCRIPTION OF THE 2020A BONDS

General

The 2020A Bonds will be dated and will bear interest from their date of delivery, payable on May 1 and November 1 of each year, commencing November 1, 2020, and will mature on November 1 in the years and in the principal amounts set forth on the inside cover pages hereof. Interest on the 2020A Bonds will be payable to the person appearing in the registration books of the Trustee as the registered owner thereof on the Record Date (as hereinafter defined) by check or draft mailed on the interest payment date to the registered owner or, following appropriate notice to the Trustee, by wire transfer on the interest payment date to any owner of at least $1,000,000 in aggregate principal amount of the 2020A Bonds. For so long as the 2020A Bonds are registered in book-entry-only form, principal and interest will be payable solely to Cede & Co., the nominee for DTC, as the sole registered owner of the 2020A Bonds, or to any qualified securities depository selected by VRA to succeed DTC.

The term "qualified securities depository" means an entity that is registered as a clearing agency under Section 17A of the Securities Exchange Act of 1934 or whose business is confined to the performance of the functions of a clearing agency with respect to exempted securities, as defined in Section 3(a)(12) of such Act for the purposes of Section 17A thereof.

The Forty-Seventh Supplemental Series Indenture establishes the 15th day of the month preceding each interest payment date as the record date (the "Record Date") for the 2020A Bonds and establishes that interest on the 2020A Bonds shall be computed on the basis of a year of 360 days and twelve 30-day months.

The 2020A Bonds are issuable as fully registered Bonds in denominations of $5,000 and integral multiples of $5,000 not exceeding the aggregate principal amount of the 2020A Bonds. The 2020A Bonds may be transferred or exchanged, upon presentation or surrender, as the case may be, at the corporate trust office of the Trustee in Richmond, Virginia, as provided in the Master Indenture, or at such other office designated for such payment by the Trustee or any successor Trustee. Any 2020A Bonds, upon surrender thereof at said corporate trust office of the Trustee, with a written instrument of transfer satisfactory to the Trustee, duly executed in writing, may, at the option of the registered owner thereof, be exchanged for an equal aggregate principal amount of 2020A Bonds of the same Series, maturity and interest rate of any other authorized denominations. For every exchange or transfer of 2020A Bonds, VRA or the Trustee may make a charge sufficient to reimburse it for any tax, fee or other governmental charge required to be paid with respect to such exchange or transfer.

One fully registered 2020A Bond encompassing all of the maturities of each Series, in the applicable aggregate principal amount of such Series, will be registered in the name of Cede & Co. and deposited through the facilities of DTC in accordance with the Forty-Seventh Supplemental Series Indenture. So long as 2020A Bonds are required to be registered in the name of Cede & Co., as nominee for DTC, or a successor qualified securities depository or a nominee therefor, transfers of ownership interests in the 2020A Bonds will be settled through the book-entry-only system of DTC or such successor qualified securities depository, if any. For a description of DTC and its book-entry-only system, see Appendix E.

Redemption

Optional Redemption of 2020A Bonds. The 2020A Bonds maturing on or after November 1, 2031, may be redeemed prior to their respective maturities, at the option of VRA, from any monies that may be made available for such purpose, either in whole or in part (in $5,000 increments), on any date and in such order as VRA may determine on and after November 1, 2030, at a redemption price equal to 100% of the principal amount of such 2020A Bonds to be redeemed together with the unpaid interest accrued thereon to the date fixed for redemption.

Mandatory Sinking Fund Redemption for the 2020A Taxable Infrastructure Revenue Bonds. The 2020A Taxable Infrastructure Revenue Bonds maturing on November 1, 2042, are subject to mandatory sinking fund redemption in part, on November 1 in the years and in the amounts set forth below, at a redemption price equal to 100% of the principal amount of such 2020A Taxable Infrastructure Revenue Bonds to be redeemed plus the unpaid interest accrued thereon to the date fixed for redemption, all in the manner provided in the Indenture:

Year	Amount
2036	$705,000
2037	725,000
2038	745,000
2039	765,000
2040	790,000
2041	815,000
2042 (final maturity)	835,000

Manner and Notice of Redemption. The maturities of the 2020A Bonds to be redeemed by optional redemption will be selected by VRA in its discretion. If less than all of the 2020A Bonds of a particular maturity are redeemed, the 2020A Bonds of such maturity to be redeemed will be selected by DTC in accordance with its procedures or if the book entry system has been discontinued, by the Trustee (in its capacity as paying agent) by lot in such manner as the Trustee shall determine.

Each increment of $5,000 of principal amount will be counted as one 2020A Bond for purposes of selecting 2020A Bonds for partial redemption. If a 2020A Bond is called for partial redemption, a new 2020A Bond representing any unredeemed balance will be issued to the holder.

Notice of redemption of the 2020A Bonds will be mailed by registered or certified mail, postage prepaid, not less than 30 nor more than 60 days prior to the date fixed for redemption, to the registered owners of the 2020A Bonds, or portions thereof, to be called, but the failure to so mail such notice with respect to any particular 2020A Bonds will not affect the validity of such call for redemption of any 2020A Bonds with respect to which no such failure has occurred. Such notice may state that the optional redemption of the 2020A Bonds to be redeemed is conditioned upon the occurrence of certain future events, including, without limitation, the deposit of funds, in an amount sufficient to effect the redemption, with the Trustee on or before the date fixed for redemption. All 2020A Bonds called for redemption will cease to bear interest on the specified redemption date, provided funds sufficient for the redemption of such 2020A Bonds in accordance with the Master Indenture are on deposit with the Trustee. If such funds are not available on the redemption date, such 2020A Bonds or portions thereof will continue to bear interest until paid at the same rate they would have borne had they not been called for redemption. On presentation and surrender of the 2020A Bonds called for redemption at the place or places of payment, such 2020A Bonds will be paid and redeemed provided sufficient funds are on deposit with the Trustee.

So long as DTC or its nominee, Cede & Co., is the registered owner of the 2020A Bonds, any such notices of redemption will be mailed solely to DTC and distribution of such notices to Direct Participants and Indirect Participants (each as defined in Appendix E) will be the sole responsibility of DTC, and distribution of such notices to Beneficial Owners (as defined in Appendix E) will be the sole responsibility of the Direct Participants and Indirect Participants.

SOURCES AND USES OF FUNDS

The proceeds of the 2020A Bonds and other available funds will be used as follows:

Par Amount of the 2020A Bonds	$55,320,000.00
Original Issue Premium	4,059,091.60
Local Contributions	2,022,086.82
Total Sources of Funds	$61,401,178.42
Deposit to Acquisition Fund	$9,518,391.13
Deposit to Refunding Escrow Fund	50,901,887.06
Deposit to Capital Reserve Fund [1]	518,656.00
VRA Cost of Issuance	264,087.00
Underwriters' Discount [2]	198,157.23
Total Uses of Funds	$61,401,178.42

[1] Amounts deposited in the Capital Reserve Fund secure the Moral Obligation Bonds; they do not secure the Infrastructure Revenue Bonds.

[2] Provided to the Underwriters. See the subsections "UNDERWRITING OF THE 2020A BONDS" in Section Four.

SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS

Limited Obligations

The 2020A Bonds are limited obligations of VRA. The principal of, premium, if any, and interest on the 2020A Bonds do not constitute a debt of the Commonwealth or any of its political subdivisions other than VRA. Neither the Commonwealth nor any political subdivision thereof, including VRA, will be obligated to pay the principal of, premium, if any, or interest on the 2020A Bonds or other costs incident thereto except from the revenues, money or property of VRA pledged for such purposes. Neither the faith and credit nor the taxing power of the Commonwealth or any political subdivision thereof is pledged to the payment of the principal of or premium, if any, or interest on the 2020A Bonds. VRA has no taxing power.

Infrastructure Revenue Bonds

Sources of Payment. The 2020A Infrastructure Revenue Bonds and the other Infrastructure Revenue Bonds are payable solely from (a) the debt service and rental payments on the Local Obligations, (b) amounts on deposit in certain funds and accounts created under the Indenture, including the Infrastructure Revenue Debt Service Fund and the Operating Reserve Fund, and (c) the earnings, if any, derived from the investment of such funds and accounts. VRA has pledged such amounts for such purpose. See information under the headings "Establishment of Trusts" and "Establishment of Funds and Accounts" in Appendix A.

Operating Reserve Fund. The Indenture establishes an Operating Reserve Fund as security for the Infrastructure Revenue Bonds. As of March 31, 2020, the Operating Reserve Fund had a market value of approximately $7,760,000. No additional amounts are expected to be deposited in the Operating Reserve Fund in connection with the issuance of the 2020A Infrastructure Revenue Bonds. No Moral Obligation Bonds are, or will be, secured by the Operating Reserve Fund.

On each payment date, any amount on deposit in the Operating Reserve Fund will be transferred to the Infrastructure Revenue Debt Service Fund if and to the extent, after transfers from the Revenue Fund, amounts on deposit in the Infrastructure Revenue Debt Service Fund are insufficient to pay the principal and interest due on the Infrastructure Revenue Bonds on such date. There is no minimum balance for the Operating Reserve Fund; amounts drawn from the Operating Reserve Fund, if any, to pay debt service on the Infrastructure Revenue Bonds will be replenished from payments made by the Local Governments on their Local Obligations or from other funds available to VRA, but only to the extent required to meet the coverage tests set forth in the following paragraph.

Any amount on deposit in the Operating Reserve Fund (including accumulated investment earnings) which is not required to produce in the then-current and all future Bond Years (a) Revenue Coverage equal to the Required Revenue Coverage, (b) Infrastructure Revenue Bond Debt Service Coverage equal to the Required Infrastructure Revenue Bond Debt Service Coverage, and (c) Infrastructure Revenue Bond Revenue Coverage equal to the Required Infrastructure Revenue Bond Revenue Coverage may be transferred to VRA upon VRA's filing with the Trustee a Projected Revenue Certificate. See the definitions of such terms in Appendix A and information included under the headings "Operation of Revenue and Pledged Funds – Operating Reserve Fund" and "Forty-Seventh Supplemental Series Indenture – Restrictions on Withdrawal from Operating Reserve Fund" in Appendix A.

On December 6, 2016, VRA filed the Projected Revenue Certificate and took the other steps necessary for the Trustee to transfer to VRA the interest earned thereafter on the investments in the Operating Reserve Fund. VRA may use such interest for any purpose permitted under the Act.

Moral Obligation Bonds

Sources of Payment. The 2020A Moral Obligation Bonds and the other Moral Obligation Bonds are payable solely from (a) the debt service and rental payments under the Local Obligations, (b) amounts on deposit in certain funds and accounts created under the Indenture, including the Moral Obligation Debt Service Fund and the Capital Reserve Fund, and (c) the earnings, if any, derived from the investment of such funds and accounts. VRA has pledged such amounts for such purpose. See information under the headings "Establishment of Trusts" and "Establishment of Funds and Accounts" in Appendix A.

The Indenture provides that the pledge of the Revenues securing the 2020A Moral Obligation Bonds and the other Moral Obligation Bonds is in all respects junior and subordinate to the pledge of such Revenues securing the 2020A Infrastructure Revenue Bonds and the other Infrastructure Revenue Bonds.

Capital Reserve Fund. The Indenture establishes a Capital Reserve Fund as security for the Moral Obligation Bonds issued under the Indenture. The Indenture also establishes a minimum amount required to be maintained in the Capital Reserve Fund (the "CRF Reserve Requirement"). For so long as any of the 2020A Moral Obligation Bonds remains Outstanding, the CRF Reserve Requirement will be not less than an amount equal to the maximum Principal and Interest Requirements on the Moral Obligation Bonds Outstanding in the then-current or any future Bond Year. As of March 31, 2020, the Capital Reserve Fund was valued at approximately $83,420,024.78. On the date of delivery of the 2020A Bonds, the Capital Reserve Fund will contain an amount of not less than the CRF Reserve Requirement, which has been derived from deposits of certain proceeds of the 2020A Bonds and previous Series of Bonds issued by VRA under the Virginia Pooled Financing Program (the "Program"). No Infrastructure Revenue Bonds are, or will be, secured by the Capital Reserve Fund. See information included under the heading "Operation of Revenue Fund and Pledged Funds – Capital Reserve Fund" in Appendix A.

The amounts on deposit in the Capital Reserve Fund will be used solely to cure any deficiencies in the amount on deposit in the Moral Obligation Debt Service Fund to pay the principal of and interest on the Moral Obligation Bonds when due.

On the tenth day after each interest payment date and on any other Reserve Determination Date, the Trustee is required to determine whether amounts on deposit in or credited to the Capital Reserve Fund are at least equal to the CRF Reserve Requirement.

The Act and the Indenture also provide that to maintain the Capital Reserve Fund at the CRF Reserve Requirement the Chairman of VRA, on or before December 1 of each year, must deliver to the Governor of the Commonwealth (the "Governor") and the Secretary of Administration of the Commonwealth a certificate setting forth the amount, if any, required to restore the Capital Reserve Fund to the CRF Reserve Requirement. For this purpose, the Chairman will disregard any deficiency resulting solely from the valuation of investments in the Capital Reserve Fund (as opposed to a transfer therefrom to pay debt service on the Moral Obligation Bonds due to a default on a Local Obligation).

Within five days after the beginning of each session of the General Assembly, the Governor is required to submit to the presiding officer of each house of the General Assembly a budget including, as an agency request for informational purposes only, the amount required, if any, to restore the Capital Reserve Fund to the CRF Reserve Requirement. The General Assembly may, but is not legally obligated to, appropriate to VRA such amount. Any amounts so appropriated and paid shall be delivered by VRA to the Trustee for deposit in the Capital Reserve Fund. As of the date hereof, amounts on deposit in the Capital Reserve Fund have not fallen below the CRF Reserve Requirement and, therefore, the General Assembly has not heretofore been called upon to appropriate funds for replenishment of the Capital Reserve Fund. **Neither this nor any other provision of the Act or the Indenture creates a debt or liability or pledges the faith and credit of the Commonwealth to make any appropriation or payments to VRA for this or any other purpose.**

The General Assembly meets in each even numbered year to establish, among other things, a budget and make appropriations for the ensuing biennial period beginning on the first day of July of such year. The General Assembly also meets in each odd numbered year when amendments to the appropriations act enacted in the previous year and supplemental appropriations may be made.

Certain financial, economic and demographic information about the Commonwealth, including a discussion of certain economic outlook and revenue forecasts, has been incorporated in this Official Statement. See Appendices B, C and D.

Any interest earned from the investment of money in the Capital Reserve Fund will be transferred immediately upon receipt to the Revenue Fund or the Rebate Funds to the extent that such transfers will not cause the Capital Reserve Fund to contain less than the CRF Reserve Requirement. The Indenture provides that if the balance on deposit in the Capital Reserve Fund otherwise exceeds the CRF Reserve Requirement, the Trustee will transfer the surplus to the Revenue Fund or the Rebate Funds or otherwise as specified by VRA pursuant to the Indenture.

The Act provides that any subsequent amendment thereof shall not limit the rights vested in VRA with respect to any agreements made with, or remedies available to, the Owners until the principal of and interest on the 2020A Bonds are paid in full.

Investments in Capital Reserve Fund. The Forty-Seventh Supplemental Series Indenture provides that, as long as any of the 2020A Moral Obligation Bonds remains Outstanding, each investment or the provider of each investment purchased with amounts in the Capital Reserve Fund must have a rating at

least equal to the then-current rating assigned by each Rating Agency to the Moral Obligation Bonds Outstanding. The Capital Reserve Fund is currently invested primarily in United States Department of the Treasury (the "Treasury") obligations.

Reduction or Elimination of Moral Obligation to Fund CRF Reserve Requirement. The Indenture permits VRA, by resolution of its Board of Directors and without obtaining the consent of the Trustee or any Owners of the Bonds, to reduce or eliminate the Commonwealth's Moral Obligation Commitment to fund or replenish the Capital Reserve Fund. Such action requires VRA to satisfy the following two conditions: (a) the resolution must contain a finding by VRA's Board of Directors that such action is not reasonably expected to affect adversely VRA's ability to pay debt service on the Moral Obligation Bonds and (b) VRA must file with the Trustee written confirmation from each Rating Agency providing a rating on any Moral Obligation Bonds that such agency's then-current rating on the Moral Obligation Bonds will not be withdrawn or downgraded as a result of such action. VRA has no present intention to initiate any such action.

Debt Service Requirements for Bonds

VRA has required and will continue to require the Local Governments to establish the scheduled debt service or rental payment dates and amounts under their Local Obligations to provide for, when combined with the estimated investment earnings and the balances scheduled to be released from the Capital Reserve Fund and certain other funds and accounts described herein, the full and timely payment of the principal of, and premium, if any, and interest on the 2020A Bonds, all other Bonds, and VRA's Administrative Charges when due. See the subsection "PROJECTED CASH FLOWS" in this Section Two.

Parity Status

Each Infrastructure Revenue Bond, including each 2020A Infrastructure Revenue Bond, is payable and secured as described in this subsection on a parity basis with all other Infrastructure Revenue Bonds. Each Moral Obligation Bond, including each 2020A Moral Obligation Bond, is also payable and secured as described in this subsection on a parity basis with all other Moral Obligation Bonds. This means, for example, that a default in the payment of a Local Obligation, even if the Local Obligation is not one of the 2020A Local Obligations, may result in a shortfall of Revenues available to pay the scheduled debt service payments on the 2020A Moral Obligation Bonds, as well as all of the other Moral Obligation Bonds then Outstanding, resulting in a withdrawal from the Capital Reserve Fund. Additionally, in the event of defaults on multiple Local Obligations, Revenues may not be sufficient to pay scheduled debt service on the 2020A Infrastructure Revenue Bonds, as well as the other Infrastructure Revenue Bonds then Outstanding. See the subsections "ADDITIONAL INDEBTEDNESS" and "PRIOR SERIES OF BONDS" in this Section Two.

Flow of Funds

The chart on the following page presents the flow of funds through the funds and accounts established under the Indenture.

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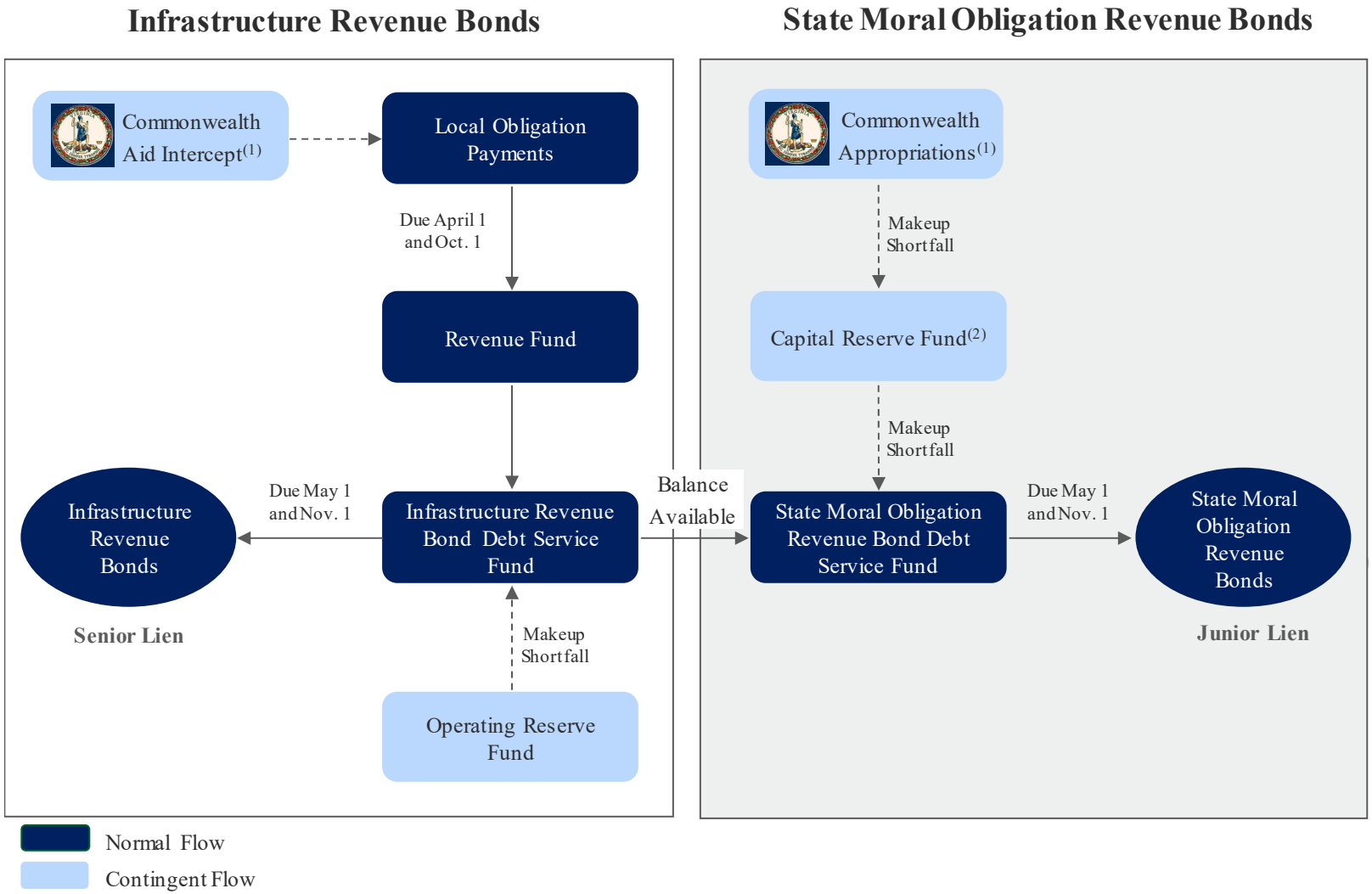
Flow of Funds

The chart below presents the flow of funds through the funds and accounts established under the Indenture.



(1) Payable from the Commonwealth to VRA. The Commonwealth Add Intercept provision applies only to Local Obligations of counties, cities, and towns.
(2) Earnings on the Capital Reserve Fund Investment (not of any Rebate Amounts) flow into the Revenue Fund.

ADDITIONAL INDEBTEDNESS

VRA may issue additional Series of Bonds (including either Infrastructure Revenue Bonds or Moral Obligation Bonds) under the Master Indenture subject to certain conditions and limitations set forth in the Master Indenture, including the provision of a Projected Revenue Certificate to the Trustee, which will, giving effect to the issuance of such Series of Bonds, show for each Bond Year (a) Revenue Coverage equal to at least the Required Revenue Coverage, (b) Infrastructure Revenue Bond Debt Service Coverage equal to at least the Required Infrastructure Revenue Bond Debt Service Coverage and (c) Infrastructure Revenue Bond Revenue Coverage equal to at least the Required Infrastructure Revenue Bond Revenue Coverage. The Projected Revenue Certificate will set forth the following:

(1) A schedule of estimated amounts of the following types of Revenues to be available in the then-current and each future Bond Year for the payment of the Principal and Interest Requirements of all of the Bonds and the Administration Charges: (i) scheduled Local Obligation Payments, except on Defaulted Local Obligations, (ii) income receivable from the investment of amounts from time to time held in the Infrastructure Revenue Debt Service Reserve Fund (not currently required to be funded) and the Capital Reserve Fund, (iii) amounts scheduled to be released from the Infrastructure Revenue Debt Service Reserve Fund or the Capital Reserve Fund as a result of the payment at maturity or pursuant to the Amortization Requirements of the Bonds Outstanding and, if applicable, then to be issued, and (iv) any other amounts identified as Revenues in the Projected Revenue Certificate and in a Supplemental Indenture, if there is filed with the Trustee written confirmation from each Rating Agency that the inclusion thereof will not result in the withdrawal or reduction of its then-current rating on any of the Bonds Outstanding.

(2) A schedule of estimated amounts of the following sources to be available in the then-current and each future Bond Year for the payment of the Principal and Interest Requirements of the Infrastructure Revenue Bonds: (i) investment earnings on amounts in the Operating Reserve Fund, (ii) amounts, if any, which are or will be on deposit in the Operating Reserve Fund, and (iii) any other revenues or amounts identified in the Projected Revenue Certificate and in a Supplemental Indenture as Infrastructure Revenue Bond Revenues or Fund balances available for the payment of the Principal and Interest Requirements of the Infrastructure Revenue Bonds, if there is filed with the Trustee written confirmation from each Rating Agency that the inclusion thereof will not result in the withdrawal or reduction of its then-current rating on any of the Infrastructure Revenue Bonds Outstanding.

(3) A schedule of the Principal and Interest Requirements and all Administrative Charges scheduled to become due and payable on each Payment Date in the then-current and each future Bond Year with respect to all Bonds Outstanding and, if applicable, then to be issued.

(4) A schedule of the Principal and Interest Requirements scheduled to become due and payable on each Payment Date in the then-current and each future Bond Year with respect to all Infrastructure Revenue Bonds Outstanding and, if applicable, then to be issued.

(5) The percentage obtained by dividing the sum of estimated Revenues and Infrastructure Revenue Bond Revenues set forth in paragraphs (1) and (2)(i) and (iii) for each of the then-current and future Bond Years by the scheduled Principal and Interest Requirements and Administrative Charges set forth in paragraph (3) for the same Bond Year ("Revenue Coverage").

(6) The percentage obtained by dividing the sum of estimated Revenues and Infrastructure Revenue Bond Revenues set forth in paragraphs (1) and (2)(i) and (iii) for each of the then-current and future Bond Years by the scheduled Principal and Interest Requirements set forth in paragraph (4) for the same Bond Year ("Infrastructure Revenue Bond Revenue Coverage").

(7) The percentage obtained by dividing the sum of estimated Revenues and Infrastructure Revenue Bond Revenues set forth in paragraphs (1) and (2)(i) and (iii) and the Fund balances set forth in paragraph (2)(ii) and (iii) for each of the then-current and future Bond Years by the scheduled Principal and Interest Requirements set forth in paragraph (4) for the same Bond Year ("Infrastructure Revenue Bond Debt Service Coverage").

In projecting the foregoing, VRA will make the following assumptions: (a) Revenues set forth in paragraph (1) that are scheduled to be retained in the Revenue Fund pursuant to the Indenture will be reflected as Revenues only with respect to the Payment Dates on which the Trustee is to be directed to apply such retained amounts, (b) invested funds will yield an investment return equal to the actual return on such investments at the time of the projection net of any Rebate Amounts to be paid therefrom and will be invested until such time as they are to be applied to the purpose for which they are accumulated; (c) no Local Obligations will be acquired by VRA after the date of the Projected Revenue Certificate; and (d) Administrative Charges will be collected for the remaining term of each Local Obligation at the rate or rates in effect at the time of the calculation.

So long as any 2020A Bonds remain Outstanding, Required Infrastructure Revenue Bond Revenue Coverage means 120% for purposes of any Projected Revenue Certificate delivered in connection with the issuance of additional Infrastructure Revenue Bonds. Both Required Revenue Coverage and Required Infrastructure Revenue Bond Debt Service Coverage mean 100%.

See information included under the heading "Issuance of Bonds" in Appendix A for more information regarding the conditions for issuing additional Bonds.

VRA typically issues bonds in the spring, summer and fall of each calendar year.

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PRIOR SERIES OF BONDS

Of the prior Series of Bonds, $1,728,905,000 principal amount of the Infrastructure Revenue Bonds and $821,610,000 principal amount of the Moral Obligation Bonds were outstanding as of March 31, 2020. These amounts do not account for the issuance of the 2020A Bonds or the defeasance of any Refunded Bonds. The prior Series of Bonds were issued on the dates and in the original principal amounts as set forth in the following chart:

Issue Date	Original Principal Amount of Infrastructure Revenue Bonds Issued[1]	Original Principal Amount of Moral Obligation Bonds Issued[2]
December 4, 2003[3]	$ 65,655,000	$ 37,590,000
June 30, 2004[3]	60,630,000	33,875,000
November 17, 2004[3]	39,265,000	18,705,000
March 2, 2005[3]	18,115,000	8,190,000
June 8, 2005	22,055,000	9,485,000
December 7, 2005	42,755,000	18,960,000
June 8, 2006	61,550,000	31,160,000
August 31, 2006[3]	17,270,000	8,005,000
December 14, 2006[3]	45,935,000	22,860,000
June 7, 2007[3]	29,790,000	14,465,000
December 13, 2007	46,000,000	21,655,000
June 19, 2008	48,890,000	22,450,000
December 10, 2008[3]	147,495,000	67,945,000
June 17, 2009	170,205,000	83,665,000
November 19, 2009	127,355,000	58,975,000
June 16, 2010	50,470,000	23,170,000
August 18, 2010	28,320,000	12,910,000
November 23, 2010	114,375,000	52,315,000
June 2, 2011	57,250,000	24,265,000
November 16, 2011	157,410,000	68,570,000
June 13, 2012	237,110,000	107,100,000
August 2, 2012	54,080,000	24,975,000
December 6, 2012	36,930,000	16,840,000
June 5, 2013	92,810,000	42,135,000
August 14, 2013	46,410,000	20,080,000
November 20, 2013	17,150,000	7,950,000
May 21, 2014	66,290,000	29,870,000
August 13, 2014	92,405,000	42,085,000
November 19, 2014	107,635,000	47,600,000
December 17, 2014	27,465,000	12,835,000
May 28, 2015	94,885,000	40,450,000
August 19, 2015	48,560,000	21,510,000
October 14, 2015	21,910,000	9,850,000
November 18, 2015	112,235,000	54,745,000
May 25, 2016	89,580,000	47,040,000
August 10, 2016	34,975,000	17,560,000
November 16, 2016	146,095,000	66,820,000
May 24, 2017	42,965,000	19,130,000
August 16, 2017	30,330,000	8,835,000
November 15, 2017	56,630,000	30,315,000
May 23, 2018	72,895,000	33,435,000
August 6, 2018	19,595,000	8,365,000
November 15, 2018	77,570,000	41,390,000
May 22, 2019	37,365,000	18,625,000
August 14, 2019	58,245,000	35,645,000
November 20, 2019	264,785,000	118,785,000
TOTAL	$3,337,695,000 [1,4]	$1,563,185,000 [2,4]

1. Prior Series of Bonds issued on or before June 17, 2009 were issued with the designation "Senior Series."
2. Prior Series of Bonds issued on or before June 17, 2009 were issued with the designation "Subordinate Series."
3. The Bonds of this Series have matured or been redeemed prior to maturity and are no longer Outstanding under the Master Indenture.
4. As of March 31, 2020, $1,728,905,000 principal amount of the Infrastructure Revenue Bonds and $821,610,000 principal amount of the Moral Obligation Bonds were outstanding. These amounts do not account for the issuance of the 2020A Bonds or for the defeasance of the Refunded Bonds.

SECURITY FOR THE LOCAL OBLIGATIONS

General

VRA's ability to make full and timely payments of the debt service on the 2020A Bonds is dependent in part on Local Governments making full and timely payments on their respective Local Obligations. It is possible that one or more Local Governments will be unable to make a full or timely payment on their Local Obligations. The Bonds Outstanding, including the 2020A Bonds, have been structured so as to minimize the risk that a default or event of non-appropriation by one or more Local Governments on their Local Obligations will cause a default on the Bonds. Payment of debt service on each Local Obligation will be due at least 30 days prior to the corresponding payment dates of the Bonds.

Under the Indenture, VRA has pledged all of its right, title and interest in and to the Local Obligations (except for the remedies related to the Commonwealth Aid Intercept Provision discussed below) and the payments thereunder to the Trustee for the benefit of the owners from time to time of the Bonds, provided that VRA has reserved the right and license to enjoy and enforce VRA's rights under the Local Obligations so long as no Event of Default with respect to the Bonds shall have occurred and be continuing. Set forth below are descriptions of certain matters relating to the security for the payment of the Local Obligations. As described above, the Local Obligations consist of Local Bonds and Financing Leases.

The Local Governments providing the Local Obligations are expected to consist mainly of Virginia counties, cities and towns with a wide range of governmental powers (individually, each a "Locality" and collectively, "Localities") and regional authorities, service authorities, sanitation districts and sanitary districts and similar entities in the Commonwealth that have been granted limited powers to provide certain services, such as water, wastewater, solid waste disposal, public safety or transportation services (collectively, "Limited Purpose Local Governments").

The security and sources of payment for each Local Obligation constituting a Local Bond will vary and may consist of (a) a pledge of the full faith and credit of the Local Government to secure the Local Bond (a "General Obligation Local Bond"), (b) a pledge of certain revenues of a revenue-producing undertaking of the Local Government and funds and accounts established under the applicable bond resolution or indenture under and pursuant to which the Local Bond is issued (a "Revenue Local Bond"), which pledge may be on a parity with or subordinate to the pledge of such revenues applicable to other bonds of such Local Government, (c) a combination of (a) and (b) (a "Double-Barrel Local Bond"), or (d) a pledge of amounts annually appropriated at the discretion of the governing body of the Local Government and deposited into a special fund established by the Local Government (a "Special Fund Local Bond").

In certain cases, VRA may require that a Revenue Local Bond be additionally secured and credit enhanced by a subject-to-appropriation, "moral obligation" support agreement provided by a Locality (a "Local Support Agreement") as described in the heading "Local Bonds" below. In some instances, the Local Support Agreement may be issued by the same Locality issuing the Revenue Local Bond; in other instances, the Local Support Agreement may be issued by one or more Localities that are member jurisdictions of a Limited Purpose Local Government. Under no circumstances will a Local Support Agreement constitute a debt of a Locality or a pledge of the faith and credit or taxing power of a Locality.

The security and sources of payment for each Local Obligation constituting a Financing Lease will be subject to annual appropriation by the governing body of the Local Government, which will be under no legal obligation to make such appropriation. Under no circumstances will a Financing Lease constitute a debt of a Local Government or a pledge of the faith and credit or taxing power of a Local Government.

Local Bonds

Each Local Obligation constituting a Local Bond will evidence the obligation of the Local Government issuing such bond to repay the principal amount thereof, together with interest on the unpaid principal amount. Local Bonds may be issued and secured as General Obligation Local Bonds, Revenue Local Bonds, Double-Barrel Local Bonds or Special Fund Local Bonds, and VRA will purchase each Local Bond pursuant to an agreement with the respective Local Government (individually, each an "Agreement" and collectively, the "Agreements").

General Obligation Local Bond. Only Localities may issue General Obligation Local Bonds. Limited Purpose Local Governments may not issue General Obligation Local Bonds. A Locality issuing a General Obligation Local Bond will pledge its full faith and credit to secure the payment of the principal of, premium, if any, and interest on such Local Bond. The Locality will agree to levy an annual tax upon all property subject to local taxation sufficient to pay the principal of, premium, if any, and interest on its General Obligation Local Bond to the extent other funds of such Locality are not lawfully available and appropriated for such purpose.

Revenue Local Bond. A Local Government issuing a Revenue Local Bond pledges the revenues from the ownership or operation or lease of one or more of its water supply, wastewater collection and/or treatment, solid waste disposal, public safety, transportation or other revenue producing facilities, as the case may be (each a "System"), and, to the extent necessary, other appropriated funds to the payment of principal of, premium, if any, and interest on its Revenue Local Bond and its payment obligations under the Agreement, subject to the Local Government's right to apply revenues to the payment of certain operating, maintenance and replacement expenses and, in some cases, senior and parity indebtedness.

As shown in the subsection "THE 2020A LOCAL GOVERNMENTS AND THE OTHER PARTICIPATING LOCAL GOVERNMENTS" in Section Three, VRA has required certain Local Governments to obtain or provide additional security and credit enhancement for their Revenue Local Bonds in the form of subject-to-appropriation or "moral obligation" Local Support Agreements. The affected Local Governments are denoted by the term "MO" in the "Type of Security" columns.

Local Support Agreements include agreements to consider appropriations to replenish a debt service reserve fund securing a Revenue Local Bond or to provide working capital to a Local Government to pay operating costs and the debt service on its Revenue Local Bond. All Local Support Agreements contain or constitute a non-binding, legally unenforceable pledge by the governing body of a Locality to consider making the requested appropriations from the lawfully available funds of the Locality to support a Revenue Local Bond (issued by that Locality or a Limited Purpose Local Government) or the operations of a Local Government issuing a Revenue Local Bond. The constitutionality of "moral obligation" or "subject to appropriation" support agreements, such as Local Support Agreements, was upheld by the Virginia Supreme Court in *Dykes v. Northern Virginia Transp. Dist. Com'n.*, 411 S.E. 2d 1, 242 Va. 357 (Va. 1991) ("*Dykes*"). Under no circumstances will a Local Support Agreement constitute a debt of the applicable Locality or a pledge of the faith and credit or taxing power of such Locality. See the heading "Local Support Agreements and Special Fund Local Bonds" in the subsection "INVESTMENT CONSIDERATIONS" in this Section Two. For the applicability of the Commonwealth Aid Intercept Provision to Local Support Agreements, see the heading "Commonwealth Aid Intercept Provision" in this subsection.

Double-Barrel Local Bond. Certain Localities may pledge both the revenues of their Systems and their full faith and credit to secure their Double-Barrel Local Bonds. Limited Purpose Local Governments are not empowered to issue Double-Barrel Local Bonds.

Special Fund Local Bond. Under VRA policies, only Localities with long-term credit ratings in the highest categories of the Rating Agencies are eligible to issue Special Fund Local Bonds to VRA. A

Special Fund Local Bond is payable solely from amounts deposited into a special fund established by the Locality, which amounts will be pledged to secure the Special Fund Local Bond. The obligation of the Locality to deposit amounts into the special fund will be subject to annual appropriation by the governing body of the Locality, and the governing body will be under no legal obligation to make such appropriation. Under no circumstances will a Special Fund Local Bond constitute a debt of the applicable Locality or a pledge of the faith and credit or taxing power of such Locality. See the heading "Local Support Agreements and Special Fund Local Bonds" in the subsection "INVESTMENT CONSIDERATIONS" in this Section Two. For the applicability of the Commonwealth Aid Intercept Provision to Local Bonds, including Special Fund Local Bonds, see the heading "Commonwealth Aid Intercept Provision" in this subsection.

Terms of the Agreements. Pursuant to the Agreements, VRA will agree to purchase the Local Bonds and each Local Government will agree to pay amounts due on its Local Bond to the Trustee, as assignee of VRA, including any amounts required to replenish amounts withdrawn from and foregone investment earnings on the Infrastructure Revenue Debt Service Reserve Fund (not currently required to be funded), the Operating Reserve Fund and the Capital Reserve Fund, as applicable, due to a failure by the Local Government to make a payment due under its Local Bond. The Agreements will contain, among other things, certain covenants relating to the preservation of the tax status of the corresponding Series of Bonds (if applicable) and the provision of annual audited financial statements of the Local Governments.

Local Governments issuing Revenue Local Bonds will covenant under their Agreements to charge rates or fees for the use of and the services provided by the financed System sufficient at all times to produce net revenues (less operating expenses) to pay debt service on all bonds payable therefrom, including the Local Bonds. Such Local Governments may also be required to establish reserve accounts in connection with their Local Bonds.

Localities issuing General Obligation Local Bonds and Double-Barrel Local Bonds will covenant that ad valorem taxes will be levied upon all property subject to taxation in amounts sufficient to pay debt service on their Local Bonds. Such Localities will agree to fulfill certain other payment obligations under the Agreements (such as payments for annual fees and expenses of the Trustee, rebate and certain costs and expenses incurred by VRA in connection with an event of default, any amendment or other discretionary action undertaken at the request of the Localities) only from legally available and appropriated funds.

Each Agreement will require that the Local Government apply the proceeds from the sale of its Local Bond to finance or refinance the costs of its Qualified Project. In the case of a new construction financing, VRA will cause the Trustee to disburse money from the Acquisition Fund from time to time to or for the account of the Local Government upon the receipt of a written requisition in the form prescribed by the Agreement.

Each Local Government issuing a Revenue Local Bond, a Double-Barrel Local Bond or a Special Fund Local Bond will agree to maintain its Qualified Project, to procure insurance with respect thereto and to collect revenues or lease payments therefrom, where applicable.

Except as otherwise agreed by VRA or provided in the Agreement, the bond resolution or indenture of a Local Government issuing a Revenue Local Bond or a Double-Barrel Local Bond, such Local Government will agree not to incur any indebtedness or issue any bonds, notices or other evidences of indebtedness secured by a pledge of project or System revenues, except subordinate bonds and parity bonds and those only within certain limitations.

Each Agreement will provide that if (a) a Local Government fails to pay when due any amount required to be paid under its Local Bond or the Agreement, (b) a Local Government fails to perform or

observe the covenants, agreements or conditions of the Agreement (after receipt of notice of such failure from VRA and continuation of such failure for 60 days after receipt of such notice), (c) any of the Local Government's warranties, representations or other statements contained in the Agreement or any instrument furnished in connection with the issuance and sale of its Local Bond is false or misleading or (d) there shall occur certain events of insolvency or events affecting creditor's rights, then such events will constitute events of default under the Agreement; provided that a failure of the governing body of a Locality issuing a Special Fund Local Bond to appropriate amounts necessary to pay the debt service on such Local Bond will not constitute an event of default.

Upon the occurrence of an event of default under an Agreement, VRA has the contractual right to take any action permitted by the Agreement or the bond resolution or indenture of the Local Government or to take any other legal or equitable action, including the appointment of a receiver, necessary or desirable to collect any amounts due and to enforce any duty, covenant or agreement of the Local Government.

Financing Leases

Certain Local Governments enter into Financing Leases with VRA (each a "Financing Lease Local Government") to lease one or more Qualified Projects from VRA. In certain instances, such as joint ownership of a Qualified Project in which a Local Government is unable to lease its interest, VRA may accept substitute real property as security under the Financing Lease. The term of the Financing Lease commences on the date of issuance and delivery of the related Series of Bonds and terminates upon payment of all rentals owed by the Financing Lease Local Government under the Financing Lease. The lease arrangement may involve an original prime lease of the Qualified Project or substitute real property from such Local Government to VRA and the leaseback of such property to such Local Government pursuant to the Financing Lease.

Each Financing Lease will contain, among other things, certain covenants relating to the preservation of the tax status of the corresponding Series of Bonds and the provision of annual audited financial statements of the Financing Lease Local Government.

Each Financing Lease will require that the Financing Lease Local Government apply the proceeds of the Financing Lease to finance or refinance the costs of the Qualified Project.

The Financing Lease Local Government will agree to maintain or cause to be maintained the Qualified Project or substitute real property and to procure insurance with respect thereto.

Each Financing Lease will provide that no part of the Qualified Project or substitute real property shall be sold, exchanged, leased, subleased, mortgaged, encumbered or otherwise disposed of except with the written consent of VRA.

In a Financing Lease, the rental payments are structured in amounts expected to be sufficient to pay the Financing Lease Local Government's proportionate share of debt service payments on the related Series of Bonds. The Financing Lease also provides for additional rental payments for items including deficiencies in the Operating Reserve Fund or the Capital Reserve Fund, as applicable, caused by a payment default, rebate amounts, late payment penalties, and certain Trustee fees and costs and expenses of VRA.

Pursuant to a Financing Lease, the Financing Lease Local Government will direct the officer charged with the responsibility of preparing such Local Government's budget to include in the budget for each fiscal year during the term of the Financing Lease a request that the governing body of such Local Government appropriate in the fiscal year all rental payments and other payments due under the Financing Lease during such fiscal year.

The undertaking of the Financing Lease Local Government to make payments under the Financing Lease is limited to amounts lawfully available and appropriated by the governing body thereof for such purpose. Under no circumstances will the payments under a Financing Lease constitute a debt of the applicable Locality within the meaning of any constitutional or statutory limitation or a pledge of the faith or credit or the taxing power of such Locality. Such Locality will not be liable for any such payments under the Financing Lease unless and until funds have been appropriated by its governing body for payment and then only to the extent of such appropriations.

If the governing body of the Financing Lease Local Government fails to appropriate funds for amounts due under the Financing Lease or such Local Government cannot observe and perform any covenant or agreement as a result of such non-appropriation, VRA or the Trustee on behalf of VRA, may then exclude such Local Government from possession of its Qualified Project or substitute real property (subject to certain public policy concerns and legal restrictions discussed below) for the duration of the term of the Financing Lease, with or without terminating the Financing Lease, and re-let all or any portion of the Qualified Project or substitute real property, applying the proceeds in accordance with the Indenture. The Financing Lease Local Government may reinstate the Financing Lease upon satisfaction of certain conditions. In most lease arrangements, VRA holds only a leasehold interest in the Qualified Project or substitute real property and thus, in exercising its rights upon an event of default or an event of non-appropriation by the Financing Lease Local Government, VRA may not sell the Qualified Project or substitute real property but may only re-let its interests in the Qualified Project or substitute real property to a third party. In addition, the ability of VRA to exclude a Financing Lease Local Government from possession of a Qualified Project or substitute real property may be limited by certain imposed public policy concerns or legal restrictions and may require judicial action, which is often subject to discretion and delay. For example, in the case of Qualified Projects for public roads, such concerns and restrictions relate to the rights of the Virginia Department of Transportation, adjacent landowners and the traveling public and, in the case of Qualified Projects or substitute real property for courthouses and other public safety facilities, such concerns and restrictions relate to the power of judges to control their courthouses and statutory requirements to provide adequate facilities for courts, Commonwealth's Attorneys and other constitutional officers. The foregoing factors may limit VRA's ability to re-let the Qualified Project or substitute real property upon an event of default or non-appropriation by the respective Financing Lease Local Government or to re-let the Qualified Project or substitute real property on terms as favorable as those in the Financing Lease.

Commonwealth Aid Intercept Provision

Historically, the Local Obligations of Localities (but not those of Limited Purpose Local Governments) have been further secured by the "Commonwealth Aid Intercept Provision" under Section 62.1-216.1 of the Act.

The 2011 Virginia General Assembly enacted SB1309 to amend Section 62.1-216.1. The amendments, which became effective July 1, 2011, extend the Commonwealth Aid Intercept Provision to encompass all Local Bonds, Local Support Agreements and Financing Leases of Localities, regardless of the security therefor. The Commonwealth Aid Intercept Provision still does not apply to the Local Obligations of Limited Purpose Local Governments.

Section 62.1-216.1 provides that, among other things, if it is established to the satisfaction of the Governor after submission of an affidavit by VRA and a summary investigation by the Governor of the facts set forth in the affidavit that a Locality has failed to make a payment on its Local Obligation or Local Support Agreement, then the Governor shall (a) issue an order directing the Comptroller of the Commonwealth to withhold all further payments to such Locality of all or any portion of the funds appropriated and payable by the Commonwealth to such Locality for any and all purposes until such nonpayment is cured, and (b) while such nonpayment continues, direct the payment of all funds so withheld, or so much of them as shall be necessary, to VRA so as to cover, or cover insofar as possible,

the nonpayment on such Local Obligation or Local Support Agreement. Executive Order Number Eighty-eight (01) delegates to the State Treasurer the responsibility to receive on the Governor's behalf the affidavit submitted by VRA. If such a nonpayment is confirmed, the State Treasurer is to direct the Comptroller to withhold payments of Commonwealth funds to the Locality and to pay them to VRA.

In addition, General Obligation Local Bonds and Double-Barrel Local Bonds are secured under Section 15.2-2659 of the Public Finance Act (the "General Obligation Intercept Provision"). The General Obligation Intercept Provision is similar in operation and effect to the Commonwealth Aid Intercept Provision but applies only as a remedy for a default in the payment of principal of, premium, if any, or interest on general obligation bonds. The General Obligation Intercept Provision covers all of the general obligation bonds issued by a Locality and not only those acquired by VRA.

Under either intercept provision, neither the Comptroller nor the Commonwealth has any legal obligation to make any payment on behalf of the nonpaying Locality other than from the funds appropriated and payable to the nonpaying Locality. Commonwealth aid that is payable to Localities and that is subject to interception is derived primarily from the Commonwealth's General Fund, with the remaining aid being payable from the Highway Maintenance and Construction Fund of the Virginia Department of Transportation and certain other funds. The primary sources of revenue for the Commonwealth's General Fund are individual and corporate income tax revenues, sales and use tax revenues, other tax revenues, interest, dividends and rents.

Neither the Virginia Supreme Court nor the Attorney General of Virginia has reviewed the validity of the Commonwealth Aid Intercept Provision, and there can be no assurance that such provision would be upheld if challenged. Further, the General Obligation Intercept Provision as embodied in either Section 15.2-2659 or its predecessor provisions (Sections 15.1-225 and 15.1-227.61) has not been reviewed by the Virginia Supreme Court. However, in 1973 the Attorney General of Virginia opined that funds appropriated and payable by the Commonwealth to local governments for any and all purposes may be withheld pursuant to the General Obligation Intercept Provision (set forth in Section 15.1-225 at that time) as a remedy for payment defaults under general obligation bonds.

It is the policy of the State Treasurer and the Comptroller that the bond payments be made on the same day as, or at least within 24 hours of, proper notification is received. However, to date no request has been made and no order has been issued to withhold funds pursuant to either the Commonwealth Aid Intercept Provision or the General Obligation Intercept Provision, and there can be no assurance that the benefits of the provisions available to VRA could be realized in the event of a nonpayment by a Local Government.

VRA is not the only entity with the power to enforce an intercept provision. The Board of Trustees of the Virginia Retirement System, under Section 51.1-146, has the discretion to cause the deduction "from any nonearmarked monies distributable to a local government by any department or agency of the Commonwealth" of amounts equal to any delinquent contributions or insurance premiums owed by the local government to the Virginia Retirement System. There can be no assurance that the benefits of the provisions available to VRA will not be diminished by other intercept provisions or by other parties enforcing the General Obligation Intercept Provision.

The amount of aid appropriated by the Commonwealth to a Local Government varies from year to year and may not in a particular year equal or exceed all of the defaulted payment obligations of the Locality subject to the Commonwealth Aid Intercept Provision, the General Obligation Intercept Provision and any other similar intercept provisions. No guidance exists for determining the priority of the various intercept provisions in the event the amount of appropriated aid is insufficient to cover all of the applicable defaulted payment obligations.

VRA has covenanted in the Master Indenture to take any and all actions available to it under the laws of the Commonwealth (including the Commonwealth Aid Intercept Provision) to obtain Local Obligation Payments if a Local Government fails to make such payments when the same become due and payable. The Trustee, on behalf of the Bondholders, may request that VRA take such actions, but the Trustee has not been assigned the right to exercise unilaterally without the cooperation of VRA the remedies granted to VRA under the Commonwealth Aid Intercept Provision. The General Assembly has the right to modify the Commonwealth Aid Intercept Provision in the future, which modifications may adversely affect the rights of VRA under such Provision. VRA is not aware of any proposal to make any such modification and as of the date hereof does not expect any to be enacted.

VRA LICENSE

All of the property pledged to the Trustee will be held in trust by the Trustee for the equal and proportionate benefit of the Owners from time to time of the 2020A Bonds and all other Bonds Outstanding under the Indenture. However, VRA has reserved the right and license to enjoy and enforce its rights with respect to the Local Obligations so long as no Event of Default with respect to the Bonds has occurred. This means, among other things, that, so long as no Event of Default has occurred, VRA may agree to amend the Local Obligations and related Agreements without the consent of the Trustee or the Owners of the Bonds. However, if an Event of Default with respect to the Bonds shall have occurred and be continuing, the Trustee will instead have such rights.

PROJECTED CASH FLOWS

The following projected cash flow schedule illustrates on an annual basis the projected amounts of Revenues and the debt service requirements on the 2020A Bonds and the other Bonds Outstanding on the date of delivery of the 2020A Bonds and the scheduled Administrative Charges. All of the projections of Revenues are estimates, and assume the timely payment of amounts due under all of the Local Obligations and the investments held in the Capital Reserve Fund.

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Projected Cash Flow for the Virginia Pooled Financing Program

Date	Total Annual Receipts[1]	Infrastructure Bond Debt Service[3]	Infrastructure Bond Debt Service Coverage	Annual Remaining Receipts	Anticipated CRF Investment Receipts[2]	Moral Obligation Bond Debt Service Plus Admin Fee[3]	Moral Obligation Debt Service Coverage
Total	$3,426,782,723	$2,394,485,374		$1,032,297,350	$112,225,638	$1,144,522,988	
11/1/2020	$182,776,266	$127,719,114	**1.43x**	$55,057,152	$3,381,768	$58,438,920	**1.00x**
11/1/2021	230,448,379	161,120,224	**1.43x**	69,328,154	3,228,407	72,556,561	**1.00x**
11/1/2022	224,314,549	156,748,029	**1.43x**	67,566,521	4,710,724	72,277,245	**1.00x**
11/1/2023	218,828,427	153,064,631	**1.43x**	65,763,797	2,566,624	68,330,421	**1.00x**
11/1/2024	217,157,652	151,825,879	**1.43x**	65,331,773	3,135,284	68,467,057	**1.00x**
11/1/2025	213,828,865	149,611,063	**1.43x**	64,217,802	4,691,104	68,908,906	**1.00x**
11/1/2026	206,651,011	144,660,004	**1.43x**	61,991,007	3,468,373	65,459,380	**1.00x**
11/1/2027	198,906,965	139,165,062	**1.43x**	59,741,903	4,340,698	64,082,601	**1.00x**
11/1/2028	191,109,221	133,677,219	**1.43x**	57,432,002	7,531,040	64,963,042	**1.00x**
11/1/2029	174,787,509	122,087,074	**1.43x**	52,700,434	3,531,398	56,231,832	**1.00x**
11/1/2030	165,544,573	115,606,567	**1.43x**	49,938,006	5,640,064	55,578,070	**1.00x**
11/1/2031	159,464,235	111,292,566	**1.43x**	48,171,668	3,731,814	51,903,482	**1.00x**
11/1/2032	152,656,776	106,618,227	**1.43x**	46,038,549	5,087,598	51,126,147	**1.00x**
11/1/2033	139,226,750	97,299,928	**1.43x**	41,926,822	4,673,664	46,600,486	**1.00x**
11/1/2034	125,881,102	87,845,318	**1.43x**	38,035,784	9,683,774	47,719,558	**1.00x**
11/1/2035	98,769,951	68,832,873	**1.43x**	29,937,078	4,896,949	34,834,027	**1.00x**
11/1/2036	90,166,875	62,854,570	**1.43x**	27,312,305	2,900,655	30,212,960	**1.00x**
11/1/2037	84,135,071	58,776,053	**1.43x**	25,359,018	3,461,605	28,820,623	**1.00x**
11/1/2038	82,142,070	57,349,276	**1.43x**	24,792,794	6,411,943	31,204,737	**1.00x**
11/1/2039	63,449,348	44,135,432	**1.44x**	19,313,916	3,074,729	22,388,645	**1.00x**
11/1/2040	56,817,524	39,575,705	**1.44x**	17,241,819	7,141,617	24,383,435	**1.00x**
11/1/2041	37,111,374	25,983,805	**1.43x**	11,127,570	2,525,389	13,652,959	**1.00x**
11/1/2042	30,973,555	21,610,517	**1.43x**	9,363,038	3,344,933	12,707,971	**1.00x**
11/1/2043	21,987,257	15,324,386	**1.43x**	6,662,872	882,652	7,545,524	**1.00x**
11/1/2044	20,656,233	14,429,003	**1.43x**	6,227,230	989,465	7,216,695	**1.00x**
11/1/2045	18,230,341	12,701,502	**1.44x**	5,528,839	2,902,215	8,431,054	**1.00x**
11/1/2046	7,045,809	4,940,220	**1.43x**	2,105,589	2,395,252	4,500,841	**1.00x**
11/1/2047	5,627,812	3,954,979	**1.42x**	1,672,833	156,652	1,829,485	**1.00x**
11/1/2048	5,315,656	3,728,138	**1.43x**	1,587,519	847,925	2,435,444	**1.00x**
11/1/2049	2,771,569	1,948,013	**1.42x**	823,556	891,325	1,714,881	**1.00x**

1 Projection assumes full amount of debt service is paid by all Local Governments on their related Local Bonds and Financing Leases. A number of factors may influence VRA's actual receipts. See the following subsection, "INVESTMENT CONSIDERATIONS."

2 Assumes the timely receipt of all payments of principal and interest on investments held in the Capital Reserve Fund.

3 These amounts exclude the debt service on refunded bonds and include debt service on the 2020A Bonds.

INVESTMENT CONSIDERATIONS

Prospective purchasers of the 2020A Bonds should be aware that investment in the 2020A Bonds entails some degree of risk and uncertainty. Each prospective investor in the 2020A Bonds should read this Official Statement in its entirety. Particular attention should be given to the factors described below which, among others, could affect the payment of the debt service on the 2020A Bonds and which could also affect the market price of the 2020A Bonds to an extent that cannot be determined. This discussion of investment considerations is not, and is not intended to be, exhaustive.

Limited Obligations of VRA

The 2020A Bonds and all other Bonds heretofore or hereafter issued under the Indenture are limited obligations of VRA payable only from the Revenues and funds and accounts specifically pledged thereto. VRA has no taxing power. Accordingly, investors should consider only the sources of payment and security described under the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in this Section Two.

Primary Dependence on Timely Payments by Local Governments

VRA's ability to make full and timely payments of debt service on the 2020A Bonds and all other Bonds heretofore or hereafter issued under the Indenture depends primarily upon VRA's receipt from Local Governments of full and timely payments under their Local Obligations. Missed, delayed or partial payments on the Local Obligations are likely to result in a diminishment of the coverage of the 2020A Infrastructure Revenue Bonds and the other Infrastructure Revenue Bonds and may result in draws on the Capital Reserve Fund to ensure payment of the 2020A Moral Obligation Bonds and the other Moral Obligation Bonds.

The ability of the Local Governments to make full and timely payments due on their respective Local Obligations will depend on various economic and financial circumstances. Although VRA does not expect any such nonpayments to occur, there can be no assurance that they will not occur in the future.

Contractual Remedies of VRA Upon Default of Local Bonds

Upon the occurrence of a nonpayment on a Local Bond or any other event of default under any Agreement, VRA has the contractual right to take any action permitted by the Agreement or the bond resolution of each Local Government or to take any other legal or equitable action, including the appointment of a receiver, necessary or desirable to collect any amounts due and to enforce any duty, covenant or agreement of the Local Government (including, for example with respect to a Revenue Local Bond, the covenant to set rates, fees and charges sufficient to pay debt service). Notwithstanding VRA's contractual remedies, there can be no assurance that the remedies will be effective or produce amounts sufficient to pay debt service on the Local Bonds. All remedies are subject to bankruptcy, insolvency and other similar state and federal laws. However, under present law, Virginia Local Governments are not authorized to file for bankruptcy protection. See the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in this Section Two.

To date, there have been no nonpayments on any Local Bonds that have required VRA to make any transfers from any reserve fund or invoke the Commonwealth Aid Intercept Provision or have caused any payment default on bonds of VRA.

Credit Concerns Regarding Particular Local Governments with Outstanding Local Bonds

Pursuant to its post-issuance credit compliance procedures, VRA is closely monitoring four Local Governments with outstanding Local Bonds in the Program--the City of Petersburg, Virginia ("Petersburg"), the City of Bristol, Virginia ("Bristol"), the County of Patrick, Virginia ("Patrick"), and the County of Warren, Virginia ("Warren"). **To date, Petersburg, Bristol, Patrick and Warren have not missed or been late on any payment to VRA.** Additionally, Petersburg, Bristol, Patrick and Warren are not Material Local Governments as described in the subsection "CONTINUING DISCLOSURE UNDER RULE 15c2-12" in Section Four.

City of Petersburg. Petersburg has three outstanding Local Bonds in the Program, two General Obligation Local Bonds and one water and sewer Revenue Local Bond (collectively, the "Petersburg Local Bonds"). As of the date hereof, the outstanding amount of the Petersburg Local Bonds is $16,950,000, which constitutes approximately 0.70% of the outstanding aggregate principal amount of all outstanding Local Obligations in the Program. According to news reports, since FY 2016 Petersburg has faced severe financial difficulties stemming from years of structurally unbalanced budgets and a breakdown in utility and revenue billing and collection processes. These difficulties have resulted in Petersburg having problems funding its public schools, making timely payments to regional authorities of which Petersburg is a member and remaining current in its contributions to the Virginia Retirement System. Considerable turnover at the highest level of Petersburg's leadership team exacerbated the problems. An outside firm provided turnaround consulting and advisory services through September 2017 at which time the City transitioned to a new leadership team.

Under Peterburg's current leadership team, Petersburg has taken steps to improve its budgeting and operating practices and procedures. Although VRA continues to monitor the financial progress of Petersburg closely, VRA does not currently anticipate any interruption in the payments due under the Petersburg Local Bonds, given Petersburg's payment history and the security associated with the Petersburg Local Bonds, which includes the Commonwealth Aid Intercept Provision.

The Commonwealth Aid Intercept Provision applies to all of the Petersburg Local Bonds. Historically, revenues from the Commonwealth to Petersburg have exceeded debt service subject to the Commonwealth Aid Intercept Provision on both (a) the Petersburg Local Bonds and (b) the other Petersburg general obligation bonds not held by VRA that are subject to the General Obligation Intercept Provision. The maintenance of this level of Commonwealth aid is subject to appropriation by the General Assembly and could change at any time. In addition, Petersburg's Revenue Local Bond is also secured by a local debt service reserve fund held by VRA's Trustee. This local debt service reserve fund holds an amount equal to maximum annual debt service on the Petersburg Revenue Local Bond it secures.

City of Bristol. Bristol has two outstanding Local Bonds in the Program. Both are General Obligation Local Bonds and therefore are further enhanced by the Commonwealth Aid Intercept Provision. As of the date hereof, the aggregate outstanding balance of the Local Bonds is $2,060,000, which constitutes approximately 0.08% of the outstanding aggregate principal amount of all Local Obligations in the Program. Pursuant to Chapter 836 of the 2017 Virginia Acts of Assembly, the General Assembly directed the Virginia Auditor of Public Accounts (the "APA") to establish an early warning system for identifying potential fiscal distress within local governments across the Commonwealth. In March 2018, the APA published its first report under the new monitoring program (the "APA Report"), which identified Bristol as a locality experiencing a situation of fiscal distress. Following its preliminary review of Bristol's audited financial information for fiscal years 2014 through 2016, the APA, with Bristol's cooperation, conducted a more extensive analysis of Bristol's financial information. Based on its analysis, the APA concluded that Bristol's weak reserve levels and significant debt balances have placed it in a situation of fiscal distress and recommended several means by which the Commonwealth could

provide assistance to Bristol, including providing independent consultants and other financial expertise to assist Bristol officials in developing long-term financial forecasts. Although VRA continues to monitor the financial progress of Bristol closely, VRA does not currently anticipate any interruption in the payments due under the Bristol Local Bonds, given Bristol's payment history and the security associated with the Bristol Local Bonds, which includes the Commonwealth Aid Intercept Provision.

Based on a June 2019 report of the APA regarding Local Government Fiscal Stress Monitoring, Bristol was not included among 14 localities identified for APA follow up during the analysis of fiscal year 2017 financial information. While VRA plans to continue its close monitoring of Bristol's financial condition, if future APA reports continue to exclude Bristol from its list of localities requiring annual follow up based on analysis of future financial information then VRA anticipates removing references to Bristol from the Credit Concerns Regarding Particular Local Governments with Outstanding Local Bonds section of future Program official statements.

County of Patrick. Patrick has one outstanding local obligation in the Program, consisting of a lease revenue obligation, secured by a leasehold interest in a public safety facility. The obligation is further enhanced by the Commonwealth Aid Intercept Provision. As of the date hereof, the aggregate outstanding balance of the Patrick Local Obligation is $4,095,000 subsequent to the defeasance of $1,090,000 on June 20, 2019. The Patrick Local Obligation represents approximately 0.17% of the outstanding aggregate balance of all Local Obligations in the Program. The partial defeasance of this obligation was part of a more comprehensive debt restructuring undertaken by Patrick to provide budgetary cash flow relief and reduce the reliance on the use of unassigned fund balance through fiscal year 2024. In addition to the debt restructuring, Patrick's financial advisors recommended the issuance of a revenue anticipation note to provide additional general fund liquidity in fiscal year 2020. Patrick's governing body also increased real estate taxes effective in fiscal year 2020 to generate additional revenue. Although VRA continues to monitor the financial progress of Patrick closely, VRA does not currently anticipate any interruption in the payments due under the Patrick Local Obligation, given Patrick's payment history and the security associated with the Patrick Local Obligation, which includes the Commonwealth Aid Intercept Provision.

From time to time, certain Local Governments in the Program may employ debt restructurings, revenue anticipation notes, or other budget and liquidity stabilizing measures to address specific annual budget matters. While these actions do not always indicate financial distress, when VRA becomes aware of such situations, VRA increases its loan monitoring and compliance efforts related to the local government in question and will disclose such matters, when considered material.

County of Warren. Warren has three outstanding local obligations in the Program, consisting of three lease revenue obligations, secured by leasehold interests in local government buildings. All three of the Local Obligations are further enhanced by the Commonwealth Aid Intercept Provision. As of the date hereof, the aggregate outstanding balance of the Warren Local Obligations is $68,900,000. The Warren Local Obligations represent approximately 2.84% of the outstanding aggregate balance of all Local Obligations in the Program as of the date hereof. Warren is current on all payments due under its existing outstanding Local Obligations, and VRA does not anticipate any interruption in payments due from Warren.

According to news reports, in August 2018, Virginia State Police launched an investigation into the business practices of the Front Royal – Warren County Economic Development Authority, which is governed by seven directors appointed by the Warren Board of Supervisors. In August 2019, fourteen people were indicted on misdemeanor charges related to the ongoing investigations, including the County Administrator, the Superintendent of Warren County Public Schools, a former County Attorney, and all members of the Board of Supervisors. The indictments allege that the accused knew and failed to act

against the mismanagement of public money at the Front Royal – Warren County Economic Development Authority. Although VRA continues to monitor the investigation and the financial progress of Warren closely, VRA does not currently anticipate any interruption in the payments due under the Warren local obligations, given Warren's payment history and the security associated with Warren local obligations, which includes the Commonwealth Aid Intercept Provision.

Local Support Agreements and Special Fund Local Bonds

A Local Support Agreement contains or constitutes a non-binding, non-legally enforceable pledge of the governing body of a Locality to consider making the requested appropriations from the general funds of the Locality to support a Revenue Local Bond (issued by that Locality or a Limited Purpose Local Government) or the operations of a Local Government issuing a Revenue Local Bond. A Special Fund Local Bond contains a similar non-binding, non-legally enforceable pledge of the governing body of a Locality to appropriate amounts into a sinking fund to pay the debt service on the Special Fund Local Bond. The governing body cannot be compelled to make the appropriations requested under a Local Support Agreement or with respect to a Special Fund Local Bond. **However, the failure of the governing body to make such an appropriation would likely impair the credit standing of the Locality and would trigger the Commonwealth Aid Intercept Provision of Section 62.1-216.1 of the Act**. See the heading "Commonwealth Aid Intercept Provision" in the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in this Section Two.

To date, no Locality has failed to make any required payments under a Local Support Agreement or a Special Fund Local Bond.

Events of Non-Appropriation and Defaults Under Financing Leases

The undertaking of the Financing Lease Local Governments to make payments under their respective Financing Leases is subject to and dependent upon amounts being lawfully available and appropriated from time to time by the governing body of such Local Government. The governing body cannot be compelled to make the appropriations. The undertaking of a Financing Lease Local Government to make payments under its Financing Lease is not a debt of such Local Government within the meaning of any constitutional or statutory limitation or a pledge of the faith and credit or the taxing power of such Local Government.

Pursuant to the Financing Leases, if sufficient funds are not budgeted and appropriated by the governing body of the Financing Lease Local Government for the payment of amounts due under the Financing Lease and such Local Government defaults or fails to make payments under the Financing Lease, VRA may terminate the Financing Lease without penalty and may take possession of and re-lease the Qualified Project or substitute real property for the duration of the Financing Lease. Since the re-leasing of a Qualified Project or substitute real property may not be possible on terms as favorable as those of the Financing Lease there can be no assurance that the Rental Payments on the Financing Lease expected to be received will in fact be received. In addition, the ability of VRA to exclude a Financing Lease Local Government from possession in order to exercise VRA's remedy to re-lease a Qualified Project or substitute real property to a third-party may be limited by certain imposed public policy concerns or legal restrictions and may require judicial action, which is often subject to discretion and delay.

Moreover, if VRA exercises its rights to re-lease its interest in a Qualified Project or substitute real property, depending on the new user, interest paid on the Financing Lease may not be excludable from gross income for federal income tax purposes, which, in turn, may adversely affect the tax-exempt

status of any Bonds the interest on which was intended to be excludable from gross income for federal income tax purposes.

To date, no Financing Lease Local Government has failed to make any required payments or timely appropriate funds.

Investment of Certain Funds

Amounts on deposit in the funds and accounts under the Indenture may be invested in various permitted investments. See information included under the heading "Restrictions on Permitted Investments" in Appendix A.

No Acceleration Upon Default of Bonds

The principal of, premium, if any, and interest on the Bonds is not subject to acceleration upon the occurrence and continuation of an Event of Default. Owners of Bonds will therefore be required to collect defaulted debt service payments and debt service payments on the Bonds due after an Event of Default based on the Bonds' scheduled payment dates from the Revenues and other property pledged under the Indenture which may not be sufficient to make such payments.

Additional Risks of Moral Obligation Bonds

Payment of debt service on VRA's Moral Obligation Bonds is subordinate to certain payment priorities, most importantly the obligation to pay debt service on Infrastructure Revenue Bonds. See information included under the heading "Flow of Funds" in the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in this Section Two. Timely payment of debt service on the Moral Obligation Bonds is dependent upon Revenues being available in sufficient amounts to satisfy all claims on such Revenues that are payable prior to payment of debt service on the Moral Obligation Bonds, including debt service on the Infrastructure Revenue Bonds. Moreover, VRA may issue additional Infrastructure Revenue Bonds in the future without the consent of the Owners of the Moral Obligation Bonds. See the subsection "ADDITIONAL INDEBTEDNESS" in this Section Two.

The failure to pay any amount related to the Moral Obligation Bonds will not constitute an Event of Default on the Infrastructure Revenue Bonds. So long as any Infrastructure Revenue Bonds are Outstanding, the Owners of such Bonds will control and direct all actions of the Trustee in exercising remedies upon an Event of Default, and no Owner of any Moral Obligation Bond may control or direct the exercise of such remedies.

Capital Reserve Fund Replenishment

The Act and the Indenture provide for the Governor to submit to the presiding officer of each house of the General Assembly a budget including, as an agency request for informational purposes only, the amount, if any, required to restore the Capital Reserve Fund to the CRF Reserve Requirement. The General Assembly may, but is not legally obligated to, appropriate to VRA such amount. Amounts on deposit in the Capital Reserve Fund have not fallen below the CRF Reserve Requirement and, therefore, the General Assembly has not to date been called upon to appropriate funds for replenishment of the Capital Reserve Fund. Neither this nor any other provision of the Act or the Indenture creates a debt or liability or pledges the faith and credit of the Commonwealth to make any appropriation or payments to VRA for this or any other purpose. **The Capital Reserve Fund secures only the Moral Obligation Bonds.** Under certain circumstances, VRA may reduce or eliminate the Commonwealth's Moral Obligation commitment to replenish the Capital Reserve Fund as described under the heading "Moral Obligation Bonds" in the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in this Section Two.

Unknown Future Participants and Credit Standard Changes

The Master Indenture is an "open indenture" which authorizes the issuance of additional Series of Bonds and lending the proceeds thereof and other funds to Local Governments to be identified in the future. VRA expects regularly each year to acquire additional Local Obligations in amounts and at interest rates which have not yet been determined. Thus, the credit quality of the Local Obligations cannot be evaluated only on the basis of the Local Obligations already held or proposed to be acquired with the net proceeds of the 2020A Bonds. Although additional Series of Bonds are authorized only if sufficient Local Governments meet the credit standards, the credit standards may be changed or waived at the discretion of VRA. For a description of VRA's credit standards, see the subsection "THE VIRGINIA POOLED FINANCING PROGRAM" in Section Three.

Climate Change

The Commonwealth is susceptible to the effects of extreme weather events and natural disasters, including floods, droughts and hurricanes. The occurrence of such events and natural disasters can produce significant negative ecological, environmental and economic impacts. Such impacts can be exacerbated by a longer-term shift in climate over several decades (commonly referred to as climate change), including increasing global temperatures and rising sea levels.

Numerous scientific studies on global climate change conclude that, among other effects on the global ecosystem, extreme and abnormal temperature fluctuations have occurred globally and, without the implementation of measures to address the phenomenon, will continue to occur. Such occurrences have been determined by scientific studies to be the primary reason for current and projected increases in sea levels and for extreme weather events to occur in higher frequency and intensity. Projected changes in weather and tidal patterns place certain regions of the Commonwealth at risk of substantial wind or flood damage over time, adversely affecting private development and public infrastructure, including roads, utilities, emergency services, schools, and parks. As a result, global climate change increases the potential of considerable financial loss to the Commonwealth and certain Local Governments, including, without limitation, substantial losses in tax revenues. In addition, increases in sea levels and extreme weather events could severely disable or displace many residents, business and governmental operations in the Commonwealth for significant periods of time. As a result, certain Local Governments could be required to mitigate these effects at potentially material costs.

Cybersecurity

VRA and the Local Governments rely on a technology environment to conduct their operations. As such, VRA and the Local Governments may face multiple cybersecurity threats, including, but not limited to, hacking, viruses, malware, ransomware, and other such attacks on computer or other sensitive digital systems and networks. There can be no assurance that any security and operational control measures implemented by VRA or any Local Government will be completely successful to guard against and prevent cyber threats and attacks. The result of any such attack could impact operations and/or digital networks and the costs of remedying any such damage could be significant.

No Requirement to Maintain Historical Debt Service Coverage Percentages

VRA's informal policy of acquiring or purchasing Local Obligations with a 70/30 proportion of Infrastructure Revenue Bonds and Moral Obligation Bonds is expected to produce an Infrastructure Revenue Bond Debt Service Coverage Ratio of approximately 1.40x. However, VRA is not obligated to maintain this level of Infrastructure Revenue Bond Debt Service Coverage Ratio. Under the Indenture, VRA must show Required Revenue Coverage and Infrastructure Revenue Bond Debt Service Coverage of 100% in order to issue additional Infrastructure Revenue Bonds or Moral Obligation Bonds, or both. Further, for so long as any of the 2020A Bonds are outstanding VRA must show required Infrastructure Revenue Bond Revenue Coverage of 120% in order to issue additional Infrastructure Revenue Bonds or Moral Obligation Bonds, or both. There can be no assurances that VRA will maintain the informal policies concerning the issuance of Bonds or the projected Infrastructure Revenue Bond Debt Service Coverage Ratio set forth in the subsection "PROJECTED CASH FLOWS" in this Section Two.

Recent Developments Related to the COVID-19 Pandemic

General. The World Health Organization has declared a pandemic following the outbreak of COVID-19, a respiratory disease caused by a new strain of coronavirus, which is currently negatively impacting most, if not all, areas of the world, including the United States and the Commonwealth. Within the United States, the federal government and various state and local level governments, as well as private entities and institutions, have implemented a variety of different efforts aimed at preventing the spread of COVID-19 including, but not limited to, travel restrictions, voluntary and mandatory quarantines, event postponement and cancellations, voluntary and mandatory work from home arrangements, and facility closures. The impact of these various measures, as well as general concerns related to the global and national public health emergency and other contributing factors (including an ongoing oil production dispute), have also resulted in significant volatility in the stock and credit markets, dislocations in the labor market and a general consensus that the global and national economies are distressed.

Effects on the Commonwealth. On March 12, 2020, Governor Northam declared a state of emergency in the Commonwealth as a result of the COVID-19 pandemic. Subsequently, restrictions designed to address the COVID-19 pandemic have included the prohibition of public and private in-person gatherings of ten (10) or more people, the closure of certain recreational and entertainment businesses and the ban on more than ten (10) patrons in nonessential retail stores capable of maintaining required social distancing (collectively, the "Restrictions"). Businesses offering professional rather than retail services may remain open but they are encouraged to utilize teleworking as much as possible. Further, in-person instruction at schools in the Commonwealth is cancelled for the remainder of this academic year.

During the week of May 11, 2020, the Governor presented a phased plan to reopen Virginia businesses that were required to close under the Restrictions with a general start date of May 15. However, as of May 14, the Governor had granted requests from the City of Richmond, the County of

Accomack and certain northern Virginia localities to delay implementation of the first phase of re-opening until May 28, 2020, to allow those localities more time to meet the health metrics outlined by the Commonwealth. VRA cannot predict with any certainty whether the phased plan may be changed, additional waivers or exceptions may be granted, or whether additional (including more stringent) measures may be imposed in the future to combat a "second wave" of COVID-19 statewide or in particular localities.

On March 30, 2020, Governor Northam issued a statewide Stay at Home executive order to protect the health and safety of Virginians and mitigate the spread of COVID-19, effective until June 10, 2020, unless amended or rescinded (the "Stay at Home Order"). The Stay at Home Order directs all Virginians to stay home except in extremely limited circumstances. Also on March 30, 2020, Governor Northam requested federal disaster assistance, which was received in the form of a Major Disaster Declaration on April 2, 2020. A Major Disaster Declaration designation provides federal public assistance for all areas in the Commonwealth affected by COVID-19 at a federal cost share of 75%. The cost share allows state agencies, local governments and certain non-profit organizations to purchase supplies and receive reimbursements for COVID-19 related costs under the federal Public Assistance program. The Major Disaster Declaration also authorizes federal agencies to provide direct emergency assistance to the Commonwealth.

The economic fallout from COVID-19 has begun to take effect both nationwide and in Virginia. For example, in April payroll employment in the United States decreased by 20.5 million jobs and the unemployment rate rose to 14.7 percent. As stated in the April Revenue Report from the Virginia Secretary of Finance to the Governor dated May 14, 2020 (the "April Revenue Report"), the Commonwealth's seasonally adjusted unemployment rate increased in March and is expected to rise significantly in the future as the full impact of business closings related to COVID-19 is realized. Depending on the length and breadth of the impact of COVID-19, the effects on the economy of the Commonwealth may be significant. The volatility of and dislocation in the capital and labor markets have affected and are expected to continue to affect the liquidity and results of operations of companies in the Commonwealth and the Commonwealth's economy as a whole. This in turn could materially affect the levels of the Commonwealth's revenues, expenses and cashflow for the current and future fiscal years.

The Virginia Constitution requires that the Commonwealth maintain a balanced budget. For the current fiscal year, which ends on June 30, 2020, the Stay at Home Order, the Restrictions and related actions will likely result in a negative revenue impact forcing budget reductions of a yet unknown magnitude. The Commonwealth historically collects one-third of its annual revenue in the last quarter of the fiscal year. The Governor has extended the due date for certain Virginia tax payments to June 1 from the regular May 1 date. Any individual or corporate income tax payment due during the period April 1 to June 1 may now be submitted on or before June 1 without penalty. As a result of the income tax payment extension specifically and the COVID-19 dislocations generally, the Commonwealth projected that it would receive approximately $1 billion less in revenues in the last quarter of the current fiscal year than was expected in the current Appropriation Act. Based on that projection, the Governor initiated steps effective April 3, 2020, to reduce budgeted expenditures, including instituting a hiring freeze of all state classified and wage employees not exempted as essential and directing state agency heads to eliminate discretionary spending in the current fiscal year. The current Appropriation Act generally enables the Governor to withhold spending authority (i.e., make budgetary reductions) in an amount up to 15% of allocated funds. In addition, the Governor proposed further actions to conserve budgetary resources through 37 amendments to the current Appropriation Act. On April 22, 2020, the General Assembly adopted the majority of the proposed amendments, which the Governor signed into law on April 24, 2020.

The April Revenue Report was the first monthly report to reflect the impacts of COVID-19. In April 2020 the Commonwealth's total general revenue fund collections decreased $693.4 million (26%)

when compared to April 2019. The decrease was largely attributed to the income tax payment extension to June 1, when the deferred payments would again become due. Individual and corporate income taxes account for 75 percent of the general fund revenues. On a fiscal year-to-date basis compared to the same period in fiscal year 2019, net individual income tax collections fell 0.4 percent (trailing the Commonwealth's forecast of 1.3 percent growth) and collections of corporate income taxes decreased 4.2 percent (trailing the 9.3 percent growth forecast). Sales and use tax collections (17.5 percent of general fund revenues) were down 0.4 percent in April, but on a fiscal year-to-date basis collections had risen 7.4 percent, matching the Commonwealth's annual estimate. The results for other categories of general fund revenues were mixed. The April Revenue Report indicated that on a fiscal year-to-date basis total general fund revenue collections increased 1.4 percent through April, trailing the annual forecast of 3.1 percent growth, and the level of April's revenue losses were consistent with the anticipated revenue loss of $1 billion for the last quarter of fiscal year 2020 on the basis of which the Commonwealth began to make the spending reductions and the Governor and the General Assembly agreed to make changes to the current Appropriation Act as described above.

For the upcoming biennium commencing July 1, 2020, the duration and extent of the impact of COVID-19 on the Commonwealth's revenues, expenses and cashflow are uncertain. Based on early preliminary projections, the Commonwealth could expect to realize decreases in general fund revenues of at least $1 billion in the first year and $2 billion in the second year of the upcoming biennium. The actual impact may be greater or lesser than such early projections. The Appropriation Act for the upcoming biennium generally gives the Governor the same ability to withhold spending authority as he has under the current Appropriation Act.* In anticipation of a significant reduction in general fund revenues and cash balances extending into the next biennium, the Governor is continuing the efforts to reduce budgeted expenditures that he instituted for the current fiscal year, preparing for potential budget cuts, reconsidering funding for new initiatives and seeking to avoid new spending commitments.

Furthermore, the Commonwealth anticipates that it will incur significant additional expenditures not currently budgeted to address the COVID-19 pandemic. The potential magnitude of such expenditures is not known; however, the Commonwealth received approximately $3.3 billion from the $150 billion federal Coronavirus Relief Fund established by the CARES Act. On May 12, 2020, the Commonwealth published procedures by which Virginia localities may obtain allocations of up to $650 million of such funds.

Based on the most recent monthly analysis by the Office of the Comptroller of the Commonwealth's cash and investments, the Commonwealth had $4.2 billion in unrestricted cash available for immediate transfer into the General Fund as of March 31, 2020, and another $5.6 billion available in non-General Fund sources to support cash flow in other Commonwealth operating funds as necessary.

The Governor and the General Assembly have been working together to address this fluid situation. Until there is more concrete information on the revenue effects, the Commonwealth's Secretary of Finance has stated that priority will be given to maintaining core services and effectuating new spending mandated under state and federal law.

The financial and operating data contained in this Official Statement and in particular in Appendices B, C, and D attached hereto, are as of the dates and for the periods indicated, which, except for the data drawn from the April Revenue Report, were prior to the COVID-19 outbreak. Except for the limited information contained in this Section (including the April Revenue Report), such financial and operating data have <u>not</u> been updated to reflect any potential impacts of the COVID-19 outbreak on the Commonwealth's general economic and financial condition.

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* This is an update. The Governor had not signed the Appropriation Act as of the date of the Preliminary Official Statement.

Effects on the Local Governments. The COVID-19 pandemic is altering the behavior of businesses and other institutions and people in a manner that is having negative effects on local economies. While all Local Governments have been operating under the Stay at Home Order and the Restrictions, some Localities have declared states of emergency and implemented additional safeguards in response to the pandemic. These measures will likely result in lower revenues and increased expenses forcing budget reductions for Local Governments. The magnitude of the impact on revenues, expenses and budgets will vary for each Local Government and cannot be predicted due to the dynamic nature of the pandemic, which produces uncertainties about its duration and severity and the nature of future actions that may be taken by governmental authorities and other institutions to attempt to contain or mitigate it. While some COVID-19 related costs may be reimbursed by the federal government, the reimbursement timing remains uncertain and some Local Governments may face liquidity issues that pressure operations and debt service.

VRA anticipates that bonds backed by sales, hotel and other similar taxes are relatively vulnerable to credit deterioration given the narrow pledge and inherent volatility of the revenue streams. Specifically, COVID-19 related mobility restrictions will likely have an immediate impact on sales and use, admission, and meals tax collection, which could be exacerbated by the ensuing recession. Certain Local Governments supported primarily through property taxes may be affected by potential decreases in assessed values of commercial and residential properties. VRA also anticipates that Local Governments operating municipal water, gas, electric, and gas utilities will become increasingly vulnerable to the economic effects of the pandemic. As utilities are around-the-clock operations, in the event that illness or quarantine impact a utility's workforce and its operations degrade, a reduction in revenues may follow. The effects for each utility will vary depending on service area characteristics such as customer base composition, customers' income levels, and other economic factors.

Moreover, many Local Governments receive funding from the Commonwealth. Any reduction in the Commonwealth's revenue may negatively impact those revenues allocated to Local Governments and, accordingly, cause additional stress on certain Local Government budgets. VRA anticipates that Local Governments may respond to the COVID-19 pandemic by reducing expenditures, freezing hiring additional staff, and delaying or ceasing capital projects.

VRA is taking a number of steps in response to the anticipated effects on the Local Governments from the COVID-19 pandemic. The steps include the following;

1. Evaluation of the database of the Local Governments in the Virginia Pooled Financing Program to identify those with the lowest liquidity metrics going into the COVID-19 pandemic;

2. Phone call outreach to all Local Governments in the Virginia Pooled Financing Program to discuss the initial effects of the crisis on their current FY 2020 budgets and on the forecasts for their FY 2021 budgets, to obtain information on specific actions being taken in response to lower revenues and unanticipated expenses, and to emphasize the critical importance of prioritizing debt service payments on the outstanding Local Obligations;

3. Review of outstanding Acquisition Fund Local Account balances and communication to Local Governments to ensure that Local Governments are reimbursing themselves for Qualified Project expenditures in a timely manner to aid in maintaining liquidity; and

4. Intensifying ongoing monitoring efforts including the review of FY 2021 budget development and audited financial statements and the tracking of debt service payment timeliness.

SECTION THREE: PROGRAM PARTICIPANTS

VIRGINIA RESOURCES AUTHORITY

VRA, created by the Act in July 1984, is organized and exists as a public body corporate and a political subdivision of the Commonwealth. VRA was created to assist in financing the present and future needs of the Commonwealth for Qualified Projects, and to encourage the investment of both public and private funds to make loans and grants available to Local Governments for Qualified Projects.

VRA is authorized to issue its bonds to provide funds to carry out its purposes and powers. To date, VRA has issued bonds backed by the moral obligation of the Commonwealth in the original aggregate principal amount of approximately $2,745,634,229,* of which $926,981,195.88* was outstanding as of March 31, 2020. These amounts include the original and outstanding principal amounts of the Moral Obligation Bonds set forth in the subsection "PRIOR SERIES OF BONDS" in Section Two and bonds from other VRA programs. VRA is authorized to have outstanding bonds backed by the moral obligation of the Commonwealth of no more than $1.5 billion; however, this limit can be changed at any time by the General Assembly.

In addition, VRA has issued bonds that are not backed by the moral obligation of the Commonwealth in the original aggregate principal amount of approximately $5,150,712,032,* of which $2,311,643,223* was outstanding as of March 31, 2020. These amounts include the original and outstanding principal amounts of the Infrastructure Revenue Bonds set forth in the subsection "PRIOR SERIES OF BONDS" in Section Two and bonds from other VRA programs.

Members of the Board

The Board of Directors of VRA consists of seven members appointed by the Governor and confirmed by the General Assembly for four-year staggered terms and four ex-officio members: the State Treasurer, the State Health Commissioner, the Director of the Department of Environmental Quality and the Director of the Department of Aviation. The Chairman of the Board of Directors is designated by the Governor and is the chief executive officer of VRA. The members of the Board of Directors are as follows:

Thomas L. Hasty, III of Chesapeake, Virginia. Director and Chairman. Term expires June 30, 2022. Mr. Hasty is Senior Executive Vice President of Towne Bank, Portsmouth, Virginia.

Cecil R. Harris, Jr. of Rockville, Virginia. Director and Vice Chairman. Term expires June 30, 2020. Mr. Harris is the County Administrator of the County of Hanover, Virginia.

Cynthia V. Bailey of Richmond, Virginia. Director. Term expires June 30, 2023. Ms. Bailey was previously an Acting Deputy Attorney General in the Office of Attorney General Mark Herring from 2014 to 2019.

Jennifer Bowles of Martinsville, Virginia. Director. Term expires June 30, 2020. Ms. Bowles serves as a member of the Council of the City of Martinsville, Virginia.

Mary B. Bunting of Hampton, Virginia. Director. Term expires June 30, 2020. Ms. Bunting is the City Manager of the City of Hampton, Virginia.

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* This amount does not account for the issuance of the 2020A Bonds or the defeasance of the Refunded Bonds.

Barbara McCarthy Donnellan of Clifton, Virginia. Director. Term expires June 30, 2021. Ms. Donnellan served the Arlington County community for over 30 years and is the retired County Manager for Arlington County, a position she held between 2010 and 2015.

Reginald E. Gordon of Richmond, Virginia. Director. Term expires June 30, 2020. Mr. Gordon is the Deputy Chief Administrative Officer of the Office of Community Wealth Building for the City of Richmond, Virginia.

Mark Flynn of Quinton, Virginia. Director Ex-Officio. Mr. Flynn serves as Director of the Department of Aviation. He was appointed to this position on December 22, 2017. Previously, he served as partner at Woodley & Flynn, PLLC, Richmond, Virginia.

Manju Ganeriwala of Henrico County, Virginia. Director Ex-Officio. Ms. Ganeriwala serves as State Treasurer of Virginia. She was reappointed to this post by Governor Ralph Northam on December 22, 2017. Prior to her initial appointment as State Treasurer in 2009, Ms. Ganeriwala served as Deputy Secretary of Finance beginning in January 2006.

M. Norman Oliver, MD, MA of Richmond, Virginia. Director Ex-Officio. As of June 1, 2018, Dr. Oliver serves as Health Commissioner. In addition, Dr. Oliver serves as the Deputy Commissioner for Population Health at the Virginia Department of Health. Prior to his appointment, Dr. Oliver served as the Walter M. Seward Professor and Chair of the Department of Family Medicine at the University of Virginia School of Medicine.

David K. Paylor of Richmond, Virginia. Director Ex-Officio. Mr. Paylor serves as the Director of the Department of Environmental Quality. Prior to his appointment, Mr. Paylor served as Deputy Secretary of Natural Resources for Governor Mark Warner.

VRA Staff

The Executive Director of VRA is appointed by the Governor. The Executive Director reports to, but is not a member of, the Board of Directors, and administers, manages and directs the affairs and activities of VRA in accordance with the policies, and under the control and direction, of the Board of Directors. Selected members of the staff include the following:

Stephanie L. Hamlett, Executive Director and General Counsel. Ms. Hamlett was appointed Executive Director in January 2018, and previously served as Executive Director from July 2010 to March 2012 and April 2014 to September 2017. Prior to her most recent appointment, Ms. Hamlett served as a University Counsel to Virginia Commonwealth University. She has also served as a Senior Assistant Attorney General and Deputy Counselor for Governor Robert McDonnell. Prior to serving in those capacities, she served as Senior Counsel to the Attorney General, Deputy Attorney General, Special Counsel to the Attorney General and Opinions Chief and an Assistant Attorney General in the financial services section of the Attorney General's Office as Assistant Attorney General. As Assistant Attorney General, she represented a variety of state agencies, including the Virginia Retirement System, the Virginia Port Authority, the Virginia College Savings Plan, the Virginia Public School Authority and the Virginia Public Building Authority in financial and investment-related matters. She also served as counsel to the Virginia Department of Taxation. She is the former Executive Director and General Counsel of Virginia's Heartland Partnership, Inc., and from 1996 to 1999, she served at Legislative Services as staff counsel to the House Finance Committee and House Appropriations Committee. In the private practice of law, Ms. Hamlett specialized in tax, bond and business issues. Ms. Hamlett received her undergraduate training at Mary Washington College; she received her Juris Doctor degree from the

University of Richmond's T.C. Williams School of Law and her Master's degree in tax law from the College of William and Mary's Marshall-Wythe School of Law.

Shawn Crumlish, Director of Financial Services. Mr. Crumlish joined VRA in 2005. Prior to VRA, his work experience included financial research and analysis and business development for several manufacturers. He holds a Bachelor's degree in Marketing from James Madison University and a Master's degree in Finance from Virginia Commonwealth University.

Peter D'Alema, Director of Program Management. Mr. D'Alema currently serves as the Director of Program Management for VRA. His previous experience includes serving as Financial Manager for VRA and Senior Commercial Underwriter for Bank of America, N.A. He holds a Bachelor's degree in Marketing Management from Virginia Polytechnic Institute and State University (Virginia Tech) and a Master's degree in Finance from Virginia Commonwealth University.

THE VIRGINIA POOLED FINANCING PROGRAM

Background

Under the Program, VRA uses the net proceeds of the Bonds to purchase or acquire Local Obligations from Local Governments to finance or refinance Qualified Projects. Qualified Project costs that may be financed by VRA are those incurred by a Local Government as reasonable and necessary for the carrying out of all work and undertakings necessary or incident to any Qualified Project. A "Qualified Project" is any project or facility related to water supply, wastewater treatment, solid waste management, recycling, resource recovery, energy conservation and efficiency, transportation, public safety, land conservation and preservation, parks and recreation, professional sports facilities (if designated by the General Assembly as eligible for assistance from VRA), federal facilities (and former federal facilities), brownfield remediation and redevelopment, local government buildings, broadband, governmental airports, dredging, flood prevention or dam safety, together with related equipment, office, administrative, storage, and maintenance facilities, as well as interests in land related thereto.

To qualify under the Program, a Local Government must submit to VRA an application or other materials containing a description of its Qualified Project and a summary of the estimated costs necessary to complete the Qualified Project. In addition, the Local Government must submit a description of all sources of funds available to pay for the Qualified Project, including funds required from sources other than VRA. A Local Government (issuing a Revenue Local Bond or a Double-Barrel Local Bond) or a Financing Lease Local Government must submit a description of the revenues or lease payments to be derived from the Qualified Project which are to be pledged to the payment of the Local Obligation and a projection of revenues or lease payments and expenses for the Qualified Project over the life of the Local Obligation. When projections indicate a potential future need for revenues outside of those specifically pledged to support the debt service of a given Qualified Project, VRA may require a Local Support Agreement as an additional credit enhancement from one or more Local Governments before authorizing a loan. See the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in Section Two for additional information on Local Support Agreements. In addition, any Locality (issuing a General Obligation Local Bond, a Double-Barrel Local Bond, or a Special Fund Local Bond) or a Financing Lease Local Government must submit data with respect to assessed valuation of real estate, tax rates and receivables and outstanding and projected indebtedness. A Local Government must submit information with respect to population trends and general economic outlook of the community. Except in the cases of loans secured by Local Obligations that constitute General Obligation Local Bonds, Special Fund Local Bonds, refinancings or Financing Leases, a Local Government must submit a certificate, prepared by an independent consulting engineer, independent certified public accountant or other consultant acceptable to VRA, certifying as to, among other things, the sufficiency of the rates, fees and other charges established

by the Local Government to meet its rate covenant contained in its Agreement. Each Local Government must submit audited financial statements in a form acceptable to VRA. Additionally, VRA may in its discretion require a Local Government to obtain an underlying rating from a rating agency at least equal to the rating level established by VRA.

The acquisition of a Local Obligation by VRA under the Program is determined by VRA generally on the basis of the economic feasibility of the Qualified Project to be financed by the Local Obligation and the financial viability of the Local Government. In assessing economic feasibility, VRA considers, among other things, prevailing economic conditions, population growth and trends, employment levels, the Local Government's administrative capabilities, the financial performance of the Local Government's water, sewer and/or solid waste system, public safety facility, or other revenue generating Qualified Projects, and the present rate structure. In addition, the Local Government issuing a Revenue Local Bond or a Double-Barrel Local Bond must demonstrate its ability to fix rates, fees and other charges at times and in amounts necessary to produce sufficient revenues to pay the operating and maintenance expenses of the Qualified Project, debt service on all outstanding prior or parity indebtedness against the Qualified Project and debt service on the Local Obligations issued in connection with the Qualified Project. In the case of Local Obligations constituting general obligations and Financing Leases, VRA considers, among other things, the tax base of the Local Government and its existing tax rate structure and the historical performance of the Local Government's general fund.

Certain information regarding the performance of the Program for the fiscal year ended June 30, 2019, is available in the Comprehensive Annual Report of the Virginia Resources Authority, and which is incorporated herein by reference. Such report has been filed with and is available from the Municipal Securities Rulemaking Board's Electronic Municipal Market Access Website.

Structure

The Local Obligations will be structured to provide for payments of debt service or rentals in amounts and at times that, together with the expected investment earnings and the balances scheduled to be released from the Capital Reserve Fund and certain other funds and accounts described herein, are expected to be adequate to pay the principal of, premium, if any, and interest on the Bonds (including the 2020A Bonds) through maturity or upon their earlier redemption. See the subsection "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS" in Section Two.

VRA's current practice is to structure the Program so that for every $1.00 of Bond proceeds used to purchase or acquire Local Obligations, approximately $0.70 is provided from the proceeds of Infrastructure Revenue Bonds and approximately $0.30 is provided from the proceeds of Moral Obligation Bonds. However, VRA may change this structure at any time, subject to the limitations related to the issuance of additional Bonds. For instance, so long as any 2020A Bonds remain Outstanding, as a condition of issuing additional Bonds under the Indenture, VRA must show Required Infrastructure Revenue Bond Revenue Coverage of 120% for any additional Infrastructure Revenue Bonds and 100% for any additional Moral Obligation Bonds, but VRA is not required to issue Infrastructure Revenue Bonds and Moral Obligation Bonds in the same proportions as it has previously. See the subsection "ADDITIONAL INDEBTEDNESS" in Section Two.

SELECTED INFORMATION ON VIRGINIA LOCAL GOVERNMENTS

The information set forth below includes brief summaries of state law concerning the operation of, and certain legal restrictions applicable to, the Local Governments that have issued or will issue or enter into Local Obligations to be acquired by VRA from proceeds of the various Series of Bonds that have been or will be issued under the Indenture. Local Governments are expected to consist mainly of

counties, cities, towns, regional authorities, service authorities, sanitation districts and sanitary districts in the Commonwealth. Nothing contained in the summaries set forth in this subsection should be construed as a representation or warranty of the financial condition of any specific Local Government.

Powers

Localities (i.e., counties, cities and towns) conduct their respective governmental activities pursuant to the provisions of the Constitution of Virginia (the "Constitution") and general and special laws of the Commonwealth. Localities generally have been granted powers to contract, sue and be sued, assess, levy and collect taxes, issue bonds, own, lease (as lessor and lessee) and take real or personal property, regulate nuisances, ensure public health and safety and take actions to protect the environment. Localities have also been granted powers to provide certain services, including without limitation police, fire, entertainment, rescue squad, street lighting, water, wastewater and solid waste disposal services.

Limited Purpose Local Governments (e.g., service authorities) are authorized to provide such services as are enumerated in their respective enabling legislation, which may include without limitation one or more of the following: water supply, wastewater treatment and disposal, stormwater and refuse collection and disposal services, public safety and transportation services.

Sources of Revenue

Localities. Revenues of Localities are derived principally from:

(1) General Property Taxes – Localities are authorized by the Constitution to levy an annual ad valorem tax on the assessed value of real and personal property located within their jurisdictions. The timing of such taxes and the rate of such taxes varies among Localities.

(2) Other Local Taxes – Localities may also levy various other local taxes including a sales and use tax, business, professional and occupational license taxes, a motor vehicle license tax, a meals tax, a recordation tax and a tax on consumer telephone bills.

(3) Intergovernmental Revenue – Localities may receive revenue from the Commonwealth for a portion of shared categorical expenses including certain expenditures for social services and the operation of constitutional offices. Cities and counties also receive a significant amount of aid from the Commonwealth in support of the public school system; however, such revenues are credited directly to the school system and are not reflected in the general funds of cities and counties. The Commonwealth is not obligated to maintain or continue such financial assistance, which is provided subject to appropriation by the General Assembly of the Commonwealth.

(4) Other Revenues – Other sources of revenue for a Locality may include permits, privilege fees and regulatory licenses, fines and forfeitures, interest on general fund investments, transfers from a utility fund, certain charges for services rendered, various recovered costs, and miscellaneous other revenues.

Limited Purpose Local Governments. Revenues of Limited Purpose Local Governments are derived principally from the payment of rates, fees and charges derived from the operation and use of the Systems of such Limited Purpose Local Governments.

Incurrence of Debt

Localities. Pursuant to the Constitution and the Public Finance Act of 1991 (Chapter 26, Title 15.2 of the Virginia Code), a Locality in the Commonwealth is authorized to issue bonds and notes secured by (a) a pledge of its full faith and credit and unlimited taxing power ("General Obligation Debt"), (b) a pledge of revenues from the ownership or operation or lease of a revenue producing enterprise, such as a water supply, wastewater treatment, solid waste disposal system or transportation project, and certain other funds ("Revenue Debt") and (c) a pledge combining (a) and (b) ("Double-Barrel Debt"). The Constitution and the Public Finance Act of 1991 limit the amount of such General Obligation Debt or Double-Barrel Debt (except Double-Barrel Debt that has been authorized by referendum to finance a project that is producing sufficient revenue to pay debt service on such Debt) which may be incurred by cities and towns (and counties that have elected to be treated as a city for purposes of the incurrence of debt) to 10% of the assessed valuation of real estate subject to local taxation. Some city or town charters may further limit the amount of debt that may be incurred within a fiscal year or that may be incurred without a referendum. Counties may not issue General Obligation Debt or Double-Barrel Debt without a referendum, except for refunding bonds and bonds issued for capital projects for school purposes and sold to the Literary Loan Fund, the Virginia Retirement System or other Commonwealth agency prescribed by law. The Constitution and the Public Finance Act of 1991 do not contain restrictions on the amount of Revenue Debt that may be incurred by a Locality. The bond resolution, trust indenture or other agreement providing for the issuance of Revenue Debt may, however, contain certain rate covenants and additional bonds tests that must be satisfied prior to the issuance of additional Revenue Debt.

The authorization for a Locality to issue a Special Fund Local Bond to VRA is found in Section 62.1-216 of the Act, which among other things provides for the creation and maintenance of special funds for the payment of debt service on Local Bonds and the appropriation of funds of the Locality to make deposits into a special fund.

Limited Purpose Local Governments. Subject to the provisions of its respective enabling legislation, most Limited Purpose Local Governments are authorized to issue Revenue Debt only. The bond resolution, trust agreement or other agreement providing for the issuance of debt may contain certain rate covenants and additional bonds tests that must be satisfied prior to the issuance of additional Revenue Debt. Sanitary districts are authorized to issue Revenue Debt and, subject to certain limitations, may levy an annual tax upon on all property in the district subject to local taxation to pay debt service on such debt.

Leasing Powers

Most Local Governments are authorized to lease property as lessor and as lessee under the Virginia Code. In general, as described above, a county may not issue General Obligation Debt without a referendum. Counties sometimes choose to finance non-revenue-producing projects by entering into long-term leases under which the obligation to pay rentals is subject to annual appropriations by the governing body of the county. Based on a number of opinions of the Attorney General of Virginia, and the decision of the Supreme Court of Virginia in *Dykes* (as referenced under the heading "Local Bonds" in the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in Section Two), to the effect that "subject-to-appropriation" financings do not constitute General Obligation Debt, there is no legally enforceable duty or liability on the county to make the appropriation. The rentals are often pledged to secure bonds issued by Limited Purpose Local Governments to finance the project leased to the county.

Certain Economic Information

The economy of the Commonwealth and its Local Governments is affected to a significant degree by manufacturing, the government sector (including defense and other federal government operations), agriculture, mining and tourism. Defense installations are concentrated in (i) Northern Virginia, the location of the Pentagon, and (ii) the Hampton Roads area, including the Cities of Newport News, Hampton, Norfolk and Virginia Beach (Southeastern Virginia), the locations of, among other installations, the Joint Base Langley-Eustis (the combination of Langley Air Force Base and Fort Eustis), Norfolk Naval Station and the Oceana Naval Air Station, respectively. Any substantial reductions in the defense spending generally or in particular areas, including base closings, could adversely affect the economies of the Commonwealth and its political subdivisions. Certain financial, economic and demographic information about the Commonwealth, including a discussion of certain economic outlook and revenue forecasts, has been incorporated in this Official Statement. See Appendices B, C and D. Additionally, the COVID-19 pandemic is expected to negatively impact the economies of the Commonwealth and the Local Governments the extent and duration of which cannot be predicted. See "INVESTMENT CONSIDERATIONS – Potential Impact of COVID-19" hereunder.

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THE 2020A LOCAL GOVERNMENTS AND THE OTHER PARTICIPATING LOCAL GOVERNMENTS

Set forth in the table below are the 2020A Local Governments and the features of their respective 2020A Local Obligations. The 2020A Local Obligations are to be delivered contemporaneously with the delivery of the 2020A Bonds.

2020A Local Governments

Local Government	Principal Amount of 2020A Local Obligation[1]	Purpose	Type of Security[2]	Approximate Term (years)	Percentage of all Outstanding Local Obligations
Southwest Virginia Regional Jail Authority	$37,880,000	Public Safety, Refunding	Revenue, Moral Obligation	22	1.55%
Western Virginia Water Authority	4,160,000	Wastewater	Revenue	20	0.17
York County, Virginia	9,510,000	Wastewater, Refunding	Revenue	19	0.39
York County, Virginia	3,430,000	Wastewater, Local Government Building, Public Safety	Lease Revenue	20	0.14
Totals	$54,980,000				

[1] Total is less than aggregate par amount of the 2020A Bonds because total does not include bonds sold to fund the Capital Reserve Fund.
[2] For an explanation of the types of security for the 2020A Local Obligations, see the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in Section Two.

Set forth in the table below is the aggregate participation in the Program of the 2020A Local Governments and all of the other Local Governments that have currently outstanding Local Obligations acquired with proceeds of the Bonds Outstanding. There are currently 137 Local Governments who participate in the Program including the 2020A Local Governments.

Aggregate Participation in the Virginia Pooled Financing Program

Local Government	Outstanding Principal Amount[1]	% of all Local Obligations[1]	Type of Security
Accomack County	$ 3,130,000	0.13%	Lease Revenue
Alexandria Renew Enterprises	42,215,000	1.72	Revenue
Amelia County	280,000	0.01	Revenue, MO
Amherst County Service Authority	2,475,000	0.10	Revenue, MO
Appomattox River Water Authority	7,260,000	0.30	Revenue
Augusta County	4,035,000	0.16	Lease Revenue
Bedford Regional Water Authority	29,600,000	1.21	Revenue
Bedford Regional Water Authority	7,545,000	0.31	Revenue, MO
Bland County	1,935,000	0.08	Lease Revenue
Blue Ridge Regional Jail Authority	38,315,000	1.56	Revenue
Blue Ridge Resource Authority	4,670,000	0.19	Revenue, MO
Botetourt County	11,240,000	0.46	Lease Revenue
Bristol, City of	2,060,000	0.08	GO
Broadway, Town of	7,675,000	0.31	GO, Revenue
Brunswick County	7,690,000	0.31	Lease Revenue
Buckingham County	5,175,000	0.21	Lease Revenue
Caroline County	32,335,000	1.32	Revenue, MO
Caroline County	4,080,000	0.17	Lease Revenue
Charlotte County	11,225,000	0.46	Lease Revenue
Chesterfield County	48,595,000	1.98	Special Fund Revenue
Chilhowie, Town of	3,350,000	0.14	GO
Clarksville, Town of	3,405,000	0.14	GO, Revenue
Clifton Forge, Town of	675,000	0.03	GO, Revenue
Clifton Forge, Town of	230,000	0.01	GO
Covington, City of	4,965,000	0.20	Revenue
Craig-New Castle Public Service Authority	355,000	0.01	Revenue
Culpeper County	2,345,000	0.10	Lease Revenue
Dickenson County	130,000	0.01	Lease Revenue
Dinwiddie County	55,335,000	2.26	Lease Revenue
Dinwiddie County Water Authority	1,155,000	0.05	Revenue, MO
Dumfries, Town of	6,380,000	0.26	GO
Essex County	2,585,000	0.11	Lease Revenue
Fairfax County	7,770,000	0.32	Special Fund Revenue
Fairfax County Park Authority	775,000	0.03	Revenue
Fairfax, City of	31,530,000	1.29	Lease Revenue
Fairfax, City of	19,865,000	0.81	Revenue
Falls Church, City of	285,000	0.01	GO
Farmville, Town of	9,805,000	0.40	GO
Fauquier County	30,020,000	1.22	Lease Revenue

Local Government	Outstanding Principal Amount[1]	% of all Local Obligations[1]	Type of Security
Fauquier County	235,000	0.01	Revenue, MO
Fincastle, Town of	270,000	0.01	GO, Revenue
Fluvanna County	7,210,000	0.29	Revenue, MO
Fluvanna County	1,695,000	0.07	Lease Revenue
Franklin County	2,115,000	0.09	Revenue, MO
Franklin, City of	1,715,000	0.07	GO
Frederick County	20,890,000	0.85	Lease Revenue
Frederick County Sanitation Authority	9,825,000	0.40	Revenue
Fredericksburg, City of	11,285,000	0.46	GO
Fredericksburg, City of	1,015,000	0.04	Revenue
Frederick-Winchester Service Authority	62,705,000	2.56	Revenue
Front Royal, Town of	4,545,000	0.19	GO
Front Royal, Town of	2,330,000	0.10	GO, Revenue
Giles County	9,500,000	0.39	Lease Revenue
Goochland County	2,890,000	0.12	Revenue, MO
Gordonsville, Town of	295,000	0.01	GO
Greene County	13,440,000	0.55	Revenue, MO
Greensville County	13,695,000	0.56	Lease Revenue
Greensville County	2,110,000	0.09	Revenue, MO
Greensville County Water and Sewer Authority	14,320,000	0.58	Revenue, MO
Halifax County	22,550,000	0.92	Lease Revenue
Halifax County Service Authority	2,690,000	0.11	Revenue
Halifax County Service Authority	230,000	0.01	Revenue, MO
Hamilton, Town of	240,000	0.01	GO, Revenue
Hampton Roads Regional Jail Authority	12,935,000	0.53	Revenue
Hampton, City of	72,530,000	2.96	Revenue, MO
Hanover County	60,460,000	2.47	Special Fund Revenue
Hanover County	9,755,000	0.40	Revenue
Hanover County	1,390,000	0.06	Lease Revenue
Harrisonburg, City of	5,175,000	0.21	GO
Harrisonburg-Rockingham Regional Sewage Authority	2,210,000	0.09	Revenue
Henry County Public Service Authority	1,140,000	0.05	Revenue
Hopewell, City of	9,125,000	0.37	Revenue
Isle of Wight County	9,260,000	0.38	Lease Revenue
James River Water Authority	7,560,000	0.31	Revenue, MO
King George County	40,955,000	1.67	Lease Revenue
King George County Service Authority	17,070,000	0.70	Revenue, MO
King William County	2,425,000	0.10	Lease Revenue
Lake Holiday Sanitary District	6,515,000	0.27	GO, Revenue
Lancaster County	1,095,000	0.04	Lease Revenue
Lawrenceville, Town of	445,000	0.02	Revenue
Leesburg, Town of	11,185,000	0.46	GO
Lexington, City of	8,195,000	0.33	GO
Lexington, City of	4,540,000	0.19	Revenue
Loudoun County	3,905,000	0.16	Revenue, MO
Louisa County	35,120,000	1.43	Lease Revenue

Local Government	Outstanding Principal Amount[1]	% of all Local Obligations[1]	Type of Security
Lovettsville, Town of	1,675,000	0.07	GO, Revenue
Luray, Town of	1,035,000	0.04	GO
Luray, Town of	840,000	0.03	GO, Revenue
Manassas Park, City of	19,930,000	0.81	GO
Manassas Park, City of	7,620,000	0.31	GO, Revenue
Manassas, City of	405,000	0.02	GO
Mathews County	1,690,000	0.07	Lease Revenue
Maury Service Authority	185,000	0.01	Revenue
Meherrin Regional Jail Authority	34,800,000	1.42	Revenue, MO
Middle River Regional Jail Authority	19,065,000	0.78	Revenue, MO
Middleburg, Town of	1,430,000	0.06	GO
Middlesex County	350,000	0.01	Lease Revenue
Nelson County	8,850,000	0.36	Lease Revenue
New Kent County	27,850,000	1.14	Lease Revenue
New Kent County	11,620,000	0.47	Revenue, MO
New Market, Town of	1,155,000	0.05	GO
New River Regional Water Authority	11,180,000	0.46	Revenue, MO
Northampton County	14,360,000	0.59	Lease Revenue
Northern Virginia Regional Park Authority	13,330,000	0.54	Revenue
Northern Virginia Transportation Commission (VRE)	42,120,000	1.72	Revenue, MO
Northwestern Regional Jail Authority	1,865,000	0.08	Revenue, MO
Norton, City of	1,270,000	0.05	GO, Revenue
NRV Regional Water Authority	14,185,000	0.58	Revenue
Patrick County	4,095,000	0.17	Lease Revenue
Petersburg, City of	10,260,000	0.42	GO
Petersburg, City of	6,690,000	0.27	Revenue
Pittsylvania County	605,000	0.02	Lease Revenue
Poquoson, City of	160,000	0.01	GO, Revenue
Portsmouth, City of	28,990,000	1.18	Revenue
Potomac Rappahannock Transportation Commission	820,000	0.03	Revenue, MO
Powhatan County	15,480,000	0.63	Revenue, MO
Powhatan County	2,375,000	0.10	Lease Revenue
Prince Edward County	11,190,000	0.46	Lease Revenue
Prince Edward County	150,000	0.01	GO
Prince William County	44,445,000	1.81	Lease Revenue
Radford, City of	7,770,000	0.32	GO
Rapidan Service Authority	8,000,000	0.33	Revenue
Rappahannock Regional Jail Authority	1,510,000	0.06	Revenue
Richmond Metropolitan Transportation Authority	77,000,000	3.14	Revenue
Rivanna Water and Sewer Authority	94,855,000	3.87	Revenue
Roanoke County	36,335,000	1.48	Lease Revenue
Roanoke Valley Broadband Authority	6,115,000	0.25	Revenue, MO
Rockbridge County	15,420,000	0.63	Lease Revenue
Rockingham County	28,085,000	1.15	Revenue, MO
Rockingham County	3,785,000	0.15	Lease Revenue
Round Hill, Town of	5,140,000	0.21	GO

Local Government	Outstanding Principal Amount[1]	% of all Local Obligations[1]	Type of Security
RSW Regional Jail Authority	45,005,000	1.84	Revenue, MO
Scott County	4,195,000	0.17	Lease Revenue
Shenandoah County	24,305,000	0.99	Lease Revenue
Shenandoah County	4,010,000	0.16	Revenue, MO
Smyth County	5,145,000	0.21	GO, Revenue
South Boston, Town of	1,615,000	0.07	GO
South Hill, Town of	1,200,000	0.05	GO
Southampton County	27,090,000	1.11	Revenue, MO
Southside Regional Public Service Authority	1,620,000	0.07	Revenue, MO
Southwest Virginia Regional Jail Authority	60,875,000	2.48	Revenue, MO
Stafford County	69,925,000	2.85	Revenue
Stafford County	66,940,000	2.73	Lease Revenue
Stafford County	955,000	0.04	GO
Stafford County	1,015,000	0.04	Solid Waste Revenue
Staunton, City of	6,600,000	0.27	GO
Strasburg, Town of	2,715,000	0.11	GO
Suffolk, City of	186,735,000	7.62	Revenue
Surry County	16,845,000	0.69	Lease Revenue
Sussex Service Authority	7,165,000	0.29	Revenue
Tappahannock, Town of	1,590,000	0.06	GO
Tazewell County	8,055,000	0.33	Lease Revenue
Vinton, Town of	350,000	0.01	GO
Warren County	68,900,000	2.81	Lease Revenue
Washington County Service Authority	7,780,000	0.32	Revenue
Waynesboro, City of	14,270,000	0.58	GO
Waynesboro, City of	1,185,000	0.05	Revenue
Western Virginia Water Authority	58,165,000	2.37	Revenue
Western Virginia Water Authority	6,145,000	0.25	Revenue, MO
Winchester, City of	81,250,000	3.31	Revenue
Wise County	3,115,000	0.13	Revenue, MO
Woodstock, Town of	1,890,000	0.08	GO
York County	20,395,000	0.83	Lease Revenue
York County	14,885,000	0.61	Revenue
Total	$2,451,295,000	100.00%	

[1] Figures may not add due to rounding.

This Official Statement does not include financial information or operating data specific to the 2020A Local Governments or any other Local Government (other than under the heading "Credit Concerns of Particular Local Governments with Outstanding Local Bonds" in "INVESTMENT CONSIDERATIONS". In the future, a Local Government may be required to provide disclosure in a primary offering or on a continuing basis if the aggregate outstanding principal amount of Local Obligations of such Local Government from time to time represents 15% or more of the then outstanding amount of all Local Obligations purchased with proceeds of Bonds then issued and outstanding under the Master Indenture. No Local Government currently meets the 15% threshold.

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SECTION FOUR: MISCELLANEOUS

LITIGATION

There is not now pending or, to the knowledge of VRA, threatened against VRA any litigation restraining or enjoining the issuance or delivery of the 2020A Bonds or questioning or affecting the validity of the 2020A Bonds or the proceedings and authority under which the 2020A Bonds are to be issued, or the pledge or application of any monies or the security provided for the payment of the 2020A Bonds, or the existence or powers of VRA, or restraining or enjoining the execution, delivery or performance of the 2020A Bonds or the Indenture or questioning or affecting the validity of the 2020A Bonds or the Indenture.

Each Local Government, including the 2020A Local Governments, will be expected to represent in its respective Agreement that there is no action or suit pending or, to the knowledge of the Local Government, threatened against the Local Government (a) affecting the creation, organization or existence of the Local Government or the title of its officers to their respective offices, (b) seeking to prohibit, restrain or enjoin the execution of the related Agreement or the issuance or delivery of its Local Obligation, or (c) in any way contesting or affecting the validity or enforceability of such Local Obligation or Agreement or any agreement or instrument relating to any of the foregoing or the undertaking of the Qualified Project. If a Local Government is unable to make such representation, VRA may in its discretion purchase or decline to purchase its Local Obligation.

From time to time, VRA, some Local Governments and other Virginia issuers are targets of legal proceedings challenging the validity of bonds and requesting associated relief. Such proceedings are frequently in the form of validation suits and "whistleblower" actions under the Federal False Claims Act and the Virginia Fraud Against Taxpayers Act. The plaintiffs or complainants often seek the reversal of long-settled legal precedents, most importantly the Virginia Supreme Court's holding in *Dykes*. See "Local Bonds" in the subsection "SECURITY FOR THE LOCAL OBLIGATIONS" in Section Two. These proceedings tend to be both protracted and highly publicized but to date have generally been found to be without legal merit. If VRA were to become a party to, or become aware of, any such proceeding that would have a material effect on the security for the 2020A Bonds, VRA would be obligated to make an "event disclosure" as described in the subsection "CONTINUING DISCLOSURE UNDER RULE 15c2-12" in this Section and in Appendix H.

LEGAL MATTERS

Certain legal matters relating to the authorization and validity of the 2020A Bonds are subject to the approving opinions of McGuireWoods LLP, Richmond, Virginia, Bond Counsel, which shall be in substantially in the forms set forth in the letter attached as Appendix F. Such opinion letters will be furnished at the expense of VRA upon delivery of the 2020A Bonds. Bond Counsel has not verified the accuracy, completeness or fairness of this Official Statement, and such opinion letters will make no statement of any kind as to this Official Statement. Bond Counsel's opinions will be limited to matters relating to (a) the authorization and validity of the 2020A Bonds, (b) the tax status of interest on the 2020A Bonds under current federal income tax laws, and (c) the tax status of interest on the 2020A Bonds under current Virginia income tax laws.

Certain legal matters will be passed on for VRA by its Executive Director and General Counsel, Stephanie L. Hamlett, Esquire, and for the Underwriters by their counsel, Kutak Rock LLP, Richmond, Virginia. In connection with the execution and delivery of the Agreements, certain legal matters will be passed on for the 2020A Local Governments by their respective bond counsel and general counsel.

TAX MATTERS

Opinion of Bond Counsel - Federal Income Tax Status of Interest on the 2020A Tax-Exempt Bonds

Bond Counsel's opinion regarding the 2020A Tax-Exempt Bonds will state that, under current law and assuming compliance with the Covenants (as defined below), interest on the 2020A Tax-Exempt Bonds (i) is excludable from the gross income of the owners of the 2020A Tax-Exempt Bonds for purposes of federal income taxation under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and (ii) is not a specific item of tax preference for purposes of the federal alternative minimum tax (a "Specific Tax Preference Item"). See "Proposed Forms of Bond Counsel Opinion Letters" in Appendix F.

Bond Counsel's opinion speaks as of its date, is based on current provisions of the Code and other current legal authority and precedent, and covers certain matters not directly addressed by such authority and precedent, and represents Bond Counsel's judgment as to the proper treatment of interest on the 2020A Tax-Exempt Bonds for federal income tax purposes. Bond Counsel's opinion does not contain or provide any opinion or assurance regarding the future activities of VRA or any of the 2020A Local Governments or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the Internal Revenue Service (the "IRS") or the courts. VRA and the 2020A Local Governments have covenanted, however, to comply with the requirements of the Code.

Although Bond Counsel is of the opinion that interest on the 2020A Tax-Exempt Bonds is excludable from gross income for federal income tax purposes, the ownership or disposition of, or the accrual or receipt of interest on, 2020A Tax-Exempt Bonds may otherwise affect the federal tax liability of an owner of 2020A Tax-Exempt Bonds. The nature and extent of these other federal tax consequences depend on the owner's particular tax status and levels of other income or deductions. Bond Counsel will express no opinion regarding any such other tax consequences and prospective purchasers of the 2020A Tax-Exempt Bonds should consult their own tax advisors with respect thereto.

Reliance and Assumptions; Effect of Certain Changes. In delivering its opinion regarding the tax treatment of interest on the 2020A Tax-Exempt Bonds, Bond Counsel is relying upon (i) certifications of representatives of the VRA, the underwriters of such 2020A Tax-Exempt Bonds, Davenport & Company LLC, financial advisor to VRA ("Davenport") and other persons as to facts material to the opinion, which Bond Counsel has not independently verified and (ii) opinions from other firms of municipal bond attorneys serving as bond counsel to all of the 2020A Local Governments. Bond Counsel is also relying on computations provided by Davenport and verified by the Verification Agent without independent verification.

In addition, Bond Counsel is assuming continuing compliance with the Covenants (as hereinafter defined) by the VRA and the 2020A Local Governments. The Code and the regulations promulgated thereunder contain a number of requirements that must be satisfied after the issuance of the 2020A Tax-Exempt Bonds in order for interest thereon to be and remain excludable from gross income for purposes of federal income taxation. These requirements include, by way of example and not limitation, restrictions on the use, expenditure and investment of the proceeds of the 2020A Tax-Exempt Bonds and the use of the property financed by such 2020A Tax-Exempt Bonds, limitations on the source of the payment of and the security for such 2020A Tax-Exempt Bonds and the obligation to rebate certain excess earnings on the gross proceeds of such 2020A Tax-Exempt Bonds to the Treasury. The tax certificates and agreements to be entered into by VRA and the 2020A Local Governments (collectively, the "Tax Documents") with respect to the 2020A Tax-Exempt Bonds contain covenants (the "Covenants") under which VRA and the 2020A Local Governments have agreed to comply with such requirements.

Failure by VRA or any of the 2020A Local Governments to comply with the Covenants could cause interest on the 2020A Tax-Exempt Bonds to become includable in gross income for federal income tax purposes retroactively to their date of issue. If such a failure occurs, the available enforcement remedies may be limited by applicable provisions of law and, therefore, may not be adequate to prevent interest on the 2020A Tax-Exempt Bonds from becoming includable in gross income for federal income tax purposes.

Bond Counsel has no responsibility to monitor compliance with the Covenants after the date of issue of the 2020A Tax-Exempt Bonds.

Certain requirements and procedures contained, incorporated or referred to in the Tax Documents, including the Covenants, may be changed and certain actions may be taken or omitted under the circumstances and subject to the terms and conditions set forth in the Tax Documents. Bond Counsel expresses no opinion concerning any effect on the excludability of interest on the 2020A Tax-Exempt Bonds from gross income for federal income tax purposes of any such subsequent change or action that may be made, taken or omitted upon the advice or approval of counsel other than Bond Counsel.

Certain Collateral Federal Tax Consequences. The following is a brief discussion of certain collateral federal income tax matters with respect to the 2020A Tax-Exempt Bonds. It does not purport to address all aspects of federal taxation that may be relevant to a particular owner thereof. Prospective purchasers of the 2020A Tax-Exempt Bonds, particularly those who may be subject to special rules, are advised to consult their own tax advisors regarding the federal tax consequences of owning or disposing of the 2020A Tax-Exempt Bonds.

Prospective purchasers of the 2020A Tax-Exempt Bonds should be aware that the ownership of tax-exempt obligations may result in collateral federal income tax consequences to certain taxpayers including, without limitation, financial institutions, certain insurance companies, certain corporations (including S corporations and foreign corporations), certain foreign corporations subject to the "branch profits tax," individual recipients of Social Security or Railroad Retirement benefits, owners of an interest in a financial asset securitization investment trust, taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations and taxpayers attempting to qualify for the earned income tax credit.

Original Issue Discount. "Original issue discount" is the excess, if any, of the amount payable at maturity (excluding certain "qualified stated interest" that is unconditionally payable at least annually at prescribed rates) of any maturity of the 2020A Tax-Exempt Bonds purchased as part of the initial public offering over the issue price of the maturity. The amount of original issue discount that has accrued and is properly allocable to an owner of any of the 2020A Tax-Exempt Bonds of any maturity with original issue discount (an "OID Bond") will be excludable from gross income to the same extent as interest on the 2020A Tax-Exempt Bonds for federal income tax purposes. In general, the "issue price" for each maturity of the 2020A Tax-Exempt Bonds is the first price at which a substantial amount of the 2020A Tax-Exempt Bond of that maturity was sold to the public, which may differ from the price shown on the inside cover page hereof.

The Code provides that the amount of original issue discount accrues in accordance with a constant interest method based on the compounding of interest. In the case of an original owner of an OID Bond, the amount of original issue discount that is treated as having accrued on such OID Bond is added to the owner's adjusted basis in determining, for federal income tax purposes, gain or loss upon the disposition of the OID Bond (including its sale, redemption or payment at maturity). The amounts received upon such disposition that are attributable to accrued original issue discount will be excluded from the gross income of the owner for federal income tax purposes.

The accrual of original issue discount and its effect on the redemption, sale or other disposition of OID Bonds that are not purchased in the initial offering at the issue price may be determined according to rules that differ from those described above.

In addition, original issue discount that accrues in each year to an owner of an OID Bond is included in the calculation of the distribution requirements of certain regulated investment companies and may result in some of the collateral federal income tax consequences discussed below. Consequently, owners of any OID Bond should be aware that the accrual of original issue discount in each year may result in additional distribution requirements or other collateral federal income tax consequences although the owner of such OID Bond has not received cash attributable to such original issue discount in such year.

Prospective purchasers of OID Bonds should consult their own tax advisors with respect to the precise determination for federal income tax purposes of the original issue discount accrued upon sale or redemption of such OID Bonds (including OID Bonds not purchased in the initial offering at their issue price) and with respect to state and local tax consequences of owning OID Bonds.

Bond Premium. In general, a Bond purchased at a price (excluding accrued interest) producing a tax basis in excess of the principal amount payable at maturity is a "Premium Bond" and the amount of the excess constitutes the "Bond Premium" on the Premium Bond. Under the Code, the Bond Premium is amortized based on the owner's yield over the remaining term of the Premium Bond (or, in the case of certain callable Premium Bonds, to an earlier call date that results in a lowest yield on the Premium Bond). The owner of a Premium Bond must amortize the Bond Premium by offsetting the qualified stated interest allocable to each interest accrual period against the Bond Premium allocable to that period. No deduction is allowed for such amortization of Bond Premium and the owner is required to decrease the adjusted basis in the Premium Bond by the amount of the amortizable Bond Premium properly allocable to the owner.

Prospective purchasers of any Premium Bond should consult their own tax advisors regarding the treatment of Bond Premium for federal income tax purposes, including various special rules relating thereto, and state and local tax consequences, in connection with the acquisition, ownership, sale, exchange, or other disposition of, and amortization of Bond Premium on, such Premium Bond.

Information Reporting and Backup Withholding. Prospective purchasers should be aware that the interest on the 2020A Tax-Exempt Bonds is subject to information reporting to the IRS in a manner similar to interest paid on taxable obligations. In addition, interest on the 2020A Tax-Exempt Bonds may be subject to backup withholding if the interest is paid to an owner who or which (i) is not an "exempt recipient" and (ii) (A) fails to furnish an accurate U.S. taxpayer identification number in the manner required, (B) has been notified of a failure to report all interest and dividends required to be shown on federal income tax returns or (C) fails to certify under penalty of perjury that the owner is not subject to withholding. Individuals generally are not exempt recipients, although corporations and other entities generally are.

The reporting and backup withholding requirements do not in and of themselves affect the excludability of interest on the 2020A Tax-Exempt Bonds from gross income for federal income tax purposes, and amounts withheld under the backup withholding rules may be refunded or credited against the owner's federal income tax liability, if any, provided that the required information is timely furnished to the IRS.

Effects of Future Enforcement, Regulatory and Legislative Actions. The IRS has established a program to audit tax-exempt obligations to determine whether the interest thereon is includible in gross

income for federal income tax purposes. If the IRS does audit the 2020A Tax-Exempt Bonds, the IRS will, under its current procedures, treat VRA as the taxpayer. As such, the beneficial owners of the 2020A Tax-Exempt Bonds will have only limited rights, if any, to participate in the audit or any administrative or judicial review or appeal thereof. Any action of the IRS, including but not limited to the selection of the 2020A Tax-Exempt Bonds for audit, or the course or result of such audit, or an audit of other obligations presenting similar tax issues, may affect the marketability or market value of the 2020A Tax-Exempt Bonds.

Legislation affecting tax-exempt obligations is regularly considered by the U.S. Congress and various state legislatures. Such legislation may effect changes in federal or state income tax rates and the application of federal or state income tax laws (including the substitution of another type of tax), or may repeal or reduce the benefit of the excludability of interest on the tax-exempt obligations from gross income for federal or state income tax purposes.

The Treasury and the IRS are continuously drafting regulations to interpret and apply the provisions of the Code and court proceedings may be filed the outcome of which could modify the federal or state tax treatment of tax-exempt obligations. There can be no assurance that legislation proposed or enacted after the date of issue of the 2020A Tax-Exempt Bonds, regulatory interpretation of the Code or actions by a court involving either the 2020A Tax-Exempt Bonds or other tax-exempt obligations will not have an adverse effect on the 2020A Tax-Exempt Bonds' federal or state tax status, marketability or market price or on the economic value of the tax-exempt status of the interest on the 2020A Tax-Exempt Bonds.

Prospective purchasers of the 2020A Tax-Exempt Bonds should consult their own tax advisors regarding the potential consequences of any such pending or proposed federal or state tax legislation, regulations or litigation, as to which Bond Counsel expresses no opinion.

Opinion of Bond Counsel – Federal Income Tax Status of Interest on the 2020A Taxable Bonds

Bond Counsel's opinion with respect to the 2020A Taxable Bonds will state that, based on current law, interest on the 2020A Taxable Bonds is includable in the gross income of the owners thereof for purposes of federal income taxation. See "Proposed Forms of Bond Counsel Opinion Letters" in Appendix F.

Bond Counsel will express no opinion regarding other federal tax consequences arising with respect to the 2020A Taxable Bonds.

Summary. The following is a summary of certain of the United States federal income tax consequences of the ownership of the 2020A Taxable Bonds as of the date hereof. Each prospective purchaser of the 2020A Taxable Bonds should consult with its own tax advisor regarding the application of United States federal income tax laws, as well as any state, local, foreign or other tax laws, to its particular situation.

This summary is based on the Code, as well as Treasury regulations and administrative and judicial rulings and practice. Legislative, judicial and administrative changes may occur, possibly with retroactive effect, that could alter or modify the continued validity of the statements and conclusions set forth herein. This summary is intended as a general explanatory discussion of the consequences of holding the 2020A Taxable Bonds generally and does not purport to furnish information in the level of detail or with the prospective purchaser's specific tax circumstances that would be provided by a prospective purchaser's own tax advisor. For example, it generally is addressed only to original purchasers of the 2020A Taxable Bonds that are "U.S. holders," as hereinafter defined, deals only with

2020A Taxable Bonds held as "capital assets" within the meaning of Section 1221 of the Code and does not address tax consequences to owners that may be relevant to investors subject to special rules, such as individuals, trusts, estates, tax-exempt investors, foreign investors (including nonresident alien individuals, foreign corporations and foreign financial institutions), cash method taxpayers, dealers in securities, currencies or commodities, bank thrifts, insurance companies, electing large partnerships, mutual funds, regulated investment companies, real estate investment trusts, S corporations, persons that hold 2020A Taxable Bonds as part of a straddle, hedge, integrated or conversion transaction, and persons whose "functional currency" is not the U.S. dollar. In addition, this summary does not address alternative minimum tax issues or the indirect consequences to a holder of an equity interest in an owner of the 2020A Taxable Bonds.

As used herein, a "U.S. holder" is a "U.S. person" that is a beneficial owner of 2020A Taxable Bonds. A "non-U.S. investor" is a holder (or beneficial owner) of 2020A Taxable Bonds that is not a U.S. person. For these purposes, a "U.S. person" is a citizen or resident of the United States, a corporation, partnership or other entity created or organized in or under the laws of the United States or any political subdivision thereof (except, in the case of a partnership, to the extent otherwise provided in Treasury regulations), an estate the income of which is subject to United States federal income taxation regardless of its source, or a trust if (i) a United States court is able to exercise primary supervision over the trust's administration and (ii) one or more U.S. persons have the authority to control all of the trust's substantial decisions.

Interest on the 2020A Taxable Bonds. The 2020A Taxable Bonds will be treated, for federal income tax purposes, as a debt instrument. Accordingly, stated interest on the 2020A Taxable Bonds will be included in the income of the owner as it is paid (or, if the owner is an accrual method taxpayer, as it is accrued) as interest.

Owners of the 2020A Taxable Bonds who or which allocate a basis in the 2020A Taxable Bonds that is greater than the principal amount of the 2020A Taxable Bonds should consult their own tax advisors with respect to whether or not they should elect to amortize such premium under Section 171 of the Code.

If an owner purchases the 2020A Taxable Bonds for an amount that is less than the principal amount of the 2020A Taxable Bonds, and such difference is not considered to be de minimis, then such discount will represent original issue discount that ultimately will constitute ordinary income (and not capital gain). U.S. holders of the 2020A Taxable Bonds will be required to include OID in income for U.S. federal income tax purposes as it accrues, in accordance with a constant yield method based on a compounding of interest (which may be before the receipt of cash payments attributable to such income).

Sale or Other Disposition of the 2020A Taxable Bonds. Unless a nonrecognition provision of the Code applies, upon the sale, exchange, redemption, retirement or other disposition of a 2020A Taxable Bond, an owner generally will recognize gain or loss on its interest in the 2020A Taxable Bonds equal to the difference between the amount realized on the sale and its adjusted tax basis in such interest in the 2020A Taxable Bonds. Such gain or loss generally will be capital gain (although any gain attributable to accrued original issue discount on the 2020A Taxable Bonds not yet taken into income will be ordinary) or loss. The adjusted basis of the owner in an interest in the 2020A Taxable Bonds will (in general) equal its original purchase price increased by any original issue discount previously included in the gross income of the owner with respect to the 2020A Taxable Bonds and decreased by any amortized premium.

Defeasance. Defeasance of the 2020A Taxable Bonds may result in a deemed exchange thereof, in which event an owner will generally recognize taxable gain or loss as described in the preceding paragraph.

Backup Withholding. Under current U.S. federal income tax laws, a 24% backup withholding tax requirement may apply to certain payments of interest on, and the proceeds of a sale, exchange or redemption of, the 2020A Taxable Bonds. Certain persons making such payments are required to submit information returns (that is, IRS Forms 1099) to the IRS with regard to those payments. Backup withholding and information reporting will generally not apply with respect to payments made to certain exempt recipients such as corporations or certain exempt entities.

Medicare Tax. For taxable years beginning after December 31, 2014, an additional 3.8% tax will be imposed on the "net investment income" of certain individuals, estates and trusts that have "modified adjusted gross income" above a certain threshold. Net investment income includes, but is not limited to, the interest on the 2020A Taxable Bonds and gains from the disposition of a 2020A Taxable Bond. Prospective investors should consult their tax advisors regarding the possible applicability of this tax to an investment in the 2020A Taxable Bonds.

Opinion of Bond Counsel – Virginia Income Tax Status of Interest

Bond Counsel's opinions also will state that, under current law, in accordance with Section 62.1-219 of the Act, all of the 2020A Bonds and the income from them, including any profit made on their sale, are exempt from taxation by the Commonwealth and any of its political subdivisions. See "Proposed Forms of Bond Counsel Opinion Letters" in Appendix F. Bond Counsel will express no opinion regarding (i) other tax consequences arising with respect to the 2020A Bonds under the laws of the Commonwealth or (ii) any consequences arising with respect to the accrual or receipt of interest on, or the ownership or disposition of, the 2020A Bonds under the tax laws of any state or local jurisdiction other than the Commonwealth and its political subdivisions. Prospective purchasers of the 2020A Bonds should consult their own tax advisors regarding the state and local tax matters on which Bond Counsel is expressing no opinion.

RELATIONSHIP OF PARTIES

Davenport, financial advisor to VRA, also serves as financial advisor to the Southwest Virginia Regional Jail Authority for the 2020A Bonds financing.

McGuireWoods LLP, Richmond, Virginia, Bond Counsel, serves as bond counsel to the County of York, Virginia for the 2020A Bonds financing.

McGuireWoods LLP, Richmond, Virginia, Bond Counsel, represents Davenport, the Trustee and each Underwriter from time to time, in matters unrelated to the 2020A Bonds.

LEGALITY FOR INVESTMENT

The Act provides that the 2020A Bonds are legal investments for all public officers and public bodies of the Commonwealth and its political subdivisions, and for insurance companies, banks, trust companies, savings banks, savings associations, building and loan associations, investment companies, guardians, executors, trustees and other fiduciaries. No representation is made as to the legality of the 2020A Bonds for investment or any other purpose under any laws of any other state.

The Act also provides that the 2020A Bonds are eligible to be deposited with all public officers and bodies of the Commonwealth and its political subdivisions for any purpose for which the deposit of Bonds or other obligations of the Commonwealth is now or may be later authorized.

UNDERWRITING OF THE 2020A BONDS

The 2020A Bonds and are being purchased by Loop Capital Markets LLC, BofA Securities, Inc., and Robert W. Baird & Co. (collectively, the "Underwriters"). The purchase contract for the 2020A Bonds sets forth the obligation of the Underwriters to purchase the (i) 2020A Tax-Exempt Infrastructure Revenue Bonds at a price equal to the aggregate original principal amount of the 2020A Tax-Exempt Infrastructure Revenue Bonds of $12,195,000.00, less an underwriters' discount of $43,664.52 (0.3580% of the principal amount thereof), plus original issue premium of $2,903,804.45, resulting in a purchase price of $15,055,139.93, (ii) the 2020A Taxable Infrastructure Revenue Bonds at a price equal to the aggregate original principal amount of the 2020A Taxable Infrastructure Revenue Bonds of $37,880,000.00, less an underwriters' discount of $135,677.07 (0.3581% of the principal amount thereof), resulting in a purchase price of $37,744,322.93, and (iii) the Tax-Exempt Moral Obligation Bonds at a price equal to the aggregate original principal amount of the 2020A Tax-Exempt Moral Obligation Bonds of $5,245,000.00, less an underwriters' discount of $18,815.64 (0.3587% of the principal amount thereof), plus original issue premium of $1,155,287.15, resulting in a purchase price of $6,381,471.51.

The 2020A Bonds are being offered for sale to the public at the prices shown on the inside cover pages hereof. The Underwriters reserve the right to lower such initial offering prices as they deem necessary in connection with the marketing of the 2020A Bonds. The Underwriters may offer and sell the 2020A Bonds to certain dealers (including dealers depositing the 2020A Bonds into investment trusts) and others at prices lower than the initial public offering price or prices set forth in the Official Statement. The Underwriters reserve the right to join with dealers and other underwriters in offering the 2020A Bonds to the public. The Underwriters may over-allot or effect transactions which stabilize or maintain the market price of the 2020A Bonds at levels above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

VRA intends to use a portion of the proceeds from this offering to redeem the Refunded Bonds. To the extent an Underwriter or an affiliate thereof is an owner of Refunded Bonds, such Underwriter or its affiliate, as applicable, would receive a portion of the proceeds from the issuance of the 2020A Bonds contemplated herein in connection with such Refunded Bonds being redeemed by VRA.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Under certain circumstances, the Underwriters and their respective affiliates may have certain creditor and/or other rights against VRA in connection with such activities. In the various courses of their various business activities, the Underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities (both debt and equity), derivatives, loans, commodities, currencies, credit default swaps, interest rate swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of VRA (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with VRA. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

In the ordinary course of their business activities, the Underwriters and their respective affiliates have engaged, and may in the future engage, in transactions with, and perform services for, VRA for which they receive or will receive customary fees and expenses.

Bank of America Securities, Inc. as an underwriter of the 2020A Bonds, has entered into a distribution agreement with its affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S"). As part of this arrangement, Bank of America Securities, Inc. may distribute securities to the MLPF&S, which may in turn distribute such securities to investors through the financial advisor network of MLPF&S. As part of this arrangement, Bank of America Securities, Inc. may compensate the MLPF&S for their selling efforts with respect to the Series 2020A Bonds.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

The arithmetical accuracy of certain computations included in the schedules provided by Davenport on behalf of VRA relating to forecasted payments of principal and interest to redeem the Refunded Bonds was examined by the Verification Agent. Such computations were based solely upon assumptions and information supplied by Davenport on behalf of VRA. The Verification Agent has restricted its procedures to examining the arithmetical accuracy of certain computations and has not made any study or evaluation of the assumptions and information upon which the computations are based and, accordingly, has not expressed an opinion on the data used, the reasonableness of the assumptions, or the achievability of the forecasted outcome.

RATINGS

As noted on the cover of this Official Statement, Moody's Investors Services, Inc. and S&P Global Ratings have assigned ratings of "Aaa" and "AAA", respectively, to the 2020A Infrastructure Revenue Bonds and "Aa1" and "AA", respectively, to the 2020A Moral Obligation Bonds. Following mobility restrictions and closure of large segments of the economy due to COVID-19 and the swift onset of recession, all of S&P global ratings' sector outlooks in U.S. public finance are now negative.

The ratings reflect only the views of the respective rating agencies. Reference should be made to the respective rating agency for a full explanation of the significance of the assigned ratings. VRA furnished to such rating agencies certain information regarding its policies, practices and finances, including information that is not included in this Official Statement. The ratings are not a recommendation to buy, sell or hold the 2020A Bonds and should be evaluated independently. There is no assurance that the ratings will be maintained for any period of time or that the ratings may not be revised downward, suspended or withdrawn entirely by a rating agency if, in its judgment, circumstances so warrant. Any such downward revision, suspension or withdrawal of the ratings could have an adverse effect on the market price of the 2020A Bonds. Due to the ongoing uncertainty regarding the economy of the United States, including, without limitation, matters such as the future political uncertainty regarding the United States debt limit, obligations issued by state and local governments and political subdivisions of local governments, such as the 2020A Bonds, could be subject to a rating downgrade. Additionally, if a significant default or other financial crisis should occur in the affairs of the United States or of any of its agencies or political subdivisions, then such event could also adversely affect the market for and ratings, liquidity, and market value of outstanding debt obligations, including the 2020A Bonds.

FINANCIAL ADVISOR

Davenport is employed as a financial advisor to the VRA in connection with the issuance of the 2020A Bonds. The financial advisor's fee for services rendered with respect to the sale of the 2020A Bonds is contingent upon the issuance and delivery of the 2020A Bonds. Davenport, in its capacity as financial advisor, does not assume any responsibility for the information, covenants and representations contained in any of the legal documents provided, agreed to or made by others with respect to the federal income tax status of the 2020A Bonds, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

Davenport, as the financial advisor to the VRA, has provided the following sentence for inclusion in this Official Statement. Although Davenport has assisted in the preparation of this Official Statement, Davenport is not obligated to undertake, and has not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement.

CONTINUING DISCLOSURE UNDER RULE 15c2-12

This offering is subject to the continuing disclosure requirements of Rule 15c2-12 promulgated by the Securities and Exchange Commission (the "Rule"). Pursuant to a written agreement entered into for the benefit of the holders of the 2020A Bonds, each of (a) the Commonwealth, (b) VRA and (c) any Local Government that later becomes a Material Local Government will undertake to provide, directly or through an intermediary, specified annual financial information and notice of the events listed in the Rule to the Municipal Securities Rulemaking Board ("MSRB").

Commonwealth Continuing Disclosure. Under a Continuing Disclosure Agreement, the form of which is attached as Appendix G, the Treasurer's Office of the Commonwealth will undertake to provide in the manner indicated above information regarding the Commonwealth.

VRA Continuing Disclosure. As summarized in Appendix H, VRA will undertake in the Forty-Seventh Supplemental Series Indenture to provide, in the manner indicated above, information regarding VRA.

VRA is aware that it has not complied with certain of its prior continuing disclosure undertakings as described in the following sentence. The operating data for fiscal year 2015 was inadvertently not linked to CUSIPs for the Infrastructure and State Moral Obligation Revenue Bonds (Virginia Pooled Financing Program), Series 2015D. Promptly upon discovery of the omission, VRA undertook remedial action to link such operating data.

Due to the number of VRA related CUSIPs, from time to time, CUSIP linkages on the EMMA system may not include all necessary CUSIPs and, when VRA becomes aware of these instances, VRA promptly makes remedial filings to link all CUSIPs properly.

Local Government Continuing Disclosure. As summarized in Appendix I, each Local Government will undertake to provide, in the manner indicated above, information regarding such Local Government, but only upon notification by VRA that as of June 30 of any year, such Local Government met the objective criteria set forth in its undertaking to be a Material Local Government. A Local Government constitutes a "Material Local Government" if the aggregate principal amount of the Local Obligations previously issued and outstanding and to be issued by such Local Government is equal to or greater than 15% of the aggregate principal amount of all Local Obligations purchased with the proceeds of the Bonds. As of the date hereof, no Local Government qualifies as a Material Local Government, and no Local Government has qualified as a Material Local Government within the past five years.

The right of the Trustee and the holders to enforce the undertakings described in this subsection is limited to the right to compel performance of the respective obligations of the Commonwealth, VRA and any Material Local Government. Any failure of the Commonwealth, VRA or any Material Local Government to comply with its respective obligations will not give rise to an Event of Default under the Master Indenture, the Agreements or the Financing Leases, respectively.

The obligations of the Commonwealth, VRA and any Material Local Government to provide continuing disclosure are limited to providing specified information at specific times, which may not

provide all information material to an evaluation of such entity's financial condition or other matters affecting an investment in the 2020A Bonds.

The Commonwealth, VRA and any Material Local Government may from time to time disclose certain information and data in addition to that required by the Rule. If the Commonwealth, VRA and any Material Local Government choose to provide such additional information or data, they shall have no obligation to continue to update such information or data or to include it in any future disclosure filing.

APPROVAL OF OFFICIAL STATEMENT

VRA has furnished all information in this Official Statement relating to VRA and has duly authorized the distribution of this Official Statement.

Certain financial information of the Commonwealth is on file with the MSRB and included in this Official Statement, all as more fully described in Appendices B, C and D.

Any statements in this Official Statement involving matters of opinion or of estimates, regardless of whether expressly so stated, are intended as such and not as representations of fact, and no representation is made that any of the estimates will be realized. VRA has deemed this Official Statement final as of its date within the meaning of the Rule.

VIRGINIA RESOURCES AUTHORITY

By: /s/ Stephanie L. Hamlett
Stephanie L. Hamlett, Executive Director

APPENDIX A

DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

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DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

The following contains certain definitions and a brief summary of certain provisions contained in the Master Indenture and the Forty-Seventh Supplemental Series Indenture of Trust and does not purport to be a complete statement of all of the provisions of those documents. Reference is made to the Master Indenture and the First through Forty-Seventh Supplemental Series Indentures in their entirety for complete information on their terms and on the terms of the Infrastructure Revenue Bonds and Moral Obligation Bonds, the applicable security provisions and the application of pledged revenues.

Definitions of Certain Terms

Unless defined above in this Official Statement, all capitalized terms used in this Appendix have the meanings set forth below.

"Account" means any account established pursuant to the terms of the Master Indenture or any Supplemental Series Indenture.

"Acquisition Fund" means the Acquisition Fund for a Series of Bonds to be established by the Related Supplemental Series Indenture.

"Act" means the Virginia Resources Authority Act, Chapter 21, Title 62.1 of the Virginia Code.

"Administrative Charge" means any fees or charges established by VRA pursuant to Section 62.1-203(17) of the Act with respect to a Local Obligation, as the same may be revised from time to time and as the same shall be set forth in the Related Supplemental Series Indenture.

"Agreement," when used with respect to any Series of Bonds, means the loan, financing lease, sale-leaseback, lease-leaseback or similar agreement between a Local Government and VRA, as modified, altered, amended and supplemented from time to time in accordance with its terms and the terms of the Master Indenture, which agreement will govern the acquisition by VRA of the Related Local Obligation, among other things.

"Amortization Requirement," as applied to any Term Bonds of any maturity for any Bond Year, means the principal amount or amounts fixed by, or computed in accordance with the terms of, the Related Supplemental Series Indenture for the retirement of such Term Bonds by mandatory purchase or redemption on the Principal Payment Date or Dates established by such Supplemental Series Indenture.

"Bond" or **"Bonds"** means any or all of the Infrastructure Revenue Bonds and Moral Obligation Bonds of VRA issued pursuant to Article V of the Master Indenture, but excludes Junior Subordinate Debt.

"Bond Counsel" means counsel selected by VRA which is nationally recognized as experienced in matters relating to obligations issued or incurred by states and their political subdivisions.

"Bond Credit Facility" means a line of credit, letter of credit, standby bond purchase agreement, municipal bond insurance or similar credit enhancement or liquidity facility established to provide credit or liquidity support for all or any portion of a Series of Bonds as provided in the Related Supplemental Series Indenture.

"Bond Credit Provider" means, as to all or any portion of a Series of Bonds, the Person providing a Bond Credit Facility, as designated in the Related Supplemental Series Indenture in respect of such Bonds.

"Bond Year" means the 12 month period commencing on the second day of November of any calendar year and ending on the first day of November of the next ensuing calendar year, or such other twelve-month period commencing and ending on the dates specified with respect to a Series of Bonds in the Related Supplemental Series Indenture. The first and last Bond Years with respect to any Series of Bonds may be short periods.

"Business Day" means any Monday, Tuesday, Wednesday, Thursday or Friday on which commercial banking institutions generally are open for business in New York and Virginia.

"Capital Appreciation Bonds" means Bonds the interest on which is compounded and accumulated at the rates and on the dates set forth in the Related Supplemental Series Indenture and is payable upon redemption or on the maturity date of such Bonds or on the date, if any, upon which such Bonds become Current Interest Bonds.

"Capital Reserve Fund" means the Capital Reserve Fund established pursuant to the Master Indenture.

"Code" means the Internal Revenue Code of 1986, as amended, as in effect upon the issuance of and thereafter applicable to any Series of Bonds and the regulations of the United States Department of the Treasury promulgated thereunder as in effect upon the issuance of and thereafter applicable to any Series of Bonds.

"Commonwealth" means the Commonwealth of Virginia.

"Cost of Issuance Fund" means the Cost of Issuance Fund for a Series of Bonds to be established by the Related Supplemental Series Indenture.

"CRF Credit Facility" means a letter of credit, surety bond or similar credit enhancement facility acquired by VRA to substitute for cash or investments required to be held in the Capital Reserve Fund.

"CRF Credit Provider" means the Person providing a CRF Credit Facility.

"CRF Reserve Requirement" means an amount equal to the maximum Principal and Interest Requirements on the Moral Obligation Bonds Outstanding in the then current or any future Bond Year or such larger amount as may be specified in a Supplemental Series Indenture. For purposes of establishing the size of the CRF Reserve Requirement, the Principal and Interest Requirements on Moral Obligation Bonds which are Optional Tender Bonds and/or Variable Rate Bonds shall be determined or adjusted as set forth in the section titled "Modification of Certain Definitions" in the Master Indenture.

"Current Interest Bonds" means Bonds the interest on which is payable currently on the Interest Payment Dates provided therefor in the Related Supplemental Series Indenture.

"Custodian" means a bank or trust company that is (i) organized and existing under the laws of the United States or any of its states and (ii) acceptable to the Trustee.

"Defaulted Local Obligations" means any Local Obligations in default of payment of debt service at the time in question.

"Defeasance Obligations" means noncallable (i) Government Obligations, (ii) Government Certificates, (iii) Defeased Municipal Obligations, and (iv) Defeased Municipal Obligation Certificates.

"Defeased Municipal Obligation Certificate" means evidence of ownership of a proportionate interest in specified Defeased Municipal Obligations, which Defeased Municipal Obligations are held by a Custodian.

"Defeased Municipal Obligations" means obligations of the Commonwealth or any county, city, town, district, authority, agency, political subdivision or other public body of the Commonwealth, which are rated in the highest rating category by any Rating Agency, provision for the payment of the principal of and interest on which has been made by the deposit with a trustee or escrow agent of Government Obligations or Government Certificates, the maturing principal of and interest on which, when due and payable, will provide sufficient money to pay the principal of, redemption premium, if any, and interest on such obligations.

"Escrow Fund" means an escrow fund relating to a Series of Refunding Bonds that may be established pursuant to the Related Supplemental Series Indenture.

"Event of Default" means any of the events enumerated herein under the heading "Particular Covenants Events of Default".

"Fund" means any fund established pursuant to the terms of the Master Indenture or any Supplemental Series Indenture.

"Government Certificates" mean certificates representing ownership of United States Department of the Treasury bond principal at maturity or interest coupons for accrued periods, which bonds or coupons are held in the capacity of custodian by a Custodian that is independent of the seller of such certificates.

"Government Obligations" mean direct obligations of, or obligations the payment of the principal of and interest on which is unconditionally guaranteed by, the United States.

"Infrastructure Revenue Bond Debt Service Coverage" shall have the meaning assigned to it in the definition of Projected Revenue Certificate.

"Infrastructure Revenue Bond Revenue Coverage" shall have the meaning assigned to it in the definition of Projected Revenue Certificate.

"Infrastructure Revenue Bond Revenues" means, collectively, the ORF Revenues, the Administrative Charges and the Rebate Amounts.

"Infrastructure Revenue Bonds" means any VRA Debt issued by VRA pursuant to Article V of the Master Indenture and identified as "Infrastructure Revenue Bonds" in the Related Supplemental Series Indenture. Infrastructure Revenue Bonds are secured by a pledge of and lien on (i) the Revenues senior and superior to the pledge of and lien on the Revenues securing the Moral Obligation Bonds and (ii) Infrastructure Revenue Bond Revenues. Infrastructure Revenue Bonds are not secured by the Capital Reserve Fund.

"Infrastructure Revenue Debt Service Fund" means the Infrastructure Revenue Debt Service Fund established pursuant to the Master Indenture.

"Infrastructure Revenue Debt Service Reserve Fund" means the Infrastructure Revenue Debt Service Reserve Fund established pursuant to the Master Indenture.

"Infrastructure Revenue DSRF Credit Facility" means a letter of credit, surety bond or similar credit enhancement facility acquired by VRA to substitute for cash or investments required to be held in the Infrastructure Revenue Debt Service Reserve Fund.

"Infrastructure Revenue DSRF Credit Provider" means the Person providing an Infrastructure Revenue DSRF Credit Facility.

"Infrastructure Revenue DSRF Requirement" means $0 or such larger amount as may be specified in a Supplemental Series Indenture.

"Interest Payment Date" means a November 1 or May 1, as the case may be; provided, however, that "Interest Payment Date" may mean, if so provided in a Supplemental Series Indenture, such other date or dates provided therein or permitted thereby.

"Interest Requirement" for any Interest Payment Date, as applied to all of the Current Interest Bonds or a portion thereof, means the total of the interest regularly scheduled to become due on such Bonds on such Interest Payment Date. Interest expense shall be excluded from the definition of Interest Requirement to the extent that proceeds of any Bonds are held by the Trustee to pay such interest. Unless VRA shall otherwise provide in a Supplemental Indenture, interest expense on Bond Credit Facilities drawn upon to purchase but not to retire Bonds, to the extent such interest exceeds the interest otherwise payable on such Bonds, shall not be included in the determination of an Interest Requirement.

"Junior Subordinate Debt" means VRA Debt that is secured by a pledge of revenues, money and other property of VRA expressly made subordinate to the pledge of the Revenues, Infrastructure Revenue Bond Revenues, Funds and Accounts and other property securing the Bonds of all Series set forth in the article titled "Establishment of Trust" in the Master Indenture.

"Local Account" means any Account established pursuant to a Supplemental Series Indenture in a Fund or Account with respect to a Local Government.

"Local Government(s)" means any "local government" (as defined in Section 62.1-199 of the Act) entering into an Agreement and its permitted successors and assigns under such Agreement.

"Local Obligation Payments" means the amounts payable by each Local Government pursuant to the terms of its Local Obligation or Obligations.

"Local Obligation(s)" means the "local obligation" (within the meaning of Section 62.1-199 of the Act) issued or entered into by a Local Government and acquired by the VRA or the Trustee pursuant to the Related Agreement and financed with the proceeds of a Series of Bonds and/or other amounts on deposit in the Related Acquisition Fund.

"Majority Owners" means the Owners of at least 51% of the aggregate principal amount of the Infrastructure Revenue Bonds or the Moral Obligation Bonds Outstanding, as applicable.

"Master Indenture" means the Master Indenture of Trust dated as of December 1, 2003, between VRA and the Trustee, as the same may be modified, altered, amended and supplemented in accordance with its terms by one or more Supplemental Series Indentures and other Supplemental Indentures.

"Minimum Balance" means the minimum amount, which, if applied as the clause (b)(2) amount in the definition of Projected Revenue Certificate, assuming all other amounts are fixed, would result in Infrastructure Revenue Bond Debt Service Coverage equal to at least the Required Infrastructure Revenue Bond Debt Service Coverage.

"Minimum CRF Reserve Requirement" means an amount equal to the CRF Reserve Requirement or such lesser amount as may be established by VRA pursuant to the Master Indenture.

"Moral Obligation Bonds" means any VRA Debt issued by VRA pursuant to the Master Indenture and identified as "Moral Obligation Bonds" in the Related Supplemental Series Indenture. Moral Obligation Bonds are secured by a pledge of and lien on the Revenues junior and subordinate to the pledge and lien securing the Infrastructure Revenue Bonds. Moral Obligation Bonds are secured by the Capital Reserve Fund.

"Moral Obligation Debt Service Fund" means the Moral Obligation Debt Service Fund established pursuant to the Master Indenture.

"Officer's Certificate" means a certificate signed by a VRA Representative and filed with the Trustee.

"Operating Reserve Fund" means the Operating Reserve Fund established pursuant to the Master Indenture.

"Opinion" or **"Opinion of Counsel"** means a written opinion of any attorney or firm of attorneys, who or which may be Bond Counsel or counsel for VRA or the Trustee.

"Optional Tender Bonds" means any Bonds issued under the Master Indenture a feature of which is an option on the part of the Owners of such Bonds to tender to VRA, or to the Trustee, any Paying Agent or other fiduciary for such Owners, or to an agent of any of the foregoing, all or a portion of such Bonds for payment or purchase.

"ORF Revenues" means investment earnings on amounts in the Operating Reserve Fund.

"Outstanding," when used in reference to the Bonds and as of a particular date, means all Bonds authenticated and delivered under the Master Indenture except:

(a) Any Bond canceled or required to be canceled by the Trustee at or before such date;

(b) Any Bond in lieu of or in substitution for which another Bond shall have been authenticated and delivered under the Master Indenture;

(c) Any Bond deemed paid as described under the heading herein "**Particular Covenants** – Provision for Payment of Particular Bonds" except that any such Bond shall be considered Outstanding until its maturity or redemption date only for the purpose of actually being paid and for purposes of Articles III and IV and Section 6.1 in the Master Indenture (or the corresponding provisions of the Related Supplemental Series Indenture, as the case may be); and

(d) Any Bond owned by VRA or certain Persons affiliated with VRA not deemed Outstanding for the purpose of consenting to any Supplemental Indenture requiring consent of the Owners.

"Owner" means the registered owner of any Bond.

"Paying Agent or Paying Agents" means any paying agent(s) for the Bonds (which may include the Trustee) and any successor or successors as paying agent(s) appointed pursuant to the Master Indenture or the provisions of any Supplemental Series Indenture. Unless otherwise provided in a Supplemental Series Indenture, the Trustee shall be the Paying Agent.

"Payment Date" means a date that is an Interest Payment Date or a Principal Payment Date or both.

"Person" means an individual, a corporation, a partnership, an association, a joint stock company, a trust, any unincorporated organization or a government or political subdivision thereof.

"Principal" means (i) with respect to a Capital Appreciation Bond, the Accreted Amount thereof (the difference between the stated amount to be paid at maturity and the Accreted Amount being deemed unearned interest) except when used in connection with the authorization and issuance of Bonds and with the order of priority of payments of Bonds after an Event of Default in which case "principal" means the initial public offering price of the Capital Appreciation Bond (the difference between the Accreted Amount and the initial public offering price being deemed interest) and (ii) with respect to the principal amount of any Current Interest Bond, the principal amount of such Bond payable in satisfaction of an Amortization Requirement, if applicable, or at maturity.

"Principal and Interest Requirements" for any Payment Date or for any period means the sum of the Principal Requirements and the Interest Requirements for such date or such period, respectively.

"Principal Payment Date" means a November 1 upon which the principal amount of any Bond is stated to mature or upon which the principal of any Term Bond is subject to redemption in satisfaction of an Amortization Requirement or such other date or dates as may be provided by the Related Supplemental Series Indenture.

"Principal Requirement" means for any Principal Payment Date, as applied to all Bonds or a portion thereof, the total of the principal regularly scheduled to become due on such Principal Payment Date. Principal payments shall be excluded from the definition of Principal Requirement to the extent that proceeds of any Bonds are held by the Trustee to pay such Principal. Unless VRA shall otherwise provide in a Supplemental Indenture, principal payments on Bond Credit Facilities drawn upon to purchase but not to retire Bonds, to the extent such principal exceeds the principal otherwise payable on such Bonds, shall not be included in the determination of a Principal Requirement.

"Projected Revenue Certificate" means an Officer's Certificate setting forth, as of any particular date:

(a) A schedule of estimated amounts of the following types of Revenues to be available in the then-current and each future Bond Year for the payment of the Principal and Interest Requirements of all of the Bonds and the Administrative Charges:

(i) Scheduled Local Obligation Payments except on Defaulted Local Obligations;

(ii) Income receivable from the investment of amounts from time to time held in the Infrastructure Revenue Debt Service Reserve Fund and the Capital Reserve Fund;

(iii) Amounts scheduled to be released from the Infrastructure Revenue Debt Service Reserve Fund or the Capital Reserve Fund as a result of the payment at maturity or pursuant to the Amortization Requirements of the Bonds Outstanding and, if applicable, then to be issued; and

(iv) Any other amounts identified as Revenues in the Projected Revenue Certificate and in a Supplemental Indenture, if there is filed with the Trustee written confirmation from each Rating Agency that the inclusion thereof will not result in the withdrawal or reduction of its then-current rating on any of the Bonds Outstanding.

(b) A schedule of estimated amounts of the following sources to be available in the then-current and each future Bond Year for the payment of the Principal and Interest Requirements of the Infrastructure Revenue Bonds.

(i) ORF Revenues;

(ii) Amounts, if any, which are or will be on deposit in the Operating Reserve Fund; and

(iii) Any other revenues or amounts identified in the Projected Revenue Certificate and in a Supplemental Indenture as Infrastructure Revenue Bond Revenues or Fund balances available for the payment of the Principal and Interest Requirements of the Infrastructure Revenue Bonds, if there is filed with the Trustee written confirmation from each Rating Agency that the inclusion thereof will not result in the withdrawal or reduction of its then-current rating on any of the Infrastructure Revenue Bonds Outstanding.

(c) A schedule of the Principal and Interest Requirements and all Administrative Charges scheduled to become due and payable on each Payment Date in the then-current and each future Bond Year with respect to all Bonds Outstanding and, if applicable, then to be issued.

(d) A schedule of the Principal and Interest Requirements scheduled to become due and payable on each Payment Date in the then-current and each future Bond Year with respect to all Infrastructure Revenue Bonds Outstanding and, if applicable, then to be issued.

(e) The percentage obtained by dividing the sum of estimated Revenues and Infrastructure Revenue Bond Revenues set forth in clauses (a) and (b)(i) and (iii) for each of the then-current and future Bond Years by the scheduled Principal and Interest Requirements and Administrative Charges set forth in clause (c) for the same Bond Year ("Revenue Coverage").

(f) The percentage obtained by dividing the sum of estimated Revenues and Infrastructure Revenue Bond Revenues set forth in clauses (a) and (b)(i) and (iii) for each of the then-current and future Bond Years by the scheduled Principal and Interest Requirements set forth in clause (d) for the same Bond Year ("Infrastructure Revenue Bond Revenue Coverage").

(g) The percentage obtained by dividing the sum of estimated Revenues and Infrastructure Revenue Bond Revenues set forth in clauses (a) and (b)(i) and (iii) and the Fund balances set forth in clause (b)(ii) and (iii) for each of the then-current and future Bond Years by the scheduled Principal and

Interest Requirements set forth in clause (d) for the same Bond Year ("Infrastructure Revenue Bond Debt Service Coverage").

(h) In projecting the foregoing, VRA shall make the following assumptions: (i) Revenues set forth in clause (a) that are scheduled to be retained in the Revenue Fund as described in (g) under the heading herein "**Operation of Revenue Fund and Pledged Funds** – Revenue Fund" shall be reflected as Revenues only with respect to the Payment Dates on which the Trustee is to be directed to apply such retained amounts; (ii) invested funds shall yield an investment return equal to the actual return at the time of the projection net of any Rebate Amounts to be paid therefrom and shall be invested until such time as they are to be applied to the purpose for which they are accumulated; (iii) no Local Obligations will be purchased or acquired by VRA after the date of the Projected Revenue Certificate; and (iv) Administrative Charges shall be collected for the remaining term of each Local Obligation at the rate or rates in effect at the time of the calculation. VRA must use a special set of assumptions set forth in the Master Indenture in preparing a Projected Revenue Certificate if any of the Bonds or Local Obligations to be covered thereby are Optional Tender Bonds and/or Variable Rate.

"Purchase Price" means the purchase price established in any Supplemental Series Indenture for Optional Tender Bonds as the purchase price to be paid for such Bonds upon an optional or mandatory tender of all or a portion of such Bonds.

"Rating Agency" means, with respect to any Bonds Outstanding, any nationally recognized credit rating agency if and for so long as such rating agency, at the request of VRA, maintains a rating on such Bonds.

"Rebate Amount" means the liability of VRA and/or the Related Local Governments under Section 148 of the Code (including any "yield reduction payments") with respect to any Series of Bonds as may be calculated or specified (including with such reserves or error margin as VRA may deem appropriate) in accordance with the Related Supplemental Series Indenture or the Related Tax Regulatory Agreement.

"Rebate Fund" means the Rebate Fund for a Series of Bonds to be established by the Related Supplemental Series Indenture.

"Refunding Bonds" shall have the meaning set forth under the heading "Issuance of Bonds" below.

"Reimbursement Fund" means the Reimbursement Fund Related to a Series of Bonds that may be established by the Related Supplemental Series Indenture.

"Reimbursement Obligations" means any reimbursement or payment obligations of VRA for which monies in the Reimbursement Fund are pledged or payable pursuant to the provisions of the Master Indenture or any Supplemental Series Indenture.

"Related," as the context may require, means (i) when used with respect to any Cost of Issuance Fund, Acquisition Fund, Rebate Fund or Reimbursement Fund, or any Account or subaccount within any such Fund, the Fund, Account or subaccount so designated and established by the Related Supplemental Series Indenture authorizing a particular Series of Bonds, (ii) when used with respect to a Supplemental Series Indenture, the Supplemental Series Indenture authorizing a particular Series of Bonds, (iii) when used with respect to Local Obligations, the Local Obligations acquired or entered into with respect to a particular Series of Bonds, and (iv) when used with respect to a Bond Credit Facility or Reimbursement

Obligation, the Bond Credit Facility securing a particular Series of Bonds and the Reimbursement Obligation entered into in connection therewith.

"Required Revenue Coverage" means 100% or such higher percentage as may be specified in a Supplemental Series Indenture.

"Required Infrastructure Revenue Bond Debt Service Coverage" means 100% or such higher percentage as may be specified in a Supplemental Series Indenture.

"Required Infrastructure Revenue Bond Revenue Coverage" means 100% or such higher percentage as may be specified in a Supplemental Series Indenture.

"Reserve Determination Date" means (i) the tenth day after each Interest Payment Date, or, if such day is not a Business Day, on the first Business Day thereafter or (ii) any other date set forth in a Supplemental Series Indenture or an Officer's Certificate for the valuation of the Infrastructure Revenue Debt Service Reserve Fund and/or the Capital Reserve Fund.

"Revenue Coverage" shall have the meaning assigned to it in the definition of Projected Revenue Certificate.

"Revenue Fund" means the Revenue Fund established by the Master Indenture.

"Revenues" means (i) the Local Obligation Payments, (ii) any proceeds of any Series of Bonds originally deposited with the Trustee for the payment of accrued interest thereon, (iii) investment earnings on amounts in the Revenue Fund, the Infrastructure Revenue Debt Service Fund, the Infrastructure Revenue Debt Service Reserve Fund, the Moral Obligation Debt Service Fund and the Capital Reserve Fund, (iv) amounts released from the Infrastructure Revenue Debt Service Reserve Fund or the Capital Reserve Fund as a result of the payment at maturity, refunding, redemption or defeasance of Bonds and (v) any or all other revenues that may be identified as Revenues pursuant to a Supplemental Indenture; provided, however, that the following shall not be included in Revenues unless specifically authorized to be so included in a Supplemental Indenture: (i) Infrastructure Revenue Bond Revenues; (ii) any amounts in, or earnings on, a Rebate Fund; and (iii) any payments made by VRA or the Commonwealth to replenish the Capital Reserve Fund under Section 62.1-215 of the Act.

"Serial Bonds" means the Bonds of a Series that are stated to mature in semiannual or annual installments and that are so designated in the Related Supplemental Series Indenture.

"Series" means all of the Bonds of a particular series authenticated and delivered pursuant to the Master Indenture and the Related Supplemental Series Indenture and identified as such pursuant to such Supplemental Series Indenture, and any Bonds of such Series thereafter authenticated and delivered in lieu of or in substitution for such Bonds pursuant to the Master Indenture and such Supplemental Series Indenture, regardless of variations in lien status, maturity, interest rate, sinking fund installments or other provisions. A Series may be a combination of Infrastructure Revenue Bonds and Moral Obligation Bonds or consist entirely of Infrastructure Revenue Bonds or Moral Obligation Bonds, all as shall be specified in the Related Supplemental Series Indenture.

"Supplemental Indenture" means any indenture supplementary to or amendatory of the Master Indenture or any Supplemental Indenture or Supplemental Series Indenture now or hereafter duly executed and delivered in accordance with the provisions of the Master Indenture, including a Supplemental Series Indenture.

"Supplemental Series Indenture" means a Supplemental Indenture providing for the issuance of a Series of Bonds, as such Supplemental Series Indenture may be modified, altered, amended and supplemented by a Supplemental Indenture in accordance with the provisions of the Master Indenture.

"Tax Regulatory Agreement" means, with respect to any Series of Bonds, the Tax Certificate and Regulatory Agreement, dated the date of the issuance of the Related Series of Bonds, between VRA and the Trustee, as the same may be modified, altered, amended or supplemented pursuant to its terms.

"Term Bonds" means all or some of the Bonds of a Series, other than Serial Bonds, that shall be stated to mature on one or more dates and that are so designated in the Related Supplemental Series Indenture.

"Trustee" means U.S. Bank National Association, a national banking association, as successor trustee to SunTrust Bank, and any successors serving in the same capacity under the Master Indenture.

"Variable Rate Bonds" means any Bonds the interest rate on which is not established, at the time such Bonds are issued, at a single numerical rate for the entire term of the Bonds.

"Virginia Code" means the Code of Virginia of 1950, as amended.

"VRA" means the Virginia Resources Authority, a public body corporate and a political subdivision of the Commonwealth.

"VRA Debt" means "bonds" of VRA as defined in Section 62.1-199 of the Act.

"VRA Representative" means any of the Chairman, Vice Chairman or Executive Director of VRA and any other member, officer or employee of VRA authorized by resolution of VRA's Board of Directors to perform the act or sign the document in question.

Establishment of Trusts

Security for Infrastructure Revenue Bonds. (a) In order to provide for the payment of the principal of and the premium, if any, and interest on the Infrastructure Revenue Bonds of all Series issued under the Master Indenture, and to secure the performance of all of the obligations of VRA with respect to the Infrastructure Revenue Bonds, the Master Indenture and the Supplemental Series Indentures, VRA pledges and grants to the Trustee a security interest in the following:

(i) All of the Revenues and the Infrastructure Revenue Bond Revenues;

(ii) The Local Obligations and Agreements;

(iii) The amounts, money, investments and Infrastructure Revenue DSRF Credit Facilities, if any, held by the Trustee and the Paying Agent pursuant to the terms of the Master Indenture in the Revenue Fund, the Infrastructure Revenue Debt Service Fund, the Infrastructure Revenue Debt Service Reserve Fund, and the Operating Reserve Fund; and

(iv) All other property of any kind mortgaged, pledged or hypothecated to provide for the payment of or to secure the Infrastructure Revenue Bonds of all Series by VRA or by anyone on its behalf and with its written consent at any time as and for additional security under the Master Indenture and the Supplemental Series Indentures in favor of the Trustee, which is

authorized to receive all such property at any time and to hold and apply it subject to the terms of the Master Indenture and the Supplemental Series Indentures.

Any of the Revenues, Infrastructure Revenue Bond Debt Service Coverage, Funds and Accounts or other property described above that is received or held by the Trustee is to be held in trust for the equal and proportionate benefit and security of the Owners from time to time of the Infrastructure Revenue Bonds of all Series, except as otherwise provided in, and subject to its application in accordance with the terms of, the Master Indenture and the Supplemental Series Indentures.

Security for Moral Obligation Bonds. In order to provide for the payment of the principal of and the premium, if any, and interest on the Moral Obligation Bonds of all Series issued under the Master Indenture, and to secure the performance of all of the obligations of VRA with respect to the Moral Obligation Bonds, the Master Indenture and the Supplemental Series Indentures, VRA pledges and grants to the Trustee a security interest in the following:

(a) All of the Revenues;

(b) The Local Obligations and Agreements;

(c) The amounts, money, investments and CRF Credit Facilities, if any, held by the Trustee and the Paying Agent pursuant to the terms of the Master Indenture in the Revenue Fund, the Moral Obligation Debt Service Fund and the Capital Reserve Fund; and

(d) All other property of any kind mortgaged, pledged or hypothecated to provide for the payment of or to secure the Moral Obligation Bonds of all Series by VRA or by anyone on its behalf and with its written consent at any time as and for additional security under the Master Indenture and the Supplemental Series Indentures in favor of the Trustee, which is authorized to receive all such property at any time and to hold and apply it subject to the terms of the Master Indenture and the Supplemental Series Indentures.

VRA's pledge and grant of the security interest in the Revenues and the Local Obligations and Agreements to secure the Moral Obligation Bonds is in all respects junior and subordinate to the pledge and grant securing the Infrastructure Revenue Bonds. The Infrastructure Revenue Bond Revenues shall not secure the Moral Obligation Bonds unless Infrastructure Revenue Bond Revenues are expressly included in Revenues pursuant to a Supplemental Indenture. Notwithstanding the foregoing, however, only the Moral Obligation Bonds shall be secured and paid from amounts in the Moral Obligation Debt Service Fund and the Capital Reserve Fund. Any of the Revenues, Funds and Accounts, or other property described above that is received or held by the Trustee is to be held in trust for the equal and proportionate benefit and security of the Owners from time to time of the Moral Obligation Bonds of all Series, except as otherwise provided in, and subject to its application in accordance with the terms of, the Master Indenture and the Supplemental Series Indentures.

Bond Credit Facility. Any Bond Credit Facility which is given to secure some, but not all, of the Bonds, together with money drawn or paid under it, shall be held by the Trustee solely as security for the Bonds to which such Bond Credit Facility is Related. Neither such Bond Credit Facility nor any money drawn or paid under it will secure the payment of any other Bonds.

Issuance of Bonds

All Infrastructure Revenue Bonds of each Series issued and to be issued under the Master Indenture, respectively, are and are to be, to the extent provided in and subject to the Master Indenture

and Related Supplemental Series Indenture, equally and ratably secured by the Master Indenture and the Related Supplemental Series Indenture without preference, priority or distinction on account of the actual time or times of the authentication or delivery or maturity or redemption of the Infrastructure Revenue Bonds of such Series, or any of them. In addition, all Moral Obligation Bonds of each Series issued and to be issued under the Master Indenture, respectively, are and are to be, to the extent provided in and subject to the Master Indenture and the Related Supplemental Series Indenture, equally and ratably secured by the Master Indenture and the Related Supplemental Series Indenture without preference, priority or distinction on account of the actual time or times of the authentication or delivery or maturity or redemption of the Moral Obligation Bonds of such Series, or any of them.

In connection with the issuance of additional Bonds, VRA is required to file, among other things, the following documents with the Trustee:

(a) An original executed counterpart of the Related Supplemental Series Indenture which may include provisions (i) authorizing the issuance, fixing the principal amount and setting forth the details of the Bonds of the Series then to be issued, including identifying which Bonds within the Series are Infrastructure Revenue Bonds and which are Moral Obligation Bonds, the interest rate or rates and the manner in which the Bonds are to bear interest, the Principal and Interest Payment Dates of the Bonds, the purposes for which the Bonds are being issued, the date and the manner of numbering the Bonds, the series designation, the denominations, the maturity dates and amounts, the Amortization Requirements or the manner for determining such Amortization Requirements, and any other provisions for redemption before maturity; (ii) for Bond Credit Facilities for the Series and for Local Accounts and other Accounts and subaccounts to be established with respect to the Bonds within the Funds and Accounts established under the Master Indenture; (iii) for the application of the proceeds of the Bonds of the Series; (iv) necessary or expedient for the issuance of Bonds constituting Variable Rate Bonds or Optional Tender Bonds, including without limitation, tender and remarketing provisions, liquidity facility provisions and provisions for establishing the variable rate and changing interest rate modes; (v) for the amount, if any, to be deposited into the Infrastructure Revenue Debt Service Reserve Fund, which will be an amount at least sufficient to cause to be on deposit in the Infrastructure Revenue Debt Service Reserve Fund the Infrastructure Revenue DSRF Reserve Requirement for the Outstanding Infrastructure Revenue Bonds and the Infrastructure Revenue Bonds of the Series then to be issued; (vi) for the amount, if any, to be deposited into the Capital Reserve Fund, which will be an amount at least sufficient to cause to be on deposit in the Capital Reserve Fund the CRF Reserve Requirement for the Outstanding Moral Obligation Bonds and the Moral Obligation Bonds of the Series then to be issued; and (vii) for such other matters as VRA may deem appropriate;

(b) A certified copy of each resolution adopted by VRA's Board of Directors authorizing the execution and delivery of the Related Supplemental Series Indenture and any Related Reimbursement Obligation and the issuance, sale, execution and delivery of the Series of Bonds then to be issued;

(c) Original executed counterparts of the Related Tax Regulatory Agreement, any Related Bond Credit Facility and any Related Reimbursement Obligation;

(d) A Projected Revenue Certificate, dated the date of delivery of the Bonds of the Series then to be issued, giving effect to the issuance of such Series of Bonds and showing for each Bond Year (i) Revenue Coverage equal to at least the Required Revenue Coverage, (ii) Infrastructure Revenue Bond Revenues equal to at least Required Infrastructure Revenue Bond Revenues and (iii) Infrastructure Revenue Bond Revenue Coverage equal to at least the Required Infrastructure Revenue Bond Revenue Coverage;

(e) Evidence satisfactory to the Trustee that the amount on deposit in the Operating Reserve Fund is at least equal to the Minimum Balance as of the date of delivery of the Bonds of the Series then to be issued;

(f) If the Bonds of the Series then to be issued are to be issued to refund Bonds issued and outstanding under the Master Indenture ("Refunding Bonds"):

(i) Evidence satisfactory to the Trustee that VRA has made provision as required by the Master Indenture for the payment or redemption of all Bonds to be refunded; and

(ii) A written determination by a knowledgeable professional, including VRA's financial advisor but excluding any employee of VRA, or by a firm of independent certified public accountants that the proceeds (excluding accrued interest) of the Refunding Bonds, together with any other money to be deposited for such purpose with the Trustee in the Related Escrow Fund or otherwise upon the issuance of the Refunding Bonds and the investment income to be earned on funds held by the Trustee for the payment or redemption of Bonds to be refunded, will be sufficient to pay, whether upon redemption or at maturity, the principal of and premium, if any, and interest on the Bonds to be refunded and the estimated expenses incident to the refunding.

(g) An opinion of Bond Counsel to the effect that the Bonds of the Series then to be issued have been duly authorized, that all conditions precedent to the issuance thereof have been fulfilled and that such Bonds are valid and legally binding limited obligations of VRA, and are secured by the Master Indenture and the Related Supplemental Series Indenture to the extent provided;

(h) An Officer's Certificate, dated the date of delivery of the Bonds of the Series then to be issued, to the effect that to the best of the knowledge of the signatory, upon and immediately following such delivery, no Event of Default under the Master Indenture or any Supplemental Series Indenture with respect to any Series of Bonds Outstanding will have occurred and be continuing;

(i) A written order and authorization to the Trustee on behalf of VRA, signed by a VRA Representative, to authenticate and deliver the Bonds of the Series then to be issued to or upon the order of the purchaser or purchasers therein identified upon payment to the Trustee of the purchase price (including accrued interest, if any) of such Series of Bonds; and

(j) Any additional document or instrument specified in the Related Supplemental Series Indenture.

Modification of Certain Definitions. (a) In the case of the following described types of Bonds, the definition of the term "Principal and Interest Requirements" for the purposes of (i) preparing and delivering a Projected Revenue Certificate and (ii) establishing the sizes of the Infrastructure Revenue DSRF Requirement, the CRF Reserve Requirement and the Minimum CRF Reserve Requirement shall be modified as follows:

(A) Optional Tender Bonds. (1) If any of the Outstanding Bonds or additional Bonds of the Series then to be issued constitute Optional Tender Bonds, then the options of the Owners of such Bonds to tender the same for payment prior to their stated maturity or maturities shall be disregarded, (2) if such Bonds also constitute Variable Rate Bonds, VRA shall also make the adjustments described in subsection (a)(ii)(B) below, and (3) any obligation VRA may have, other than its obligation on such additional Bonds (which need not be uniform as

to all Owners thereof), to reimburse any Person for its having extended a Bond Credit Facility shall be disregarded.

(B) Variable Rate Bonds. If any of the Outstanding Bonds or Bonds of the Series then to be issued constitute Variable Rate Bonds, then the interest rate used in the above-described computations shall be the greater of (i) the interest rate on any additional Bonds issued as Variable Rate Bonds for the first period of calculation of such interest and (ii) the weighted average interest rate at which VRA could reasonably expect to have borrowed on the date of issuance of such Bonds by issuing such Bonds with a fixed rate or rates of interest. VRA's reasonable expectation shall be established by an Officer's Certificate and a letter of a knowledgeable professional, including VRA's financial advisor, confirming the interest rate expectation as reasonable. The conversion of Bonds constituting Variable Rate Bonds to bear interest at a fixed rate or rates or vice-versa, in accordance with their terms, shall not constitute a new issuance of Bonds under the Master Indenture.

(b) The requirements and provisions of the Master Indenture governing Projected Revenue Certificates shall also be modified as set forth in subsection (a) above as may be necessary or appropriate for Local Obligations that are or will be Related to Optional Tender Bonds or Variable Rate Bonds.

Junior Subordinate Debt. VRA may authorize and issue Junior Subordinate Debt for any lawful purpose payable from the revenues, money and other property pledged under the Master Indenture subject and subordinate to the payment of any Bonds or from securing any Junior Subordinate Debt and its payment by a lien and pledge of the revenues, money and other property pledged under the Master Indenture junior and inferior to the lien and pledge granted by the Master Indenture for the payment and security of Bonds. The resolutions and documents providing for the issuance or incurrence of any Junior Subordinate Debt shall provide that no remedies upon an event of default thereunder may be exercised so long as any Infrastructure Revenue Bonds or Moral Obligation Bonds remain Outstanding.

Establishment of Funds and Accounts

The following funds are established under the Master Indenture as follows:

Establishment and Custody of Pledged Funds for All Series of Bonds. With respect to and for the benefit of all Bonds there is, under the Master Indenture, established to be held by the Trustee the Revenue Fund. The Master Indenture provides that, the Revenue Fund is pledged, subject to the limitations within the Master Indenture, as security for all Bonds issued and Outstanding under the Master Indenture. With respect to and for the benefit of the Infrastructure Revenue Bonds of each Series there is established to be held by the Trustee the Infrastructure Revenue Debt Service Fund, the Infrastructure Revenue Debt Service Reserve Fund and the Operating Reserve Fund. These three Funds are pledged as security for all Infrastructure Revenue Bonds issued and Outstanding under the Master Indenture. With respect to and for the benefit of the Moral Obligation Bonds of each Series there is established to be held by the Trustee the Moral Obligation Debt Service Fund and the Capital Reserve Fund. The Master Indenture provides that both of these Funds are pledged, subject to the limitations hereof, as security for all Moral Obligation Bonds issued and Outstanding under the Master Indenture.

Establishment and Custody of Non-Pledged Funds for Each Series of Bonds. Unless otherwise provided in the Related Supplemental Series Indenture, the following Funds are to be established in the Related Supplemental Series Indenture and held by or at the direction of VRA with respect to each Series of Bonds:

(1) Cost of Issuance Fund;
(2) Acquisition Fund; and
(3) Rebate Fund.

Unless otherwise provided in the Related Supplemental Series Indenture, none of the Cost of Issuance Fund, the Acquisition Fund or the Rebate Fund is pledged as security for payment of any Bonds of any Series.

Establishment and Custody of Certain Special Funds. VRA may establish with the Trustee or an escrow agent satisfactory to the Trustee in connection with the issuance of any Series of Refunding Bonds an Escrow Fund to provide for the application and investment of the portion of the proceeds of such Series to be used to refund the Refunded Bonds. Such Escrow Fund shall be established under or in accordance with the Related Supplemental Series Indenture. VRA may establish with the Trustee in connection with the incurrence of any Reimbursement Obligation a Reimbursement Fund. Amounts held for the credit of any Reimbursement Fund shall be paid out by the Trustee as necessary to enable VRA to meet its obligations constituting Reimbursement Obligations. Amounts held for the credit of a Reimbursement Fund may be pledged to the payment of any Related Reimbursement Obligation incurred by VRA.

Operation of Revenue Fund and Pledged Funds

Nature of Security Afforded by Certain Funds. All Infrastructure Revenue Bonds of any Series issued and to be issued under the Master Indenture are, and are to be, to the extent provided in the Master Indenture, equally and ratably secured by the Revenue Fund, the Infrastructure Revenue Debt Service Fund, the Infrastructure Revenue Debt Service Reserve Fund and the Operating Reserve Fund. All Moral Obligation Bonds of any Series issued and to be issued under the Master Indenture are, and are to be, to the extent provided in the Master Indenture, equally and ratably secured by the Revenue Fund, the Moral Obligation Debt Service Fund and the Capital Reserve Fund.

Revenue Fund. The Trustee shall promptly deposit and hold in the Revenue Fund the Local Obligation Payments and any other amounts transferred to the Revenue Fund from other Funds and Accounts or other sources as provided under the Master Indenture or the Supplemental Series Indentures. On or before each Payment Date on any Series of the Bonds, the Trustee shall make transfers from the Revenue Fund in the amounts and in the order of priority set forth below:

(a) To the Infrastructure Revenue Debt Service Fund the amount, if any, required so that the balance therein shall equal the amount of principal, if any, and interest due on the Payment Date on the Infrastructure Revenue Bonds; provided that for the purpose of computing the amount to be paid to the Infrastructure Revenue Debt Service Fund there shall be deducted the amount, if any, set aside in the Infrastructure Revenue Debt Service Fund which was deposited therein as accrued or capitalized interest and any amounts transferred to the Infrastructure Revenue Debt Service Fund pursuant to the Master Indenture, together in each case with investment earnings thereon;

(b) To the Infrastructure Revenue Debt Service Reserve Fund the amount necessary to cause the balance therein to be equal to the Infrastructure Revenue DSRF Requirement, if any (which shall include the reimbursement of an Infrastructure Revenue DSRF Credit Provider for any drawings on an

Infrastructure Revenue DSRF Credit Facility and the payment of any interest, penalties or fees assessed by the Infrastructure Revenue DSRF Credit Provider);

(c) To VRA the amount equal to the sum of the Administrative Charges as confirmed in an Officer's Certificate;

(d) To the Rebate Funds the amounts necessary to provide for the payment of any Rebate Amounts with respect to any Series of Bonds as confirmed in an Officer's Certificate;

(e) To the Moral Obligation Debt Service Fund the amount, if any, required so that the balance therein shall equal the amount of principal, if any, and interest due on the Payment Date on the Moral Obligation Bonds; provided that for the purpose of computing the amount to be paid to the Moral Obligation Debt Service Fund there shall be deducted the amount, if any, set aside in the Moral Obligation Debt Service Fund which was deposited therein as accrued or capitalized interest and any amounts transferred to the Moral Obligation Debt Service Fund as provided in the Master Indenture, together in each case with investment earnings thereon;

(f) To the Capital Reserve Fund to the extent necessary to cause the balance therein to be equal to the CRF Reserve Requirement (which shall include the reimbursement of a CRF Credit Provider for any drawings on a CRF Credit Facility and the payment of any interest, penalties or fees assessed by the CRF Credit Provider); and

(g) To the Operating Reserve Fund, any balance remaining in the Revenue Fund, unless and to the extent that the remaining balance is necessary to pay future Principal and Interest Requirements on the Bonds at the times and in the amounts provided in (i) a Supplemental Series Indenture and confirmed in an Officer's Certificate or (ii) an Officer's Certificate.

The Trustee shall apply any amounts retained in the Revenue Fund as described in paragraph (g) above to pay the Principal and Interest Requirements on the Bonds at the times and in the amounts provided in the applicable Supplemental Series Indenture or Officer's Certificate as the case may be.

In the case of Bonds of a Series secured by a Bond Credit Facility, amounts on deposit in the Revenue Fund may be transferred to the Infrastructure Revenue Debt Service Fund or Moral Obligation Debt Service Fund, as the case may be, the Related Reimbursement Fund or elsewhere as provided in the Related Supplemental Series Indenture to reimburse the Bond Credit Provider for amounts drawn under the Bond Credit Facility to pay the principal of and premium, if any, and interest on such Bonds.

Infrastructure Revenue Debt Service Fund. The Trustee shall promptly deposit the following amounts in the Infrastructure Revenue Debt Service Fund:

(a) The amount, if any, of the proceeds of the Infrastructure Revenue Bonds of any Series, required by the Related Supplemental Series Indenture to be deposited in the Infrastructure Revenue Debt Service Fund in respect of accrued and/or capitalized interest;

(b) All amounts required to be transferred to the Infrastructure Revenue Debt Service Fund from the Revenue Fund;

(c) Any amounts required to be transferred to the Infrastructure Revenue Debt Service Fund from the Infrastructure Revenue Debt Service Reserve Fund and the Operating Reserve Fund, as provided under the Master Indenture; and

(d) Any other amounts required to be paid to the Infrastructure Revenue Debt Service Fund or otherwise made available for deposit therein by any Local Government or VRA, including amounts made available pursuant to the Related Supplemental Series Indenture.

The Trustee shall pay out of the Infrastructure Revenue Debt Service Fund to the Paying Agents for the Infrastructure Revenue Bonds (i) on each Interest Payment Date, the amount required for the payment of interest on the Infrastructure Revenue Bonds then due and (ii) on any redemption date, the amount required for the payment of accrued interest on the Infrastructure Revenue Bonds to be redeemed unless the payment of such accrued interest shall be otherwise provided for, and such amounts shall be applied by the Paying Agents to such payment. The Trustee shall also pay out of the Infrastructure Revenue Debt Service Fund the accrued interest included in the purchase price of the Infrastructure Revenue Bonds of any Series purchased for retirement pursuant to the Master Indenture. The Trustee shall pay out of the Infrastructure Revenue Debt Service Fund to the Paying Agents for the Bonds on each Principal Payment Date and redemption date for the Infrastructure Revenue Bonds, the amounts then required for the payment of such principal or redemption price, and such amounts shall be applied by the Paying Agents to such payments.

Infrastructure Revenue Debt Service Reserve Fund. Except as specifically provided below, the amount in the Infrastructure Revenue Debt Service Reserve Fund, if any, shall be used solely to cure deficiencies in the amount on deposit in the Infrastructure Revenue Debt Service Fund. If there is a deficiency in the amount on deposit in the Infrastructure Revenue Debt Service Fund to pay the principal of and interest on the Infrastructure Revenue Bonds when due, then the Trustee shall transfer the amount of the deficiency from the amount, if any, on deposit in the Infrastructure Revenue Debt Service Reserve Fund to the Infrastructure Revenue Debt Service Fund. The Trustee immediately shall notify VRA of the transfer. Notwithstanding the foregoing, no such transfer from the Infrastructure Revenue Debt Service Reserve Fund shall relieve a Local Government of its obligation to make the payments due on its Local Obligations or under the Related Agreement.

On each Reserve Determination Date, the Trustee shall determine if the balance on deposit in the Infrastructure Revenue Debt Service Reserve Fund is at least equal to the Infrastructure Revenue DSRF Requirement. In making each such determination, investments on deposit in the Infrastructure Revenue Debt Service Reserve Fund shall be valued as provided in the Master Indenture. If on any Reserve Determination Date the amount in the Infrastructure Revenue Debt Service Reserve Fund is less than the Infrastructure Revenue DSRF Requirement, the Trustee shall immediately notify VRA of such fact and the amount of the deficiency. VRA may deposit its own funds directly into the Infrastructure Revenue Debt Service Reserve Fund to cure any deficiency in it.

Any interest earned from the investment of money in the Infrastructure Revenue Debt Service Reserve Fund shall be transferred upon receipt to the Revenue Fund and/or to pay any Rebate Amounts in accordance with the Supplemental Series Indentures and Tax Regulatory Agreements (as confirmed in an Officer's Certificate) to the extent that such transfer will not cause the balance in the Infrastructure Revenue Debt Service Reserve Fund to be less than the Infrastructure Revenue DSRF Requirement. If on any Reserve Determination Date there exists a surplus in the Infrastructure Revenue Debt Service Reserve Fund, the Trustee shall transfer such surplus to the Revenue Fund and/or use it to pay any Rebate Amounts in accordance with the Supplemental Series Indentures and Tax Regulatory Agreements (as confirmed in an Officer's Certificate); provided, however, that if on any Reserve Determination Date there exists or will exist a surplus in the Infrastructure Revenue Debt Service Reserve Fund as the result of the payment at maturity, redemption or defeasance of a portion of the Bonds on or as of such Reserve Determination Date, then the Trustee is authorized to apply the surplus as specified in (i) a Supplemental Series Indenture (as confirmed in an Officer's Certificate) or (ii) an Officer's Certificate.

In lieu of maintaining and depositing money or securities in the Infrastructure Revenue Debt Service Reserve Fund, VRA may deposit with the Trustee an Infrastructure Revenue DSRF Credit Facility in an amount equal to all or a portion of the Infrastructure Revenue DSRF Requirement. Any Infrastructure Revenue DSRF Credit Facility will permit the Trustee to draw or obtain under it for deposit in the Infrastructure Revenue Debt Service Reserve Fund amounts that, when combined with the other amounts in the Infrastructure Revenue Debt Service Reserve Fund, are not less than the Infrastructure Revenue DSRF Requirement.

The Trustee will make a drawing on or otherwise obtain funds under the Infrastructure Revenue DSRF Credit Facility before its expiration or termination (i) whenever money is required for the purposes for which Infrastructure Revenue Debt Service Reserve Fund money may be applied and (ii) unless such Infrastructure Revenue DSRF Credit Facility has been extended or a qualified replacement for it delivered to the Trustee, in the event VRA has not deposited immediately available funds equal to the Infrastructure Revenue DSRF Requirement at least two Business Days preceding the expiration or termination of the Infrastructure Revenue DSRF Credit Facility.

If VRA provides the Trustee with an Infrastructure Revenue DSRF Credit Facility as provided in this subsection, the Trustee will transfer the corresponding amount of funds then on deposit in the Infrastructure Revenue Debt Service Reserve Fund to VRA, provided VRA delivers to the Trustee (i) an Opinion of Bond Counsel that such transfer of funds will not adversely affect the exclusion from gross income for purposes of federal income taxation of interest on any Bonds the interest on which was excludable on the date of their issuance and (ii) VRA covenants to comply with any directions or restrictions contained in such opinion concerning the use of such funds.

Moral Obligation Debt Service Fund. The Trustee shall promptly deposit the following amounts in the Moral Obligation Debt Service Fund:

(a) The amount, if any, of the proceeds of the Moral Obligation Bonds of any Series, required by the Related Supplemental Series Indenture to be deposited in the Moral Obligation Debt Service Fund in respect of accrued and/or capitalized interest;

(b) All amounts required to be transferred to the Moral Obligation Debt Service Fund from the Revenue Fund;

(c) Any amounts required to be transferred to the Moral Obligation Debt Service Fund from the Capital Reserve Fund, as provided under the Master Indenture; and

(d) Any other amounts required to be paid to the Moral Obligation Debt Service Fund or otherwise made available for deposit therein by any Local Government or VRA, including amounts made available pursuant to the Related Supplemental Series Indenture.

The Trustee shall pay out of the Moral Obligation Debt Service Fund to the Paying Agents for the Moral Obligation Bonds (i) on each Interest Payment Date, the amount required for the payment of interest on the Moral Obligation Bonds then due and (ii) on any redemption date, the amount required for the payment of accrued interest on the Bonds to be redeemed unless the payment of such accrued interest shall be otherwise provided for, and such amounts shall be applied by the Paying Agents to such payment. The Trustee shall also pay out of the Moral Obligation Debt Service Fund the accrued interest included in the purchase price of the Moral Obligation Bonds of any Series purchased for retirement pursuant to the Master Indenture.

The Trustee shall pay out of the Moral Obligation Debt Service Fund to the Paying Agents for the Bonds on each Principal Payment Date and redemption date for the Moral Obligation Bonds, the amounts then required for the payment of such principal or redemption price, and such amounts shall be applied by the Paying Agents to such payments.

Capital Reserve Fund. The Capital Reserve Fund shall be used solely to cure deficiencies in the amount on deposit in the Moral Obligation Debt Service Fund. If there is a deficiency in the amount on deposit in the Moral Obligation Debt Service Fund to pay the principal of and interest on the Moral Obligation Bonds when due, then the Trustee shall transfer the amount of the deficiency from the amount, if any, on deposit in the Capital Reserve Fund to the Moral Obligation Debt Service Fund. The Trustee immediately shall notify VRA of the transfer. Notwithstanding the foregoing, no such transfer from the Capital Reserve Fund shall relieve a Local Government of its obligation to make the payments due on its Local Obligations or under the Related Agreement.

On each Reserve Determination Date, the Trustee shall determine if the balance on deposit in the Capital Reserve Fund is at least equal to the CRF Reserve Requirement and the Minimum CRF Reserve Requirement. Unless and until VRA satisfies the requirements described under the heading herein "**Operation of Revenue Fund and Pledged Funds** - Release of Moral Obligations", the CRF Reserve Requirement and the Minimum CRF Reserve Requirement shall be equal. In making each such determination, investments on deposit in the Capital Reserve Fund shall be valued as provided in the Master Indenture. If on any Reserve Determination Date the amount in the Capital Reserve Fund is less than the CRF Reserve Requirement or the Minimum CRF Reserve Requirement, the Trustee shall immediately notify VRA of such fact and the amount of the deficiency.

If any deficiency below the Minimum CRF Reserve Requirement shall continue to exist on or before December 1 of the year in which the deficiency occurs, VRA's Chairman shall under Section 62.1-215 of the Act make and deliver to the Governor and the Secretary of Administration of the Commonwealth a certificate setting forth the amount of such deficiency. Notwithstanding anything to the contrary contained herein, in determining whether such deficiency continues to exist on a December 1, the Chairman of VRA shall not take into account any deficiency resulting solely from the valuation by the Trustee of the investments in the Capital Reserve Fund (as opposed to a transfer therefrom to the Moral Obligation Debt Service Fund due to a default on a Local Obligation).

VRA may deposit its own funds directly into the Capital Reserve Fund to cure any deficiency in it.

VRA and the Trustee shall deposit directly into the Capital Reserve Fund any payments made by the Commonwealth pursuant to an appropriation by the General Assembly of the Commonwealth under Section 62.1-215 of the Act to replenish any deficiency below the Minimum CRF Reserve Requirement in the Capital Reserve Fund.

Any interest earned in the investment of money in the Capital Reserve Fund shall be transferred upon receipt to the Revenue Fund and/or to pay any Rebate Amounts in accordance with the Supplemental Series Indentures and Tax Regulatory Agreements (as confirmed in an Officer's Certificate) to the extent that such transfer will not cause the balance in the Capital Reserve Fund to be less than the CRF Reserve Requirement. If on any Reserve Determination Date there exists a surplus in the Capital Reserve Fund, the Trustee shall transfer the surplus to the Revenue Fund and/or use it to pay any Rebate Amounts in accordance with the Supplemental Series Indentures and Tax Regulatory Agreements (as confirmed in an Officer's Certificate); provided, however, that if on any Reserve Determination Date there exists or will exist a surplus in the Capital Reserve Fund as the result of the payment at maturity, redemption or defeasance of a portion of the Moral Obligation Bonds on or as of such Reserve

Determination Date, then the Trustee is authorized to apply the surplus as specified in (i) a Supplemental Series Indenture (as confirmed in an Officer's Certificate) or (ii) an Officer's Certificate.

In lieu of maintaining and depositing money or securities in the Capital Reserve Fund, VRA may deposit with the Trustee a CRF Credit Facility in an amount equal to all or a portion of the CRF Reserve Requirement. Any CRF Credit Facility will permit the Trustee to draw or obtain under it for deposit in the Capital Reserve Fund amounts that, when combined with the other amounts in the Capital Reserve Fund, are not less than the CRF Reserve Requirement.

The Trustee will make a drawing on or otherwise obtain funds under the CRF Credit Facility before its expiration or termination (i) whenever money is required for the purposes for which Capital Reserve Fund money may be applied and (ii) unless such CRF Credit Facility has been extended or a qualified replacement for it delivered to the Trustee, in the event VRA has not deposited immediately available funds equal to the CRF Reserve Requirement at least two Business Days preceding the expiration or termination of the CRF Credit Facility.

If VRA provides the Trustee with a CRF Credit Facility as provided in this subsection, the Trustee will transfer the corresponding amount of funds then on deposit in the Capital Reserve Fund to VRA, provided VRA delivers to the Trustee (i) an Opinion of Bond Counsel that such transfer of funds will not adversely affect the exclusion from gross income for purposes of federal income taxation of interest on any Bonds the interest on which was excludable on the date of their issuance and (ii) VRA covenants to comply with any directions or restrictions contained in such opinion concerning the use of such funds.

Release of Moral Obligation. Without obtaining the consent of either the Trustee or any of the Owners of the Bonds, VRA may at any time by resolution adopted by its Board of Directors and filed with the Trustee establish the Minimum CRF Reserve Requirement at an amount less than the CRF Reserve Requirement upon satisfaction of the following conditions:

(a) The above-described resolution contains a finding by VRA's Board of Directors that such action is not reasonably expected to affect adversely VRA's ability to pay the Principal and Interest Requirements on the Moral Obligation Bonds; and

(b) VRA files with the Trustee written confirmation from each Rating Agency for any Moral Obligation Bonds then Outstanding that its then-current rating on the Moral Obligation Bonds will not be withdrawn or reduced as a result of such action.

The Minimum CRF Reserve Requirement is intended to be the "minimal requirement" for the Capital Reserve Fund described in Section 62.1-215 of the Act. The portion of the Capital Reserve Fund representing or allocable to the excess, if any, of the CRF Reserve Requirement over the Minimum CRF Reserve Requirement shall not be deemed a "capital reserve fund" within the meaning of Section 62.1-215 of the Act.

Operating Reserve Fund. On each Payment Date, any amount on deposit in the Operating Reserve Fund shall be transferred to the Infrastructure Revenue Debt Service Fund if and to the extent that, after the transfers from the Revenue Fund and from the Infrastructure Revenue Debt Service Reserve Fund provided for in the Master Indenture, amounts on deposit in the Infrastructure Revenue Debt Service Fund are insufficient to pay the principal and interest due on the Infrastructure Revenue Bonds on such date.

Investment earnings on amounts in the Operating Reserve Fund shall be retained therein unless necessary for transfer to the Infrastructure Revenue Debt Service Fund as provided in the above paragraph or transferred to VRA as provided in the paragraph below.

At any time upon the filing with the Trustee of a Projected Revenue Certificate, VRA may transfer to itself, from amounts on deposit in the Operating Reserve Fund, free and clear of any lien or pledge created by the Master Indenture, an amount which is not required to produce Revenue Coverage equal to the Required Revenue Coverage, Infrastructure Revenue Bond Debt Service Coverage equal to the Required Infrastructure Revenue Bond Debt Service Coverage, and an Infrastructure Revenue Bond Revenue Coverage equal to the Required Infrastructure Revenue Bond Revenue Coverage in the then-current and all future Bond Years, all as set forth in the Projected Revenue Certificate. The amounts VRA transfers to itself shall first be used to reimburse the Commonwealth in accordance with Section 62.1-215 of the Act for any amounts which the General Assembly may have appropriated and the Commonwealth has paid into the Capital Reserve Fund and then may be applied to any other lawful purpose under the Act. VRA shall provide written notification to each Rating Agency of each such transfer from the Operating Reserve Fund.

Cost of Issuance Funds. There shall be deposited in each Cost of Issuance Fund the portion of the proceeds of the Related Series of Bonds and such other amounts as may be specified in the Related Supplemental Series Indenture. VRA shall use such amounts to pay costs of issuance incurred in connection with the issuance of the Related Series of Bonds. Upon the filing with the Trustee of an Officer's Certificate that no further costs of issuance are to be paid from a Cost of Issuance Fund, VRA shall transfer any amounts remaining on deposit in such Fund to the Revenue Fund, the Related Acquisition Fund and/or another Fund or Account established hereunder as may be authorized or directed by the Related Supplemental Series Indenture or Tax Regulatory Agreement. Investment earnings on a Cost of Issuance Fund may be transferred therefrom periodically as provided in the Related Supplemental Series Indenture and Tax Regulatory Agreement.

Acquisition Funds. There shall be deposited into each Acquisition Fund such portion of the proceeds of the Related Series of Bonds and other amounts as may be specified in the Related Supplemental Series Indenture. VRA shall use amounts in each Acquisition Fund to acquire Related Local Obligations in accordance with the specific requirements of the Related Supplemental Series Indenture, Tax Regulatory Agreement and Related Agreements. Upon the filing with the Trustee of an Officer's Certificate that no additional Local Obligations are to be acquired or principal advances made thereon from amounts in an Acquisition Fund, VRA shall transfer any amounts remaining on deposit in such Fund to the Revenue Fund and/or another Fund or Account established hereunder as may be authorized or directed by the Related Supplemental Series Indenture or Tax Regulatory Agreement. Investment earnings in an Acquisition Fund may be transferred periodically therefrom as provided in the Related Supplemental Series Indenture and Tax Regulatory Agreement.

Rebate Funds. There shall be deposited in each Rebate Fund Rebate Amounts and such other amounts as may be specified in the Related Supplemental Series Indenture and the Related Tax Regulatory Agreement. VRA shall use the balance in a Rebate Fund to pay the obligations under Section 148 of the Code in connection with the Related Series of Bonds. VRA may transfer any amounts on deposit in a Rebate Fund that are not needed for such purpose to the Revenue Fund, the Operating Reserve Fund and/or another Fund or Account established hereunder as may be authorized or directed by the Related Supplemental Series Indenture or Tax Regulatory Agreement and confirmed in an Officer's Certificate.

Investments

All amounts deposited with VRA or the Trustee under the Master Indenture in excess of the amount guaranteed by the Federal Deposit Insurance Corporation or other federal agency shall be continuously held in bank accounts which are secured for the benefit of VRA and the Owners of the Bonds in the manner required and to the full extent permitted by the Virginia Security for Public Deposits Act, Chapter 44, Title 2.2 of the Virginia Code, or any successor provision of law; provided, however, that it shall not be necessary for the Paying Agent to give security for the deposit of any amounts with it for the payment of the principal of or premium, if any, or interest on any Bonds issued under the Master Indenture, or for any Person to give security for any investments described in the following paragraphs.

Subject to the provisions of any Supplemental Indenture, any amounts held in any Funds and Accounts established by the Master Indenture or any Supplemental Indenture may be separately invested and reinvested by the Trustee, at the request of and as directed in writing by a VRA Representative, in any investments which are at the time legal investments for public funds of the type to be invested under Virginia law, including without limitation the Act and the Investment of Public Funds Act, Chapter 45, Title 2.2 of the Virginia Code, or any successor provision of law.

Subject to the provisions of any Supplemental Indenture, all investments shall be held by or under the control of the Trustee or VRA, as the case may be, and while so held shall be deemed a part of the Fund or Account in which the amounts were originally held. The Trustee and VRA shall sell and reduce to cash a sufficient amount of investments whenever the cash balance in any Fund or Account is insufficient for its purposes.

Unless otherwise provided in a Supplemental Indenture, VRA or the Trustee shall value the investments in each Fund and Account established under the Master Indenture or any Supplemental Indenture and held by it or at its direction as of the last Business Day of each month, at the lower of cost or fair market value of such investments, plus accrued interest.

The Trustee may make investments permitted as described herein through its own trust or bond department.

Particular Covenants

Payment of Bonds. VRA covenants to perform its obligations as provided in the Master Indenture, any Supplemental Series Indenture, each Series of Bonds and related documents and to pay the Bonds, but only from revenues, monies and other property specifically pledged for such purposes.

Records and Accounts; Inspections and Reports. VRA will maintain or cause to be maintained proper books or records and accounts, separate from any of its other records and accounts, showing complete and correct entries of all transactions relating to the Bonds. All books and documents in VRA's possession relating to the Bonds shall at all times be open to inspection by such agents as may be designated by the Trustee or the Owners of twenty-five percent or more in aggregate principal amount of Bonds then Outstanding. VRA will have an annual audit made by or on behalf of the Auditor of Public Accounts within 120 days after the end of each fiscal year and shall furnish to the Trustee copies of the audit report as soon as such report is available, which report shall include statements in reasonable detail, certified by the Auditor of Public Accounts or the accountant who prepared the report. Such audit report shall reflect VRA's financial position as of the end of such fiscal year and the results of its operations and changes in the financial position of its funds for such fiscal year.

Covenants with Credit Providers, Infrastructure Revenue DSRF Credit Providers and CRF Credit Providers. VRA may make such covenants as it may in its sole discretion determine to be appropriate with any Bond Credit Provider, Infrastructure Revenue DSRF Provider or CRF Credit Provider that provides for the Bonds of any one or more Series a Bond Credit Facility, an Infrastructure Revenue DSRF Credit Facility or a CRF Credit Facility that shall enhance the security or the value of such Bonds and thereby reduce the Principal and Interest Requirements on such Bonds or substitute for amounts in the Infrastructure Revenue Debt Service Reserve Fund or the Capital Reserve Fund. Such covenants may be set forth in the Related Supplemental Series Indenture or other Supplemental Indenture and shall be binding on VRA, the Trustee, the Paying Agents and the Owners of the Bonds the same as if such covenants were set forth in full in the Master Indenture.

Covenant to Enforce State Aid Intercept. VRA covenants that it will take any and all actions available to it under the laws of the Commonwealth, including those actions available under Section 62.1-216.1 of the Act and Section 15.2-2659 of the Virginia Code, to obtain Local Obligation Payments if the Related Local Government fails to make such payments when the same shall become due and payable.

Defeasance. If VRA shall pay or provide for the payment of the entire indebtedness on all Bonds Outstanding in any one or more of the following ways: (1) by paying or causing to be paid the principal of and premium, if any, and interest on all Bonds Outstanding, as and when the same become due and payable; (2) by delivering all Bonds Outstanding to the Trustee for cancellation; or (3) by depositing with the Trustee (or an escrow agent acceptable to the Trustee), in trust, cash and/or Defeasance Obligations in such amount as will, together with the income or increment to accrue thereon (the "Defeasance Amount"), be fully sufficient to pay or redeem (when redeemable) and discharge the indebtedness on all Bonds Outstanding at or before their respective maturity dates, without consideration of any reinvestment of the Defeasance Amount, as an independent certified public accountant shall verify to the Trustee's satisfaction; and if VRA shall pay or provide for the payment of (on the date of defeasance or over time) all other sums payable hereunder by VRA, and, if any of the Bonds Outstanding are to be redeemed before their maturity, notice of such redemption shall have been given as provided in Article IV of the Master Indenture (and the corresponding sections of the Supplemental Series Indentures) or provisions satisfactory to the Trustee shall have been made for the giving of such notice, the Master Indenture and the estate and rights granted in the Master Indenture (except for the provisions of Articles III and IV and Section 6.1 thereof) shall cease and become null and void. Thereupon the Trustee shall, upon receipt by the Trustee of an Officer's Certificate and an opinion of Bond Counsel, each stating that in the opinion of the signers all conditions precedent to the satisfaction and discharge of the Master Indenture as provided above have been complied with, forthwith execute proper instruments acknowledging satisfaction of and discharging the Master Indenture (except for the provisions of Articles III and IV of the Master Indenture (the corresponding sections of the Supplemental Series Indentures) and Section 6.1 of the Master Indenture), and the lien thereof.

Provision for Payment of Particular Bonds. If VRA shall pay or provide for the payment of the entire indebtedness on particular Bonds in any one or more of the following ways: (1) by paying or causing to be paid the principal of and premium, if any, and interest on such Bonds, as and when the same shall become due and payable; (2) by delivering such Bonds to the Trustee for cancellation; or (3) by depositing with the Trustee (or an escrow agent acceptable to the Trustee), in trust, cash and/or Defeasance Obligations in such amount as will, together with the income or increment to accrue thereon (the "Payment Amount"), be fully sufficient to pay or redeem (when redeemable) and discharge the indebtedness on such Bonds at or before their respective maturity dates, without consideration of any reinvestment of the Payment Amount, as an independent certified public accountant shall verify to the Trustee's satisfaction; and if VRA shall also pay or provide for the payment of all other sums payable hereunder by VRA with respect to such Bonds, and, if such Bonds are to be redeemed before their maturity, notice of such redemption shall have been given as provided in Article IV of the Master

Indenture (or the corresponding provisions of the Related Supplemental Series Indentures) or provisions satisfactory to the Trustee shall have been made for the giving of such notice, such Bonds shall cease to be entitled to any lien, benefit or security under the Master Indenture. The liability of VRA under such Bonds shall continue but their Owners shall thereafter be entitled to payment (to the exclusion of all other Owners) only out of the cash and/or Defeasance Obligations deposited with the Trustee (or an escrow agent acceptable to the Trustee) as aforesaid.

VRA may at any time surrender to the Trustee for cancellation any Bonds previously authenticated and delivered that VRA may have acquired in any manner whatsoever, and such Bonds, upon such surrender and cancellation, shall be deemed to be paid and retired as provided in the Master Indenture.

The defeasance provisions of the Master Indenture may be modified by the Related Supplemental Series Indentures with respect to Bonds of any Series that constitute Variable Rate Bonds and/or Optional Tender Bonds.

Events of Default. The occurrence and continuation of one or more of the following events shall constitute an Event of Default with respect to the Bonds:

(a) default in the payment of any installment of interest in respect of any Bond as the same shall become due and payable; or

(b) default in the payment of the principal of or premium, if any, in respect of any Bond as the same shall become due and payable either at maturity, upon redemption, or otherwise; or

(c) default in the payment of any Amortization Requirement in respect of any Term Bond as the same shall become due and payable; or

(d) failure on the part of VRA duly to observe or perform any other of the covenants or agreements on the part of VRA contained in the Master Indenture, any Supplemental Series Indenture, any Tax Regulatory Agreement or any Bond; or

(e) Appointment by a court of competent jurisdiction of a receiver for all or any substantial part of the Revenues, the Infrastructure Revenue Bond Revenues, and the other Funds and Accounts pledged pursuant to the Master Indenture, or the filing by VRA of any petition for reorganization of VRA or rearrangement or readjustment of the obligations of VRA under the provisions of any applicable bankruptcy or insolvency law.

Notwithstanding any other provision of the Master Indenture, failure to pay the principal or any Amortization Requirement of or interest on the Moral Obligation Bonds will not constitute an Event of Default on the Infrastructure Revenue Bonds.

VRA may, pursuant to a Supplemental Series Indenture, provide for a particular Series of Bonds different or additional Events of Default and remedies upon the occurrence thereof, including, but not limited to, Events of Default upon the occurrence of events specified in any agreement entered into in connection with the delivery of a Bond Credit Facility and acceleration of the full principal amount of such Bonds.

No Acceleration. The principal of and interest on the Bonds is not subject to acceleration upon the occurrence and continuation of an Event of Default.

Other Remedies. Upon the occurrence and continuation of an Event of Default, the Trustee may in its discretion, and shall at the written request of the Majority Owners of the Infrastructure Revenue Bonds Outstanding, or if there are no Infrastructure Revenue Bonds Outstanding, at the written request of the Majority Owners of the Moral Obligation Bonds Outstanding, and having been indemnified as provided in the Master Indenture, pursue any available remedy, at law or in equity, to enforce the payment of the principal of and premium, if any, and interest on the Bonds, to enforce any covenant or condition under the Master Indenture or the Supplemental Indentures or to remedy any Event of Default.

Notwithstanding anything in the Master Indenture or the Supplemental Indentures to the contrary, upon the occurrence and continuation of an Event of Default, the Majority Owners of the Infrastructure Revenue Bonds Outstanding will control and direct all actions of the Trustee in exercising its rights and powers under the Master Indenture. If there are no Infrastructure Revenue Bonds Outstanding, upon the occurrence and continuation of an Event of Default, and if requested so to do in writing by the Majority Owners of the Moral Obligation Bonds Outstanding, and having been indemnified as provided in the Master Indenture, the Trustee will exercise such of the rights and powers conferred by the Master Indenture, being advised by counsel, that the Trustee deems most effective to enforce and protect the interests of the Owners.

So long as any Infrastructure Revenue Bonds are Outstanding, no Owner of any Moral Obligation Bond may exercise any remedy under the Master Indenture or any Supplemental Indenture.

Restriction on Owners' Actions. In addition to the other restrictions on the rights of Owners to request action upon the occurrence of an Event of Default and to enforce remedies set forth in the Master Indenture, no Owner will have any right to institute any suit, action or proceeding in equity or at law for the enforcement of the Master Indenture or any remedy under the Master Indenture or any Supplemental Indenture or the Bonds, unless (i) an Event of Default has occurred and is continuing of which the Trustee has been notified as provided in the Master Indenture, or of which by the Master Indenture it is deemed to have notice; (ii) the Majority Owners of the Infrastructure Revenue Bonds or, if there are no Infrastructure Revenue Bonds Outstanding, the Majority Owners of the Moral Obligation Bonds, have made written request of the Trustee to institute the suit, action, proceeding or other remedy, after the right to exercise the powers or rights of action, as the case may be, has accrued, and have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers granted in the Master Indenture or to institute the action, suit or proceeding in its or their name; (iii) there has been offered to the Trustee security and indemnity reasonably satisfactory to it against the costs, expenses and liabilities to be incurred as provided in the Master Indenture, and (iv) the Trustee has not complied with the request within a reasonable time. Such notification, request and offer of indemnity are declared, at the option of the Trustee, to be conditions precedent to the execution of the trusts of the Master Indenture or for any other remedy under the Master Indenture. It is intended that no one or more Owners will have any right to affect, disturb or prejudice the security of the Master Indenture, or to enforce any right under the Master Indenture or the Bonds, except in the manner provided for in the Master Indenture, and that all proceedings at law or in equity will be instituted, had and maintained in the manner provided in the Master Indenture and for the benefit of all Owners. Nothing in the Master Indenture will affect or impair the right of the Owners to enforce payment of the Bonds in accordance with their terms.

Waiver of Events of Default; Effect of Waiver. The Trustee will waive any Event of Default and its consequences at the written request of the Majority Owners of the Infrastructure Revenue Bonds Outstanding or, if there are no Infrastructure Revenue Bonds Outstanding, the Majority Owners of the Moral Obligation Bonds Outstanding. If any Event of Default with respect to the Bonds has been waived as provided in the Master Indenture, the Trustee will promptly give written notice of the waiver to VRA and by first class mail, postage prepaid, to all Owners if the Owners had previously been given notice of

the Event of Default. No waiver, rescission and annulment will extend to or affect any subsequent Event of Default or impair any right, power or remedy available under the Master Indenture.

No delay or omission of the Trustee or of any Owner to exercise any right, power or remedy accruing upon any default or Event of Default will impair any such right, power or remedy or will be construed to be a waiver of or acquiescence in any such default or Event of Default. Every right, power and remedy given to the Trustee and to the Owners, respectively, may be exercised from time to time and as often as may be deemed expedient.

Application of Money. Any amounts received by the Trustee will, after payment of the costs and expenses of the proceedings resulting in the collection of the money, the expenses, liabilities and advances incurred or made by the Trustee and the fees (whether ordinary or extraordinary) of the Trustee and expenses of VRA in carrying out the provisions of the Master Indenture, be deposited in an appropriate Account that the Trustee will establish in the Revenue Fund. The amounts in such Account shall be applied as follows:

(a) To the payment of the persons entitled to it of all installments of interest then due on the Infrastructure Revenue Bonds, in order of the maturity of the installments of such interest and, if the money available is not sufficient to pay in full any particular installment, then ratably, according to the amounts due on such installment, to the persons entitled to it, without any discrimination or privilege;

(b) To the payment of the persons entitled to it of the unpaid principal or Amortization Requirements of any of the Infrastructure Revenue Bonds which have become due (other than Infrastructure Revenue Bonds matured or called for redemption for the payment of which money is held pursuant to the provisions of the Master Indenture), in the order of their due dates and, if the amount available is not sufficient to pay in full such Infrastructure Revenue Bonds due on any particular date, then ratably, according to the amount of principal due on such date, to the persons entitled to it, without any discrimination or privilege;

(c) To the payment of the persons entitled to it of all installments of interest then due on the Moral Obligation Bonds to the extent the same is not to be paid from amounts in the Capital Reserve Fund, in order of the maturity of the installments of such interest and, if the money available is not sufficient to pay in full any particular installment, then ratably, according to the amounts due on such installment, to the persons entitled to it, without any discrimination or privilege; and

(d) To the payment of the persons entitled to it of the unpaid principal or Amortization Requirements of any of the Moral Obligation Bonds which have become due (other than Moral Obligation Bonds matured or called for redemption for the payment of which money is held pursuant to the provisions of the Master Indenture) to the extent the same is not to be paid from amounts in the Capital Reserve Fund, in the order of their due dates and, if the amount available is not sufficient to pay in full such Moral Obligation Bonds due on any particular date, then ratably, according to the amount of principal due on such date, to the persons entitled to it, without any discrimination or privilege.

Whenever money is to be applied pursuant to the Master Indenture, it will be applied at such times, and from time to time, as the Trustee determines, having due regard to the amount of money available for application and the likelihood of additional money becoming available for application in the future. Whenever the Trustee applies such money, it will fix the date on which payment is to be made, and interest on the amount of principal to be paid on such date will cease to accrue. The Trustee will give, by first class mail as it may deem appropriate, notice to the Owners of the fixing of such payment date.

Notwithstanding anything to the contrary in the Master Indenture, amounts at any time on deposit in or transferred to the Capital Reserve Fund as described herein shall be used only to pay the principal of and interest on the Moral Obligation Bonds and such amounts shall be so used but only to the extent that amounts in the above-described Account and the Moral Obligation Debt Service Fund are insufficient therefor.

Notice of Certain Defaults; Opportunity to Cure Such Defaults. Notwithstanding anything to the contrary in the Master Indenture, no default not constituting a debt service payment or insolvency-related default under the Master Indenture will constitute an Event of Default until actual notice of the default is given to VRA by the Trustee or by the Owners of not less than twenty-five percent in aggregate principal amount of all Outstanding Bonds, and VRA has had (i) 30 days after receipt of the notice with respect to any default in the payment of money or (ii) 90 days after receipt of the notice of any other default to correct the default or to cause the default to be corrected; provided, however, that if the default can be corrected, but cannot be corrected within the applicable period, it will not constitute an Event of Default if corrective action is instituted by VRA within the applicable period and diligently pursued until the default is corrected.

Modification or Amendment of the Indenture

VRA and the Trustee may, without the consent of, or notice to, any of the Owners of the Bonds, enter into such Supplemental Indenture or Supplemental Indentures as shall not be inconsistent with the terms and provisions of the Master Indenture or any Supplemental Series Indenture for any one or more of the following purposes:

(a) To cure or correct any ambiguity, formal defect, omission or inconsistent provision in the Master Indenture or in a Supplemental Series Indenture;

(b) To grant to or confer on the Trustee for the benefit of the Owners any additional rights, remedies, powers or authority that may lawfully be granted to or conferred on the Owners or the Trustee or either of them;

(c) To subject to the lien and pledge of the Master Indenture additional revenues, properties or collateral;

(d) To provide for the issuance of coupon Bonds if authorized under the Related Supplemental Series Indenture;

(e) To amend certain provisions of the Master Indenture or any Supplemental Series Indenture in any manner consistent with Sections 103 and 141 through 150 of the Code (or such other hereinafter enacted sections of the Code as may be applicable to the Bonds) as in effect at the time of the amendment;

(f) To confirm, as further assurance, any pledge under, and the subjection to any lien or pledge created or to be created by, the Master Indenture or any Supplemental Series Indenture, of the Revenues, the Infrastructure Revenue Bond Revenues or any other monies, property or Funds or Accounts;

(g) To modify, amend or supplement the Master Indenture or any Supplemental Series Indenture as required to permit its qualification under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect, or to permit the qualification of any of the Bonds for sale under the securities laws of any of the states of the United States, and, if VRA and the Trustee so

determine, to add to this Master Indenture or any Supplemental Series Indenture such other terms, conditions and provisions as may be permitted by the Trust Indenture Act of 1939, as amended, or similar federal statute;

(h) To add to the covenants and agreements of VRA contained in this Indenture other covenants and agreements thereafter to be observed for the Owners' protection, including, but not limited to, additional requirements imposed by virtue of a change of law, or to surrender or to limit any right, power or authority therein reserved to or conferred upon VRA;

(i) To amend, modify or change the terms of any agreements governing any book-entry-only system for any of the Bonds;

(j) In the case of Supplemental Series Indentures, to provide for the issuance of additional Series of Bonds (including Refunding Bonds) and to provide for such other related matters as may be required or contemplated by or appropriate under the Master Indenture;

(k) To make any changes necessary to comply with the requirements of a Rating Agency or of a Bond Credit Provider, an Infrastructure Revenue DSRF Credit Provider or a CRF Credit Provider that, as expressed in a finding or determination by VRA (which is included in the Supplemental Indenture), would not materially adversely affect the security for the Bonds;

(l) To make any other changes that, as expressed in a determination or finding by VRA (which shall be stated in the Supplemental Indenture, and may be based upon an Opinion of Counsel and/or the opinion of VRA's financial advisor) shall not prejudice in any material respect the rights of the Owners of the Bonds then Outstanding; and

(m) To restate in one document the Master Indenture and all effective Supplemental Series Indentures and other Supplemental Indentures, which restatement shall then become the Master Indenture for all purposes, effective as of the date of this Master Indenture with respect to matters set forth therein and as of the date of any Supplemental Indenture included in the restatement as to matters set forth in any such Supplemental Indenture. Supplemental Series Indentures and the Bonds issued thereunder prior to a restatement shall be deemed to relate to the restated Master Indenture without any further action or amendment.

Supplemental Indentures Requiring Consent. Exclusive of Supplemental Indentures not requiring the consent of owners as described above and subject to the terms and provisions contained in the Master Indenture, the Owners of a majority in aggregate principal amount of Bonds then Outstanding shall have the right from time to time, notwithstanding any other provision of this Indenture, to consent to and approve the execution by VRA and the Trustee of such other Supplemental Indenture or Supplemental Indentures as VRA shall deem necessary or desirable to modify, alter, amend, add to or rescind any of the terms or provisions contained in the Master Indenture or in any Supplemental Indenture; provided, however, that without the consent and approval of the Owners of all of the affected Bonds then Outstanding nothing in the Master Indenture shall permit, or be construed as permitting (i) an extension of the maturity of the principal of or the interest on any Bond, (ii) a reduction in the principal amount of any Bond or the rate of interest on it, (iii) a privilege or priority of any Bond or Bonds over any other Bond or Bonds except as otherwise provided herein, or (iv) a reduction in the aggregate principal amount of Bonds required for consent to such Supplemental Indenture.

Forty-Seventh Supplemental Series Indenture

The Forty-Seventh Supplemental Series Indenture supplements and amends the Master Indenture in the following ways.

Establishment of Funds and Accounts for the 2020A Bonds. In accordance with the Master Indenture, the 2020A Cost of Issuance Fund, the 2020A Acquisition Fund and the 2020A Rebate Fund are established with respect to the 2020A Bonds.

The Trustee is directed to establish a Local Account in the 2020A Acquisition Fund for each 2020A Local Obligation.

2020A Cost of Issuance Fund. The Trustee shall apply the amounts in the 2020A Cost of Issuance Fund to pay the costs of issuance of the 2020A Bonds as VRA shall direct pursuant to requisitions in the form provided in the Forty-Seventh Supplemental Series Indenture. Any of the amounts deposited in the 2020A Cost of Issuance Fund that are not applied to pay the costs of issuance of the 2020A Bonds shall be transferred to the Revenue Fund and applied to pay debt service on the 2020A Bonds before any other amounts therein are so used.

2020A Acquisition Fund.

Purchase of 2020A Local Obligations. The allocation to each Local Account of the respective amount of the sale proceeds of the 2020A Bonds pursuant to the Forty-Seventh Supplemental Series Indenture shall be deemed the purchase of each of the 2020A Local Obligations.

Disbursements and Transfers from Local Account. Commencing on the Closing Date, each 2020A Local Governments may cause the Trustee to disburse amounts on deposit in the Related Local Account in accordance with the Related Agreement. The Trustee shall retain in the Local Account all income and profits, if any, from the investment and reinvestment of amounts therein.

Additional Conditions. Before the issuance and delivery of the 2020A Bonds by the Paying Agent, VRA shall deliver or cause to be delivered to the Trustee the following documents in addition to those required under the Master Indenture.

(a) A Projected Revenue Certificate satisfying the requirements of the section titled "Required Infrastructure Revenue Bond Revenue Coverage; Projected Revenue Certificate" in the Forty-Seventh Supplemental Series Indenture.

(b) Each Related Local Obligation;

(c) An executed version of each Related Agreement, which shall at a minimum provide for the replenishment and payment by the 2020A Local Governments of any amounts withdrawn from and foregone investment earnings on the Capital Reserve Fund due to a failure of the 2020A Local Governments to make any payment under the Related Local Obligation;

(d) Certified copies or duplicate originals of all resolutions, documents, certificates and opinions of each 2020A Local Government relating to the Related Agreement or the issuance of the Related 2020A Local Obligation;

(e) Such certificates, instruments and documents as are required by the terms of each Related Agreement;

(f) An opinion of bond counsel to each 2020A Local Government dated the date of the issuance of the Related 2020A Local Obligation which shall, at a minimum, state, subject to customary qualifications, that the Related Local Obligation and Agreement are valid and binding in accordance with their terms; and

(g) The executed Tax Regulatory Agreement for the 2020A Bonds (the "2020A Tax Regulatory Agreement").

Amendments to the Master Indenture. The Forty-Seventh Supplemental Series Indenture amends Section 16.4 of the Master Indenture by including the following paragraph at the end of such section:

The Trustee shall have the right to accept and, as applicable, act upon notices, approvals, consents, requests, instructions or directions pursuant to this Master Indenture sent in writing, (provided that any communication sent to the Trustee hereunder must be in the form of a document signed manually or by way of a digital signature provided via DocuSign (or such other digital signature provider as specified in an Officer's Certificate), in English (herein "Digital Signatures"), by unsecured e-mail, facsimile transmission, portable data format ("PDF"), or other similar unsecured electronic methods, provided, however, that the sender shall provide to the Trustee an incumbency certificate listing designated persons with the authority to provide such instructions and containing specimen signatures of such designated persons, which incumbency certificate shall be amended whenever a person is to be added or deleted from the listing. If a sender elects to give the Trustee e-mail, PDF or facsimile instructions (or instructions by a similar electronic method) and the Trustee in its discretion elects to act upon such instructions, the Trustee's understanding of such instructions shall be deemed controlling. The Trustee shall not be liable for any losses, costs or expenses arising directly or indirectly from the Trustee's reliance upon and compliance with such instructions notwithstanding that such instructions conflict or are inconsistent with a subsequent written instruction. The sender agrees to assume all risks arising out of the use of Digital Signatures and electronic methods to submit communications, instructions and directions to the Trustee, including, without limitation, the risk of the Trustee acting on unauthorized instructions, and the risk of interception and misuse by third parties.

The above amendment does not require bondholder consent under the Master Indenture.

2020A Tax Regulatory Agreement. VRA agrees that it will not take any action, or omit to take any action, if any such action or omission would adversely affect the exclusion from gross income of interest on the 2020A Tax-Exempt Bonds under Section 103 of the Code. VRA agrees that it will not directly or indirectly use or permit the use of any proceeds of the 2020A Tax-Exempt Bonds or any other funds of VRA or take or omit to take any action that would cause the 2020A Tax-Exempt Bonds to be "arbitrage bonds" under Section 148(a) of the Code. To these ends, VRA will comply with all requirements of Sections 141 through 150 of the Code, including the rebate requirement of Section 148(f), to the extent applicable to the 2020A Tax-Exempt Bonds.

Without limiting the generality of the foregoing, VRA agrees that (i) it will not directly or indirectly use or permit the use of the proceeds of the 2020A Tax-Exempt Bonds except in accordance with the 2020A Tax Regulatory Agreement and (ii) insofar as the 2020A Tax Regulatory Agreement imposes duties and responsibilities on VRA, the 2020A Tax Regulatory Agreement is specifically incorporated by reference into the Forty-Seventh Supplemental Series Indenture.

The Trustee agrees to comply with all written instructions of a VRA Representative given in accordance with the 2020A Tax Regulatory Agreement, but the Trustee shall not be required to ascertain that the instructions comply with the 2020A Tax Regulatory Agreement. The Trustee shall be entitled to

receive and may request from time to time from VRA written instructions from a nationally-recognized bond counsel acceptable to the Trustee regarding the interpretation of Sections 141 through 150 of the Code, and the Trustee agrees that it will comply with such directions (upon which the Trustee and VRA may conclusively rely) so as to enable VRA to perform its covenants under the Forty-Seventh Supplemental Series Indenture.

Notwithstanding any provisions of the Forty-Seventh Supplemental Series Indenture, if VRA shall provide to the Trustee an opinion of nationally-recognized bond counsel addressed and acceptable to VRA and the Trustee to the effect that any action is not required to maintain the exclusion from gross income of the interest on the 2020A Bonds under Section 103 of the Code, the Trustee may rely conclusively on such opinion in complying with the provisions of the Forty-Seventh Supplemental Series Indenture.

Required Infrastructure Revenue Bond Revenue Coverage Certificate. For so long as any of the 2020A Bonds remains Outstanding, each Projected Revenue Certificate filed with the Trustee under the section titled "Conditions of Issuing a Series of Bonds" in the Master Indenture shall show for each Bond Year Infrastructure Revenue Bond Revenue Coverage equal to at least 120%. In other words, for purposes of the conditions for the issuance of additional Series of Bonds and for so long as any of the 2020A Bonds remains Outstanding, "Required Infrastructure Revenue Bond Revenue Coverage" means 120%.

Restriction on Withdrawals from Operating Reserve Fund. For so long as any of the 2020A Bonds remains Outstanding, VRA shall not request any transfer to itself from the Operating Reserve Fund unless each request is accompanied by an Officer's Certificate stating that (i) no single Local Government has outstanding an aggregate principal amount of Local Obligations representing more than 20% of the aggregate outstanding principal amount of all Local Obligations purchased or acquired with proceeds of Bonds issued under the Master Indenture and (ii) there are not fewer than twenty different Local Governments with outstanding Local Obligations purchased or acquired with proceeds of Bonds issued under the Master Indenture.

Restriction on Permitted Investments. For so long as any of the 2020A Bonds remains Outstanding, investments or providers of investments in the Capital Reserve Fund must meet certain requirements prescribed by the Rating Agency, including a general requirement that the investment or provider have ratings at least as high as the ratings on the Moral Obligation Bonds Outstanding.

Identification of Additional Revenues. For purposes of the Projected Revenue Certificate for the 2020A Bonds, in the Forty-Seventh Supplemental Series Indenture, VRA has identified as "Revenues" certain payments and investment earnings on such payments which may be made by BVUA as described in the subsections "ADDITIONAL INDEBTEDNESS" and "INVESTMENT CONSIDERATIONS" in Section Two of this Official Statement.

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APPENDIX B

COMMONWEALTH OF VIRGINIA FINANCIAL AND OTHER INFORMATION

The financial and operating data contained in this Appendix B are provided as of the dates and for the periods indicated, which were prior to the declaration of the COVID-19 pandemic. Such data have not been updated to reflect any potential impacts of the COVID-19 pandemic and the response thereto on the Commonwealth's general economic and financial conditions. See the heading "Recent Developments Related to the COVID-19 Pandemic" in the subsection "INVESTMENT CONSIDERATIONS" in Section Two of this Official Statement.

APPENDIX B
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INTRODUCTION

This financial and other information was provided by the Commonwealth of Virginia (the "Commonwealth"), its agencies, institutions and authorities. The data were compiled by the Department of the Treasury and were not independently verified; however, the Department of the Treasury has no reason to believe that such data is not true and correct.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this Appendix.

GOVERNMENTAL ORGANIZATION

Under the Constitution of Virginia (the "Constitution"), the legislative, executive and judicial powers of the Commonwealth are divided into three separate and distinct departments.

Legislative Department

The legislative power is vested in the General Assembly, the oldest representative lawmaking body in the United States. The General Assembly is bicameral, consisting of a Senate with 40 Senators elected for four-year terms and a House of Delegates with 100 Delegates elected for two-year terms. The General Assembly convenes annually each January. Regular sessions are 60 days in duration in even-numbered years and 30 days in odd-numbered years, but each can be extended for an additional 30 days by a two-thirds vote of each house.

The General Assembly is assisted in its legislative function by a full-time staff of over 200 persons and various commissions appointed by the General Assembly. The Joint Legislative Audit and Review Commission was established to carry out continuous legislative review and evaluation of Commonwealth programs from the standpoint of cost effectiveness.

The Auditor of Public Accounts is elected by the General Assembly. The Auditor and a staff of approximately 130 persons audit the accounts of all Commonwealth offices, departments, boards, commissions, institutions and other agencies handling Commonwealth funds and report their findings to the General Assembly.

Executive Department

The Governor, Lieutenant Governor and Attorney General are constitutional officers, elected every four years. The present term of each office began January 13, 2018 and each expires January 15, 2022. The Constitution does not allow a Governor to serve successive terms.

The Governor is the Commonwealth's chief executive officer. The Governor advises the General Assembly on the condition of the Commonwealth and makes recommendations for legislation. The Governor is also charged with the responsibility for preparing and executing the Commonwealth's budget. The Governor's veto of legislation may be overridden only by a two-thirds vote of each house of the General Assembly. If deemed necessary for the welfare of the Commonwealth, the Governor may convene the General Assembly at any time. With few exceptions, the Governor appoints the administrative heads and boards of all Commonwealth agencies. Commonwealth agencies report to the Governor through a cabinet of eleven Secretaries appointed by the Governor to supervise and manage the various functions of the Commonwealth's government.

The Lieutenant Governor is next in line in the event of the Governor's inability to serve. The Lieutenant Governor also serves as President of the Senate, but may not vote except in the event of a tie vote of the Senate Members.

The Attorney General is the chief executive officer of the Department of Law. The Department of Law represents the Commonwealth in all civil cases to which the Commonwealth or any of its agencies is a party and in all criminal cases on appeal to the Supreme Court of Virginia. The Attorney General is also the legal advisor to the Governor, General Assembly and heads of Commonwealth agencies.

Judicial Department

The Supreme Court is the Commonwealth's highest court and consists of seven justices appointed by the General Assembly. Several agencies involved in legal administration operate under the control of the Supreme Court. These include the Judicial Inquiry and Review Commission, the Virginia State Bar and the State Board of Bar Examiners. The Commonwealth is divided into 31 Judicial Circuits over which Circuit Judges preside. The Circuit Courts are courts of record having original jurisdiction in cases involving a specified sum and felonies, and appellate jurisdiction over lower District Courts. A Court of Appeals stands between the Circuit Courts and the Supreme Court and has appellate jurisdiction in a limited range of cases.

FINANCIAL FACTORS

Budgetary Process

The Governor is the chief planning and budget officer of the Commonwealth. The Secretary of Finance and the Department of Planning and Budget assist the Governor in the preparation of executive budget documents. The Governor's Secretaries advise the Governor and the Department of Planning and Budget on the relative priority of the budget requests from their respective agencies.

The Governor is required by statute to present a bill detailing his proposed budget for the next biennium (the "Budget Bill") and a narrative summary of the bill to the General Assembly by December 20th in the year immediately prior to each even-year session. The Budget Bill is introduced in both the House of Delegates and the Senate. It is referred to the House Appropriations and Senate Finance Committees, which hold joint meetings to hear from citizens, from other General Assembly members and from agency representatives. The Budget Bill is then approved by each Committee in an open session and reported to the respective floors for consideration, debate, amendment and passage. After the bill has passed both houses, differences between the House and Senate versions are reconciled by a conference committee from both houses.

Under constitutional provisions, the Governor retains the right in his review of legislative action on the Budget Bill, to suggest alterations to or to veto the appropriations made by the General Assembly. After enactment, the Budget Bill becomes law (the "Appropriation Act").

In the odd-year sessions of the General Assembly, amendments are considered to the Appropriation Act enacted in the previous year. The Governor submits a bill by December 20th, which includes his proposed amendments to the current biennial budget. It is then introduced in both houses and is considered in the same manner as the regular biennial Budget Bill. The Appropriation Act enacted in the odd-year session is effective upon passage, whereas the regular biennial Appropriation Act is effective July 1, the beginning of the new biennium.

An appropriation for a project or service is initially contained in the Appropriation Act enacted by the General Assembly. An agency request for an increase or other adjustments to its legislative appropriation must be reviewed and approved by the Department of Planning and Budget. Under the Constitution, no money may be paid out of the State Treasury except pursuant to appropriations made by law. No such appropriation may be made which is payable more than two years and six months after the end of the session of the General Assembly at which the appropriation was enacted.

Implementation and administration of the provisions of the Appropriation Act are functions of the Governor, assisted by the Secretary of Finance and the Department of Planning and Budget. This process also involves constant monitoring of revenue collections and expenditures to ensure that a balanced budget is maintained. The Appropriation Act requires that if projected revenue collections fall below amounts appropriated, the Governor must reduce expenditures and withhold allotments of appropriations, with the exception of amounts needed for debt service and specified other purposes, to the extent necessary to prevent any expenditure in excess of estimated revenues. The Appropriation Act provides that up to 15 percent of a general fund appropriation to an agency may be withheld, if required.

The Constitution requires the Governor to ensure that expenses do not exceed total revenues anticipated plus fund balances during the period of two years and six months following the end of the General Assembly session in which the appropriations are made. A Revenue Stabilization Fund (the "Stabilization Fund") was established by constitutional amendment effective January 1, 1993, and is available to offset, in part, anticipated shortfalls in revenues in years when

revenues are forecasted to decline by more than two percent of the certified tax revenues collected in the most recently ended fiscal year. Deposits to the Fund are made pursuant to Constitutional provisions based on tax revenue collections as certified by the Auditor of Public Accounts. If in any year total revenues are forecast to decline by more than two percent of the certified tax revenues collected in the most recently ended fiscal year, the General Assembly may appropriate for transfer up to one-half of the Revenue Stabilization Fund balance to the General Fund to stabilize revenues. This transfer shall not exceed one-half of the forecast shortfall. The maximum balance in the Fund can consist of an amount not to exceed 15 percent of the Commonwealth's average annual tax revenues derived from income and retail sales taxes for the three immediately preceding fiscal years, as certified by the Auditor of Public Accounts. If any amounts accrue to the credit of the Fund in excess of the 15 percent limitation, such as through interest or dividends, the Treasurer shall promptly transfer any such excess amounts to the General Fund.

Beginning in 2018, the Commonwealth established, by statute, a second reserve fund entitled the Revenue Reserve Fund (the "Reserve Fund"). The General Assembly may appropriate to the Reserve Fund any surplus revenues after making constitutionally mandated transfers. The monies in the Reserve Fund may be used to offset, in whole or in part, certain anticipated shortfalls in revenue when appropriations based on previous forecasts exceed expected revenues in subsequent forecasts. If a revenue shortfall is two percent or less of general fund resources collected in the most recently ended fiscal year, the General Assembly may appropriate an amount for transfer from the Reserve Fund not to exceed 50 percent of the amount in the Reserve Fund. The total amount in the Stabilization Fund and the Reserve Fund may not exceed fifteen percent of the Commonwealth's average annual tax revenues derived from taxes on income and retail sales as certified by the Auditor of Public Accounts for the three fiscal years immediately preceding.

Development of Revenue Estimates

The development of the General Fund revenue estimate begins with the selection of a forecast of national economic activity for the state budget period prepared by independent economic forecasting firms based on the advice of the Joint Advisory Board of Economists and the Commonwealth's own staff. The national economic forecast is used to develop a forecast of similar indicators of in-state activity. The Governor's Advisory Council on Revenue Estimates also examines the economic assumptions with respect to the general economic climate of the Commonwealth.

After the development of forecasts of major Commonwealth economic indicators, revenue estimates are generated using revenue forecasting models developed and maintained by the Department of Taxation. Adjustments are made on a revenue source-by-source basis for any legislative, judicial or administrative changes that would affect the projected level of revenues but that cannot be forecast by models constructed using historical data. Finally, adjustments are made if revenues are substantially above or below the projected level.

Financial Control Procedures

The General Assembly appropriates funds for a particular program in the Appropriation Act. These funds must then be allotted by the Governor and the Department of Planning and Budget for specific purposes. The State Comptroller accounts for certain specific personnel and non-personnel transactions. Once the appropriation, allotment and accounting procedures have been completed, funds are disbursed by the State Treasurer upon a warrant of the State Comptroller drawn at the request of the responsible agency. The Auditor of Public Accounts audits such financial transactions to assure the reporting of such transactions is in compliance with generally accepted accounting principles.

The Director of the Department of Planning and Budget, is appointed by the Governor subject to confirmation by the General Assembly. The Department of Planning and Budget monitors and evaluates the use of resources to ensure that agencies are delivering effective and efficient services. The Governor is empowered to withhold appropriations to agencies in the event that expenditures are no longer warranted or are not being made for the purposes for which the funds were initially appropriated.

The State Comptroller, who is appointed by the Governor subject to confirmation by the General Assembly, is the director of the Department of Accounts, the central accounting agency of the Commonwealth. The State Comptroller maintains a complete system of general accounts of every department, division, office, board, commission, institution and agency of the Commonwealth. In order to assure uniform accounting practices among the agencies and to avoid duplication, the State Comptroller also prescribes the accounts and control records that are to be kept by each state agency.

The State Treasurer, who is also appointed by the Governor subject to confirmation by the General Assembly, is the director of the Department of the Treasury. This department receives, maintains custody of and disburses all funds of the Commonwealth.

Unlike the State Comptroller and the State Treasurer, the Auditor of Public Accounts is appointed by the General Assembly for a term of four years and is, therefore, part of the Legislative Department rather than the Executive Department. The principal function of the Auditor is to audit the accounts of all state departments, offices, boards, commissions, institutions and agencies handling state funds. In the event the Auditor discovers some irregularity or misuse of funds, it is his duty to inform the Governor, the Joint Legislative Audit and Review Commission and the State Comptroller.

Investment of Public Funds

It is the policy of the State Treasurer to invest public funds in a manner that will provide the highest investment return with the maximum security while meeting the daily cash flow demands and conforming to all statutes governing the investment of public funds. The General Account of the Commonwealth, which is comprised of funds collected and held for various fund groups including the General Fund, is divided into two major portfolios. Both portfolios are managed in accordance with guidelines promulgated by the Treasury Board. The Primary Liquidity Portfolio, representing approximately 75 percent of the General Account, provides for disbursements and operational needs. Safety of principal and liquidity are the objectives of this portfolio. The Extended Duration and Credit Portfolio, which can be up to 25 percent of the General Account, is structured to generate investment returns over the long term higher than the return on the Primary Liquidity Portfolio, while maintaining sound credit quality and providing secondary liquidity.

Financial Statements

The Commonwealth operates on a fiscal year basis beginning on July 1 and ending on June 30. The Commonwealth's financial statements, audited by the Auditor of Public Accounts, for the fiscal year ended June 30, 2019, are contained in the Commonwealth Comprehensive Annual Financial Report (the "CAFR") available at www.doa.virginia.gov. The financial statements conform to GASB Statement No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments*. The financial statements include government-wide statements using full accrual accounting, fund financial statements that use different accounting approaches based on the type of fund, and a reconciliation of the two types of statements. See the section in the CAFR entitled "Management's Discussion and Analysis" for a more detailed explanation of the types of financial statements prepared. The Commonwealth's annual budget is prepared principally on a cash basis and represents departmental appropriations as authorized by the General Assembly. Under the cash basis of accounting, revenues and other financial resources are recognized in the accounting period in which cash is received; expenditures and other financial uses are recognized when cash is disbursed. The section of the CAFR entitled "Required Supplementary Information" reconciles the budgetary (*i.e.*, cash) presentation to the financial statements.

Summary of General Fund Revenues, Expenditures and Changes in Fund Balance

The following tables summarize the Commonwealth's General Fund revenues, expenditures and fund balance on a cash basis for fiscal years 2015 through 2019 and compares the final budget numbers to actual numbers.

The General Fund balance, as shown on page B-6, increased by $1 billion in fiscal year 2019, an increase of 56.7 percent from fiscal year 2018. Overall tax revenues increased by 6.7 percent from fiscal year 2018 to fiscal year 2019. Individual and Fiduciary Income tax revenues increased by 7.9 percent. Corporation Income tax collections increased by 9.5 percent from fiscal year 2018 to fiscal year 2019. Public Service Corporation taxes and State Sales and Uses overall increased by 0.2 and 3.8 percent, respectively, from fiscal year 2018 to fiscal year 2019. Tax revenue decreases occurred in the form of a 6.0 and 0.3 percent decrease in Communication Sales and Use tax collections and Other Taxes, respectively. Overall revenue increased by 6.0 percent and non-tax revenues decreased by 11.2 percent. Overall expenditures increased by 3.8 percent in fiscal year 2019, compared to a 3.3 percent increase in fiscal year 2018. Individual and Family Service expenditures increased by $304.0 million, or 4.4 percent, and Education expenditures increased by $369.0 million, or 4.2 percent. General Government expenditures increased $41.3 million or 1.7 percent.

Of the $2.8 billion fund balance as of June 30, 2019, $289.3 million was restricted to the Stabilization Fund. The Stabilization Fund is segregated from the General Fund and can be used only for constitutionally authorized purposes.

Virginia law directs that the Stabilization Fund be included as a component of the General Fund only for financial reporting purposes.

Under the provisions of Article X, Section 8 of the Constitution of Virginia, a deposit to the Stabilization Fund of $262.9 million is required during fiscal year 2020 based on fiscal year 2018 revenue collections. In addition, Chapter 854, 2019 Acts of Assembly, appropriates an additional $97.5 million to be deposited in fiscal year 2020. This additional appropriation represents an estimate of the required deposit attributable to fiscal year 2020. A deposit of $77.4 million in 2021 is required based on fiscal year 2019 revenue collections. The required deposits are reported as restricted components of fund balance. Pursuant to the constitutional amendment of Article X, Section 8, effective January 1, 2011, the amount on deposit cannot exceed 15 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. Section 2.2-1829(b) of the Code of Virginia, requires that if certain revenue criteria are met, then an additional deposit to the Stabilization Fund equal to at least one-half the mandatory deposit must be included in the Governor's budget. The Code further requires that any such additional deposits to the Stabilization Fund shall be included in the Governor's budget recommendations only if the estimate of General Fund revenues for the fiscal year in which the deposit is to be made is at least five percent greater than the actual General Fund revenues for the immediately preceding fiscal year. These conditions were not met for fiscal year 2019.

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SUMMARY OF GENERAL FUND REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE – CASH BASIS
(in thousands)

	2015	2016	2017	2018	2019
Revenues:					
Taxes					
Individual and Fiduciary Income	$12,328,675	$12,555,624	$13,052,887	$14,105,766	$15,226,471
State Sales and Use	3,587,849	3,651,400	3,720,552	3,827,078	3,973,011
Corporation Income	831,907	764,948	826,961	861,897	943,391
Communications Sales and Use	417,209	406,707	395,733	384,162	361,023
Deeds, Contracts, Wills and Suits	354,461	377,699	403,459	403,236	394,062
Premiums of Insurance Companies	300,641	339,081	340,910	337,947	382,018
Alcoholic Beverage Sales	207,802	217,594	222,354	231,836	240,776
Tobacco Products	178,996	178,741	171,198	160,383	151,289
Estate	98	222	8,202	932	191
Public Service Corporations	98,537	92,586	95,084	98,672	98,890
Other Taxes	30,251	32,107	31,048	39,392	47,197
Total Taxes	$18,336,426	$18,616,709	$19,268,388	$20,451,301	$21,818,319
Rights and Privileges	78,654	84,628	85,919	90,780	93,225
Sales of Property and Commodities	28,930	42,671	31,515	62,597	25,021
Assessments and Receipts for Support of Special Services	1,582	3,539	4,008	5,230	5,808
Institutional Revenue	38,240	36,819	36,137	37,926	37,937
Interest, Dividends, Rents	54,626	57,680	61,130	72,083	103,670
Fines, Forfeitures, Court Fees, Penalties, and Escheats	216,698	222,039	222,600	209,869	224,783
Federal Grants and Contracts	6,416	3,868	6,720	6,796	10,573
Receipts from Cities, Counties, and Towns	16,533	16,951	18,360	11,084	11,216
Private Donations, Gifts and Contracts	775	364	476	540	965
Tobacco Master Settlement	48,207	47,664	49,019	58,267	56,487
Other	158,807	225,342	235,237	316,477	203,940
Total Revenues	$18,985,894	$19,358,274	$20,019,509	$21,322,950	$22,591,944
Expenditures:					
General Government	2,273,965	2,497,121	2,388,305	2,405,220	2,446,484
Education	7,928,734	8,095,292	8,450,900	8,740,117	9,109,073
Transportation	836	328	236	202	203
Resources and Economic Development	413,053	413,406	445,102	397,794	432,029
Individual and Family Services	5,765,208	6,238,651	6,551,237	6,904,011	7,208,024
Administration of Justice	2,586,618	2,678,980	2,740,411	2,848,951	2,904,663
Capital Outlay	6,510	26,010	44,488	4,658	2,575
Total Expenditures	$18,974,924	$19,949,788	$20,620,679	$21,300,953	$22,103,051
Revenues Over (Under) Expenditures	$10,970	$(591,514)	$(601,170)	$21,997	$488,893
Other Financing Sources (Uses):					
Transfers In	866,913	775,363	904,255	869,785	938,306
Transfers Out	(468,029)	(464,559)	(441,670)	(444,678)	(414,827)
Total Other Financing Sources (Uses)	$398,884	$310,804	$462,585	$425,107	$523,479
Revenues and Other Sources Over (Under) Expenditures and Other Uses	409,854	(280,710)	(138,585)	447,104	1,012,372
Fund Balance, July 1:					
Restricted	943,491	1,082,618	855,001	557,102	557,023
Committed	365,220	328,791	429,390	514,831	789,056
Assigned	40,590	347,746	194,054	267,927	440,885
Total Fund Balance, July 1	$1,349,301	$1,759,155	$1,478,445	$1,339,860	$1,786,964
Fund Balance, June 30:					
Restricted	1,082,618	855,001	557,102	557,023	638,838
Committed	328,791	429,390	514,831	789,056	1,473,273
Assigned	347,746	194,054	267,927	440,885	687,225
Total Fund Balance, June 30	$1,759,155	$1,478,445	$1,339,860	$1,786,964	$2,799,336

Source: Department of Accounts.

SUMMARY OF GENERAL FUND REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE BUDGET AND VARIANCE OF ACTUAL-BUDGETARY BASIS (IN THOUSANDS)

	Fiscal Year Ended June 30,			
	2015		2016	
	Final Budget	Variance of Actual Favorable (Unfavorable)	Final Budget	Variance of Actual Favorable (Unfavorable)
Revenues:				
Taxes				
Individual and Fiduciary Income	$11,816,300	$512,375	$12,823,000	($267,376)
State Sales and Use	3,568,100	19,749	3,734,400	(83,000)
Corporation Income	840,900	(8,993)	722,800	42,148
Communications Sales and Use	425,000	(7,791)	419,000	(12,293)
Public Service Corporations	96,800	1,737	98,900	(6,314)
Premiums of Insurance Companies	320,500	(19,859)	322,700	16,381
Other [1]	733,367	38,241	808,478	(2,115)
Total Taxes	$17,800,967	$535,459	$18,929,278	($312,569)
Rights and Privileges	87,192	(8,538)	85,179	(551)
Institutional Revenue	41,796	(3,556)	46,422	(9,603)
Interest, Dividends, Rents and Other Investment Income	62,629	(8,003)	47,089	10,591
Tobacco Master Settlement	51,086	(2,879)	47,962	(298)
Other [2]	411,136	18,605	453,470	61,304
Total Revenues	$18,454,806	$531,088	$19,609,400	($251,126)
Expenditures:				
General Government	2,334,088	60,123	2,571,068	73,947
Education	7,977,968	49,234	8,142,706	47,414
Transportation	2,367	1,531	363	35
Resources and Economic Development	465,224	52,171	475,598	62,192
Individual and Family Services	5,827,264	62,056	6,291,377	52,726
Administration of Justice	2,608,951	22,333	2,700,068	21,088
Capital Outlay	31,380	24,870	110,556	84,546
Total Expenditures	$19,247,242	$272,318	$20,291,736	$341,948
Revenues Over (Under) Expenditures	($792,436)	803,406	($682,336)	$90,822
Other Financing Sources (Uses):				
Transfers In	864,788	2,125	762,600	12,763
Transfers Out	(431,678)	(36,351)	(460,976)	(3,583)
Total Other Financing Sources (Uses)	$433,110	($34,226)	$301,624	$9,180
Revenues and Other Sources Over (Under) Expenditures and Other Uses	(359,326)	769,180	(380,712)	100,002
Fund Balance, July 1	1,349,301	-	1,759,155	-
Fund Balance, June 30	$989,975	$769,180	$1,378,443	$100,002

Source: Department of Accounts.

[1] Note that under Taxes above, certain line items have been combined into the "Other" line item; they are: "Deeds, Contracts, Wills and Suits," "Alcoholic Beverage Sales", "Tobacco Products", "Estate" and "Other Taxes". The reason for this is consistency with the CAFR line items.

[2] Note that under Revenues above, certain line items have been combined into the "Other" line item; they are: "Sales of Property and Commodities," "Assessments and Receipts for Support of Special Services," "Fines, Forfeitures, Court Fees, Penalties, and Escheats," "Federal Grants and Contracts," "Receipts from Cities, Counties, and Towns", "Private Donations, Gifts, and Contracts" and "Other". The reason for this is consistency with the CAFR line Items.

2017		2018		2019	
Final Budget	Variance of Actual Favorable (Unfavorable)	Final Budget	Variance of Actual Favorable (Unfavorable)	Final Budget	Variance of Actual Favorable (Unfavorable)
$12,913,800	$139,087	$13,491,900	$613,866	$14,421,600	$804,871
3,752,210	(31,658)	3,837,300	(10,222)	3,981,000	(7,989)
794,200	32,761	874,000	(12,103)	1,012,200	(68,809)
407,000	(11,267)	396,500	(12,338)	368,000	(6,977)
97,800	(2,716)	98,000	672	98,700	190
344,100	(3,190)	362,100	(24,153)	395,300	(13,282)
827,850	8,411	851,691	(15,912)	802,329	31,186
$19,136,960	$131,428	$19,911,491	$539,810	$21,079,129	$739,190
100,561	(14,642)	90,089	691	87,804	5,421
45,508	(9,371)	41,278	(3,352)	43,525	(5,588)
62,700	(1,570)	69,406	2,677	70,443	33,227
48,000	1,019	48,000	10,267	58,667	(2,180)
470,259	48,657	474,595	137,998	464,796	17,510
$19,863,988	$155,521	$20,634,859	$688,091	$21,804,364	$787,580
2,474,935	86,630	2,524,715	119,495	2,591,762	145,278
8,503,248	52,348	8,819,740	79,623	9,212,771	103,698
263	27	233	31	256	53
494,179	49,077	471,601	73,807	518,768	86,739
6,589,797	38,560	6,988,389	84,378	7,338,134	130,110
2,763,740	23,329	2,878,675	29,724	2,938,324	33,661
101,151	56,663	12,429	7,771	11,127	8,552
$20,927,313	$306,634	$21,695,782	$394,829	$22,611,142	$508,091
($1,063,325)	$462,155	($1,060,923)	$1,082,920	($806,778)	$1,295,671
878,536	25,719	855,267	14,518	904,470	33,836
(440,560)	(1,110)	(432,042)	(12,636)	(408,301)	(6,526)
437,976	24,609	423,225	1,882	496,169	27,310
(625,349)	486,764	(637,698)	1,084,802	(280,391)	1,292,763
1,478,445	-	1,339,860	-	1,786,964	-
$853,096	$486,764	$702,162	$1,084,802	$1,506,573	$1,292,763

Source: Department of Accounts.

[1] Note that under Taxes above, certain line items have been combined into the "Other" line item; they are: "Deeds, Contracts, Wills and Suits," "Alcoholic Beverage Sales", "Tobacco Products", "Estate" and "Other Taxes". The reason for this is consistency with the CAFR line items.

[2] Note that under Revenues above, certain line items have been combined into the "Other" line item; they are: "Sales of Property and Commodities," "Assessments and Receipts for Support of Special Services," "Fines, Forfeitures, Court Fees, Penalties, and Escheats," "Federal Grants and Contracts," "Receipts from Cities, Counties, and Towns", "Private Donations, Gifts, and Contracts" and "Other". The reason for this is consistency with the CAFR line Items.

General Fund Revenues

Of total fiscal year 2019 tax revenue, 97.5 percent was derived from six major taxes imposed by the Commonwealth: Individual and Fiduciary Income Taxes, State Sales and Use Taxes, Corporation Income Taxes, Communications Sales and Use Taxes, Taxes on Deeds, Contracts, Wills and Suits and Taxes on Premiums of Insurance Companies.

Individual and Fiduciary Income taxes are the principal component of General Fund revenues. These revenues support a number of government functions, primarily education, individual and family services, public safety and general government. General Fund revenues are available for payment of debt service obligations of the Commonwealth.

Individual and Fiduciary Income Taxes: (69.79 percent of Total Taxes in fiscal year 2019) The individual and fiduciary income tax applies to income derived by resident and non-resident individuals and fiduciaries. The tax is based on a taxpayer's federal adjusted gross income with modifications, if applicable, and with deductions for personal exemptions and standard or itemized deductions. The following tax rates are applicable to net taxable income for the taxable year 2019:

PERSONAL TAX RATES

Taxable Income	Rate	Of Excess Over
$0 – $3,000	2.00%	
$3,001 – $5,000	$ 60 + 3.00%	$ 3,000
$5,001 – $17,000	$120 + 5.00%	$ 5,000
Over $17,000	$720 + 5.75%	$17,000

Source: Department of Taxation.

An individual income tax return for a taxable year must be filed by May 1 of the following year. Prepayment of the tax on most earnings is accomplished through withholdings by employers. Employers must transfer withholding taxes to the Department of Taxation quarterly, monthly or, in some cases, eight times a month. Individual income taxpayers are required to file a declaration of estimated tax for any income not subject to withholding and pay one-fourth of such estimated tax in quarterly installments.

State Sales and Use Taxes: (18.21 percent of Total Taxes in fiscal year 2019) A sales and use tax is imposed at the rate of 5.3 percent on the sale, rental, lease or storage for use or consumption of tangible personal property except food for home consumption. Food for home consumption is taxed at a rate of 2.5 percent. There are certain exclusions from the tax, including motor vehicles, aircraft and large watercraft, prescription medicines. One percent of the 5.3 percent sales tax and of the 2.5 percent sales tax on food for home consumption is distributed to localities on the basis of school age population for use in public education.

Retail sellers collect the sales and use taxes from customers at the time of sale. Sellers are required to remit collected taxes either monthly or quarterly.

Corporation Income Taxes: (4.32 percent of Total Taxes in fiscal year 2019) The Commonwealth imposes a 6 percent income tax on the net income of all corporations having income from sources in the Commonwealth, whether domestic or foreign, with the exception of insurance companies, inter-insurance exchanges, state and national banks, banking associations, companies doing business on a mutual basis, credit unions and non-profit corporations. Commonwealth taxable income is based on federal income, with modifications. If a corporation is engaged in multi-state activities, and if its income is taxable by both the Commonwealth and another state, the Commonwealth permits the corporation to apportion its taxable income (other than dividends that are allocated according to the commercial domicile of the taxpayer) according to a three-factor formula comprised of property, payroll and sales.

A corporation income tax return must be filed on or before the 15th day of the 4th month following the close of the corporation's taxable year. Corporations are required to make a declaration of estimated tax directly to the Department of Taxation and pay such estimated tax in such taxable year.

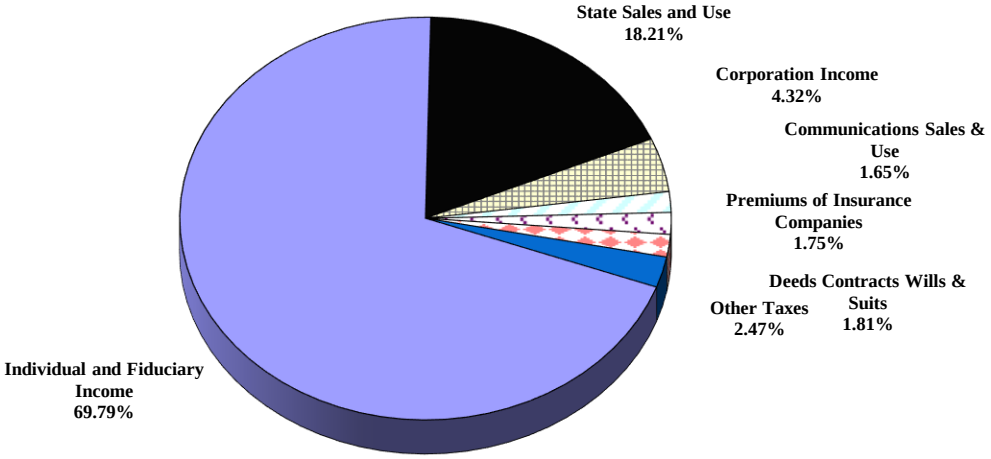
Communication Sales and Use Taxes: (1.65 percent of Total Taxes in fiscal year 2019) The Commonwealth collects communication sales and use taxes and disburses these amounts to localities.

Taxes on Deeds, Contracts, Wills and Suits: (1.81 percent of Total Taxes in fiscal year 2019) The Commonwealth taxes the admission to record of deeds, deeds of trust, mortgages, leases and contracts at the rate of 25 cents per $100 of consideration or value, whichever is greater. An additional tax is imposed on deeds or conveyances of real estate at the rate of 50 cents per $500 of consideration or value, whichever is greater exclusive of the value of any lien or encumbrance. A tax is also imposed on the probate of wills and grants of administration not exempt by law at the rate of 10 cents per $100 of the value of the probate estate. A tax ranging from $5 to $25 is imposed on the filing of various types of legal actions.

Taxes on Premiums of Insurance Companies: (1.75 percent of Total Taxes in fiscal year 2019) Insurance companies are required to pay an annual license tax measured by the gross premium income derived from business done in the Commonwealth. The rate of tax varies according to the type of company. Insurance companies subject to this state license tax must make a declaration of estimated tax and pay one-fourth of such estimated tax in quarterly installments.

The following pie chart summarizes general revenue fund tax revenue by source.

COMPOSITION OF GENERAL FUND TAX REVENUES BY SOURCE
Fiscal Year Ended June 30, 2019



Source: Department of Taxation

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Collection of Delinquent Tax

When the Department of Taxation determines that taxes are delinquent, the taxpayer is sent a billing notice. A second notice is sent 30 days later demanding immediate payment within 10 days. If payment is not received at the end of that time, the Department of Taxation may take legal action to obtain payment including the placement of a lien on the taxpayer's wages or bank account. If the delinquency exceeds $100, the Department of Taxation may issue a memorandum of lien against the taxpayer's property. If subsequent to these actions satisfactory payment arrangements are not made, the Department of Taxation may execute the memorandum of lien or initiate court proceedings against the taxpayer.

Penalties for late payment or nonpayment of most taxes are assessed at the rate of 6 percent per month, not to exceed 30 percent of the delinquent tax liability. Interest on late or under payments is charged at an annualized rate of interest established pursuant to Section 6621(a) (2) of the federal Internal Revenue Code, plus 2 percent.

The following table presents total outstanding collectible tax receivables for all tax types at the end of fiscal years 2014 through 2019:

OUTSTANDING COLLECTIBLE TAX RECEIVABLES

Fiscal Year Ended June 30,	**Amount[1]**
2014…….	$552,666,423
2015…….	574,351, 971
2016…….	597,103,392
2017…….	612,943,746
2018…….	656,328,796
2019…….	711,396,203

. [1] *Amount does not include non-billed or uncollectible receivables.*
Source: Department of Taxation.

General Fund Expenditures

General Fund expenditures relate to resources used for those services traditionally provided by a state government, which is not accounted for in any other fund. These services include general government, legislative, public safety, judicial, health and mental health, human resources, licensing and regulation, and primary and secondary education (See table on page B-6).

Education: (41.22 percent of Total Expenditures in fiscal year 2019) Expenditures for education support individuals in developing knowledge, skills and cultural awareness, including elementary and secondary education instruction, supervision and assistance.

Individual and Family Services: (32.61 percent of Total Expenditures in fiscal year 2019) Expenditures for individual and family services support programs to benefit the economic, social and physical well-being of the individual and family, including disease research, control and prevention.

Administration of Justice: (13.14 percent of Total Expenditures in fiscal year 2019) Expenditures for administration of justice relate to the activities of the civil and criminal justice systems. These activities encompass the apprehension, trial, punishment and rehabilitation of law violators, and the deterrence and detection of crime.

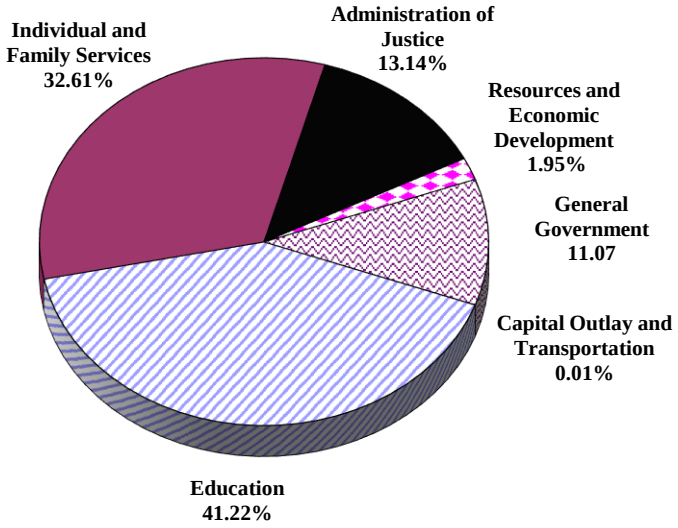
General Government: (11.07 percent of Total Expenditures in fiscal year 2019) General government expenditures support the general activities of state, regional and local levels of government. These activities include financial assistance to localities, enactment of legislative policy, intergovernmental projects, and distribution of sales and use taxes to localities, and payments to localities pursuant to the Personal Property Tax Relief Act of 1998.

Resources and Economic Development: (1.95 percent of Total Expenditures in fiscal year 2019) Resources and economic development expenditures support activities to develop the Commonwealth's economic base, including alternative natural resources, and to regulate this base with regard to the public interest of the Commonwealth.

Capital Outlay & Transportation: (0.01 percent of Total Expenditures in fiscal year 2019) Expenditures for capital outlay relate to the construction and renovation of state-owned buildings and facilities. Transportation expenditures relate to the movement by road, water or air of people, goods and services, and the regulation thereof.

The following pie chart summarizes the general fund expenditures by source:

DISTRIBUTION OF GENERAL FUND EXPENDITURES BY SOURCE
Fiscal Year Ended June 30, 2019



Source: Department of Accounts.

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General Fund Balance

The Commonwealth's General Fund unreserved fund balance for the last ten fiscal years is shown below:

UNRESERVED GENERAL FUND ENDING BALANCE
(in thousands)

Fiscal Year	Cash Basis	Modified Accrual Basis
2010	491,244	(1,069,071)
2011	*	*
2012	*	*
2013	*	*
2014	*	*
2015	*	*
2016	*	*
2017	*	*
2018	*	*
2019	*	*

**See 2015, 2016, 2017, 2018 and 2019 below for an explanation as to how GASB 54 has required a change in the unreserved General Fund balance classification. Refer to Fund Balances information as set forth on the table on page B-6.*

Source: Department of Accounts.

With the implementation of GASB No. 54, the fund equity classifications of Reserved and Unreserved have been changed to Restricted, Committed, Assigned, and Unassigned. Restricted fund balances are those that have a restriction by the *Constitution of Virginia* or from a party external to the Commonwealth. Committed fund balances represent amounts that have been legislatively mandated for a specific purpose. Assigned fund balances represent amounts the Commonwealth has identified for a specific purpose, but for which the use is not legislatively mandated. Unassigned fund balances are those that have not been restricted, committed, or assigned to specific purposes. Due to statutory requirements, any unassigned balances in the General Fund on a cash basis are automatically committed for transfer to the Transportation Trust Fund and for nonrecurring expenditures.

2015. General Fund revenues and other sources exceeded expenditures and other uses by $409.9 million in fiscal year 2015. Total revenues increased by 7.4 percent and total expenditures increased by 2.9 percent. Transfers to the General Fund increased by 12.5 percent while transfers out decreased by 4.5 percent. Transfers to and from Component Units in fiscal year 2015 are reported as expenditures and revenues in accordance with GASB Statement No. 34 The table on page B-6 reflects the Fund Balance as of June 30, 2015 in these classifications.

2016. General Fund revenues and other sources were less than expenditures and other uses by $280.7 million in fiscal year 2016. Total revenues increased by 2.0 percent and total expenditures increased by 5.1 percent. Transfers to the General Fund decreased by 10.6 percent while transfers out decreased by 0.7 percent. Transfers to and from Component Units in fiscal year 2016 are reported as expenditures and revenues in accordance with GASB Statement No. 34. The table on page B-6 reflects the Fund Balance as of June 30, 2016 in these classifications.

2017. General Fund revenues and other sources were less than expenditures and other uses by $138.6 million in fiscal year 2017. Total revenues increased by 3.4 percent and total expenditures increased by 3.4 percent. Transfers to the General Fund increased by 16.6 percent while transfers out decreased by 4.9 percent. Transfers to and from Component Units in fiscal year 2017 are reported as expenditures and revenues in accordance with GASB Statement No. 34. The table on page B-6 reflects the Fund Balance as of June 30, 2017 in these classifications.

2018. General Fund revenues and other sources were more than expenditures and other uses by $447.1 million in fiscal year 2018. Total revenues increased by 6.5 percent and total expenditures increased by 3.3 percent. Transfers to the General Fund decreased by 3.8 percent while transfers out increased by 0.7 percent. Transfers to and from Component

Units in fiscal year 2018 are reported as expenditures and revenues in accordance with GASB Statement No. 34. The table on page B-6 reflects the Fund Balance as of June 30, 2018 in these classifications.

2019. General Fund revenues and other sources were more than expenditures and other uses by $1.0 billion in fiscal year 2019. Total revenues increased by 6.0 percent and total expenditures increased by 3.8 percent. Transfers to the General Fund increased by 7.9 percent while transfers out decreased by 6.7 percent. Transfers to and from Component Units in fiscal year 2019 are reported as expenditures and revenues in accordance with GASB Statement No. 34. The table on page B-6 reflects the Fund Balance as of June 30, 2019 in these classifications.

Nongeneral Fund Revenues

Nongeneral fund revenues consist of all revenues not accounted for in the General Fund. Included in this category are special taxes and user charges earmarked for specific purposes, the majority of institutional revenues and revenues from the sale of property and commodities, and receipts from the federal government.

Approximately 50 percent of the nongeneral revenues are accounted for by grants and donations from the federal government, motor vehicle taxes and institutional revenues. Institutional revenues consist primarily of fees and charges collected by institutions of higher education, medical and mental hospitals and correctional institutions. Motor vehicle related taxes include the motor vehicle fuel tax, motor vehicle sales and use tax, oil excise tax, driver's license fee, title registration fee, motor vehicle registration fee and other miscellaneous revenues.

Below is a summary of revenues and expenditures for the largest of the Commonwealth's Special Revenue Funds, the Commonwealth Transportation Fund, prepared according to generally accepted accounting principles.

COMMONWEALTH TRANSPORTATION FUND
(in thousands)

	Fiscal Year Ended June 30,				
	2015	**2016**	**2017**	**2018**	**2019**
Total revenues	$5,422,649	$5,533,920	$5,717,049	$6,287,368	$6,232,672
Total expenditures	5,438,605	5,902,033	5,838,226	6,146,679	5,578,326
Revenues over (under) expenditures	(15,956)	(368,113)	(121,177)	140,689	654,346
Other sources (uses) net	15,828	76,728	199,930	287,921	(98,906)
Revenue and other sources (uses) over (under) expenditures	(128)	(291,385)	78,753	428,610	555,440
Beginning fund balance (adjusted)	2,271,235	2,219,801	1,908,327	1,898,668	2,327,278
Ending fund balance	$2,271,107	$1,928,416	$1,987,080	$2,327,278	$2,882,718

Notes: Included in the Commonwealth Transportation Fund (formerly Highway Maintenance and Construction Fund) is the activity of the Highway Maintenance and Operating Fund and the Transportation Trust Fund. The Transportation Trust Fund was created in September 1986 during a special session of the Virginia General Assembly.
Source: Comprehensive Annual Financial Report For Fiscal Year Ended June 30, 2019.

2018 Appropriation Act

On December 18, 2017, Governor McAuliffe presented the Budget Bill for the 2018-2020 biennium that began July 1, 2018 (House Bill 30/Senate Bill 30) (the "2018 Budget Bill"). On March 10, 2018, the General Assembly adjourned the 2018 regular session without agreeing to a new budget for the 2018-2020 biennium. This, in part, resulted in Governor Northam calling a special session to complete work on the budget. The introduced version of HB/SB 30 from the regular session of the General Assembly was re-introduced as HB 5002 during the 2018 Special Session. On May 30, 2018, the General Assembly passed HB 5002 which contained additional changes beyond those included in the introduced bill. On June 7, 2018, Governor Northam signed HB 5002 without any additional proposed changes. The 2018 Appropriation Act, also known as Chapter 2, 2018 Special Session I ("Chapter 2"), became effective on July 1, 2018.

The introduced 2018 Budget Bill and subsequent changes made by the General Assembly focused on the following goals:

- Improving access to healthcare including the expansion of access to Medicaid services
- Addressing mandates and core services
- Continuing to grow Virginia's economy through workforce development and maintaining commitments to economic development
- Improving access to healthcare
- Providing employee compensation and benefits
- Improving fiscal strength through improved fiscal liquidity and structural balance

Some of the largest biennial general fund spending increases included in Chapter 2 are as follows:

• Fund Medicaid utilization and inflation	$541.9 million
• Update costs of the Standards of Quality (SOQ)	$487.6 million
• Public employee salary increase	$291.4 million
• Adjust funding for changes in state employer health insurance rates	$118.2 million
• Provide additional funding for the Revenue Cash Reserve	$91.0 million

Some of the largest biennial decreases in general fund spending included in Chapter 2 are as follows:

• Expansion of Medicaid services	($376.9) million
• Capture savings from estimated Virginia Preschool Initiative nonparticipation	($48.4) million
• Adjust funding for retirement and retiree health care credit changes	($45.1) million
• Rebase training center budgets to reflect anticipated closures	($27.6) million

The 2018 Appropriation Act assumes a general fund balance at the end of the 2018-2020 biennium of $2.5 million.

The table on the following page summarizes the 2018 Appropriation Act (Chapter 2, 2018 Special Session I).

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2018 Appropriation Act
(Chapter 2, 2018 Special Session I)

	FY 2019	FY 2020	Total
GENERAL FUND			
Revenue			
Unrestricted Balance June 30, 2018	$212,160,796	$ -	$212,160,796
Additions to balance	22,032,299	(500,000)	21,532,299
Official revenue estimate	20,173,667,750	20,976,167,750	41,149,835,500
Transfers	620,975,902	631,035,083	1,252,010,985
Total general fund resources available for appropriation	$21,028,836,747	$21,606,702,833	$42,635,539,580
Appropriations			
Legislative	$92,593,939	$92,493,939	$185,087,878
Judicial	495,685,735	505,076,600	1,000,762,335
Executive	20,401,796,960	21,044,767,991	41,446,564,951
Independent Agencies	286,415	181,278	467,693
Sub-total operating expenses	$20,990,363,049	$21,642,519,808	$42,632,882,857
Capital Outlay	120,000	-	120,000
Total appropriations	$20,990,483,049	$21,642,519,808	$42,633,002,857
NONGENERAL FUNDS			
Revenue			
Balance June 30, 2018	$5,314,589,535	$ -	$5,314,589,535
Official revenue estimate	31,061,074,096	32,309,426,263	63,370,500,359
Lottery Proceeds Fund	592,533,186	598,393,186	1,190,926,372
Internal Service Fund	2,098,949,919	2,208,679,991	4,307,629,910
Bond proceeds	1,079,456,936	128,566,436	1,208,023,372
Total nongeneral fund revenue available for appropriation	$40,146,603,672	$35,245,065,876	$75,391,669,548
Appropriations			
Legislative	$3,682,489	$3,682,489	$7,364,978
Judicial	33,673,064	33,673,064	67,346,128
Executive Department	34,948,429,612	36,251,491,869	71,199,921,481
Independent Agencies	987,437,735	973,474,362	1,960,912,097
Sub-total operating expenses	$35,973,222,900	$37,262,321,784	$73,235,544,684
Capital Outlay	1,220,260,936	227,066,436	1,447,327,372
Total appropriations	$37,193,483,836	$37,489,388,220	$74,682,872,056

Source: Department of Planning and Budget.

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2019 Amendments to the 2018 Appropriation Act (2019 Appropriation Act)

On December 18, 2018, Governor Northam presented his proposed amendments to the 2018 Appropriation Act, impacting the remainder of the 2018-2020 biennium. The starting point for the Governor's introduced amended budget was Chapter 2 of the 2018 Acts of Assembly, Special Session I, which was enacted on June 7, 2018.

The Governor's introduced 2019 amended budget bill was considered by the 2019 Session of the General Assembly which convened on January 9, 2019. The General Assembly adjourned on February 24, 2019 offering its recommendations for additional amendments to the bill. At the April 3, 2019 reconvened session, the Governor offered executive amendments that were considered and where they agreed, folded into the amended budget for the 2018-2020 biennium. On May 2, 2019, the Governor signed the 2019 Appropriation Act with one line-item veto. The 2019 Appropriation Act, also known as Chapter 854, 2019 Acts of Assembly, became effective upon the Governor's signature on May 2, 2019.

General fund appropriation changes in the 2019 Appropriation Act focused on the following:

- Strengthening fiscal integrity through deposits to reserves
- Growing Virginia's economy by strengthening Virginia's educational system, investing in broadband and workforce development, maintaining commitments to economic development
- Improving citizen quality of life through improving access to healthcare, mental health services, addiction treatment and prevention, and housing assistance
- Improving citizen quality of life through investments in water quality
- Improving citizen quality of life through enhanced school safety and public safety
- Providing employee compensation and benefits

Major general fund spending amendments in some of these areas included the following:

- Improving cash reserves ..... $835.0 million
- Funding for Medicaid ..... $368.6 million
- Funding for water quality improvements ..... $73.6 million
- State share of additional public teacher salary increase ..... $72.8 million
- Funding for Mental Health and Developmental Disabilities ..... $57.8 million
- Funding to address higher education in-state undergraduate affordability ..... $57.5 million
- Additional public employee salary increase ..... $41.9 million
- Expand the K12 At-Risk add-on initiative ..... $24.9 million
- Workforce Development ..... $20.9 million
- Economic Development ..... $20.4 million
- School Safety ..... $14.9 million
- Housing ..... $8.4 million
- Addiction Treatment and Prevention ..... $5.5 million

After general fund resource changes, savings, and spending, the 2019 Appropriation Act resulted in an estimated $7.6 million general fund balance at the end of the 2018-2020 biennium.

The table on the following page summarizes the 2019 Appropriation Act.

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2019 Session Amendments to the 2018 Appropriation Act
(2019 Appropriation Act – Chapter 854 of the 2019 Acts of Assembly)

	FY 2019	FY 2020	Total
GENERAL FUND			
Revenue			
Unrestricted Balance June 30, 2018	$1,229,941,000	$ -	$1,229,941,000
Additions to balance	(723,275,506)	336,198,952	(387,076,554)
Official revenue estimate	20,528,667,750	21,556,728,000	42,085,395,750
Transfers	639,095,037	$635,773,381	$1,274,868,418
Total general fund resources available for appropriation	$21,674,428,281	$22,528,700,333	$44,203,128,614
Appropriations			
Legislative	$97,738,939	$97,383,939	$195,122,878
Judicial	495,685,735	507,276,863	1,002,962,598
Executive	20,849,290,584	22,142,953,430	42,992,244,014
Independent Agencies	286,415	181,278	467,693
Sub-total operating expenses	$21,443,001,673	$22,747,795,510	$44,190,797,183
Capital Outlay	1,548,000	3,156,000	4,704,000
Total appropriations	$21,444,549,673	$22,750,951,510	$44,195,501,183
NONGENERAL FUNDS			
Revenue			
Balance June 30, 2018	$6,342,196,144	$ -	$6,342,196,144
Official revenue estimate	31,403,525,053	35,070,229,412	66,473,754,465
Lottery Proceeds Fund	632,398,647	628,830,501	1,261,229,148
Internal Service Fund	2,099,646,770	2,071,214,416	4,170,861,186
Bond proceeds	1,112,897,936	1,243,269,436	2,356,167,372
Total nongeneral fund revenue available for appropriation	$41,590,664,550	$39,013,543,765	$80,604,208,315
Appropriations			
Legislative	$3,946,131	$3,932,489	$7,878,620
Judicial	33,673,064	33,673,064	67,346,128
Executive Department	35,766,719,467	38,556,246,119	74,322,965,586
Independent Agencies	994,861,391	986,873,664	1,981,735,055
Sub-total operating expenses	$36,799,200,053	$39,580,725,336	$76,379,925,389
Capital Outlay	1,256,120,702	1,542,116,600	2,798,237,302
Total appropriations	$38,055,320,755	$41,122,841,936	$79,178,162,691

Source: Department of Planning and Budget.

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2020 Amendments to the 2019 Appropriation Act (HB/SB 29 Introduced)

On December 17, 2019, Governor Northam presented amendments to the 2019 Appropriation Act affecting appropriations for the remainder of the 2018-2020 biennium (House Bill 29/Senate Bill 29). 24 individual amendments increase general fund spending by $376.2 million and 15 individual amendments decrease spending by $396.5 million for a net operating spending reduction of $20.4 million for the remainder of fiscal year 2020.

The amendments that result in general fund appropriation reductions are predominately technical in nature. The largest two of these decreases include the following;

- $211.7 million for Medicaid utilization and inflation, and
- $44.4 million in Health Care Fund revenues that offset general fund Medicaid costs.

Increases in general fund appropriation in the Governor's amendments are the result of workload, caseload, or inflationary changes and include items such as Medicaid utilization and inflation. In addition, the increase in general fund appropriation in fiscal year 2020 reflects the Commonwealth's commitment to improve cash reserves. The two largest increases in spending include the following;

- $270.8 million for a voluntary deposit to the Revenue Cash Reserve, and
- $21.1 million for K-12 enrollment increases in Direct Aid to Public Education.

The 2020 amendments to the 2019 Appropriation Act assume a general fund balance at the end of the biennium of $563 million.

The table on the following page summarizes House Bill 29/Senate Bill 29 introduced. (2020 Session).

The General Assembly will consider House Bill 29/ Senate Bill 29 during its 2020 Session that convened on January 8, 2020. The final form of House Bill 29 / Senate Bill 29 may be different than its introduced form and the differences may be material.

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2020 Session Amendments to the 2019 Appropriation Act
(HB/SB 29 Introduced)

	FY 2019	FY 2020	Total
GENERAL FUND			
Revenue			
Unrestricted Beginning Balance	$1,229,941,000	$1,930,619,607	$3,160,560,607
Additions to balance	(723,275,506)	(1,237,983,466)	(1,961,258,972)
Official revenue estimate	20,528,667,750	21,704,500,000	42,233,167,750
Transfers	639,095,037	666,676,701	1,305,771,738
Total general fund resources available for appropriation	$21,674,428,281	$23,063,812,842	$44,738,241,123
Appropriations			
Legislative	$97,738,939	$97,383,939	$195,122,878
Judicial	495,685,735	511,776,863	1,007,462,598
Executive	20,849,290,584	22,118,076,626	42,967,367,210
Independent Agencies	$286,415	$181,278	$467,693
Sub-total operating expenses	$21,443,001,673	$22,727,418,706	$44,170,420,379
Capital Outlay	1,548,000	3,276,000	4,824,000
Total appropriations	21,444,549,673	22,730,694,706	44,175,244,379
NONGENERAL FUNDS			
Revenue			
Balance June 30, 2018	$6,342,196,144	$0	$6,342,196,144
Official revenue estimate	31,403,525,053	36,169,158,858	67,572,683,911
Lottery Proceeds Fund	632,398,647	613,449,864	1,245,848,511
Internal Service Fund	2,099,646,770	2,070,676,464	4,170,323,234
Bond Proceeds	1,112,897,936	1,352,214,172	2,465,112,108
Total nongeneral fund revenue available for appropriation	$41,590,664,550	$40,205,499,358	$81,796,163,908
Appropriations			
Legislative	$3,946,131	$3,932,489	$7,878,620
Judicial	33,673,064	33,673,064	67,346,128
Executive Department	35,766,719,467	39,190,214,953	74,956,934,420
Independent Agencies	994,861,391	986,873,664	1,981,735,055
Sub-total operating expenses	$36,799,200,053	$40,214,694,170	$77,013,894,223
Capital Outlay	1,256,120,702	1,651,061,336	2,907,182,038
Total appropriations	$38,055,320,755	$41,865,755,506	$79,921,076,261

Source: Department of Planning and Budget.

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2020 Introduced Budget

On December 17, 2019, Governor Northam presented the Budget Bill for the 2020-2022 biennium that begins July 1, 2020 (House Bill/Senate Bill 30) (the "2020 Budget Bill"). The introduced 2020 Budget Bill focused on the following goals:

- Strengthen fiscal integrity by increasing reserve balances, improving fiscal liquidity, and maintaining structural balance
- Fund mandates, commitments, and core services
- Grow Virginia's economy by strengthening Virginia's educational system, investing in broadband and workforce development, and maintaining commitments to economic development
- Improve citizen quality of life through improving access to healthcare, mental health services, addiction treatment and prevention, and housing assistance
- Improve citizen quality of life through improving infrastructure with investments in water quality and clean energy
- Improve citizen quality of life through enhancing public safety, election security, and emergency preparedness

The top ten general fund spending increases included in the 2020 introduced budget are as follows:

• Rebenchmark the cost of Direct Aid to Public Education	$808.5 million
• Fund Medicaid utilization and inflation	$675.0 million
• Provide funding for a voluntary deposit to the Revenue Reserve Fund	$300.0 million
• Provide funding for uncommitted contingencies	$200.0 million
• Adjust funding for debt service	$171.7 million
• Provide funding for reinsurance program	$146.0 million
• Increase salaries for funded Standards of Quality instructional and support positions	$145.1 million
• Implement the Get Skilled, Get a Job, Give Back program	$145.1 million
• Appropriate Revenue Stabilization Fund deposits	$94.9 million
• Maximize pre-kindergarten access for at-risk three- and four-year-old children	$85.4 million

The 2020 introduced budget assumes a general fund balance at the end of the 2020-2022 biennium of $13.7 million.

The table on the following page summarizes House Bill / Senate Bill 30 Introduced (2020 Session).

The General Assembly will consider House Bill 30/ Senate Bill 30 during its 2020 Session that convened on January 8, 2020. The final form of House Bill 30 / Senate Bill 30 may be different than its introduced form and the differences may be material.

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2020 Introduced Budget
(House Bill 30 / Senate Bill 30)

	FY 2021	FY 2022	Total
GENERAL FUND			
Revenue			
Unrestricted Beginning Balance	$562,996,744	$0	$562,996,744
Additions to balance	120,137,243	(500,000)	119,637,243
Official revenue estimate	22,689,103,446	23,529,355,451	46,218,458,897
Transfers	652,608,189	662,808,189	1,315,416,378
Total general fund resources available for appropriation	$24,024,845,623	$24,191,663,640	$48,216,509,263
Appropriations			
Legislative	$100,308,943	$100,308,943	$200,617,886
Judicial	527,820,509	531,583,892	1,059,404,401
Executive	22,910,968,015	23,995,302,147	46,906,270,162
Independent Agencies	6,777,247	6,777,247	13,554,494
Sub-total operating expenses	$23,545,874,714	$24,633,972,229	$48,179,846,943
Capital Outlay	22,956,290	0	22,956,290
Total appropriations	$23,568,831,004	$24,633,972,229	$48,202,803,233
NONGENERAL FUNDS			
Revenue			
Balance June 30, 2018	$5,314,589,535	$0	$5,314,589,535
Official revenue estimate	30,670,350,656	31,990,115,475	62,660,466,131
Lottery Proceeds Fund	586,673,186	586,673,186	1,173,346,372
Internal Service Fund	2,098,949,919	2,207,847,183	4,306,797,102
Bond proceeds	610,349,000	125,000,000	735,349,000
Total nongeneral fund revenue available for appropriation	$39,280,912,296	$34,909,635,844	$74,190,548,140
Appropriations			
Legislative	$4,025,499	$4,025,499	8,050,998
Judicial	35,367,872	35,367,872	70,735,744
Executive Department	42,033,207,673	42,699,313,223	84,732,520,896
Independent Agencies	1,025,647,344	1,052,898,042	2,078,545,386
Sub-total operating expenses	$43,098,248,388	$43,791,604,636	$86,889,853,024
Capital Outlay	3,354,017,873	340,235,500	3,694,253,373
Total appropriations	$46,452,266,261	$44,131,840,136	$90,584,106,397

Source: Department of Planning and Budget.

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INDEBTEDNESS OF THE COMMONWEALTH

Section 9 of Article X of the Constitution of Virginia provides for the issuance of debt by or on behalf of the Commonwealth. Sections 9(a), (b) and (c) provide for the issuance of debt to which the Commonwealth's full faith and credit is pledged and Section 9(d) provides for the issuance of debt not secured by the full faith and credit of the Commonwealth, but which may be supported by and paid from Commonwealth tax collections subject to appropriations by the General Assembly. The Commonwealth may also enter into leases and contracts that are classified on its financial statements as long-term indebtedness. Certain authorities and institutions of the Commonwealth may also issue debt. This section discusses the provisions for and limitations on the issuance of general obligation debt and other types of debt of the Commonwealth and its authorities and institutions.

Section 9(a) Debt

Section 9(a) of Article X provides that the General Assembly may contract general obligation debt: (1) to meet certain types of emergencies, (2) to meet casual deficits in the revenue or in anticipation of the collection of revenues of the Commonwealth and (3) to redeem a previous debt obligation of the Commonwealth. Total indebtedness issued pursuant to Section 9(a) (2) shall not exceed 30 percent of an amount equal to 1.15 times the annual tax revenues derived from taxes on income and retail sales, as certified by the Auditor of Public Accounts, for the preceding fiscal year and any such indebtedness shall mature within twelve months from the date of its incurrence.

Section 9(b) Debt

Section 9(b) of Article X provides that the General Assembly may authorize the creation of general obligation debt for capital projects. Such debt is required to be authorized by an affirmative vote of a majority of the members elected to each house of the General Assembly and approved in a statewide referendum. The outstanding amount of such debt is limited in the aggregate to an amount equal to 1.15 times the average annual tax revenues derived from taxes on income and retail sales, as certified by the Auditor of Public Accounts, for the three immediately preceding fiscal years 9(b) Debt Limit. Thus, the amount of such debt that can be issued is the 9(b) Debt Limit less the total amount of such debt outstanding ("Debt Margin"). There is an additional 9(b) debt restriction on the amount of such debt that the General Assembly may authorize in any year. The additional authorization restriction is limited to 25% of the 9(b) Debt Limit less any 9(b) debt authorized in the current and prior three fiscal years.

The phrase "taxes on income and retail sales" is not defined in the Constitution or by statute. The record made in the process of adopting the Constitution, however, suggests an intention to include only income taxes payable by individuals, fiduciaries and corporations and the state sales and use tax.

Section 9(c) Debt

Section 9(c) of Article X provides that the General Assembly may authorize the creation of general obligation debt for revenue producing capital projects for executive branch agencies and institutions of higher learning. Such debt is required to be authorized by an affirmative vote of two-thirds of the members elected to each house of the General Assembly and approved by the Governor. The Governor must certify before the enactment of the bond legislation and again before the issuance of the bonds that the net revenues pledged are expected to be sufficient to pay principal and interest on the bonds issued to finance the projects.

The outstanding amount of Section 9(c) debt is limited in the aggregate to an amount equal to 1.15 times the average annual tax revenues derived from taxes on income and retail sales, as certified by the Auditor of Public Accounts, for the three immediately preceding fiscal years 9(c) Debt Limit. While the debt limits under Sections 9(b) and 9(c) are each calculated as the same percentage of the same average tax revenues, these debt limits are separately computed and apply separately to each type of debt.

Effect of Refunding Debt

In general, when the Commonwealth issues bonds to refund outstanding bonds issued pursuant to Section 9(b) or 9(c) of Article X of the Constitution, the refunded bonds are considered paid for purposes of the constitutional limitations upon debt incurrence, and issuance and the refunding bonds are counted in the computations of such limitations. Section 9(a) (3) provides that in the case of the refunding of debt incurred in accordance with Section 9(c) of Article X, the debt

evidenced by the refunding bonds will be counted against the 9(c) Debt Limit unless the Governor does not provide the net revenue sufficiency certification, in which case the debt evidenced by the refunding bonds will be counted against the 9(b) Debt Limit.

General Obligation Debt Limit and Debt Margin

Using individual and fiduciary income, corporate income and the state sales and use tax revenues as the sources of "taxes on income and retail sales", as of June 30, 2019, the debt limits pursuant to Article X, Section 9 of the Constitution of Virginia are as follows:

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COMPUTATION OF LEGAL DEBT LIMIT AND DEBT MARGIN
(in thousands)

	Fiscal Year Ended June 30,		
Taxes	**2017**	**2018**	**2019**
Individual and Fiduciary Income [1]	$13,052,887	$14,105,766	$14,801,986
Corporation Income [2]	826,961	861,897	943,391
State Sales and Use [3]	3,720,552	3,827,078	3,972,960
Total	$17,600,400	$18,794,741	$19,718,337
Average tax revenues for the three fiscal years			$18,704,493
Section 9(a)(2) General Obligation Debt Issuance Limit and Margin [4]:			
Debt Issuance Limit:			
30% of 1.15 times annual tax revenues for fiscal year 2019:			$6,802,826
Less 9(a)(2) Bonds Outstanding:			-
Debt Issuance Margin for Section 9(a)(2) General Obligation Bonds			$6,802,826
Section 9(b) General Obligation Debt Issuance Limit and Margin:			
Debt Issuance Limit:			
1.15 times the average tax revenues for three fiscal years as calculated above			$21,510,167
Less 9(b) Bonds Outstanding at June 30, 2019:			
Public Facilities Bonds [5]		401,873	
Transportation Facilities Refunding Bonds [5]		-	
Bond Anticipation Notes		-	
Total 9(b) Bonds Outstanding at June 30, 2019:			401,873
Debt Issuance Margin for Section 9(b) General Obligation Bonds			$21,108,294
Debt Authorization Limit:			
25% of 1.15 times average tax revenues for three fiscal years as calculated above			$5,377,542
Less 9(b) debt authorized during the three prior fiscal years			-
Maximum additional 9(b) debt that may be authorized by the General Assembly (subject to referendum):			$5,377,542
Section 9(c) General Obligation Debt Issuance Limit and Margin:			
Debt Issuance Limit:			
1.15 times the average tax revenues for three fiscal years as calculated above			
Less 9(c) Bonds Outstanding at June 30, 2019:			$21,510,167
Parking Facilities [6]		8,567	
Transportation Facilities [6]		6,061	
Higher Educational Institutions [6]		893,106	
Bond Anticipation Notes		-	
Total 9(c) Bonds Outstanding at June 30, 2019 [6]			907,734
Debt Issuance Margin for Section 9(c) General Obligation Bonds			$20,602,433

[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] Net of unamortized discounts and premiums.
[6] Certain adjustments for fiscal year 2019 are not yet available, so amounts are not net of unamortized discounts/premiums.

Sources: Department of Accounts and Department of the Treasury.

Tax-Supported Debt – General Obligation

Tax-supported debt of the Commonwealth includes both general obligation debt and debt of agencies, institutions, boards and authorities for which debt service is expected to be made in whole or in part from appropriations of tax revenues.

Outstanding Section 9(b) debt as of June 30, 2019 includes the unamortized portion of $401.9 million of general obligation bonds. In November 1992, $613.0 million in general obligation bonds were authorized and approved by the voters. In November 2002, $1.0 billion in general obligation bonds were authorized and approved by the voters. Various series of refunding bonds were issued to refund certain series of bonds. Outstanding Section 9(c) debt as of June 30, 2019 includes various series of Higher Educational Institutions Bonds (including refunding bonds) issued from 2005 to 2018, one series of Transportation Facilities Bonds (refunding bonds) issued in 2016, and four series of Parking Facilities Bonds (including refunding bonds) issued between 2009 and 2016. Outstanding general obligation debt does not include 9(b) and 9(c) advance refunded bonds for which funds have been deposited in irrevocable escrow accounts in amounts sufficient to meet all required future debt service.

Other Tax-Supported Debt

Section 9(d) of Article X provides that the restrictions of Section 9 are not applicable to any obligation incurred by the Commonwealth or any of its institutions, agencies or authorities if the full faith and credit of the Commonwealth is not pledged or committed to the payment of such obligation.

There are currently outstanding various types of 9(d) revenue bonds issued by authorities, political subdivisions and agencies to which the Commonwealth's full faith and credit is not pledged. Certain of these bonds, however, are paid in part or in whole from revenues received as appropriations by the General Assembly from general tax revenues, while others are paid solely from revenues derived from enterprises related to the operation of the financed capital projects or other non-general fund revenues.

The debt repayments of the Virginia Public Building Authority, the Virginia College Building Authority 21st Century College and Equipment Programs, the Virginia Biotechnology Research Partnership Authority and several other long-term capital leases or notes have been supported all or in large part by General Fund appropriations.

The Commonwealth Transportation Board ("CTB") has issued various series of bonds authorized under the State Revenue Bond Act. These bonds are secured by and payable from funds appropriated by the General Assembly from the Transportation Trust Fund. The Transportation Trust Fund was established by the General Assembly in 1986 as a special non-reverting fund administered and allocated by the Transportation Board for the purpose of increased funding for construction, capital and other needs of state highways, airports, mass transportation and ports. As of June 30, 2019, $2.9 billion (unadjusted) in CTB Tax-Supported bonds were outstanding. During 2007, the CTB was authorized by the General Assembly to issue up to $3.0 billion in Capital Projects Revenue Bonds, with an additional $180 million authorized in 2008 and an additional $150 million authorized in 2018. As of June 30, 2019, $2.9 billion had been issued under this authorization.

The Virginia Port Authority ("VPA") issues bonds secured by its share of the Transportation Trust Fund. As of June 30, 2019, $234.1 million of Commonwealth Port Fund ("CPF") Revenue Bonds were outstanding and there was no authorized but unissued CPF debt.

Leases and Contracts

Capital Leases. The Commonwealth is involved in numerous agreements to lease buildings, energy efficiency projects and equipment. For a detailed description, see "Notes to the Financial Statements" included in the Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2019. These lease agreements are for various terms, and each lease contains a nonappropriation clause indicating that continuation of the lease is subject to funding by the General Assembly. The principal balance of all tax-supported capital leases outstanding was $38.36 million as of June 30, 2019.

Installment Purchases. The Commonwealth also finances the acquisition of certain personal property and equipment through installment purchase agreements. The length of the agreements and the interest rates charged vary. In most cases, the agreements are collateralized by the personal property and equipment acquired. Installment purchase agreements contain nonappropriation clauses indicating that continuation of the installment purchase is subject to funding

by the General Assembly. The principal balance of tax-supported installment purchase obligations outstanding was $170.1 million as of June 30, 2019.

Outstanding Tax-Supported Debt

The following table summarizes for the past five fiscal years the outstanding indebtedness of the Commonwealth, its agencies, institutions and authorities for which appropriated tax revenues are required to pay debt service. In certain instances, debt service may be paid with or payable from other non-tax sources (e.g., toll revenues, port revenues and user fees), but the underlying security remains the appropriation of tax revenues by the Commonwealth.

OUTSTANDING TAX-SUPPORTED DEBT
(in thousands)

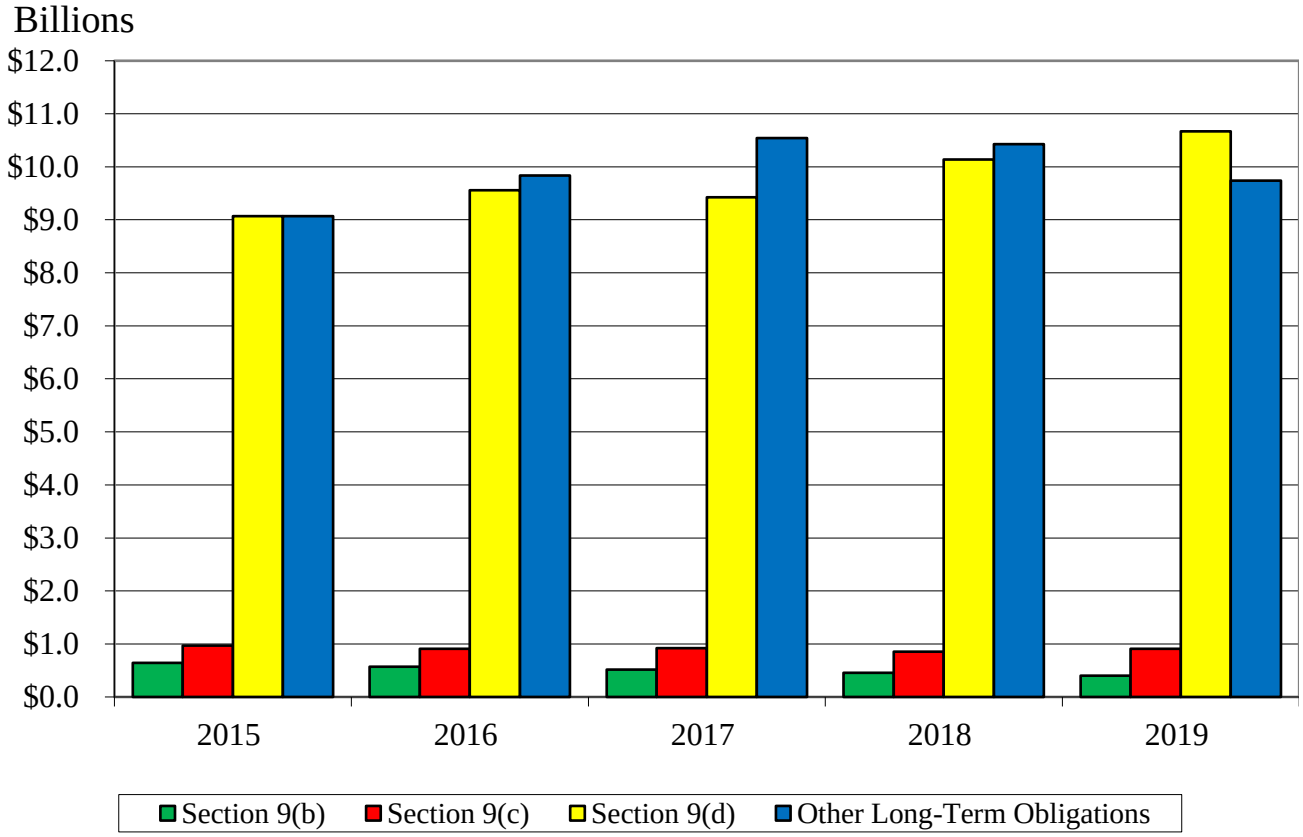
	2015	2016	2017	2018	2019	
General Obligation Debt:						
Section 9(a)	-	-	-	-	-	
Section 9(b) [1]	$ 642,181	$ 571,915	$ 515,468	$ 457,764	$ 401,873	
Section 9(c) [1]						
Higher Educational Institutions	$ 936,857	$ 877,118	$ 897,018	$ 836,874	$893,106	
Transportation Facilities	17,154	14,562	11,642	8,914	$6,061	
Parking Facilities	16,036	15,155	11,101	9,850	$8,567	
Sub-Total 9(c) [1]	$ 970,047	$ 906,835	$ 919,761	$ 855,638	$907,734	
Total General Obligation Debt [1]	$ 1,612,228	$ 1,478,750	$ 1,435,229	$ 1,313,402	$1,309,607	
Section 9(d) Debt:						
Transportation [1]	$ 2,552,123	$ 2,722,238	$ 2,578,232	$ 2,875,112	2,966,581	
Virginia Public Building Authority [1]	2,623,447	2,441,413	2,674,563	2,663,808	2,863,660	
Virginia Port Authority [1]	288,446	275,256	253,208	243,448	234,114	
Virginia College Building Authority 21st Century/Equipment [1]	3,520,214	4,049,060	3,858,925	4,305,134	4,566,772	
Virginia Biotechnology Research Partnership Authority [1]	30,619	26,743	22,727	18,561	14,220	
Virginia Aviation Board [1]	307	114	-	-	-	
Fairfax County Economic Development Authority [1]	51,249	44,712	37,895	30,783	23,366	
Total Section 9(d) Debt	$ 9,066,405	$ 9,559,536	$ 9,425,550	$ 10,136,846	$ 10,668,713	
Other Long-Term Obligations:						
Capital Leases	$ 135,404	$ 117,927	$ 117,913	$ 42,620	$ 38,392	[2]
Installment Purchase Obligations	177,185	159,702	139,680	166,705	170,190	[2]
Compensated Absences	599,726	610,079	601,092	631,282	666,786	[2]
Pension Liability	6,629,296	7,196,277	7,723,846	6,732,980	6,254,910	[2]
Total OPEB Liability	1,484,680	1,695,972	1,914,363	1,273,461	985,589	[2]
Net OPEB Liability			-	1,544,249	1,581,374	[2]
Other Liabilities and Notes Payable	45,109	58,965	43,117	37,911	40,752	[2]
Total Other Long-Term Obligations	$ 9,071,400	$ 9,838,922	$ 10,540,011	$ 10,429,208	$ 9,737,993	
Total Tax-Supported Debt	$ 19,750,033	$ 20,877,208	$ 21,400,790	$ 21,879,456	$ 21,716,313	

[1] Net of unamortized discounts/premiums.

[2] Numbers may not add to totals due to rounding.

Source: Department of the Treasury; Department of Accounts.

OUTSTANDING TAX-SUPPORTED DEBT
As of June 30, 2015 – 2019



Source: Department of the Treasury; Department of Accounts.

Outstanding Tax-Supported Debt Service

The following table summarizes annual debt service on outstanding tax-supported debt as of June 30, 2019. The table does not include debt service requirements for capital lease and installment purchase obligations payable from the General Fund of the Commonwealth.

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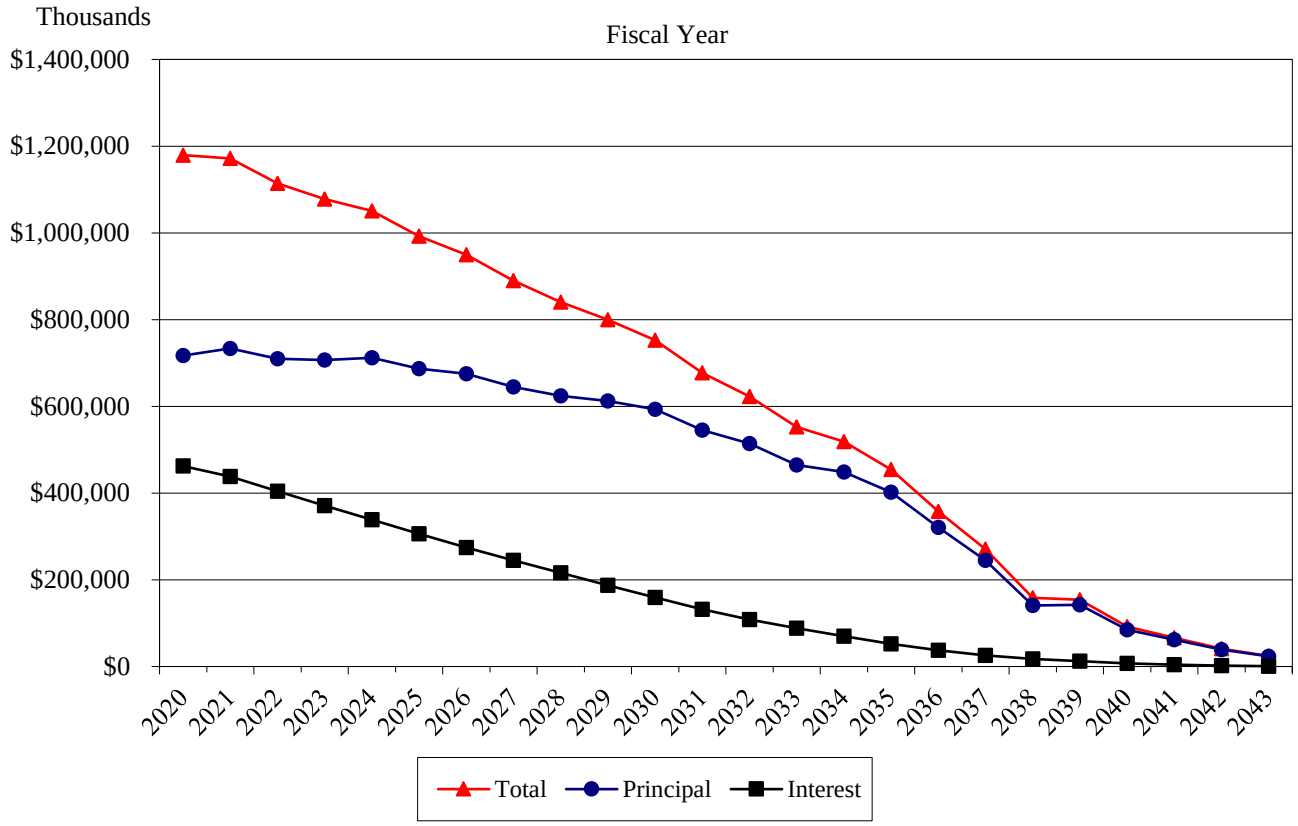
ANNUAL DEBT SERVICE REQUIREMENTS
TAX-SUPPORTED DEBT OUTSTANDING AT JUNE 30, 2019*
(in thousands)

Fiscal Year Ending June 30	General Obligation Debt Sections 9(a), 9(b) and 9c[1][2]			Other Tax-Supported Debt Section 9(d) [2] [3]			Total		
	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total
2020	107,870	51,769	159,639	609,243	410,420	1,019,663	717,113	462,189	1,179,303
2021	110,360	46,804	157,164	623,081	391,282	1,014,363	733,441	438,086	1,171,527
2022	106,240	41,604	147,844	603,560	362,458	966,018	709,800	404,062	1,113,862
2023	107,065	36,679	143,744	599,595	334,498	934,093	706,660	371,177	1,077,838
2024	107,115	31,768	138,883	604,531	306,918	911,449	711,646	338,686	1,050,331
2025	99,355	26,858	126,213	587,439	278,991	866,430	686,794	305,849	992,642
2026	94,455	22,470	116,925	580,599	252,171	832,770	675,054	274,641	949,696
2027	86,615	18,289	104,904	558,026	226,567	784,593	644,641	244,856	889,497
2028	71,705	14,308	86,013	552,755	201,479	754,234	624,460	215,787	840,247
2029	57,540	11,319	68,859	554,930	175,697	730,627	612,470	187,016	799,486
2030	49,020	8,914	57,934	544,050	150,190	694,240	593,070	159,104	752,174
2031	45,065	6,925	51,990	500,325	124,921	625,246	545,390	131,846	677,236
2032	34,685	5,203	39,888	479,325	103,347	582,672	514,010	108,550	622,560
2033	34,565	3,995	38,560	429,785	84,437	514,222	464,350	88,433	552,783
2034	27,475	2,789	30,264	421,210	67,032	488,242	448,685	69,821	518,506
2035	20,650	1,789	22,439	381,645	50,390	432,035	402,295	52,179	454,474
2036	13,295	1,034	14,329	307,180	36,180	343,360	320,475	37,214	357,689
2037	5,625	570	6,195	239,170	25,115	264,285	244,795	25,685	270,480
2038	5,520	369	5,889	135,560	16,771	152,331	141,080	17,140	158,220
2039	1,730	165	1,895	140,410	11,921	152,331	142,140	12,086	154,226
2040	1,785	84	1,869	82,835	7,154	89,989	84,620	7,238	91,858
2041	-	-	-	62,015	4,369	66,384	62,015	4,369	66,384
2042	-	-	-	38,605	2,180	40,785	38,605	2,180	40,785
2043	-	-	-	23,475	785	24,260	23,475	785	24,260
Subtotal	1,187,735	333,705	1,521,440	9,659,350	3,625,274	13,284,624	10,847,085	3,958,979	14,806,064
Add Accretion on CAB's	-	-	-	29,503	-	29,503	29,503	-	29,503
Add Unamortized Premium	121,872	-	121,872	979,938	-	979,938	1,101,810	-	1,101,810
Less Unamortized Discount	-	-	-	(76)	-	(76)	(76)	-	(76)
Less Deferral on Debt Defeasance	-	-	-	-	-	-	-	-	-
TOTAL	$1,309,607	$333,705	$1,643,312	$10,668,715	$3,625,274	$14,293,989	$11,978,322	$3,958,979	$15,937,301

[1] Net of unamortized discounts/premiums.
[2] Numbers may not add to totals due to rounding.

Source: Department of the Treasury.

ANNUAL DEBT SERVICE REQUIREMENTS
TAX-SUPPORTED DEBT OUTSTANDING AT JUNE 30, 2019
(in thousands)



Source: Department of Treasury.

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RATIOS OF OUTSTANDING TAX-SUPPORTED DEBT
TO POPULATION AND PERSONAL INCOME
(in thousands)

Fiscal Year	Population	Personal Income	Outstanding Debt	Tax-Supported Debt/Capita	Debt/Income
2014	8,316,902	$417,173,337	$15,453,902	1,858.13	3.7%
2015	8,366,767	$436,655,248	$19,750,033	2,360.53	4.5%
2016	8,414,380	$445,461,657	$20,877,208	2,481.13	4.7%
2017	8,470,020	$459,448,879	$21,400,790	2,526.65	4.7%
2018	8,517,685	$492,312,700	$21,716,313	2,549.56	4.4%

Source: Population Division, U.S. Census published June 2019.
Bureau of Economic Analysis State Personal Income - SAINC5N Personal Income by Major Source and Earnings, by NAICS Industry, September 2019.

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Authorized and Unissued Tax-Supported Debt

As of June 30, 2019, the following tax-supported debt had been authorized by the General Assembly and remained unissued:

Authorized and Unissued Tax-Supported Debt
as of June 30, 2019
(in thousands)

Section 9(b) Debt:		
Higher Educational Institutions Bonds	$	-
Park and Recreational Facilities Bonds		-
Subtotal 9(b) Debt:	$	-
Section 9(c) Debt:		
Higher Educational Institutions Bonds	$	566,417
Parking Facility Bonds		226
Subtotal 9(c) Debt:	$	566,643
Section 9(d) Debt:		
Transportation Capital Projects Revenue Bonds	$	243,234
Northern Virginia Transportation District Program		24,700
U.S. Route 58 Corridor Development Program		595,700
Virginia Public Building Authority -- Projects		1,917,973
Virginia Public Building Authority -- Jails		48,261
Virginia College Building Authority -- 21st Century Projects		1,885,220
Virginia College Building Authority -- 21st Century Equipment		83,000
Virginia Port Authority		-
Subtotal 9(d) Debt:	$	4,798,088
Total	$	5,364,731

Numbers may not add to totals due to rounding.

Source: Department of the Treasury.

Moral Obligation Debt

The Virginia Housing Development Authority, the Virginia Resources Authority and the Virginia Public School Authority are authorized to issue bonds secured in part by a moral obligation pledge of the Commonwealth. All three are designed to be self-supporting from their individual loan programs. The Commonwealth may fund deficiencies that may occur in debt service reserves for moral obligation debt. By the terms of the applicable statutes, the Governor is obligated to include in his annual budget submitted to the General Assembly the amount necessary to restore any such reported deficiency, but the General Assembly is not legally required to make any appropriation for such purpose. Neither the Virginia Housing Development Authority nor the Virginia Public School Authority have bonds outstanding that are secured by the moral obligation pledge. To date, the Virginia Resources Authority has not reported to the Commonwealth that any such reserve deficiencies exist. The table below summarizes the Commonwealth's outstanding moral obligation indebtedness for the past five fiscal years.

OUTSTANDING MORAL OBLIGATION DEBT
(in thousands)
Fiscal Year Ended in June 30,

	2015	2016	2017	2018	2019
Virginia Resources Authority [1]	$877,875	$907,209	$928,088	$927,834	$926,540
Total	$877,875	$907,209	$928,088	$927,834	$926,540

[1] Net of unamortized discounts and premiums costs.

Source: Virginia Resource Authority

Other Debt

There are several authorities and institutions of the Commonwealth that issue debt for which debt service is not paid through appropriations of state tax revenues and for which there is no moral obligation pledge to consider funding debt service or reserve fund deficiencies. A portion of the debt shown is additionally secured by a biennial contingent appropriation in the event available funds are less than the amount required to pay debt service. The following table summarizes for the past five fiscal years outstanding indebtedness of authorities and institutions whose debt falls into these categories.

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OUTSTANDING OTHER DEBT
(in thousands)

	Fiscal Year Ended June 30,				
	2015	**2016**	**2017**	**2018**	**2019**
Institutions of Higher Education [1]	$2,038,579	$2,081,823	$2,224,501	$2,817,992	$2,844,656
Virginia College Building Authority Public Higher Education Financing Program	1,729,375	1,674,505	1,554,955	1,579,275	1,674,580
Virginia College Building Authority Private College Program [1]	701,572	817,418	716,210	700,260	697,525
Virginia Housing Development Authority [1]	4,498,847	4,320,935	3,737,479	3,301,380	3,042,060
Virginia Public School Authority [1]	3,551,741	3,655,914	3,580,954	3,641,402	3,554,603
Virginia Port Authority	256,656	252,631	294,757	291,985	285,782
Commonwealth Transportation Board					
Federal Highway Reimbursement Anticipation Notes [1]	30,624	-	-	-	-
Grant Anticipation Notes (GARVEES) [1]	705,574	663,147	992,214	1,153,617	1,151,850
Hampton Roads Sanitation District	748,397	879,294	846,783	891,442	891,629
Total	$14,261,365	$14,345,667	$13,947,853	$14,377,353	$14,142,685

[1] *Net of unamortized discounts and premium costs.*

Source: Department of the Treasury.

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Commonwealth Debt Management

Debt Capacity Advisory Committee

The Debt Capacity Advisory Committee (the "Committee") is charged by statute with annually estimating the amount of tax-supported debt of the Commonwealth that may prudently be authorized for the next biennium, consistent with the financial goals, capital needs and policies of the Commonwealth. Such estimate is provided to the Governor and General Assembly. The Committee is also required to review annually the amount and condition of bonds, notes and other security obligations of the Commonwealth's agencies, institutions, boards and authorities that are either secured by a moral obligation pledge to replenish reserve fund deficiencies or for which the Commonwealth has a contingent or limited liability. The Committee provides its recommendations on the prudent use of such obligations to the Governor and the General Assembly.

The Committee also reviews the amounts and condition of bonds, notes and other security obligations of the Commonwealth's agencies, institutions, boards and authorities that are neither tax-supported debt nor obligations secured by a moral obligation pledge to replenish reserve fund deficiencies. The Committee may recommend limits, when appropriate, on these other obligations. The Committee's latest report can be found at http://www.trs.virginia.gov/debt/dcac.aspx.

Capital Outlay Plan

The Department of Planning and Budget has prepared a Six-Year Capital Outlay Plan (the "Plan") for the Commonwealth. The Plan lists proposed capital projects, and it recommends how the proposed projects should be financed. More specifically, the Plan distinguishes between immediate demands and longer-term needs, assesses the state's ability to meet its highest priority needs, and outlines an approach for addressing priorities in terms of costs, benefits and financing mechanisms. The General Assembly has set out requirements for the funding of capital projects at a level not less than two percent of the General Fund revenues for the biennium, and the portion of that amount that may be recommended for bonded indebtedness.

RETIREMENT PLANS

The Commonwealth contributes to four pension plans each of which is administered by the Virginia Retirement System ("System"). The System acts as a common investment and administrative agent for the Commonwealth, local school boards and political subdivisions in Virginia. The plans administered by the System consist of the Virginia Retirement System ("VRS"), the State Police Officers Retirement System ("SPORS"), the Virginia Law Officers' Retirement System ("VaLORS") and the Judicial Retirement System ("JRS"). Membership in the VRS consists of Commonwealth employees, public school teachers and employees of political subdivisions that have voluntarily joined the system. Membership in SPORS consists of Commonwealth state police officers. Membership in VaLORS consists of law enforcement and corrections officers of the Commonwealth other than state police officers, and membership in JRS consists of judges in the Commonwealth's Circuit Courts, General District Courts, Court of Appeals and Supreme Court. Membership in the applicable retirement plans is mandatory for all eligible employees. VRS is the largest of four systems covering 335,158 active Commonwealth employees, school teachers and covered employees of local governments as of June 30, 2019, as compared with 11,115 active members of SPORS, VaLORS, and JRS combined. In addition, the four plans combined had approximately 52,677 inactive vested members who are no longer contributing but have not withdrawn previous contributions and may be eligible for a retirement benefit in the future.

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ACTIVE MEMBER DISTRIBUTION OF RETIREMENT PLANS

Fiscal Year Ended June 30,

	2018	**2019**
State Employees (VRS)……..	77,337	76,998
Teachers (VRS)……..	146,795	147,622
Employees of Political Subdivisions (VRS)...	107,827	110,538
State Police Officers (SPORS)……...	1,887	1,917
Virginia Law Officers (VaLORS)……..	8,742	8,741
Judges (JRS)……...	417	457
Total	343,005	346,273

Source: Virginia Retirement System.

The System's Board of Trustees administers all four plans pursuant to statute. Each plan provides retirement, disability and death benefits. In addition, most members of all four plans are covered by group term life insurance.

The General Assembly established a new retirement plan (Hybrid Retirement Plan) for all new members hired on or after January 1, 2014 who are not in SPORS, VaLORS or VRS as a hazardous duty employee of a political subdivision. All new members hired on or after July 1, 2010 and before January 1, 2014 are in Plan 2. Vested members on January 1, 2013 with service before July 1, 2010 are in Plan 1. Non-vested members on January 1, 2013 with service before July 1, 2010 are in Plan 2. The different provisions for the retirement plans are set forth in the following table:

Retirement Benefit Plan Provisions
AS ESTABLISHED BY TITLE 51.1 OF THE *CODE OF VIRGINIA* (1950), AS AMENDED

All full-time, salaried permanent (professional) employees of state agencies, public school divisions and employees of participating employers are automatically covered by a pension plan upon employment. Members qualify for retirement when they become vested and meet the age and service requirements for their plan, as shown in the following table.

The System administers three different benefit structures for government employees: Plan 1, Plan 2 and the Hybrid Retirement Plan. Each of these is called a plan in statute and each has different provisions with a specific eligibility and benefit structure. These different benefit structures are set out in the following table:

PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
About Plan 1 Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula.	**About Plan 2** Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula.	**About the Hybrid Retirement Plan** The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan. The defined benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. • The benefit from the defined contribution component of the plan depends on the member and employer contributions made to the plan and the investment performance of those contributions. • In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions,

		investment gains or losses and any required fees.
Eligible Members Members are covered under Plan 1 if their membership date is prior to July 1, 2010, they were vested before January 1, 2013 and they have not taken a refund. **Hybrid Opt-In Election** VRS non-hazardous duty-covered Plan 1 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014. The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan. Members who were eligible for an optional retirement plan (ORP) and had prior service under Plan 1 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 1 or ORP.	**Eligible Members** Members are eligible for Plan 2 if their membership date is from July 1, 2010, to December 31, 2013, and they have not taken a refund. Additionally, members are covered under Plan 2 if they have a membership date prior to July 1, 2010, but were not vested before January 1, 2013. Members covered under VaLORS, SPORS or VRS with enhanced hazardous duty benefits or the hazardous duty alternate option, and whose membership dates are on or after July 1, 2010, are in Plan 2 even if their membership dates are after December 31, 2013 **Hybrid Opt-In Election** Eligible Plan 2 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014. The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan. Members who were eligible for an optional retirement plan (ORP) and have prior service under Plan 2 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 2 or ORP.	**Eligible Members** Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes: • State employees* • School division employees • Political subdivision employees* • Judges appointed or elected to an original term on or after January 1, 2014, regardless if vested to VRS Plan 1 or VRS Plan 2. • Members in Plan 1 or Plan 2 who elected to opt into the plan during the election window held January 1-April 30, 2014; the plan's effective date for opt-in members was July 1, 2014. ***Non-Eligible Members** Some employees are not eligible to participate in the Hybrid Retirement Plan. They include: • Members of the State Police Officers' Retirement System (SPORS) • Members of the Virginia Law Officers' Retirement System (VaLORS) • Political subdivision employees who are covered by enhanced benefits for hazardous duty employees Those employees eligible for an optional retirement plan (ORP) must elect the ORP plan or the Hybrid Retirement Plan. If these members have prior service under Plan 1 or Plan 2, they are not eligible to elect the Hybrid Retirement Plan and must select Plan 1 or Plan 2 (as applicable) or ORP.
Retirement Contributions State employees, excluding state elected officials, judges in Plan 1 or Plan 2 and optional retirement plan participants, contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. Member contributions are tax-deferred until they are withdrawn as part of a retirement benefit or as a refund. The employer makes a	**Retirement Contributions** Same as Plan 1.	**Retirement Contributions** A member's retirement benefit is funded through mandatory and voluntary contributions made by the member and the employer to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined

separate actuarially determined contribution to VRS for all covered employees. VRS invests both member and employer contributions to provide funding for the future benefit payment.		contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages. Mandatory member contributions and the employer match on the mandatory and voluntary member contributions are recorded in a 401(a) account, along with the accrued net investment income. The voluntary member contributions and accrued net investment income are recorded in a 457(b) account. Members are responsible for investing their accounts using the various investment options that are available.
Creditable Service Creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine eligibility for retirement and to calculate the retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.	**Creditable Service** Same as Plan 1.	**Creditable Service** *Defined Benefit Component:* Under the defined benefit component of the plan, creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine eligibility for retirement and to calculate the retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit. *Defined Contribution Component:* Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.
Vesting Vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members become vested when they have at least five years (60 months) of creditable service. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for their plan. Members also must be vested to receive a full refund of their member contribution account balance if they leave employment and request a refund. Members are always 100% vested in the contributions that they make.	**Vesting** Same as Plan 1.	**Vesting** *Defined Benefit Component:* Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years (60 months) of creditable service. Plan 1 or Plan 2 members with at least five years (60 months) of creditable service who opted into the Hybrid Retirement Plan remain vested in the defined benefit component. *Defined Contribution Component:* Defined contribution vesting refers to the minimum length of service a member needs to be eligible to withdraw the employer contributions from the defined contribution component of the plan. Members are always 100% vested in the contributions that they

		make. Upon retirement or leaving covered employment, a member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the plan, based on service. • After two years, a member is 50% vested and may withdraw 50% of employer contributions. • After three years, a member is 75% vested and may withdraw 75% of employer contributions. • After four or more years, a member is 100% vested and may withdraw 100% of employer contributions. Distribution is not required by law until age 70½.
Calculating the Benefit The Basic Benefit is calculated based on a formula using the member's average final compensation, a retirement multiplier and total service credit at retirement. It is one of the benefit payout options available to a member at retirement. An early retirement reduction factor is applied to the Basic Benefit if the member retires with a reduced retirement benefit or selects a benefit payout option other than the Basic Benefit.	**Calculating the Benefit** See definition under Plan 1.	**Calculating the Benefit** *Defined Benefit Component:* See definition under Plan 1. *Defined Contribution Component:* The benefit is based on contributions made by the member and any matching contributions made by the employer, plus net investment earnings on those contributions.
Average Final Compensation A member's average final compensation is the average of the 36 consecutive months of highest creditable compensation as a covered employee.	**Average Final Compensation** A member's average final compensation is the average of the 60 consecutive months of highest creditable compensation as a covered employee.	**Average Final Compensation** Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.
Service Retirement Multiplier VRS Plan 1: The retirement multiplier is a factor used in the formula to determine a final retirement benefit. The retirement multiplier for non-hazardous duty members is 1.70%. SPORS, sheriffs and regional jail superintendents: The retirement multiplier is 1.85%. VaLORS: The retirement multiplier is 1.70% or 2.00%.	**Service Retirement Multiplier** VRS Plan 2: Same as Plan 1 for service earned, purchased or granted prior to January 1, 2013. For non-hazardous duty members, the retirement multiplier is 1.65% for creditable service earned, purchased or granted on or after January 1, 2013. SPORS, sheriffs and regional jail superintendents: Same as Plan 1. VaLORS: The retirement multiplier is 2.00%.	**Service Retirement Multiplier** *Defined Benefit Component*: VRS: The retirement multiplier for the defined benefit component is 1.00%. For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans. SPORS, sheriffs and regional jail superintendents: Not applicable. VaLORS: Not applicable.

• Members hired before July 1, 2001, have a 1.70% multiplier and are eligible for a hazardous duty supplement. They also had the option to elect the 2.00% multiplier and no supplement. • Members hired on or after July 1, 2001, have a 2.00% multiplier and no supplement. Political subdivision hazardous duty employees: The retirement multiplier of eligible political subdivision hazardous duty employees other than sheriffs and regional jail superintendents is 1.70% or 1.85% as elected by the employer. JRS Plan 1: If appointed or elected to an original term prior to January 1, 2013, the retirement multiplier is 1.70%. If appointed or elected to an original term between January 1, 2013, and December 31, 2013, the retirement multiplier is 1.70% on non-JRS service earned, purchased or granted before the date of appointment or election to an original term, and 1.65% on JRS service earned, purchased or granted on or after the date of appointment or election to an original term.	Political subdivision hazardous duty employees: Same as Plan 1. JRS Plan 2: Same as Plan 1.	Political subdivision hazardous duty employees: Not applicable. JRS: The retirement multiplier for the defined benefit component is 1.00%. The member will retain the applicable multiplier on any covered service outside JRS. *Defined Contribution Component:* Not applicable.
Normal Retirement Age VRS: Age 65. SPORS, VaLORS and political subdivision hazardous duty employees: Age 60. JRS: Age 65; mandatory retirement age is 73.	**Normal Retirement Age** VRS: Normal Social Security retirement age. SPORS, VaLORS and political subdivision hazardous duty employees: Same as Plan 1. JRS: Same as Plan 1.	**Normal Retirement Age** *Defined Benefit Component:* VRS: Same as Plan 2. SPORS, VaLORS and political subdivision hazardous duty employees: Not applicable. JRS: Same as Plan 1. *Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions.
Earliest Unreduced Retirement Eligibility VRS: Age 65 with at least five years (60 months) of creditable service or at age 50 with at least 30 years of creditable service.	**Earliest Unreduced Retirement Eligibility** VRS: Normal Social Security retirement age with at least five years (60 months) of creditable service or when their age and service equal 90.	**Earliest Unreduced Retirement Eligibility** *Defined Benefit Component:* VRS: Normal Social Security retirement age and have at least five years (60 months) of creditable service or when their age and service equal 90.

SPORS, VaLORS and political subdivision hazardous duty employees: Age 60 with at least five years of creditable service or age 50 with at least 25 years of creditable service. JRS: Age 65 with at least five years of creditable service or at age 60 with at least 30 years of creditable service. Service earned under JRS is weighted. The weighting factors for a judge appointed prior to July 1, 2010, are as follows: • 3.5 for JRS members appointed or elected to an original term before January 1, 1995. • 2.5 for JRS members appointed or elected to an original term on or after January 1, 1995, but before July 1, 2010. For members appointed or elected to an original term between July 1, 2010, and December 31, 2013, the weighting factors are: • 1.5 if appointed or elected to an original term before age 45. • 2.0 if appointed or elected to an original term between ages 45 and 54. • 2.5 if appointed or elected to an original term at age 55 or older.	SPORS, VaLORS and political subdivision hazardous duty employees: Same as Plan 1. JRS: Same as Plan 1. Service earned under JRS is weighted. The weighting factors under Plan 2 are: • 1.5 for JRS members appointed or elected to an original term before age 45. • 2.0 for JRS members appointed or elected to an original term between ages 45 and 54. • 2.5 for JRS members appointed or elected to an original term at age 55 or older.	SPORS, VaLORS and political subdivision hazardous duty employees: Not applicable. JRS: Same as Plan 2. *Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions.
Earliest Reduced Retirement Eligibility VRS: Age 55 with at least five years (60 months) of creditable service or age 50 with at least 10 years of creditable service. SPORS, VaLORS and political subdivision hazardous duty employees: Age 50 with at least five years of creditable service. JRS: Age 55, with at least five years of creditable service.	**Earliest Reduced Retirement Eligibility** VRS: Age 60 with at least five years (60 months) of creditable service. SPORS, VaLORS and political subdivision hazardous duty employees: Same as Plan 1. JRS: Same as Plan 1.	**Earliest Reduced Retirement Eligibility** *Defined Benefit Component:* VRS: Age 60 with at least five years (60 months) of creditable service. SPORS, VaLORS and political subdivision hazardous duty employees: Not applicable. JRS: Same as Plan 1. *Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions.
Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional	**Cost-of-Living Adjustment (COLA) in Retirement** The Cost-of-Living Adjustment (COLA) matches the first 2% increase in the CPI-U and half of any additional increase (up to 2%), for a maximum COLA of 3%.	**Cost-of-Living Adjustment (COLA) in Retirement** *Defined Benefit Component:* Same as Plan 2. *Defined Contribution Component:* Not applicable.

increase (up to 4%) up to a maximum COLA of 5%. *Eligibility:* For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service, the COLA will go into effect on July 1 after one full calendar year from the retirement date. For members who retire with a reduced benefit and who have fewer than 20 years of creditable service, the COLA will go into effect on July 1 after one calendar year following the unreduced retirement eligibility date. *Exceptions to COLA Effective Dates:* The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances: • The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013. • The member retires on disability. • The member is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act or the Transitional Benefits Program. • The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.	*Eligibility:* Same as Plan 1. *Exceptions to COLA Effective Dates:* Same as Plan 1.	*Eligibility:* Same as Plan 1 and Plan 2. *Exceptions to COLA Effective Dates:* The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances: • The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013. • The member is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act or the Transitional Benefits Program. • The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.
Disability Coverage For members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.70% on all service, regardless of when it was earned, purchased or granted.	**Disability Coverage** For members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.65% on all service, regardless of when it was earned, purchased or granted. Most state employees are covered under the Virginia Sickness and	**Disability Coverage** Employees of political subdivisions and school divisions (including Plan 1 and Plan 2 opt-ins) participate in the Virginia Local Disability Program (VLDP) unless their local governing body provides an employer-paid comparable program for its members.

Most state employees are covered under the Virginia Sickness and Disability Program (VSDP) and are not eligible for disability retirement. VSDP members are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.	Disability Program (VSDP) and are not eligible for disability retirement. VSDP members are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.	State employees (including Plan 1 and Plan 2 opt-ins) participating in the Hybrid Retirement Plan are covered under the Virginia Sickness and Disability Program (VSDP), and are not eligible for disability retirement. Hybrid members (including Plan 1 and Plan 2 opt-ins) covered under VSDP or VLDP are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.
Purchase of Prior Service Members may be eligible to purchase service from previous public employment, active duty military service, an eligible period of leave or VRS refunded service as creditable service in their plan. Prior creditable service counts toward vesting, eligibility for retirement and the health insurance credit, if offered by the employer. Only active members are eligible to purchase prior service. Members also may be eligible to purchase periods of leave without pay.	**Purchase of Prior Service** Same as Plan 1.	**Purchase of Prior Service** *Defined Benefit Component:* Same as Plan 1, with the following exception: Hybrid Retirement Plan members are ineligible for ported service. *Defined Contribution Component:* Not applicable.

Following is a summary of additions and deductions of the four retirement plans, including additions and deductions attributable to VRS members who are employees of local school boards and political subdivisions. **The political subdivisions have voluntarily joined the VRS, and the Commonwealth is responsible only for administration of the programs and not for contribution.**

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PENSION TRUST FUNDS
ADDITIONS AND DEDUCTIONS
(in Thousands)

	Fiscal Years Ended June 30,				
	2015	**2016**	**2017**	**2018**	**2019**
Additions:					
Member Contributions	$ 781,755	$ 867,951	$ 916,718	$ 938,128	$ 981,624
Employer Contributions	2,467,860	2,507,106	2,325,678	2,527,786	2,529,719
Net Investment Income (net of investment expenses)	911,279	906,362	904,842	894,097	967,116
Other	1,723	1,789	1,798	1,076	2,299
Total Additions	4,162,617	4,283,208	4,149,036	4,361,087	4,480,758
Deductions:					
Benefits	4,114,239	4,356,978	4,518,958	4,752,889	4,990,124
Refunds	106,115	104,552	119,705	122,968	117,907
Administrative Expenses	41,026	41,587	48,015	47,334	50,220
Other	2,410	2,339	11,403	9,105	9,489
Total Deductions	4,263,790	4,505,456	4,698,081	4,932,296	5,167,740
Excess of Additions over Deductions [before net appreciation (depreciation) in fair value of investments]	(101,173)	(222,248)	(549,045)	(571,209)	(686,982)
Net appreciation (depreciation) in fair value of investments	2,009,958	230,536	7,109,992	4,459,899	4,115,574
Net Position – Restricted for Benefits at the End of the Year	$ 66,431,057	$ 66,439,345	$ 73,000,292	$ 76,888,982	$ 80,317,574

These updates reflect the rounding adjustments that were made in preparation of the final June 30, 2019 VRS Financial Statements and agree with the data as presented in the VRS CAFR.

Source: Virginia Retirement System.

Each employer contributes an amount for any period equal to the sum of the normal cost and amortization of the unfunded actuarial accrued liability, if any. The Commonwealth's liability is determined, at a minimum, every two years by the System's Board of Trustees on the basis of studies by the consulting actuary. With respect to teachers, the Commonwealth pays a share of the employer contributions on the compensation of teachers who are employees of local school boards with the Commonwealth's portion determined by a formula that uses the student/teacher ratio, average teachers' salaries and the source of revenue used for salary. Employees contribute 5 percent of their creditable compensation unless the contribution is assumed by the employer as in the case of judges. Effective July 1, 2011, Commonwealth employees (except elected officials), state police officers, and state law enforcement and correctional officers other than state police officers began paying the 5% employee contribution. This contribution is handled as a pre-tax payroll deduction. Effective July 1, 2012, teacher and political subdivision employers were required to begin requiring their members to pay the 5% member contribution that was previously paid by the employer. The phase-in required the shift of a minimum of 1% each year with full implementation of the shift to member-paid for all employers by July 1, 2016.

Employer contributions are calculated under an entry age normal cost method, and the unfunded actuarial accrued liability is amortized as a level percentage of payroll within 30 years or less. The entry age normal cost method is designed

to produce level normal costs over the working lifetime of the participating employees and to permit the amortization of any unfunded liability over a period of years. The unfunded liability arises because normal costs based on the current benefit provisions have not been in effect throughout the working lifetime of current employees and because of actuarial losses. Post-retirement benefit adjustments are pre-funded during the employees' working lifetime.

The Commonwealth's contribution rates for the 2018 fiscal year were determined in accordance with the actuarial valuation as of June 30, 2015. The rates for the 2019 fiscal year were determined in accordance with the actuarial valuation as of June 30, 2017. In calculating the Commonwealth's contribution rates for the 2016 fiscal year, the actuary assumed a 7.00 percent net investment yield compounded annually, a 2.50 percent inflation allowance in the salary scale, a 30-year closed amortization period for the legacy June 30, 2013 Unfunded Actuarial Accrued Liability (UAAL), a 20-year closed amortization period for the actuarial gains and losses and other changes in the UAAL due to benefit and actuarial assumption and method changes for each valuation subsequent to the June 30, 2013 valuation, and assets valued using a modified market basis.

For fiscal year 2018, the employer contribution rate for teachers was increased to 100% of the actuarially determined rate or 16.32%. The employer contribution rate for all other employer groups remained the same as it was in fiscal year 2017. Additionally, there was no change in the rates for individual political subdivisions or in the member contribution rate of 5.00%.

For fiscal year 2019 the employer contribution rates for most employers changed, and all employers contributed at least 100% of the actuarially determined rate. The member contribution rate remained at 5.00%.

The normal contribution and accrued liability cost rates (expressed as percentages of covered compensation) recommended by the actuaries are as follows:

Virginia Retirement System
Finance Division

RETIREMENT SYSTEMS CONTRIBUTIONS, ACCRUED LIABILITY AND SUPPLEMENTARY COSTS
(1997-1998 biennium through 2019 fiscal year) (1)

		State Employees	School Teachers	State Police	Virginia Law Officers (2)	Judges
Normal contribution rate:						
	1997-1998	2.73	3.51	9.39	-	15.12
	1998-1999	3.56	4.54	8.72	-	17.34
	1999-2000	4.18	5.09	10.52	4.18	18.74
	2000-2001	4.24	5.83	8.92	8.92	27.85
	2001-2002	4.00	6.03	7.45	7.91	26.11
	2002-2003	4.00	6.03	7.99	8.51	22.27
	2003-2004	4.00	6.03	7.99	8.51	22.27
	2004-2005	4.00	6.03	7.99	8.51	22.19
	2005-2006	4.00	6.03	7.99	8.51	22.19
	2006-2007	2.80	4.45	7.47	8.06	24.49
	2007-2008	2.80	4.45	8.35	8.06	24.49
	2008-2009	2.93	4.71	8.84	8.24	25.13
	2009-2010	2.93	4.71	8.84	8.24	25.13
	2010-2011	2.67	4.68	8.81	5.81	30.15
	2011-2012	2.67	4.68	8.81	5.81	30.15
	2012-2013	3.55	5.93	10.49	6.80	33.69
	2013-2014	3.55	5.93	10.49	6.80	33.69
	2014-2015	4.28	5.77	10.72	7.70	34.31
	2015-2016	4.28	5.77	10.72	7.70	34.31
	2017-2018	4.18	5.61	11.11	8.15	28.95
	2017-2018	5.48	6.66	12.64	10.53	25.09

RETIREMENT SYSTEMS CONTRIBUTIONS, ACCRUED LIABILITY AND SUPPLEMENTARY COSTS
(1997-1998 biennium through 2019 fiscal year) (1) cont.

Accrued Liability rate:						
1997-1998		2.08	3.77	3.99	-	13.98
1998-1999		2.28	3.95	8.12	-	14.34
1999-2000		1.85	3.95	8.68	1.85	15.51
2000-2001		0.98	1.71	16.08	7.23	17.15
2001-2002		0.24	(1.79)	17.55	17.09	18.89
2002-2003		0.24	(1.79)	17.01	16.49	22.73
2003-2004		0.24	(1.79)	17.01	16.49	22.73
2004-2005		(0.11)	2.07	17.01	16.49	22.81
2005-2006		(0.11)	2.07	17.01	16.49	22.81
2006-2007		4.53	6.73	12.35	9.33	15.59
2007-2008		4.53	6.73	14.34	9.33	15.59
2008-2009		5.09	7.13	15.25	8.54	12.91
2009-2010		5.09	7.13	15.25	8.54	12.91
2010-2011		5.79	8.23	16.75	10.12	16.64
2011-2012		5.79	8.23	16.75	10.12	16.64
2012-2013		9.52	10.84	22.13	12.72	20.42
2013-2014		9.52	10.84	22.13	12.72	20.42
2014-2015		11.52	12.43	20.06	13.36	23.53
2015-2016		11.52	11.87	20.06	13.36	21.24
2017-2018		9.31	10.71	17.43	12.90	13.02
2019-2021		8.04	9.02	12.24	11.08	9.30
Total contribution rate:						
1997-1998		4.81	7.28	13.38	-	29.10
1998-1999		5.84	8.49	16.84	-	31.68
1999-2000		6.03	9.04	19.20	6.03	34.25
2000-2001		5.22	7.54	25.00	16.15	45.00
2001-2002	(3)	4.24	4.24	25.00	25.00	45.00
2002-2003	(4)	4.24	4.24	25.00	25.00	45.00
2003-2004	(5)	4.24	4.24	25.00	25.00	45.00
2004-2005	(6)	3.89	8.10	25.00	25.00	45.00
2005-2006	(7)	3.89	8.10	25.00	25.00	45.00
2006-2007	(8)	7.33	11.18	19.82	17.39	40.08
2007-2008	(9)	7.33	11.18	22.69	17.39	40.08
2008-2009	(10)	8.02	11.84	24.09	16.78	38.04
2009-2010	(11)	8.02	11.84	24.09	16.78	38.04
2010-2011	(12)	8.46	12.91	25.56	15.93	46.79
2011-2012	(13)	8.46	12.91	25.56	15.93	46.79
2012-2013	(14)	13.07	16.77	32.62	19.52	54.11
2013-2014	(14)	13.07	16.77	32.62	19.52	54.11
2014-2015	(15)	15.80	18.20	30.78	21.06	57.84
2015-2016	(16)	15.80	17.64	30.78	21.06	55.55
2017-2018	(17)	13.49	16.32	28.54	21.05	41.97
2018-2019	(18)	13.52	15.68	24.88	21.61	34.39

(1) Rates for FY 2000 reflect "carve-out" of a portion of the retirement rate for the Virginia Sickness and Disability Program.

(2) The Virginia Law Officers' Retirement System was established October 1, 1999.

(3) Contributions actually paid in FY 2002 were 2.12%, 3.60%, 12.50%, 8.07% and 22.50% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(4) Contributions actually paid in FY 2003 were 0.00%, 3.77%, 11.05%, 12.00% and 29.00% for State, School Teachers, State Police, VaLORS,and Judges,. Respectively.

(5) Contributions actually paid in FY 2004 were 3.77%, 3.77%, 12.79%, 13.95% and 32.03% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(6) Contributions actually paid in FY 2005 were 3.91%, 6.03%, 16.49%, 16.99% and 30.55% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(7) Contributions actually paid in FY 2006 were 3.91%, 6.62%, 16.49%, 16.99% and 30.55% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(8) Contributions actually paid in FY 2007 were 5.74%, 9.20%, 16.71%, 14.96% and 36.47% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(9) Contributions actually paid in FY 2008 were 6.15%, 10.30%, 20.76%, 15.86% and 38.01% for State, School Teachers, State Police, VaLORS, and Judges, respectively. State Police computed and paid rates reflect an increase of 2.87% resulting from an increase in the multiplier from 1.70% to 1.85%, effective July 1, 2007.

(10) Contributions actually paid in FY 2009 were 6.23%, 8.81%, 20.05%, 14.23% and 34.51% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(11) Contributions actually paid in FY 2010 were 6.26%, 8.81%, 20.05%, 14.23% and 34.51% for State, School Teachers, State Police, VaLORS, and Judges, respectively. In addition, these contributions were suspended for state employee groups for April, May and the first half of June 2010, and for school teachers for the entire fourth quarter of FY 2010.

(12) Contributions actually paid in FY 2011 were 2.13%, 3.93%, 7.76%, 5.12% and 28.81% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(13) Contributions actually paid in FY 2012 are 6.33% for School Teachers and 2.08%, 7.73%, 5.07% and 28.65% for State, State Police, VaLORS, and Judges, respectively for the period July 2011 through March 2012 and 6.58%, 21.16%, 13.09%, and 42.58% for State, State Police, VaLORS, and Judges, respectively for April, May and June 2012.

(14) Contributions actually paid in FY 2013 and FY 2014 were 8.76%, 11.66%, 24.74%, 14.80% and 45.44% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(15) Contributions actually paid in FY 2015 were 12.33%, 14.50%, 25.82%, 17.67% and 51.66% for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(16) Contributions actually paid in July 2015 were 12.33%, 14.06%, 25.82%, 17.67% and 49.62% for State, School Teachers, State Police, VaLORS, and Judges, respectively. Contributions actually paid in August 2015 were 13.28%, 14.06%, 26.83%, 18.34% and 49.82% for State, School Teachers, State Police, VaLORS, and Judges, respectively. Contributions actually paid in September 2015 through June 2016 were 14.22%, 14.06%, 27.83%, 19.00% and 50.02%, for State, School Teachers, State Police, VaLORS, and Judges, respectively.

(17) Contributions actually paid in FY 2017 were 14.66% for School Teachers. For FY 2018, Teacher contributions were paid at 100% of the actuarial requirements 16.32%. Other groups paid employer contributions at 100% of actuarial requirements for both FY 2017 and FY 2018.

(18) Contributions for all employer groups were 100% of the actuarially determined rate from the June 30, 2017 actuarial valuation.

Source: Virginia Retirement System.

Effective October 1, 1983, the Commonwealth assumed the 5 percent employee contribution previously paid by its employees who are members of the VRS, SPORS, VaLORS and JRS. The total contribution rate actually being paid by the Commonwealth for Commonwealth employees, state police officers, state law enforcement and correctional officers other than state police officers, and judges through the 2010 fiscal year is, therefore, higher by that amount than what is shown in the summary. Effective July 1, 2011, Commonwealth employees (except elected officials), state police officers, and state law enforcement and correctional officers other than state police officers began paying the 5% employee contribution through payroll deduction.

The latest valuations of the pension plans were performed by Cavanaugh Macdonald Consulting, LLC under the provisions of the new Government Accounting Standards Board (GASB) Statement No. 67 using June 30, 2018 data, rolled forward to June 30, 2019. The plan fiduciary net position as a percentage of the total pension liability was 75.13% for the VRS state plan, 73.51% for the VRS teacher plan, 87.82% for the aggregate total of the VRS political subdivision plans, 73.52% for SPORS, 68.31% for VaLORS and 82.16% for JRS. The calculations reflect an assumed rate of return on investments of 6.75%. For further discussion of the funding of the pension programs, see "Retirement and Pension Systems" in the Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2019

Investments Allocations and Returns. The target asset allocation is set by the Board of Trustees, with no legal limit imposed by the General Assembly. The actual allocation takes into account that private market investments are made gradually in order to prudently reach the target level over multiple years. Amounts not yet invested in private markets are currently allocated to public equity and fixed income.

Asset Allocation

	Actual allocation as of 06/30/2019	Target allocation range
Public Equity	34.0%	29 - 39%
Credit Strategies	14.0	9 - 19%
Fixed Income	15.0	15 - 20%
Real Assets	14.0	9 - 19%
Private Equity	14.0	9 - 19%
MAPS – Multi-Asset Public Strategies	6.0	5 - 7%
PIP – Private Investment Partnership	3.0	2 - 4%
Total	100.0%	

Source: Virginia Retirement System.

As of June 30, 2019, the historical rates of return (on an unaudited basis, expressed in percentages and net of fees) on the System's investments are as follows:

	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Total VRS Fund	6.7%	8.8%	6.5%	9.4%

Source: Virginia Retirement System.

The System's rate of return on investments during the fiscal year ended June 30, 2019, was 6.7% compared to a return of 7.5% for the fiscal year ending June 30, 2018. The decrease was due primarily to the performance of the public equity investments in the portfolio.

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SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY BY SYSTEM AND PLAN
AS OF MEASUREMENT DATE OF JUNE 30, 2019
(DOLLARS IN THOUSANDS)

	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Employers' Net Position Liability/(Asset) (a-b)	Plan Fiduciary Net Pension as a % of the Total Pension Liability (b/a)	Covered Payroll (c)	Net Pension Liability/(Asset) as a % of the Covered Payroll (a-b)/(c)
Virginia Retirement System:						
State	$ 25,4909,842	$ 19,090,110	$ 6,319,732	75.13%	$ 4,197,484	150.56%
Teacher	49,683,336	36,522,769	13,160,567	73.51%	8,387,503	156.91%
Political Subdivision *	24,206,763	21,259,032	2,947,731	87.82%	5,118,622	57.59%
Total Virginia Retirement System	**99,299,941**	**76,871,911**	**22,428,030**		**17,703,609**	
State Police Officers' Retirement System	1,176,937	865,273	311,664	73.52%	126,483	246.41%
Virginia Law Officers' Retirement System	2,190,025	1,495,990	694,035	68.31%	349,998	198.30%
Judicial Retirement System	678,573	557,541	121,052	82.16%	68,330	177.16%
Grand Total	**$ 103,345,496**	**$ 79,790,715**	**$ 23,554,781**	**77.21%**	**%18,248,420**	**129.08%**

** Political subdivision data is from the consolidated report provided by Cavanaugh Macdonald Consulting, Inc.*
Source: Virginia Retirement System.

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REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY: VIRGINIA RETIREMENT SYSTEM – STATE

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	VRS State		
	2019	2018	2017
Total pension liability:			
Service cost	$ 379,359	$ 375,965	$ 370,235
Interest	1,627,637	1,606,772	1,562,819
Benefit changes	—	—	—
Difference between actual and expected experience	181,189	(327,289)	(85,975)
Assumption changes	663,566	—	76,965
Benefit payments	(1,360,833)	(1,296,803)	(1,234,388)
Refunds of contributions	(26,897)	(30,236)	(30,837)
Net change in total pension liability	1,464,021	328,409	658,819
Total pension liability – beginning	**23,945,821**	**23,617,412**	**22,958,593**
Total pension liability – ending (a)	**$ 25,409,842**	**$ 23,945,821**	**$ 23,617,412**
Plan fiduciary net position:			
Contributions – employer	$ 545,584	$ 548,158	$ 535,424
Contributions – member	201,481	201,920	201,391
Net investment income	1,211,722	1,302,241	1,963,811
Benefit payments	(1,360,833)	(1,296,803)	(1,234,388)
Refunds of contributions	(26,897)	(30,236)	(30,837)
Administrative expense	(12,374)	(11,481)	(11,612)
Other	(762)	28,502	(1,743)
Net change in plan fiduciary net position	557,921	742,301	1,422,046
Plan fiduciary net position – beginning	**18,532,189**	**17,789,888**	**16,367,842**
Plan fiduciary net position – ending (b)	**$ 19,090,110**	**$ 18,532,189**	**$ 17,789,888**
Net pension liability – ending (a-b)	**$ 6,319,732**	**$ 5,413,632**	**$ 5,827,524**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	75.13 %	77.39%	75.33%
Covered payroll (c)	$ 4,197,484	$ 4,152,368	$ 4,020,893
Net pension liability as a percentage of covered payroll ((a-b)/c)	150.56 %	130.37%	144.93%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY:
VIRGINIA RETIREMENT SYSTEM – STATE, continued

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	VRS State		
	2016	2015	2014
Total pension liability:			
Service cost	$ 369,779	$ 375,149	$ 369,120
Interest	1,533,764	1,482,951	1,436,064
Benefit changes	—	—	—
Difference between actual and expected experience	(245,642)	59,923	—
Assumption changes	—	—	—
Benefit payments	(1,195,198)	(1,136,102)	(1,081,866)
Refunds of contributions	(25,240)	(27,724)	(25,036)
Net change in total pension liability	437,463	754,197	698,282
Total pension liability – beginning	**22,521,130**	**21,766,933**	**21,068,651**
Total pension liability – ending (a)	**$ 22,958,593**	**$ 22,521,130**	**$ 21,766,933**
Plan fiduciary net position:			
Contributions – employer	$ 722,617	$ 480,657	$ 343,259
Contributions – member	200,184	195,582	198,035
Net investment income	277,166	728,083	2,243,999
Benefit payments	(1,195,198)	(1,136,102)	(1,081,866)
Refunds of contributions	(25,240)	(27,724)	(25,036)
Administrative expense	(10,140)	(10,302)	(12,341)
Other	(122)	(154)	123
Net change in plan fiduciary net position	(30,733)	230,040	1,666,173
Plan fiduciary net position – beginning	**16,398,575**	**16,168,535**	**14,502,362**
Plan fiduciary net position – ending (b)	**$ 16,367,842**	**$ 16,398,575**	**$ 16,168,535**
Net pension liability – ending (a-b)	**$ 6,590,751**	**$ 6,122,555**	**$ 5,598,398**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	71.29%	72.81%	74.28%
Covered payroll (c)	$ 3,977,759	$ 3,878,632	$ 3,861,712
Net pension liability as a percentage of covered payroll ((a-b)/c)	165.69%	157.85%	144.97%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY:
VIRGINIA RETIREMENT SYSTEM – TEACHER

FOR THE PLAN YEARS ENDED JUNE 30

(EXPRESSED IN THOUSANDS)

	VRS Teacher		
	2019	2018	2017
Total pension liability:			
Service cost	$ 889,003	$ 885,510	$ 830,475
Interest	3,184,697	3,099,338	3,016,207
Benefit changes	—	—	—
Difference between actual and expected experience	(174,815)	(440,308)	(642,745)
Assumption changes	1,472,649	—	218,559
Benefit payments	(2,331,038)	(2,241,927)	(2,147,781)
Refunds of contributions	(36,715)	(40,578)	(39,521)
Net change in total pension liability	3,003,781	1,262,035	1,235,194
Total pension liability – beginning	**46,679,555**	**45,417,520**	**44,182,326**
Total pension liability – ending (a)	**$ 49,683,336**	**$ 46,679,555**	**$ 45,417,520**
Plan fiduciary net position:			
Contributions – employer	$ 1,280,964	$ 1,292,988	$ 1,137,976
Contributions – member	403,258	391,490	392,730
Net investment income	2,311,028	2,421,157	3,632,291
Benefit payments	(2,331,038)	(2,241,927)	(2,147,781)
Refunds of contributions	(36,715)	(40,578)	(39,521)
Administrative expense	(22,843)	(20,945)	(21,123)
Other	(1,448)	(2,167)	(3,238)
Net change in plan fiduciary net position	1,603,206	1,800,018	2,951,334
Plan fiduciary net position – beginning	**34,919,563**	**33,119,545**	**30,168,211**
Plan fiduciary net position – ending (b)	**$ 36,522,769**	**$ 34,919,563**	**$ 33,119,545**
Net pension liability – ending (a-b)	**$ 13,160,567**	**$ 11,759,992**	**$ 12,297,975**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	73.51%	74.81%	72.92%
Covered payroll (c)	$ 8,387,503	$ 8,086,986	$ 7,891,783
Net pension liability as a percentage of covered payroll ((a-b)/c)	156.91%	145.42%	155.83%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY:
VIRGINIA RETIREMENT SYSTEM – TEACHER, continued

FOR THE PLAN YEARS ENDED JUNE 30

(EXPRESSED IN THOUSANDS)

	VRS Teacher		
	2016	2015	2014
Total pension liability:			
Service cost	$ 828,856	$ 828,901	$ 831,501
Interest	2,931,065	2,834,138	2,722,788
Benefit changes	—	—	—
Difference between actual and expected experience	(391,881)	(212,089)	—
Assumption changes	—	—	—
Benefit payments	(2,081,069)	(1,980,353)	(1,874,636)
Refunds of contributions	(35,067)	(36,058)	(36,103)
Net change in total pension liability	1,251,904	1,434,539	1,643,550
Total pension liability – beginning	**42,930,422**	**41,495,883**	**39,852,333**
Total pension liability – ending (a)	**$ 44,182,326**	**$ 42,930,422**	**$ 41,495,883**
Plan fiduciary net position:			
Contributions – employer	$ 1,062,338	$ 1,267,250	$ 853,634
Contributions – member	380,314	373,525	371,241
Net investment income	516,704	1,327,047	4,042,441
Benefit payments	(2,081,069)	(1,980,353)	(1,874,636)
Refunds of contributions	(35,067)	(36,058)	(36,103)
Administrative expense	(18,859)	(18,238)	(22,036)
Other	(222)	(284)	217
Net change in plan fiduciary net position	(175,861)	932,889	3,334,758
Plan fiduciary net position – beginning	**30,344,072**	**29,411,183**	**26,076,425**
Plan fiduciary net position – ending (b)	**$ 30,168,211**	**$ 30,344,072**	**$ 29,411,183**
Net pension liability – ending (a-b)	**$ 14,014,115**	**$ 12,586,350**	**$ 12,084,700**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	68.28%	70.68%	70.88%
Covered payroll (c)	$ 7,624,612	$ 7,434,932	$ 7,313,025
Net pension liability as a percentage of covered payroll ((a-b)/c)	183.80%	169.29%	165.25%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY:
VIRGINIA RETIREMENT SYSTEM – POLITICAL SUBDIVISIONS

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	VRS Political Subdivisions		
	2019	2018	2017
Total pension liability:			
Service cost	$ 556,149	$ 544,762	$ 541,594
Interest	1,535,532	1,472,680	1,422,753
Benefit changes	3,948	10,811	36,652
Difference between actual and expected experience	45,032	(43,177)	(205,649)
Assumption changes	691,407	—	(64,510)
Benefit payments	(1,082,791)	(1,010,021)	(941,856)
Refunds of contributions	(40,249)	(41,324)	(42,068)
Net change in total pension liability	1,709,028	933,731	746,916
Total pension liability – beginning	**22,497,735**	**21,564,004**	**20,817,088**
Total pension liability – ending (a)	**$ 24,206,763**	**$ 22,497,735**	**$ 21,564,004**
Plan fiduciary net position:			
Contributions – employer	$ 499,293	$ 490,286	$ 477,563
Contributions – member	248,421	241,339	238,636
Net investment income	1,345,759	1,415,454	2,113,973
Benefit payments	(1,082,791)	(1,010,021)	(941,856)
Refunds of contributions	(40,249)	(41,324)	(42,068)
Administrative expense	(13,369)	(12,236)	(12,220)
Other	(853)	(30,924)	(1,887)
Net change in plan fiduciary net position	956,211	1,052,574	1,832,141
Plan fiduciary net position – beginning	**20,302,821**	**19,250,247**	**17,418,106**
Plan fiduciary net position – ending (b)	**$ 21,259,032**	**$ 20,302,821**	**$ 19,250,247**
Net pension liability – ending (a-b)	**$ 2,947,731**	**$ 2,194,914**	**$ 2,313,757**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	87.82%	90.24%	89.27%
Covered payroll (c)	$ 5,118,622	$ 4,932,344	$ 4,765,842
Net pension liability as a percentage of covered payroll ((a-b)/c)	57.59%	44.50%	48.55%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY:
VIRGINIA RETIREMENT SYSTEM – POLITICAL SUBDIVISIONS, continued

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	VRS Political Subdivisions		
	2016	2015	2014
Total pension liability:			
Service cost	$ 535,322	$ 530,945	$ 524,758
Interest	1,362,892	1,309,484	1,243,386
Benefit changes	2,053	1,135	—
Difference between actual and expected experience	(87,268)	(185,419)	—
Assumption changes	—	—	—
Benefit payments	(893,585)	(819,201)	(754,706)
Refunds of contributions	(37,380)	(36,898)	(36,876)
Net change in total pension liability	882,034	800,046	976,562
Total pension liability – beginning	**19,935,054**	**19,135,008**	**18,158,446**
Total pension liability – ending (a)	**$ 20,817,088**	**$ 19,935,054**	**$ 19,135,008**
Plan fiduciary net position:			
Contributions – employer	$ 543,947	$ 533,877	$ 539,366
Contributions – member	231,934	227,060	225,555
Net investment income	300,995	761,164	2,272,284
Benefit payments	(893,585)	(819,201)	(754,706)
Refunds of contributions	(37,380)	(36,898)	(36,876)
Administrative expense	(10,696)	(10,358)	(12,153)
Other	(130)	(162)	120
Net change in plan fiduciary net position	135,085	655,482	2,233,590
Plan fiduciary net position – beginning	**17,283,021**	**16,627,539**	**14,393,949**
Plan fiduciary net position – ending (b)	**$ 17,418,106**	**$ 17,283,021**	**$ 16,627,539**
Net pension liability – ending (a-b)	**$ 3,398,982**	**$ 2,652,033**	**$ 2,507,469**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	83.67%	86.70%	86.90%
Covered payroll (c)	$ 4,628,806	$ 4,513,335	$ 4,434,764
Net pension liability as a percentage of covered payroll ((a-b)/c)	73.43%	58.76%	56.54%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY:
STATE POLICE OFFICERS' RETIREMENT SYSTEM (SPORS)

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	SPORS					
	2019	2018	2017	2016	2015	2014
Total pension liability:						
Service cost	$ 20,079	$ 18,187	$ 18,880	$ 18,700	$ 18,847	$ 18,341
Interest	72,715	71,251	74,042	72,618	70,350	67,978
Benefit changes	—	—	—	—	—	—
Difference between actual and expected	45,330	(7,248)	(5,327)	(14,711)	(2,890)	—
Assumption changes	31,773	—	(68,707)	—	—	—
Benefit payments	(62,683)	(58,197)	(57,814)	(53,515)	(53,338)	(50,467)
Refunds of contributions	(805)	(867)	(630)	(584)	(375)	(685)
Net change in total pension liability	106,409	23,126	(39,556)	22,508	32,594	35,167
Total pension liability – beginning	**1,070,528**	**1,047,402**	**1,086,958**	**1,064,450**	**1,031,856**	**996,689**
Total pension liability – ending (a)	**$ 1,176,937**	**$ 1,070,528**	**$ 1,047,40**	**$ 1,086,95**	**$ 1,064,45**	**$ 1,031,856**
Plan fiduciary net position:						
Contributions – employer	$ 31,437	$ 35,806	$ 31,888	$ 33,655	$ 28,427	$ 42,683
Contributions – member	6,379	6,311	5,701	5,759	5,680	5,646
Net investment income	54,792	58,148	87,265	12,634	32,466	98,682
Benefit payments	(62,683)	(58,197)	(57,814)	(53,515)	(53,338)	(50,467)
Refunds of contributions	(805)	(867)	(630)	(584)	(375)	(685)
Administrative expense	(488)	(509)	(926)	(590)	(471)	(431)
Other	(61)	(63)	(99)	(23)	(27)	—
Net change in plan fiduciary net position	28,571	40,629	65,385	(2,664)	12,362	95,428
Plan fiduciary net position – beginning	**836,702**	**796,073**	**730,688**	**733,352**	**720,990**	**625,562**
Plan fiduciary net position – ending (b)	**$ 865,273**	**$ 836,702**	**$ 796,073**	**$ 730,688**	**$ 733,352**	**$ 720,990**
Net pension liability – ending (a-b)	**$ 311,664**	**$ 233,826**	**$ 251,329**	**$ 356,270**	**$ 331,098**	**$ 310,866**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	73.52%	78.16%	76.00%	67.22%	68.89%	69.87%
Covered payroll (c)	$ 126,483	$ 124,003	$ 111,395	$ 114,395	$ 110,059	$ 112,010
Net pension liability as a percentage of covered payroll ((a-b)/c)	246.41%	188.56%	225.62%	311.44%	300.84%	277.53%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY: VIRGINIA LAW OFFICERS' RETIREMENT SYSTEM (VaLORS)

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	VaLORS					
	2019	2018	2017	2016	2015	2014
Total pension liability:						
Service cost	$ 44,526	$ 45,179	$ 47,189	$ 45,608	$ 47,531	$ 46,504
Interest	139,307	136,289	135,453	129,756	124,579	119,040
Benefit changes	—	—	—	—	—	—
Difference between actual and expected	11,067	(26,111)	(1,457)	4,997	(4,849)	—
Assumption changes	62,090	—	(63,457)	—	—	—
Benefit payments	(109,193)	(104,776)	(96,224)	(92,270)	(84,990)	(78,412)
Refunds of contributions	(4,933)	(5,604)	(4,938)	(4,524)	(4,797)	(4,665)
Net change in total pension liability	142,864	44,977	16,566	83,567	77,474	82,467
Total pension liability – beginning	**2,047,161**	**2,002,184**	**1,985,618**	**1,902,051**	**1,824,577**	**1,742,110**
Total pension liability – ending (a)	**$ 2,190,02**	**$ 2,047,16**	**$ 2,002,18**	**$ 1,985,61**	**$ 1,902,05**	**$1,824,577**
Plan fiduciary net position:						
Contributions – employer	$ 75,327	$ 73,793	$ 73,816	$ 79,392	$ 62,084	$ 67,483
Contributions – member	17,871	17,496	17,598	17,574	17,081	17,908
Net investment income	93,872	98,292	146,039	20,899	52,312	156,786
Benefit payments	(109,193)	(104,776)	(96,224)	(92,270)	(84,990)	(78,412)
Refunds of contributions	(4,933)	(5,604)	(4,938)	(4,524)	(4,797)	(4,665)
Administrative expense	(831)	(861)	(1,540)	(940)	(743)	(681)
Other	(103)	(247)	(310)	(38)	(44)	—
Net change in plan fiduciary net position	72,010	78,093	134,441	20,093	40,903	158,419
Plan fiduciary net position – beginning	**1,423,980**	**1,345,887**	**1,211,446**	**1,191,353**	**1,150,450**	**992,031**
Plan fiduciary net position – ending (b)	**$ 1,495,99**	**$ 1,423,98**	**$ 1,345,88**	**$ 1,211,44**	**$ 1,191,35**	**$1,150,450**
Net pension liability – ending (a-b)	**$ 694,035**	**$ 623,181**	**$ 656,297**	**$ 774,172**	**$ 710,698**	**$ 674,127**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	68.31%	69.56%	67.22%	61.01%	62.64%	63.05%
Covered payroll (c)	$ 349,998	$ 345,531	$ 344,468	$ 345,504	$ 338,562	$ 352,492
Net pension liability as a percentage of covered payroll ((a-b)/c)	198.30%	180.35%	190.52%	224.07%	209.92%	191.25%

Note: This schedule should present 10 years of data; however, the information prior to fiscal year 2014 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET PENSION LIABILITY:
JUDICIAL RETIREMENT SYSTEM

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	JRS					
	2019	2018	2017	2016	2015	2014
Total pension liability:						
Service cost	$ 18,767	$ 19,228	$ 22,144	$ 21,978	$ 23,254	$ 24,024
Interest	44,139	43,799	42,081	42,820	41,759	40,013
Benefit changes	—	—	—	(15,552)	—	—
Difference between actual and expected	(7,157)	(15,786)	(14,774)	(18,681)	(9,107)	—
Assumption changes	14,077	—	16,114	—	—	—
Benefit payments	(43,584)	(41,165)	(40,895)	(41,341)	(40,205)	(37,984)
Refunds of contributions	—	—	—	—	—	—
Net change in total pension liability	26,242	6,076	24,670	(10,776)	15,701	26,053
Total pension liability – beginning	**652,351**	**646,275**	**621,605**	**632,381**	**616,680**	**590,627**
Total pension liability – ending (a)	**$ 678,593**	**$ 652,351**	**$ 646,275**	**$ 621,605**	**$ 632,381**	**$ 616,680**
Plan fiduciary net position:						
Contributions – employer	$ 22,890	$ 28,096	$ 27,612	$ 41,502	$ 31,503	$ 27,727
Contributions – member	3,208	3,231	3,272	3,236	3,015	3,051
Net investment income	35,372	37,466	56,029	8,112	20,051	60,833
Benefit payments	(43,584)	(41,165)	(40,895)	(41,341)	(40,205)	(37,984)
Refunds of contributions	—	—	—	—	—	—
Administrative expense	(315)	(326)	(594)	(363)	(283)	(268)
Other	(39)	(42)	(64)	(15)	(17)	—
Net change in plan fiduciary net position	17,532	27,260	45,360	11,131	14,064	53,359
Plan fiduciary net position – beginning	**540,009**	**512,749**	**467,389**	**456,258**	**442,194**	**388,835**
Plan fiduciary net position – ending (b)	**$ 557,541**	**$ 540,009**	**$ 512,749**	**$ 467,389**	**$ 456,258**	**$ 442,194**
Net pension liability – ending (a-b)	**$ 121,052**	**$ 112,342**	**$ 133,526**	**$ 154,216**	**$ 176,123**	**$ 174,486**
Plan fiduciary net position as a percentage of the total pension liability (b/a)	82.16%	82.78%	79.34%	75.19%	72.15%	71.71%
Covered payroll (c)	$ 68,330	$ 68,245	$ 66,826	$ 66,621	$ 61,092	$ 61,020
Net pension liability as a percentage of covered payroll ((a-b)/c)	177.16%	164.62%	199.81%	231.48%	288.29%	285.95%

Note: This schedule should present 10 years of data, however, the information prior to fiscal year 2014 is not available.

In addition to the defined benefit programs described above, the Commonwealth also makes contributions to a defined contribution retirement plan for political appointees. Contributions for this plan are based on 12.3% of each appointee's salary. At June 30, 2019, this plan had 372 accounts and total assets of approximately $17,100,768.

OTHER LONG-TERM LIABILITIES

Employee Benefits Other than Pension Benefits

Employees of the Commonwealth accrue annual leave at a rate of four to nine hours semi-monthly, depending on their length of service. The maximum accumulation is dependent on years of service, but in no case may it exceed 42 days. All employees hired after January 1, 1999, are required to enroll in the Virginia Sickness and Disability Program ("VSDP"). 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 calendar year revert. Individuals employed at January 1, 1999, had the option of converting to the VSDP or remaining in the original 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 original 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 percent of the value of their disability credits or accumulated sick leave at the current earnings rate or $5,000. All employees leaving State service are paid for accrued annual leave up to the maximum calendar year limit at their current earnings rate.

The VSDP was established for all full-time, classified state employees, including state police officers, and other state law enforcement and correctional officers. Part-time, classified state employees who work at least 20 hours per week on a salaried basis and who accrue leave are also covered. After a seven calendar-day waiting period following the first incident of disability, the VSDP provides short-term disability benefits from 60% to 100% of compensation up to a maximum of 125 work days. After a 180 calendar day waiting period, eligible employees receive long-term disability benefits equal to 60% of compensation until they return to work, until age 65 (age 60 for state police officers and other state law enforcement and correctional officers), or until death. Eligibility periods for non-work related disability coverage and certain income replacement levels apply for employees hired on or after July 1, 2009.

In addition to providing pension benefits, the Commonwealth provides life insurance for active and retired employees and a retiree health insurance credit to offset a portion of the cost of health insurance premiums for qualifying state retirees under VRS, SPORS, JRS and VaLORS. The estimated costs of these benefits are funded over the working lives of the employees through employer contributions and investment income.

Self-Insurance

The Commonwealth provides several types of self-insurance for the benefit of state agencies and institutions. The Department of the Treasury, Division of Risk Management, administers self-insurance programs for general (tort) liability, medical malpractice and automobile liability. The Department of Human Resource Management administers the state employee health care self-insurance fund. At June 30, 2019, $884.0 million was reported as the combined estimated claims payable for self-insurance.

Medicaid Payable

The Department of Medical Assistance Services estimates, based on past experience, the total amount of claims that will be paid from the Medicaid program in the future that relate to services provided before year end. At June 30, 2019, the estimated liability related to normal operations totaled $1.6 billion. Of this amount, $469.5 million is reflected in the General Fund, $963.7 million in the Federal Trust Special Revenue Fund and $128.7 million in the Health and Social Services Fund (nonmajor special revenue).

For a more detailed explanation of Other Long-Term Liabilities, see "Notes to the Financial Statements" in The Commonwealth Annual Financial Report for the Fiscal Year Ended June 30, 2019.

Other Post-Employment Benefits (OPEB) – Financial Statement Reporting

The Commonwealth currently has five postemployment benefit programs other than the retirement plans described above ("OPEB Programs"). They are: Retiree Health Insurance Credit, Group Life Insurance, Virginia Sickness and Disability Plan, Pre-Medicare Retiree Health Insurance Program and Line of Duty Death and Health Insurance Benefit.

The Governmental Accounting Standards Board (GASB) issued accounting and reporting standards for other postemployment benefits. The VRS implemented GASB Statement No. 74, *Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans*, in their published financial statements for the fiscal year ended June 30, 2017. The Commonwealth, as an employer, implemented GASB Statement No. 75, *Accounting and Financial Reporting for Post-Employment Benefits Other Than Pensions* for the fiscal year ended June 30, 2018. Updated data has been included by VRS and the Commonwealth in their reports for subsequent fiscal years.

SCHEDULE OF EMPLOYERS' NET OPEB LIABILITY BY PROGRAM AND PLAN

AS OF JUNE 30, 2019 (EXPRESSED IN THOUSANDS)

	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Employers' Net OPEB Liability/ (Asset) (a-b)	Plan Fiduciary Net OPEB as a % of the Total OPEB Liability (b/a)	Covered Payroll (c)	Net OPEB Liability/ (Asset) as a % of the Covered Payroll (a-b)/(c)
Group Life Insurance Fund	**$ 3,390,238**	**$ 1,762,972**	**$ 1,627,266**	**52.00%**	**$ 19,633,771**	**8.29%**
Health Insurance Credit Fund:						
State	1,032,094	109,023	923,071	10.56%	6,844,807	13.49%
Teacher	1,438,114	129,016	1,309,098	8.97%	8,387,684	15.61%
Political Subdivisions*	42,677	24,468	18,209	57.33%	1,081,702	1.68%
Constitutional Officers	31,356	4,479	26,877	14.28%	682,376	3.94%
Social Services Employees	14,730	2,273	12,457	15.43%	279,503	4.46%
Registrars	590	87	503	14.75%	11,770	4.27%
Total Health Insurance Credit	**2,559,561**	**269,346**	**2,290,215**		**17,287,842**	
Disability Insurance Trust Fund	**292,046**	**488,241**	**(196,195)**	**167.18%**	**4,077,627**	**-4.81%**
Virginia Local Disability Program:						
Teacher	2241	1661	580	74.12%	479,535	0.12%
Political Subdivisions	3989	1962	2027	49.19%	309,020	0.66%
Total Virginia Local Disability Program	**6,230**	**3623**	**2,607**		**788,555**	
Line of Duty Act Trust Fund	**361,626**	**2,839**	**358,787**	**0.79%**	******	**N/A**
Grand Total	**$ 6,609,701**	**$ 2,527,021**	**$ 4,082,680**		**$ 41,787,795**	

** Political subdivision data is from the consolidated report provided by Cavanaugh Macdonald Consulting LLC.*

*** Contributions into the Line of Duty Act Trust Fund are based on the number of participants in the program using a per capita-based contribution versus a payroll-based contribution.*

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

Change in the Net OPEB Liability	Group Life Insurance Fund 2019	Group Life Insurance Fund 2018	Group Life Insurance Fund 2017
Total OPEB liability:			
Service cost	$ 86,912	$ 84,355	$ 81,479
Interest	210,950	198,960	201,770
Changes in benefit terms	—	—	—
Difference between actual and expected experience	56,736	88,052	(39,461)
Changes of assumptions	122,011	—	(91,738)
Benefit payments	(199,879)	(200,285)	(184,092)
Net change in total OPEB liability	276,730	171,082	(32,042)
Total OPEB liability – beginning	**3,113,508**	**2,942,426**	**2,974,468**
Total OPEB liability – ending (a)	**$ 3,390,238**	**$ 3,113,508**	**$ 2,942,426**
Plan fiduciary net position:			
Contributions – employer	$ 102,175	$ 98,530	$ 94,082
Contributions – member	155,153	150,402	146,002
Net investment income	113,440	110,917	158,430
Benefit payments	(199,879)	(200,285)	(184,092)
Administrative expense	(709)	(664)	(31)
Other	(1,981)	(1,713)	(1,731)
Net change in plan fiduciary net position	168,199	157,187	212,660
Plan fiduciary net position – beginning	**1,594,773**	**1,437,586**	**1,224,926**
Plan fiduciary net position – ending (b)	**$ 1,762,972**	**$ 1,594,773**	**$ 1,437,586**
Net OPEB liability – ending (a-b)	**$ 1,627,266**	**$ 1,518,735**	**$ 1,504,840**
Plan fiduciary net position as a percentage of the total OPEB liability	52.00%	51.22%	48.86%
Covered employee payroll (c)	$ 19,633,771	$ 19,044,361	$ 18,473,085
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	8.29%	7.97%	8.15%

Note: The information prior to 2017 is unavailable.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

Change in the Net OPEB Liability	Disability Insurance Trust Fund 2019	Disability Insurance Trust Fund 2018	Disability Insurance Trust Fund 2017
Total OPEB liability:			
Service cost	$ 29,232	$ 27,527	$ 27,884
Interest	15,788	15,503	15,810
Changes in benefit terms	—	—	—
Difference between actual and expected experience	29,489	(11,237)	—
Changes of assumptions	4,180	—	(17,511)
Benefit payments	(24,376)	(31,073)	(30,056)
Net change in total OPEB liability	54,313	720	(3,873)
Total OPEB liability – beginning	**237,733**	**237,013**	**240,886**
Total OPEB liability – ending (a)	**$ 292,046**	**$ 237,733**	**$ 237,013**
Plan fiduciary net position:			
Contributions – employer	$ 25,263	$ 27,260	$ 24,130
Contributions – member	—	—	—
Net investment income	30,494	32,073	48,206
Benefit payments	(24,376)	(31,073)	(30,056)
Third-party administrator charges	(6,431)	(6,637)	(7,001)
Administrative expense	(787)	(961)	(717)
Other	1,117	(35)	(54)
Net change in plan fiduciary net position	25,280	20,627	34,508
Plan fiduciary net position – beginning	**462,961**	**442,334**	**407,826**
Plan fiduciary net position – ending (b)	**$ 488,241**	**$ 462,961**	**$ 442,334**
Net OPEB liability – ending (a-b)	**$ (196,195)**	**$ (225,228)**	**$ (205,321)**
Plan fiduciary net position as a percentage of the total OPEB liability	167.18%	194.74%	186.63%
Covered employee payroll (c)	$ 4,077,627	$ 3,972,637	$ 3,799,590
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	(4.81)%	(5.67)%	(5.40)%

Note: The information prior to 2017 is unavailable.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	Virginia Local Disability Program		
Change in the Net OPEB Liability	Teachers 2019	Teachers 2018	Teachers 2017
Total OPEB liability:			
Service cost	$ 871	$ 668	$ 389
Interest	92	57	29
Changes in benefit terms	—	—	—
Difference between actual and expected experience	(19)	(66)	—
Changes of assumptions	63	—	53
Benefit payments	(167)	(131)	(36)
Net change in total OPEB liability	840	528	435
Total OPEB liability – beginning	**1,401**	**873**	**438**
Total OPEB liability – ending (a)	**$ 2,241**	**$ 1,401**	**$ 873**
Plan fiduciary net position:			
Contributions – employer	$ 1,966	$ 1,160	$ 589
Contributions – member	—	—	—
Net investment income	83	29	0
Benefit payments	(167)	(131)	(36)
Third-party administrator charges	(829)	(794)	(484)
Administrative expense	(39)	(76)	(84)
Other	0	180	294
Net change in plan fiduciary net position	1,014	368	279
Plan fiduciary net position – beginning	**647**	**279**	**0**
Plan fiduciary net position – ending (b)	**$ 1,661**	**$ 647**	**$ 279**
Net OPEB liability – ending (a-b)	**$ 580**	**$ 754**	**$ 594**
Plan fiduciary net position as a percentage of the total OPEB liability	74.12%	46.18%	31.96%
Covered employee payroll (c)	$ 479,535	$ 372,869	282,200
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	0.12%	0.20%	0.21%

Note: The information prior to 2017 is unavailable.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

(EXPRESSED IN THOUSANDS)

	Virginia Local Disability Program		
Change in the Net OPEB Liability	Political Subdivisions 2019	Political Subdivisions 2018	Political Subdivisions 2017
Total OPEB liability:			
Service cost	$ 1,191	$ 876	$ 664
Interest	105	58	25
Changes in benefit terms	—	—	—
Difference between actual and expected experience	1,224	(95)	—
Changes of assumptions	69	—	(110)
Benefit payments	(188)	(165)	(44)
Net change in total OPEB liability	2,401	674	535
Total OPEB liability – beginning	**1,588**	**914**	**379**
Total OPEB liability – ending (a)	**$ 3,989**	**$ 1,588**	**$ 914**
Plan fiduciary net position:			
Contributions – employer	$ 2,226	$ 1,463	$ 740
Contributions – member	—	—	—
Net investment income	93	36	—
Benefit payments	(188)	(165)	(44)
Third-party administrator charges	(940)	(1,000)	(609)
Administrative expense	(45)	(96)	(106)
Other	0	227	370
Net change in plan fiduciary net position	1,146	465	351
Plan fiduciary net position – beginning	**816**	**351**	**—**
Plan fiduciary net position – ending (b)	**$ 1,962**	**$ 816**	**$ 351**
Net OPEB liability – ending (a-b)	**$ 2,027**	**$ 772**	**$ 563**
Plan fiduciary net position as a percentage of the total OPEB liability	49.19%	51.39%	38.40%
Covered employee payroll (c)	309,020	242,807	183,629
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	0.66%	0.32%	0.31%

Note: The information prior to 2017 is unavailable.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

(EXPRESSED IN THOUSANDS)

Change in the Net OPEB Liability	Line of Duty Trust Fund 2019	Line of Duty Trust Fund 2018	Line of Duty Trust Fund 2017
Total OPEB liability:			
Service cost	$ 13,292	$ 15,197	$ 17,648
Interest	12,019	9,258	8,305
Changes in benefit terms	—	—	—
Difference between actual and expected experience	14,833	51,048	—
Changes of assumptions	18,941	(13,962)	(30,500)
Benefit payments	(12,854)	(12,398)	(10,255)
Net change in total OPEB liability	46,231	49,143	(14,802)
Total OPEB liability – beginning	**315,395**	**266,252**	**281,054**
Total OPEB liability – ending (a)	**$ 361,626**	**$ 315,395**	**$ 266,252**
Plan fiduciary net position:			
Contributions – employer	$ 13,377	$ 10,035	$ 11,024
Contributions – member	—	—	—
Net investment income	277	678	683
Benefit payments	(12,854)	(12,398)	(10,255)
Administrative expense	(508)	(742)	(1,283)
Other	658	855	584
Net change in plan fiduciary net position	950	(1,572)	753
Plan fiduciary net position – beginning	**1,889**	**3,461**	**2,708**
Plan fiduciary net position – ending (b)	**$ 2,839**	**$ 1,889**	**$ 3,461**
Net OPEB liability – ending (a-b)	**$ 358,787**	**$ 313,506**	**$ 262,791**
Plan fiduciary net position as a percentage of the total OPEB	0.79 %	0.60 %	1.30 %
Covered employee payroll (c)	*	*	*
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	N/A	N/A	N/A

** Contributions to the Line of Duty Trust Fund are based on the number of participants in the program using a per-capita-based contribution versus a payroll-based contribution. Note: The information prior to 2017 is unavailable.*

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	Health Insurance Credit		
Change in the Net OPEB Liability	State 2019	State 2018	State 2017
Total OPEB liability:			
Service cost	$ 19,446	$ 19,645	$ 19,231
Interest	68,023	66,883	66,641
Changes in benefit terms	—	—	—
Difference between actual and expected experience	(13,402)	745	—
Changes of assumptions	22,700	—	(12,229)
Benefit payments	(72,857)	(69,117)	(71,256)
Net change in total OPEB liability	23,910	18,156	2,387
Total OPEB liability – beginning	**1,008,184**	**990,028**	**987,641**
Total OPEB liability – ending (a)	**$ 1,032,094**	**$ 1,008,184**	**$ 990,028**
Plan fiduciary net position:			
Contributions – employer	$ 79,926	$ 79,416	$ 75,058
Net investment income	6,189	5,706	7,706
Benefit payments	(72,857)	(69,117)	(71,256)
Administrative expense	(135)	(149)	(131)
Other	(8)	536	(546)
Net change in plan fiduciary net position	13,115	16,392	10,831
Plan fiduciary net position –beginning	**95,908**	**79,516**	**68,685**
Plan fiduciary net position – ending (b)	**$ 109,023**	**$ 95,908**	**$ 79,516**
Net OPEB liability – ending (a-b)	**$ 923,071**	**$ 912,276**	**$ 910,512**
Plan fiduciary net position as a percentage of the total OPEB liability (b/a)	10.56%	9.51%	8.03%
Covered employee payroll (c)	$ 6,844,807	$ 6,764,917	$ 6,489,069
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	13.49%	13.49%	14.03%

Note: The information prior to fiscal year 2017 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

FOR THE PLAN YEARS ENDED JUNE 30 (EXPRESSED IN THOUSANDS)

	Health Insurance Credit		
Change in the Net OPEB Liability	Teacher 2019	Teacher 2018	Teacher 2017
Total OPEB liability:			
Service cost	$ 20,979	$ 20,887	$ 20,351
Interest	93,526	92,399	91,661
Changes in benefit terms	—	—	—
Difference between actual and expected experience	(2,397)	(7,255)	—
Changes of assumptions	35,148	—	(15,003)
Benefit payments	(90,455)	(89,420)	(83,510)
Net change in total OPEB liability	56,801	16,611	13,499
Total OPEB liability – beginning	**1,381,313**	**1,364,702**	**1,351,203**
Total OPEB liability – ending (a)	**$ 1,438,114**	**$ 1,381,313**	**$ 1,364,702**
Plan fiduciary net position:			
Contributions – employer	100,643	99,469	87,613
Net investment income	7,350	6,097	8,818
Benefit payments	(90,455)	(89,420)	(83,510)
Administrative expense	(152)	(152)	(120)
Other	(9)	(446)	436
Net change in plan fiduciary net position	17,377	15,548	13,237
Plan fiduciary net position – beginning	**$ 111,639**	**$ 96,091**	**$ 82,854**
Plan fiduciary net position – ending (b)	**$ 129,016**	**$ 111,639**	**$ 96,091**
Net OPEB liability – ending (a-b)	**$ 1,309,098**	**$ 1,269,674**	**$ 1,268,611**
Plan fiduciary net position as a percentage of the total OPEB liability (b/a)	8.97%	8.08%	7.04%
Covered employee payroll (c)	$ 8,387,684	$ 8,087,389	$ 7,892,011
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	15.61%	15.70%	16.07%

Note: The information prior to fiscal year 2017 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

(EXPRESSED IN THOUSANDS)

	Health Insurance Credit		
Change in the Net OPEB Liability	Political Subdivisions 2019	Political Subdivisions 2018	Political Subdivisions 2017
Total OPEB liability:			
Service cost	$ 997	$ 960	$ 972
Interest	2,721	2,644	2,618
Changes in benefit terms	—	—	—
Difference between actual and expected experience	964	339	—
Changes of assumptions	199	—	(1,015)
Benefit payments	(2,564)	(2,707)	(1,676)
Net change in total OPEB liability	2,317	1,236	899
Total OPEB liability – beginning	**40,360**	**39,124**	**38,225**
Total OPEB liability – ending (a)	**$ 42,677**	**$ 40,360**	**$ 39,124**
Plan fiduciary net position:			
Contributions – employer	$ 2,406	$ 2,291	$ 2,164
Net investment income	1,490	1,570	2,273
Benefit payments	(2,564)	(2,707)	(1,676)
Administrative expense	(32)	(37)	(37)
Other	(2)	(103)	111
Net change in plan fiduciary net position	1,298	1,014	2,835
Plan fiduciary net position – beginning	**23,170**	**22,156**	**19,321**
Plan fiduciary net position – ending (b)	**$ 24,468**	**$ 23,170**	**$ 22,156**
Net OPEB liability – ending (a-b)	**$ 18,209**	**$ 17,190**	**$ 16,968**
Plan fiduciary net position as a percentage of the total OPEB liability	57.33%	57.41%	56.63%
Covered employee payroll (c)	$ 1,081,702	$ 1,022,007	$ 966,611
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	1.68%	1.68%	1.76%

Note: The information prior to fiscal year 2017 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

(EXPRESSED IN THOUSANDS)

	Health Insurance Credit		
Change in the Net OPEB Liability	Constitutional Officers 2019	Constitutional Officers 2018	Constitutional Officers 2017
Total OPEB liability:			
Service cost	$ 687	$ 677	$ 671
Interest	2,010	1,913	1,890
Changes in benefit terms	—	—	—
Difference between actual and expected experience	98	569	—
Changes of assumptions	757	0	(578)
Benefit payments	(1,825)	(1,723)	(1,568)
Net change in total OPEB liability	1,727	1,436	415
Total OPEB liability – beginning	**29,629**	**28,193**	**27,778**
Total OPEB liability – ending (a)	**$ 31,356**	**$ 29,629**	**$ 28,193**
Plan fiduciary net position:			
Contributions – employer	$ 2,794	$ 2,378	$ 2,320
Net investment income	238	183	215
Benefit payments	(1,825)	(1,723)	(1,568)
Administrative expense	(6)	(4)	(4)
Other	0	17	(15)
Net change in plan fiduciary net position	1,201	851	948
Plan fiduciary net position – beginning	**3,278**	**2,427**	**1,479**
Plan fiduciary net position – ending (b)	**$ 4,479**	**$ 3,278**	**$ 2,427**
Net OPEB liability – ending (a-b)	**$ 26,877**	**$ 26,351**	**$ 25,766**
Plan fiduciary net position as a percentage of the total OPEB liability (b/a)	14.28 %	11.06%	8.61%
Covered employee payroll (c)	$ 682,376	$ 655,995	$ 633,397
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	3.94%	4.02%	4.07%

Note: The information prior to fiscal year 2017 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

(EXPRESSED IN THOUSANDS)

	Health Insurance Credit		
Change in the Net OPEB Liability	Social Services Employees 2019	Social Services Employees 2018	Social Services Employees 2017
Total OPEB liability:			
Service cost	$ 260	$ 257	$ 263
Interest	960	933	928
Changes in benefit terms	—	—	—
Difference between actual and expected experience	(27)	186	—
Changes of assumptions	327	—	(162)
Benefit payments	(1,012)	(970)	(928)
Net change in total OPEB liability	508	406	101
Total OPEB liability – beginning	**14,222**	**13,816**	**13,715**
Total OPEB liability – ending (a)	**$ 14,730**	**$ 14,222**	**$ 13,816**
Plan fiduciary net position:			
Contributions – employer	$ 1,847	$ 1,120	$ 1,069
Net investment income	122	72	98
Benefit payments	(1,012)	(970)	(928)
Administrative expense	(3)	(1)	(2)
Other	0	7	(7)
Net change in plan fiduciary net position	954	228	230
Plan fiduciary net position – beginning	**1,319**	**1,091**	**861**
Plan fiduciary net position – ending (b)	**$ 2,273**	**$ 1,319**	**$ 1,091**
Net OPEB liability – ending (a-b)	**$ 12,457**	**$ 12,903**	**$ 12,725**
Plan fiduciary net position as a percentage of the total OPEB liability	15.43%	9.27%	7.90%
Covered employee payroll (c)	$ 279,503	$ 263,298	$ 251,084
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	4.46%	4.9%	5.07%

Note: The information prior to fiscal year 2017 is not available.

REQUIRED SUPPLEMENTARY SCHEDULE OF CHANGES IN EMPLOYERS' NET OTHER POST-EMPLOYMENT BENEFIT (OPEB) LIABILITY AND RELATED RATIOS, cont.

(EXPRESSED IN THOUSANDS)

	Health Insurance Credit		
Change in the Net OPEB Liability	Registrars 2019	Registrars 2018	Registrars 2017
Total OPEB liability:			
Service cost	$ 16	$ 12	$ 12
Interest	39	36	35
Changes in benefit terms	—	—	—
Difference between actual and expected experience	(22)	1	—
Changes of assumptions	12	—	(10)
Benefit payments	(12)	(12)	(27)
Net change in total OPEB liability	33	37	10
Total OPEB liability – beginning	**557**	**520**	**510**
Total OPEB liability – ending (a)	**$ 590**	**$ 557**	**$ 520**
Plan fiduciary net position:			
Contributions – employer	$ 36	$ 32	$ 47
Net investment income	5	4	3
Benefit payments	(12)	(12)	(27)
Administrative expense	0	0	0
Other	0	0	0
Net change in plan fiduciary net position	29	24	23
Plan fiduciary net position – beginning	**58**	**34**	**11**
Plan fiduciary net position – ending (b)	**$ 87**	**$ 58**	**$ 34**
Net OPEB liability – ending (a-b)	**$ 503**	**$ 499**	**$ 486**
Plan fiduciary net position as a percentage of the total OPEB liability	14.75%	10.41%	6.54%
Covered employee payroll (c)	$ 11,770	$ 11,512	$ 11,047
Net OPEB liability as a percentage of covered employee payroll ((a-b)/c)	4.27%	4.33%	4.40%

Note: The information prior to fiscal year 2017 is not available.

The Commonwealth's OPEB programs promise benefits to individuals who perform services for government today to be paid following the conclusion of their service. Historically, the Commonwealth and most other government employers financed other post-employment benefit programs on a pay-as-you-go basis. The new reporting standards require expenses associated with these programs to be calculated and reported on an actuarial basis even though payment is deferred until after an individuals' service ends. As of June 30, 2019, the Commonwealth's estimated annual required OPEB contribution was $487.8 million and the estimated Net OPEB liabilities were $4.1 billion.

For a more detailed explanation of Other Post-Employment Benefits (OPEB), see "Notes to the Financial Statements" in Commonwealth Annual Financial Report for the Fiscal Year Ended June 30, 2019.

LABOR RELATIONS

It is against public policy for Commonwealth or local officials to recognize any labor union as a representative of public employees or to engage in collective bargaining with any labor union. Public employees of the Commonwealth do not have a legal right to strike, and no strike by employees of the Commonwealth has ever taken place. Any such employee who engages in any organized strike or willfully refuses to perform his duties shall, according to state law, be deemed to have terminated his employment. The General Assembly has rejected several recent legislative proposals to authorize public employees to engage in collective bargaining.

LITIGATION

The Commonwealth, its officials and employees are named as defendants in legal proceedings that occur in the normal course of governmental operations, some of which involve claims for substantial amounts. It is not possible at the present time to estimate the ultimate outcome or liability, if any, of the Commonwealth with respect to these lawsuits. However, any ultimate liability resulting from these suits is not expected to have a material adverse effect on the financial condition of the Commonwealth.

APPENDIX C

COMMONWEALTH OF VIRGINIA DEMOGRAPHIC AND ECONOMIC INFORMATION

The financial and operating data contained in this Appendix C are provided as of the dates and for the periods indicated, which were prior to the declaration of the COVID-19 pandemic. Such data have not been updated to reflect any potential impacts of the COVID-19 pandemic and the response thereto on the Commonwealth's general economic and financial conditions. See the heading "Recent Developments Related to the COVID-19 Pandemic" in the subsection "INVESTMENT CONSIDERATIONS" in Section Two of this Official Statement.

APPENDIX C
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INTRODUCTION

The following demographic and economic information is provided by the Commonwealth of Virginia, its agencies, institutions and authorities (the "Commonwealth"). The data were compiled by the Department of the Treasury and were not independently verified; however, the Department of the Treasury has no reason to believe that such data are is not true and correct.

DEMOGRAPHIC CHARACTERISTICS

General

The Commonwealth is divided into five distinct geographic regions – The Tidewater region is a coastal plain cut into peninsulas by four large tidal rivers. It includes the Eastern Shore and estuaries of the Chesapeake Bay. The Piedmont Plateau is the largest geographical land of the state, and is characterized by low, rolling hills. The Blue Ridge Mountains, which lie to the west of the Piedmont region, are the main eastern mountain range of the Appalachian Mountains. The Appalachian Ridge and Valley Region stretch from southwest to the northeast along Virginia's western border, and include the Shenandoah Valley. The Appalachian Plateau region lies in the far southwestern portion of Virginia. In Kentucky it is called the Cumberland Plateau. The topography of this region is characterized by rivers, streams, and forests. Approximately one-third of all land in Virginia is used for farming and other agricultural services. This variety of terrain, the location of the Commonwealth on the Atlantic Seaboard at the southern extremity of the northeast population corridor and its close proximity to the nation's capital have had a significant influence on the development of the present economic structure of the Commonwealth.

According to the U.S. Census Bureau, the Commonwealth's 2018 estimated population was 8,517,685 which was 2.60 percent of the United States total. Among the 50 states, it ranked twelfth in population. With 39,490 square miles of land area, its 2018 population density was 215.69 persons per square mile, compared with 92.63 persons per square mile for the United States generally.

Population Trends

From 2009 to 2018, Virginia's population increased 8.59 percent versus 6.82 percent for the nation. Population trends since 2009 for the Commonwealth and the United States are shown in the following table:

POPULATION TREND

	Virginia		United States	
Year	Population	Increase Over Preceding Year	Population	Increase Over Preceding Year
2009	7,882,590	1.1 %	307,006,550	0.9 %
2010	8,001,024	1.5	308,745,538	0.6
2011	8,104,384	1.3	311,587,816	0.9
2012	8,185,864	1.0	313,993,272	0.8
2013	8,260,405	0.9	316,234,505	0.7
2014	8,326,289	0.8	318,622,525	0.8
2015	8,382,993	0.7	321,039,839	0.8
2016	8,414,380	0.4	323,405,935	0.7
2017	8,465,207	0.6	325,147,121	0.5
2018	8,517,685	0.6	327,167,434	0.6

Source: U.S. Census Bureau.
2017 & 2018 estimates revised as of December 2018, Data released March 2019.

AGE DISTRIBUTION OF POPULATION

Compared to the nation, a higher proportion of the Commonwealth's population is in the adult/working ages of 20 through 64. A lower proportion of Virginia's population is comprised of persons ages 65 and older and of persons ages 5 through 19. In 2018, the population of the Commonwealth and of the United States was distributed by age as follows:

AGE DISTRIBUTION
2018

Age	Virginia	United States
Under 5 years	6.00%	6.05%
5 through 19 years	18.61	19.00
20 through 44 years	33.74	33.27
45 through 64 years	26.21	25.65
65 years and older	15.44	16.03
	100.0%	100.0%

Source: U.S. Bureau of the Census Annual Estimates as of June 2019.

GEOGRAPHIC DISTRIBUTION OF POPULATION

Like the nation as a whole, the Commonwealth has a high percentage of its citizens living in urban areas. Virtually all of the Commonwealth's population growth between 1950 and 1970 occurred in such areas. During the 1970s, however, non-metropolitan areas grew at a slightly faster rate than metropolitan areas. Since 1980, this trend has reversed with the metropolitan areas growing at three times the rate of the rest of the Commonwealth. Of the Commonwealth's population, 78 percent reside in ten metropolitan statistical areas (MSAs).

The largest metropolitan area is the Northern Virginia portion of the Washington-Arlington-Alexandria MSA. This is the fastest growing metropolitan area in the Commonwealth and had an estimated 2018 population of 6,249,950 (including Washington and Maryland's population of 2,021,100). Northern Virginia has long been characterized by the large number of people employed in both civilian and military work with the federal government. It is also one of the nation's leading high-technology centers for computer software and telecommunications. This region is also the home of George Mason University, Virginia's largest university and the Commonwealth's largest public research university by student population.

Spanning Hampton Roads is the Virginia Beach-Norfolk-Newport News MSA, which has large military installations and major port facilities. It had an estimated 2018 population of 1,728,733 and is an important center of manufacturing and tourism. The Richmond MSA is the third largest metropolitan area with an estimated 2018 population of 1,306,172. The Richmond MSA is a leading center of diversified manufacturing activity including chemicals, tobacco, printing, paper, metals and machinery. Richmond is also the capital of the Commonwealth and its financial center, which includes the Fifth District Federal Reserve Bank. The Roanoke MSA is the manufacturing, trade and transportation center for the western part of the Commonwealth. It had an estimated 2018 population of 314,172. Also in the western part of the Commonwealth are the Lynchburg and Kingsport-Bristol-Bristol MSAs, which are both manufacturing centers, and had estimated 2018 populations of 263,353 and 306,616, respectively. The Kingsport-Bristol-Bristol population includes Tennessee portions of the MSA. Located at the foot of the Blue Ridge Mountains is the Charlottesville MSA, a community with an estimated 2018 population of 235,232 and home of the University of Virginia and significant manufacturing industries.

In 2003, the federal Office of Management & Budget recognized three new Virginia MSAs -- Winchester, Harrisonburg and Blacksburg-Christiansburg-Radford. The Winchester MSA is located at the northernmost tip of Virginia and had an estimated 2018 population of 139,810. The Harrisonburg MSA, a community with an estimated 2018 population of 135,277, is located in western central Virginia. It is a major retail, service and manufacturing center in the Shenandoah Valley. With an estimated 2018 population of 184,029, the Blacksburg-Christiansburg-Radford MSA is located in the New River Valley in southwestern Virginia. The town of Blacksburg is the home of Virginia Polytechnic Institute & State University, Virginia's second largest university and ranked one of the nation's leading research institutions. Population figures for all eleven Commonwealth MSAs are shown below:

METROPOLITAN STATISTICAL AREA
POPULATION AND PER CAPITA INCOME

MSA	2018 Population	2018 Per Capita Income
Blacksburg-Christiansburg-Radford	184,029	$38,538
Charlottesville	235,232	66,577
Harrisonburg	135,277	39,721
Kingsport-Bristol-Bristol*	306,616	40,042
Lynchburg	263,353	40,374
Richmond	1,306,172	57,301
Roanoke	314,172	46,963
Staunton - Waynesboro	123,007	44,316
Virginia Beach-Norfolk-Newport News	1,728,733	50,619
Washington-Arlington-Alexandria**	6,249,950	72,483
Winchester	139,810	48,174

	2018 Population	2018 Per Capita Income
Commonwealth of Virginia	8,517,685	$57,799

** Kingsport-Bristol-Bristol MSA includes Tennessee.*

*** Washington-Arlington-Alexandria MSA includes Washington and Maryland.*

MSA Population Data Source: U.S. Census Bureau, April 2019.

MSA Per Capital Income Data Source: Bureau of Economic Analysis, November 2019.

Virginia Population and Per Capita Income for 2018 data are estimates only. Source: Bureau of Economic Analysis, September 2019.

Distributed throughout Virginia are smaller urban areas, most of which historically have been trade centers for the surrounding areas and continue to be so today. These communities have attracted many of the new manufacturing facilities locating in the Commonwealth in recent years. The remainder of the Commonwealth's population lives in rural areas, including most of the towns and the remaining smaller cities.

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ECONOMIC FACTORS

Taxable Retail Sales

Over the past ten years, taxable retail sales in Virginia increased by $20.2 billion, or 23.5 percent. This growth is greater than the average rate of inflation for this same period, which was 15.5 percent. The following table illustrates the changes in taxable retail sales for calendar years 2009 through 2018:

Calendar Year	Taxable Retail Sales	% Change
2009	$85,869,132,300	N/A
2010	86,420,963,843	0.6
2011	89,070,341,371	3.1
2012	93,335,660,137	4.8
2013	94,597,893,918	1.4
2014	96,243,826,673	1.7
2015	100,219,956,703	4.1
2016	101,740,768,841	1.5
2017	103,741,107,029	2.0
2018	106,075,146,508	2.2

Source: Department of Taxation 2018 Annual Report.

Personal Income

According to the U.S. Bureau of Economic Analysis, estimated personal income for all Virginians in 2018 was over $492.3 billion. This results in a Commonwealth per capita income of $57,799, ranking eleventh among all fifty states and greater than the national average of $54,446.

From 2009 to 2018, the Commonwealth's 2.6 percent average annual rate of growth in per capita income was slightly less than the national average rate of growth of 2.9 percent. Virginia and United States per capita personal income data are shown in the following table and graph:

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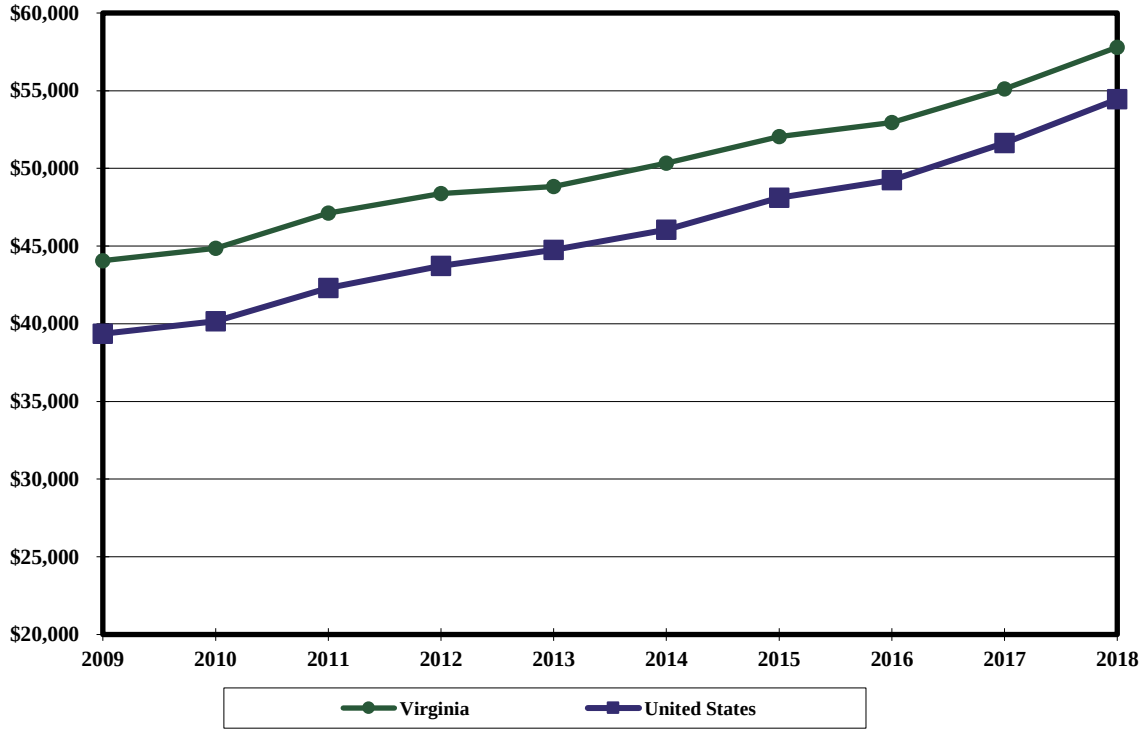
PERSONAL INCOME TRENDS

2018

	Virginia		United States	
Year	Per Capita Personal Income	Increase Over Preceding Year	Per Capita Personal Income	Increase Over Preceding Year
2009	$44,063	N/A	$39,357	N/A
2010	44,854	1.8	40,163	2.0
2011	47,126	5.1	42,298	5.3
2012	48,377	2.7	43,735	3.4
2013	48,838	1.0	44,765	2.4
2014	50,345	3.1	46,049	2.9
2015	52,052	3.4	48,112	4.5
2016	52,957	1.7	49,246	2.4
2017	55,105	4.1	51,640	4.9
2018	57,799	4.9	54,446	5.4

Source: Bureau of Economic Analysis revised estimates for 2009-2018, report date September 2019.



In 2018, the sources of personal income in the Commonwealth and the comparable sources of personal income for the United States are shown in the following table and pie chart:

SOURCES OF PERSONAL INCOME
2018

	Virginia (in Millions)	Percentage of Personal Income Before Residence Adjustment: Virginia	Percentage of Personal Income Before Residence Adjustment: United States
Forestry, fisheries, related activities and other	$ 519	0.2 %	0.3 %
Construction	18,715	5.6	6.2
Farming	205	0.1	0.5
Finance and insurance	18,700	5.5	7.2
Government:			
State and local	37,627	11.2	12.0
Federal, civilian	27,735	8.2	2.8
Federal, military	13,117	3.9	1.1
Manufacturing	18,915	5.6	9.2
Mining	649	0.2	1.3
Services	161,301	47.9	44.4
Transportation, warehousing & utilities	12,056	3.6	4.7
Wholesale and retail trade	27,453	8.1	10.3
Subtotal	$ 336,991	100 %	100 %
Less:			
Contributions for government social insurance	(38,191)		
Plus:			
Dividends, interest and rent	105,011		
Transfer payments	68,010		
Personal income before residence adjustment	$ 471,821		
Residence adjustment [1]	20,492		
Total Personal Income	$ 492,313		

[1] Total personal income is reported by place of residence. However, income by industry is shown by place of work. Thus, this adjustment was necessary to account for income earned by Virginia residents who worked outside the Commonwealth. These were primarily federal government employees who lived in Northern Virginia but worked in Washington, D.C.
Source: Bureau of Economic Analysis estimates for 2018, report date September 2019.

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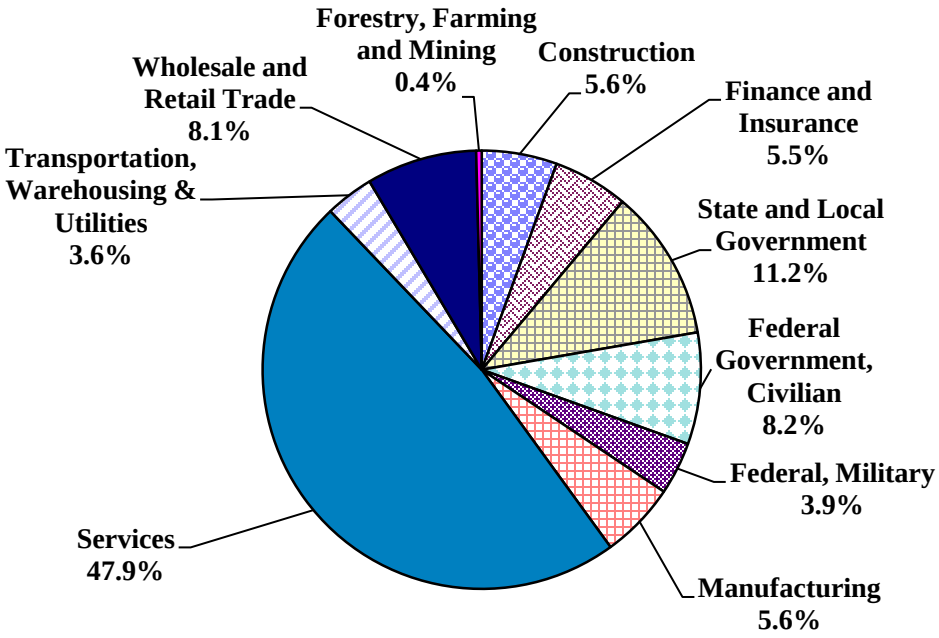
DISTRIBUTION OF VIRGINIA NONAGRICULTURAL SOURCES OF GROSS PERSONAL INCOME BY MAJOR INDUSTRY 2018



Source: Bureau of Economic Analysis estimates for 2018, report date September 2019.

Residential Construction

The majority of residential construction has typically been concentrated in three of the state's ten MSAs. The Virginia portions of the Washington-Arlington-Alexandria MSA, the Virginia Beach-Norfolk-Newport News MSA, and the Richmond MSA accounted for approximately 86 percent of the state total.

AGGREGATE VALUE OF AND BUILDING PERMITS ISSUED FOR RESIDENTIAL CONSTRUCTION IN VIRGINIA [(1)]

Year	Value of Construction in Current Dollars (in millions)	Percent Change from Preceding Year	Number of Permits Issued	Percent Change from Preceding Year
2009	$3,197	N/A	21,455	N/A
2010	3,311	3.6	21,404	(0.24)
2011	3,400	2.7	23,271	8.72
2012	4,027	18.4	27,275	17.21
2013	5,112	27.0	32,777	20.17
2014	4,564	(10.7)	28,673	(12.52)
2015	4,529	(0.8)	28,704	0.11
2016	5,473	20.8	31,132	8.46
2017	5,747	5.0	33,760	8.44
2018	5,831	1.5	31,977	(0.05)

[(1)] Excludes mobile homes.
Source: U.S. Census 2018 Annual Report.

Assessed Value of Locally Taxed Property

The Constitution of Virginia provides that real estate, coal and other mineral lands and tangible personal property, except the rolling stock of public service corporations, are reserved for taxation by cities, counties, towns and other local government entities. Shown below is the assessed value of real estate and personal property as determined by the various taxing jurisdictions and the combined value of real estate and personal property for public utilities as determined by the State Corporation Commission. Cities and counties are required by law to assess real estate at 100 percent of market value.

ASSESSED VALUES OF REAL ESTATE AND TANGIBLE PERSONAL PROPERTY

Tax Year Ended 31-Dec	Real Estate	Public Service Corporation	Personal Property	Total
2008	$1,023,386,154,546	$31,749,628,737	$71,398,689,437	$1,126,534,472,720
2009	988,853,631,404	34,705,834,232	68,225,665,097	1,091,785,130,733
2010	940,691,278,363	37,137,075,381	70,049,322,677	1,047,877,676,422
2011	949,019,441,456	38,455,832,384	71,600,491,421	1,059,075,765,261
2012	954,082,225,088	40,142,313,094	76,551,011,940	1,070,775,550,122
2013	968,744,700,482	41,415,115,231	73,286,019,303	1,083,445,835,016
2014	1,001,173,297,581	42,105,842,848	81,234,501,278	1,124,513,641,707
2015	1,031,975,708,795	44,154,961,529	84,093,951,056	1,160,224,621,380
2016	1,060,436,113,127	46,266,995,318	88,866,533,959	1,195,569,642,404
2017	1,091,729,146,212	48,006,343,392	92,876,379,259	1,232,611,868,863

Source: Department of Taxation's 2018 Annual Report. 2018 data not yet available.

Employment

As of November 2019, up to 4.4 million residents of the Commonwealth were estimated to be in the civilian labor force, which includes agricultural and nonagricultural employment, the unemployed, the self-employed and residents who commute to jobs in other states.

Virginia is a "right-to-work" state with diverse sources of income. In part because of its proximity to Washington DC, Virginia has a larger share of federal and military employees than most states. More than ten percent of Virginia's workers are federal employees or active military. The following table indicates the distribution by category of nonagricultural employment in the Commonwealth and the comparative distribution in the United States.

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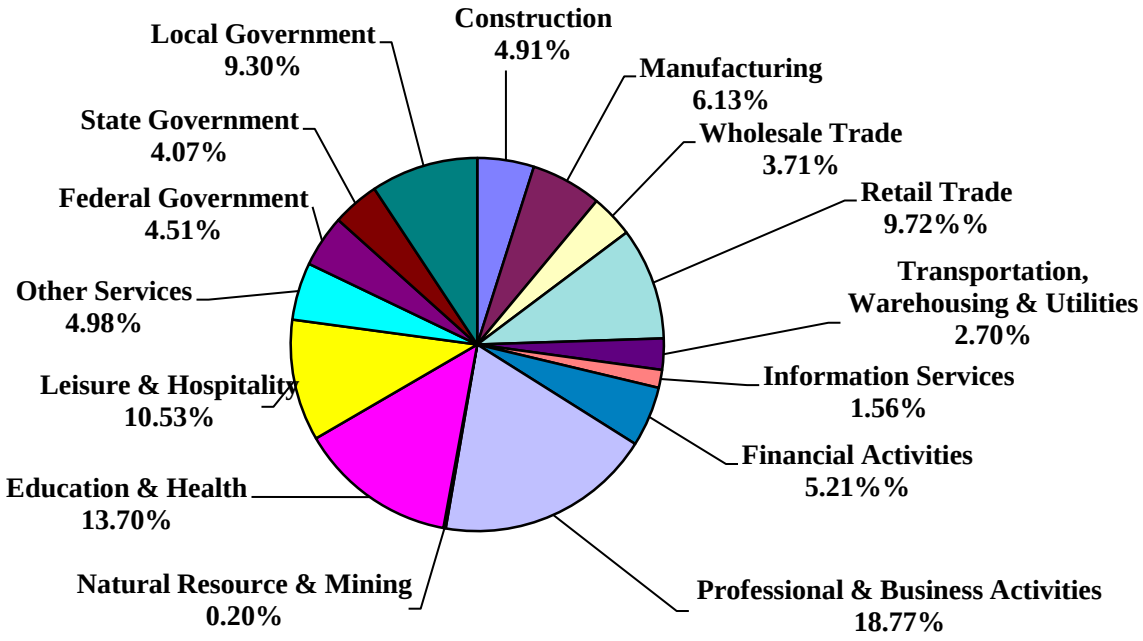
DISTRIBUTION OF NONAGRICULTURAL EMPLOYMENT
2019

	Virginia [1]		United States [2]	
Natural Resource & Mining	0.20	%	0.48	%
Construction	4.91		4.86	
Manufacturing	6.13		8.30	
Wholesale Trade	3.71		3.84	
Retail Trade	9.72		10.19	
Transportation, Warehousing & Utilities	2.70		3.96	
Information Services	1.56		1.83	
Financial Activities	5.21		7.40	
Professional & Business Activities	18.77		13.96	
Education & Health	13.70		15.82	
Leisure & Hospitality	10.53		10.91	
Other Services	4.98		3.84	
Public Administration				
Federal Government	4.51		1.83	
State Government	4.07		3.35	
Local Government	9.30		9.43	
	100.0	%	100.0	%

[1] 2019 Preliminary data as of August 2019; [2] 2019 Preliminary data as of November 2019.

Source: Virginia Data is 2019 Preliminary Data from The Virginia Employment Commission. Release Date: September 2019.
National Data is 2019 Preliminary Data from The Department of Labor, Bureau of Labor Statistics. Release Date: December 2019.

DISTRIBUTION OF VIRGINIA NONAGRICULTURAL EMPLOYMENT BY MAJOR INDUSTRY
2019



2019 Preliminary data as of August 2019. Source: Virginia Employment Commission.

NONAGRICULTURAL EMPLOYMENT
2015 - 2019

	2015	2016	2017	2018	2019	% Change 2015-2019	
Natural Resource & Mining	8,100	8,300	7,800	8,400	8,200	**3.70**	**%**
Construction	185,600	188,800	194,600	203,600	199,200	**9.70**	
Manufacturing	235,400	229,500	235,500	244,600	248,800	**3.91**	
Wholesale Trade	150,512	155,848	151,616	154,859	150,558	**2.89**	
Retail Trade	394,276	408,254	397,168	405,663	394,397	**2.89**	
Transportation & Warehousing, Utilities	109,612	113,498	110,416	112,778	109,646	**2.89**	
Information Services	70,500	68,400	65,600	65,200	63,100	**(7.52)**	
Financial Activities	198,600	200,900	207,100	211,100	211,200	**6.29**	
Professional & Business Activities	695,300	726,900	725,300	753,900	761,300	**8.43**	
Education & Health	507,600	530,700	552,500	548,300	555,700	**8.02**	
Leisure & Hospitality	385,100	393,200	401,800	416,000	427,000	**8.02**	
Other Services	199,200	205,000	204,000	207,100	202,100	**3.97**	
Public Administration							
Federal Government	170,700	178,300	178,500	173,700	183,059	**1.76**	
State Government	163,400	163,300	161,100	159,500	165,240	**(2.39)**	
Local Government	374,100	374,000	373,500	364,000	377,100	**(2.70)**	
Total	**3,848,000**	**3,944,900**	**3,966,500**	**4,028,700**	**4,056,599**	**5.4**	**%**

2019 Data as of November, 2019. Virginia Employment Commission, December 2019

The table above shows employment trends in the Commonwealth during the five years from 2015 to 2019. The most significant growth has occurred in the Construction and Professional & Business Activities sectors, Education and Leisure and Hospitality, while the largest declines were in the Information Services and Local Government sectors.

From 2018 to 2019, the largest growth rates occurred in the Federal Government sector which increased by 5.4 percent, from 173,700 in 2018 to 183,059 in 2019. The State and Local Government sectors also showed growth for the year by 3.6 percent, from 159,500 in 2018 to 165,240 in 2019 and 364,000 to 377,100, respectively. In addition, the Leisure & Hospitality sector showed an increase 2.6 percent, from 416,000 to 427,000.

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Largest Employers

The ten largest private and public sector employers in the Commonwealth, each of which employed 1,000 or more persons, are shown below.

TOP TEN PRIVATE SECTOR EMPLOYERS
2019

Rank	Name	Industry
1	Walmart	General Merchandise Stores
2	Sentara Healthcare	Hospitals
3	Huntington Ingalls/Newport News Shipbuilding	Transportation Equipment Manufacturing
4	Capital One Bank	Credit Intermediation and Related Activities
5	Food Lion	Food and Beverage Stores
6	Inova Fairfax Hospital	Hospitals
7	HCA Virginia Health System	Hospitals
8	Lowes' Home Center	Building Material, Garden Equipment & Supplier Dealer
9	Booz Allen Hamilton	Management, Technology and Engineering
10	Kroger	Food and Beverage Stores

Source: Virginia Employment Commission Community Profile, January 2020.

TOP TEN PUBLIC SECTOR EMPLOYERS
2019

Rank	Name	Industry
1	U.S. Department of Defense	National Security and International Affairs
2	Fairfax County Public Schools	Educational Services
3	University of Virginia /Blue Ridge Hospital	Hospitals
4	County of Fairfax	Executive, Legislative, and Other General Gov't Support
5	U.S. Postal Service	Postal Service
6	U.S. Department of Homeland Security	Administration of Security
7	Loudoun County Schools	Educational Services
8	Prince William County Schools	Educational Services
9	City of Virginia Beach Schools	Educational Services
10	VCU Health System	Hospitals

Source: Virginia Employment Commission Community Profile, January 2020.

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Unemployment

The Commonwealth is one of 26 states with a Right-to-Work Law and has a record of good labor-management relations. The Commonwealth's favorable business climate is reflected in the relatively small number of strikes and other work stoppages it experiences.

The Commonwealth is one of the least unionized of the more industrialized states. Three major reasons for this situation are: the Right-to-Work Law; the importance of manufacturing industries such as textiles, apparel, electric and electronic equipment and lumber which are not highly unionized in the Commonwealth; and the importance of federal civilian and military employment. Typically, the percentage of nonagricultural employees belonging to unions in the Commonwealth has been approximately half the U.S. average.

Since 2018, Virginia experienced job growth in the all ten metropolitan statistical areas (MSAs) reported on by the Virginia Employment Commission. Those areas include Blacksburg-Christiansburg-Radford, Charlottesville, Roanoke, Lynchburg, Northern Virginia, Richmond, Virginia Beach-Norfolk-Newport News, Harrisonburg, Staunton-Waynesboro and Winchester. Northern Virginia and Richmond, the state's largest MSA's experienced the largest absolute job gains, with an increase of 24,300 and 11,000, respectively. Virginia Beach had a gain of 7,200, an increase of 1.6 percent.

The following table shows the size of the Commonwealth's total civilian labor force from 2010 through 2019, the percentage unemployed during this period and the comparable national unemployment rate.

UNEMPLOYMENT TRENDS

Year	Virginia's Civilian Labor Force[1]	Unemployment in Virginia[1]	Unemployment in United States[2]
2010	4,185,321	6.9	9.6
2011	4,347,644	6.1	8.5
2012	4,209,532	5.9	7.9
2013	4,240,111	5.5	7.4
2014	4,238,540	4.5	5.6
2015	4,222,819	4.2	5.0
2016	4,261,091	4.2	4.6
2017	4,308,950	3.7	4.1
2018	4,359,062	2.8	3.7
2019	4,441,018	2.6	3.5

[1]2019 Virginia's Civilian Labor Force data as November 2019, Virginia Employment Commission, report date December 2019.

[1] 2019 Unemployment in Virginia as of November 2019, Virginia Employment Commission, report date December 2019.

[2] 2019 Unemployment in United States as of November 2019, Virginia Employment Commission, report date December 2019.

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Other Economic Factors [1]

Utilities: Over the last decade, Virginia opened the door to electric utility deregulation; however, the competition has not materialized as anticipated. Therefore, the Virginia General Assembly enacted "re-regulation legislation" which has re-established retail rate regulation. The legislation permits provider choice for large commercial and industrial customers with demands exceeding 5 megawatts (MW). The measure provides flexible and innovative forms of ratemaking that could provide incentives for utility operational efficiencies and for generation plant construction. The legislation also creates incentives for the development of renewable energy resources and for energy efficiency and conservation programs.

Virginia's electric rates remain very competitive. In 2018, the average cost per unit of electricity for the industrial sector was 6.33 cents in Virginia, compared to 7.00 cents for the nation. More than 4,300 megawatts of additional electric generating power is planned or under construction statewide. All transmission-owning utilities in Virginia have taken the important step of joining PJM, North America's largest regional transmission manager, which oversees the grid across a vast area from Illinois to North Carolina.

Electric power is available throughout the Commonwealth through the investor-owned utilities of Dominion Virginia Power (Dominion) and Appalachian Power (APCO), 13 electric cooperatives that distribute power in rural districts, and 16 municipalities that have their own distribution systems with power purchased primarily from the previously mentioned companies. The electric utilities serving the Commonwealth are interconnected with neighboring utilities, both within and outside of the Commonwealth, for reliability of service.

Virginia is served by eight regulated natural gas utility companies that provide an extensive network of underground pipes and other gas facilities. In 2014, Virginia's industrial sector accounted for nearly 20 percent of natural gas consumption in the state. Virginia's natural gas suppliers specialize in serving industrial customers and provide expert advice in engineering, construction and inspection.

With few exceptions, municipalities and several highly urbanized counties own their own waterworks systems. In some instances, the municipality's system also serves nearby communities and suburban areas. Most subdivision systems are privately owned and operated. Some federal installations and many industrial plants have their own water supplies. Larger municipalities usually depend on surface water or surface water supplemented by groundwater. There are approximately 2,700 public community water supplies in Virginia, serving approximately 87 percent of the state's population. Virginia has more than 50,000 miles of freshwater streams producing greater than 25 billion gallons per day of freshwater flow.

All cities, many towns, and some counties have their own sewage collection systems. Existing or planned facilities provide wastewater treatment that meets or will meet established water quality standards.

Transportation: Norfolk Southern Corporation's Heartland Corridor double-stack rail project is a $290 million public private partnership that offers efficient routing between the Port of Virginia and the Midwest markets. In a major engineering feat, clearances were raised in 29 tunnels to make way for double stacked intermodal trains. Cargo can now be transported via double-stack rail with next morning service to Columbus, Ohio and second-morning service to Chicago, Illinois while existing rail lines can handle increasing container volumes.

Norfolk Southern's Crescent Corridor Project improved the existing 2,500-mile rail network enabling it to handle more freight traffic. The Crescent Corridor traverses 13 states from Louisiana to New Jersey and touches 26 percent of the nation's population and 26 percent of the nation's manufacturing output. The $3 billion project is now fully operational. To increase rail capacity on the Crescent's route through Virginia, Norfolk Southern spent $47.1 million to upgrade track and signals. With 30 new lanes now open connecting to the Crescent Corridor, Norfolk Southern's high capacity intermodal routes are truck competitive, fuel efficient and dependable.

[1] Information contained in this section was compiled from various Virginia state agencies and entities, including the Virginia Economic Development Partnership.

Virginia is served by 14 commercial airports (including those just across the state line at Bluefield, West Virginia; Blountville, Tennessee; Greensboro and Raleigh-Durham, North Carolina; and Baltimore, Maryland). Scheduled commercial airline service is provided to over 147 non-stop destinations around the world. Two of the nation's largest airports, Dulles International and Ronald Reagan Washington National Airports offer daily international non-stop flights to approximately 50 destinations. The commercial airports are supplemented by 57 general aviation airports licensed for public use throughout the Commonwealth. Washington Dulles International has been one of the fastest growing airports in the country.

In December 2019, the Commonwealth and CSX signed an agreement to expand reliability and service on Virginia's rail lines, creating a pathway to separate passenger and freight operations along the Richmond to Washington D.C. corridor. The agreement between the Commonwealth and CSX outlines a $3.7 billion investment that includes building a new Virginia-owned Long Bridge across the Potomac River, with tracks dedicated exclusively to passenger and commuter rail, acquisition of more than 350 miles of railroad right-of-way and 225 miles of track; and 37 miles of new track improvements, including a Franconia-Springfield bypass. The state's central location on the East Coast is within a one day (10-hour) drive of 43% of the U.S. population. As the nation's third largest state-maintained transportation network, Virginia's highway system includes more than 70,000 miles of primary and secondary roads and six major north-south and east-west interstate routes. The Commonwealth is within easy reach of the nation's leading industrial and distribution centers. For example, Richmond is only 338 miles from New York City to the north, 623 miles from Detroit to the west, and 521 miles from Atlanta to the south. Two of the nation's largest Class I railroads operate in Virginia: CSX Corporation Railroad has offices in Richmond, and Norfolk Southern Corporation is headquartered in Norfolk. Both have extensive infrastructure throughout the Commonwealth. Eight shortline railroads also provide freight rail service. Nearly 3,400 miles of railway (excluding trackage rights) traverse the state.

Virginia Commercial Space Flight Authority: The activation of Rocket Lab's first launch facility in the United States, located at Wallops Island, was announced in December 2019. Rocket Lab is a global leader in small satellite launch. The company began construction on the launch pad, known as Launch Complex 2 (LC-2) in February 2019, together with the Virginia Commercial Space Flight Authority (VCSFA). The pad is located at the Mid-Atlantic Regional Spaceport (MARS) at NASA's Wallops Flight Facility. The LC-2 consists of a pad made from more than 1,400 cubic yards of concrete, a 66-ton launch platform, and a 44-foot, 7.6-ton "strongback," which lifts the rocket into a launch position. The site will be used to launch Rocket Lab's 57-foot-tall Electron rocket capable of carrying up to 500 pounds of satellite payload to orbit. An Integration and Control Facility located at Wallops Research Park is also under construction. The facility will be able to accommodate the simultaneous integration of multiple Electron launch vehicles containing an operations control center connected to LC-2. In July 2018, the Commonwealth opened its new Mid Atlantic Regional Spaceport Payload Processing Facility (MARS PPF) at Wallops Island, Virginia. The Commonwealth, through the VCSFA and in partnership with NASA, has invested heavily in the development of the MARS PFF. The MARS PFF facility is only one in four spaceports in the United States that is currently licensed to launch to orbit, and is only one of two on the east coast. The MARS PFF will provide government and commercial business with secure mission processing for multiple payloads in one facility from arrival to encapsulation. The Commonwealth has invested over $80 million in state funds that were used for the construction of the new Pad 0A to support Orbital Science Corporation's contract with NASA for eight resupply missions to the International Space Station. With NASA turning to the commercial aerospace industry to conduct many of its mission critical activities, the Commonwealth believes that it is well situated to serve a vital role in the future of our nation's space program. MARS PFF, with its strategic location, serves not only as a valuable asset to the U.S. space program, but also as a crucial link in Virginia's job creation and economic development efforts.

Port Facilities: The Port of Virginia is largely responsible for the Commonwealth's strong ties with international commerce. As a 50 foot ice-free channel, the Port of Virginia offers the deepest shipping channels on the U.S. East Coast and is serviced by more than 30 international steamship lines. Norfolk Southern and CSX offer on-dock, double stack intermodal service to key inland markets in the Midwest, Ohio Valley and Southeast.

In 2012, the Port of Virginia and the U.S. Army Corps of Engineers signed a partnership agreement for the Craney Island Eastward Expansion project. This dual-purpose project will extend the life of Craney Island as a dredged material management area and also provide land for the construction of a new marine terminal. This multi-phase project will result in the newest, most

modern marine terminal in the United States. The terminal will be built in four phases with Phase One completion scheduled in 2040.

Norfolk International Terminals (NIT), located in Hampton Roads Harbor on 567 acres along the Elizabeth and Lafayette Rivers, is the Port of Virginia's largest terminal and has fourteen of the biggest, most efficient cranes in the world. The General Assembly in 2016 authorized the financing of a $350 million expansion of the cargo capacity at NIT. The money was be used to reconfigure the South Berth, increasing the cargo capacity at NIT by 46% to approximately 2 million twenty-foot equivalent units (TEU). With the purchase of additional rail mounted gantry cranes, capacity and efficiency increased. The main channel leading to the terminal is 50 feet deep and the Virginia Port Authority (VPA) has the authorization to dredge to 55 feet when needed. Slightly down the river from NIT is VPA's second largest terminal, Portsmouth Marine Terminal (PMT). PMT has 3,540 feet of wharf, 3 berths, and 6 cranes, and has direct access to both CSX and Norfolk Southern railways, and will soon connect to the Commonwealth Railway, a 19-mile short line. Located in Newport News, Virginia, the Newport News Marine Terminal provides 42,720 feet of direct cargo loading on and off ships to and from the CSX break-bulk rail service, and 3,480 feet of total pier space serviced by four cranes, covered storage, container storage, and accessibility from 3 major Virginia roadways.

The VPA completed in July 2019 the $320 million 800-foot berth extension at Virginia International Gateway (VIG) container terminal. This project included a 20-year lease with VIG, formerly APM Terminals North America, which was executed in 2010. In late 2016, the VPA amended its lease with VIG extending the lease term to 2065 and allowing VPA to assume operations at the VIG facility in Portsmouth, Virginia. The 576 acre terminal is recognized as the most technologically advanced marine cargo facility in the Americas and provides on-site rail with links to Norfolk Southern and CSX. VIG has a current capacity of over one million TEUs annually. The completion of the project includes 26 new rail-mounted gantry cranes as well, which support 13 new container stacks, increasing cargo and container capacity at its two major terminals. In January 2018, four new 170-foot-tall ship-to-shore cranes arrived at the Port, which are the largest on the U.S. East Coast and will be able to service container vessels, regardless of their size, for decades to come. The VPA generates $92 billion of economic impact annually throughout the Commonwealth of Virginia.

The Virginia Inland Port (VIP) in Front Royal is an intermodal container transfer facility that complements the Port of Virginia's marine terminal services. VIP occupies 161 acres of land and is approximately 60 miles west of Washington, D.C. The terminal brings the Port of Virginia 220 miles closer to inland markets by providing rail service to the terminals in Hampton Roads. It also consolidates and containerizes local cargo for export. VIP serves markets in northern Virginia, West Virginia, Maryland, Pennsylvania and Eastern Ohio. The facility also contains 17,820 feet of on-site rail served by Norfolk Southern and is located within 1 mile of I-66 and 5 miles of I-81. The VIP is a U.S. Customs-designated port of entry and provides the full range of customs functions to customers.

Ports of Entry: Five Port of Entry facilities and one Service Port facility also serve businesses: Front Royal, New River Valley Airport in Dublin, Norfolk-Newport News (Service Port), Richmond-Petersburg, Tri-Cities near Bristol in northeastern Tennessee and Washington-Dulles in Northern Virginia.

Telecommunications: Virginia is reported to have one of the most connected states in the nation with access to a robust fiber network that matches or exceeds virtually every domestic market and most major financial centers around the world. The Commonwealth hosts prominent commercial internet exchange points, and 70 percent of the world's internet traffic passes through the Metropolitan Area Exchange East located in Ashburn, Virginia. The Richmond area has been connected to Ashburn with "dark fiber" opening opportunities along the I-95 corridor. In Southern and Southwest Virginia, the benefits of a 1,500+ mile advanced fiber-optic broadband network connects more than 100 certified GigaParks.

Customers in the Commonwealth have access to a full range of high quality, technologically advanced communication services. Virtually all major cities and towns are linked by fiber-optic lines crisscrossing the Commonwealth, which, in turn, are tied into recently constructed national fiber optic networks. In the 2018 Digital States Survey, the latest biennial survey, Virginia received a ranking of "-A".

Since 2006, the Mid-Atlantic Broadband Cooperative (MBC), nationally renowned as a model for rural economic development, has provided world-class fiber-optic backbone network infrastructure to Southern Virginia. This cable network provides opportunities for the region to connect directly with major Tier 1 peering and carrier collocation centers. MBC owns and operates more than 1,800 miles of advanced, open-access fiber network in 31 counties in Southern Virginia that reaches 100% of the business, industrial, and technology parks in the region. Backed by grants from the U.S. Department of Commerce and the Virginia Tobacco Commission, MBC continues to grow and expand.

Efforts are underway to further expand and enhance Southwest Virginia's technological capabilities. Grants from the Virginia Tobacco Commission and the Virginia Coalfield Economic Development Authority are expected to enable electronic upgrades as well as last mile connections.

The Bristol Virginia Utilities (BVU) Authority is a public utility company in Southwest Virginia that expanded its broadband infrastructure 900 miles into eight neighboring counties. That network – called OptiNet and CPC OptiNet in four of the counties – now provides fiber-optic speeds of up to 1 Gbps (gigabit per second) to customers in the city of Bristol and the counties of Bland, Buchanan, Dickenson, Russell, Smyth, Tazewell, Washington and Wythe, positioning Southwest Virginia for economic growth. Monetary grant awards of nearly $40 million from the Virginia Tobacco Commission since 2003 have helped to fund the existing 900-mile OptiNet infrastructure. As recently as July 2010, the Virginia Tobacco Commission continued its support of OptiNet by providing another $5 million, facilitating acquisition of a Recovery Act grant of $22 million from the National Telecommunications and Information Administration. The monies have gone toward construction of 388 miles of middle-mile fiber into seven of OptiNet's rural counties. This project paves the way for eventual fiber-to-the-home connectivity across Southwest Virginia. In August of 2018, Sunset Digital Communications completed the $50 million acquisition of all of BVU Authority's OptiNet and CPC OptiNet assets, which will hereafter be owned and operated by the private Duffield, Virginia-based firm and ITC Capital Partners of Georgia. Sunset Digital Communications has reported plans to add more than 30,000 customers within the next five years.

Citizens is a regional full service communications provider offering land-line telephone, VoIP, IPTV Video, web and e-mail hosting, DSL, and FTTP (Fiber to the Premises: Business Ethernet and FTTH, Fiber to the Home), serving 7 counties in Southwest Virginia. In addition, Citizens operates a 248 mile regional open access fiber network in 6 Virginia counties including 8 industrial parks. Citizen provides wholesale transport and internet bandwidth to a variety of service providers and partners with other open access networks, like MBC and BVU, to provide high-capacity optical transport services that are necessary to assist in the economic revitalization efforts of Southwest and Southside Virginia.

Research and Development: The Commonwealth is home to many internationally recognized research and development (R&D) facilities. Federally funded R&D facilities, coupled with the research from Virginia universities, provide Virginia businesses access to leading researchers and technologies. Virginia is home to hundreds of private sector R&D operations, 11 federally funded R&D Centers, and 23 Federal Laboratory Consortium Laboratories such as the Homeland Security Institute, NASA Langley Research Center, and the Thomas Jefferson National Accelerator Facility. Unique university research parks across the state offer private companies' opportunities for co-location and cooperative relationships with Virginia universities, federal labs and other research consortia.

The Virginia BioTechnology Park in downtown Richmond is home to over 60 life science companies, research institutes and state/federal labs, employing over 2,400 scientists, engineers and researchers. The Park features nine buildings on a 34-acre campus. Members include early and mid-stage companies; multinational pharmaceutical, environmental and consumer product companies; national healthcare organizations managing the nation's solid organ transplant program and a number of international companies.

The National Institute of Aerospace (NIA) is a non-profit research and graduate education institute headquartered in Hampton, Virginia, near NASA's Langley Research Center. NIA's mission is to conduct leading-edge aerospace and atmospheric research, develop new technologies for the nation and help inspire the next generation of scientists and engineers. NIA was formed in 2002 by a consortium of research universities to ensure a national capability to support NASA's mission by expanding collaboration with academia and leveraging expertise inside and outside NASA. NIA performs research in a broad range of

disciplines including space exploration, systems engineering, nanoscale materials science, flight systems, aerodynamics, air traffic management, aviation safety, planetary and space science, and global climate change.

SRI Shenandoah Valley in Harrisonburg, Virginia focuses on health and biomedical research and drug discovery and development with the ultimate goal of bringing new therapies and diagnostics to market. As part of SRI Biosciences, the research complements capabilities at other SRI locations, including SRI's Menlo Park, California headquarters. SRI's state-of-the-art 40,000-square-foot research facility is located on a 25-acre campus in the Innovation Village at Rockingham. The facility provides a convenient base for collaboration with academia, entrepreneurs, government, industry, and investors in Virginia and the greater Washington, D.C. area. SRI moved into its Shenandoah Valley laboratory facility in 2009 and further expanded in 2011 and 2013 to accommodate growth in its R&D programs. Scientific research at SRI Shenandoah Valley focuses on prevention, detection and treatment of diseases. Activities span basic research in emerging infectious disease, metabolic disease and proteomics; applied research in therapeutics including drugs, biologics, and vaccines; and personalized medicine through the development of companion diagnostics and biomarkers.

The Commonwealth Center for Advanced Manufacturing (CCAM) located in a state-of-the-art research facility in Prince George County, Virginia, is an applied research center that bridges the gap between fundamental research typically performed at universities and product development routinely performed by companies. CCAM provides production-ready advanced manufacturing solutions to member companies across the globe. Members guide the research, leveraging talent and resources within CCAM and at Virginia's top universities, through a collaborative model that enables them to pool R&D efforts to increase efficiencies. Results can then be applied directly to the factory floor, turning ideas into profit faster and more affordably than ever before.

Following the successful model of the CCAM, the Commonwealth Center for Advanced Logistics Systems was established in 2013 in Prince George County, Virginia. This public-private alliance focuses on solving logistics challenges and bringing solutions to market more quickly by partnering Virginia's leading universities and logistics companies. Founding members include Longwood University, University of Virginia, Virginia Commonwealth University, Virginia State University, Logistics Management Resources, and LMI.

New and Expanding Companies: German grocer Aldi chose Dinwiddie County as the location for a new division headquarters and 500,000 square-foot distribution facility. This new facility was announced in August 2016, and it is expected to create 145 new jobs and involve $57 million in investment.

Polykon Manufacturing LLC, a joint venture between German Seppic Inc. and French Shulke Inc., announced in February 2016 that it would be locating its first North American manufacturing facility in Henrico County. This facility will manufacture ingredients for the cosmetic and pharmaceutical industries, create more than 50 new jobs, and bring in over $56 million in investment.

In March 2016, pharmaceutical company Merck announced that it will invest $168 million to upgrade its manufacturing facility in Rockingham County. Merck has been a valued employer in this community since 1941.

In March 2016, Deschutes Brewery announced that the City of Roanoke would be the location of the Oregon company's first Eastern U.S. location. The company is expected to invest $85 million and create 108 new jobs.

During that same month, Italian auto-parts manufacturer Eldor Corporation announced that it would be building its first U.S. factory in Botetourt County. Eldor will invest more than $75 million and create 350 new jobs with this new project.

Grant Thornton, a subsidiary of British firm Grant Thornton International, announced in June 2016 that it would be consolidating its D.C. and Virginia locations in Arlington County. Grant Thornton will invest $15.75 million as part of this consolidation and create 348 new jobs. An additional 994 jobs will be retained in Virginia.

In August 2016, Fortune 200 retailer Dollar Tree announced that it will invest $110 million to expand its headquarters in the City of Chesapeake. This expansion is expected to create 600 new jobs with an additional 825 jobs retained.

In October 2016, CoStar Group announced that it would invest $8.17 million in a new research and software development center in Richmond. This project is expected to create 732 new jobs and have a total economic impact of $250 million.

In November 2016, Microsoft Corporation announced that it will invest $251.6 million to expand its data center site in Mecklenburg County and increase capacity to serve its growing customer base. Microsoft has now invested nearly $2 billion in its Mecklenburg facility and created over 250 jobs since 2010.

In December 2016, American Woodmark Corporation announced it will invest $30 million to consolidate headquarters in Frederick County, thereby retaining 37 jobs in addition to creating 55 new jobs.

In December 2016, Peet's Coffee announced that it will invest $58 million to establish an East Coast manufacturing operation in the City of Suffolk, creating 175 new jobs.

In January 2017, Navy Federal Credit Union announced that it will invest $100 million to expand its Winchester operations center in Frederick County. The project will nearly double the Navy Federal's workforce employee-count creating 1,400 new jobs.

Nestlé USA, a leading global nutrition, health and wellness company announced in February 2017, it will be investing almost $40 million in Virginia by relocating its U.S. corporate headquarters operation to Arlington County and creating 748 new jobs.

The Kentuck Solar project announced in May 2017, Virginia's largest municipal utility solar farm, would begin construction in August 2017. The Kentuck project is a 6 megawatt solar array that will be part of the generation mix for Danville Municipal Utility. The project is estimated to be a more than $10 million investment upon its completion the end of 2017.

As of June 2017, Virginia had become the home to 206 licensed breweries. This represents a 468% growth since 2012 and an estimated contribution of more than $9.34 billion annually to Virginia's economy. Richmond-based Hardywood Craft Brewery announced in 2015 it will enter the world's second largest export market for U.S. craft beer in the United Kingdom. Hardywood has invested over $28 million to construct a 60,000-square-foot brewery in Goochland County.

Ferguson, the largest plumbing wholesaler in the U.S., announced in June 2017, it would invest $82.8 million to expand its headquarters operation in the City of Newport News, retaining more than 1,000 jobs and creating 434 new jobs. The expansion is expected to be complete in the summer of 2020.

Facebook recently announced an additional $750 million investment to expand its data center in Henrico County. This investment is in addition to the $1 billion investment announced 2017. The company will construct three new 500,000 square foot data centers, bringing the planned total square footage to over 2.4 million square feet. The expanded site will support over 200 jobs and creating an additional 1,500 construction jobs. In addition, the phase will be supported by 100 percent renewable energy through the renewable energy tariff offered by Dominion Energy.

In November 2018, Amazon, Inc. announced that it will invest approximately $2.5 billion to establish a major new headquarters in Virginia that will create more than 25,000 high paying jobs over 12 years. The headquarters will be housed in National Landing, which includes portions of Pentagon City and Crystal City in Arlington County, Virginia and Potomac Yard in the City of Alexandria, Virginia. Amazon's initial growth is expected to be focused in the Crystal City and Pentagon City portion of National Landing. In July 2019, Amazon Inc. announced the establishment of a new specialty fulfillment and last-mile delivery center on the Virginia Interstate 95 Logistics Center Site in the City of Richmond. Amazon launched its Virginia fulfillment operations in 2013 and the new project will add 150 new jobs to Amazon existing workforce of more than 10,000 fulltime employees across the Commonwealth. Amazon currently operates 10 fulfillment and sortation centers, as well as delivery stations in Ashland, Chesapeake, Chester, Clear Brook, Petersburg, Richmond, Springfield and Sterling. The company also operates on Tech Hub, 13 Wholefoods Market store locations, and Prime Now Hubs in Richmond, Springfield, and Virginia Beach. Since 2010, Amazon has invested more than $34 billion in Virginia through its customer fulfillment and cloud infrastructure, as well as compensation to employees. With the announcement of establishing the second Amazon Headquarters in July 2019, the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park and the counties of Arlington, Fairfax, Fauquier, Loudoun, and Prince William announced in September 2019 the formation of the Northern Virginia Economic Development Alliance. Arlington County is working diligently with officials from Amazon both on permitting and inspecting building renovation work for its initial

occupancy in Crystal City, as well as the planning and entitlement of its new construction projects in Pentagon City (commonly known as the Metropolitan Park site). Current plans for the first phase of the new headquarters include two new LEED-Platinum certified buildings, new retail space for area businesses, and open, community space, transforming the site from a block of vacant warehouses into a mixed-use neighborhood. The foundation of the cooperative pitch for Amazon's headquarters was the Tech Talent Investment Program. The Commonwealth is committing up to $1.1 billion to more than double the annual number of graduates with bachelor's and master's degrees in computer science and closely related fields, creating an additional 31,000 graduates in excess of current levels over the next 20 years. The Commonwealth of Virginia, Arlington County, and the City of Alexandria have committed funding for transportation investments to support mobility in the region, and several transportation improvements are already underway. The Washington Metropolitan Area Transit Authority and Arlington County completed the development and analysis of alternative site locations for the Crystal City Metrorail station's new east entrance and are now finalizing the concept design plan. This new Metro entrance will help alleviate crowding and streamline pedestrian traffic through the station.

Since January 2018, Virginia has announced capital investments of over $20 billion which created over 51,000 new jobs.

Business Climate: In 2017, 300 Virginia companies appeared on the Inc. 5000 list of the fastest growing private companies in the country.

Site Selection magazine, awarded the Commonwealth first place ranking for "the most competitive state-level economic development group" in the United States. The award represents a five spot jump from sixth in 2017 and 2018. Virginia was ranked first in the Atlantic Region for the "2018 Top State in Annual Workforce Development", and was ranked second in 2017 of the states in the region by Site Selection Magazine. The magazine based their analysis on context in which each state's workforce development program are applied rather than the specific programs themselves.

The international news outlet, U.S. News has completed their Best States survey and ranked Virginia seventh in 2019, a thirteen spot jump from twentieth in 2018. The calculation rankings are of eight categories assigned weightings based on the average of three years of data from an annual national survey that asked a total of more than 50,000 people to prioritize each subject in their state. In addition to healthcare and education, the metrics consider a state's economy, infrastructure, and fiscal stability. Public safety, natural environment, and the opportunity it affords its residents. Virginia experienced the most significant improvements in its rankings from 2018 to 2019 in the categories of healthcare (from 29th to 18th), education (from 12th to 7th), economy (from 30th to 25th), and fiscal stability (from 14th to 8th).

Forbes.com released the "2019 Best States for Business Study" and ranked Virginia fourth in the nation, unchanged from 2018 and up from fifth in the 2017 study. In the 2019 study, Forbes ranked Virginia first in the Quality of Life and third in Labor Supply and Regulatory Environment in these categories. Virginia received the 2018 top ranking for Regulatory Environment and Quality of Life, up from the No. 2 and No. 8 ranking in these categories, respectively. The review examines multiple objective measurements, including business cost, regulatory climate, quality of the workforce, and economic growth. Forbes.com is the official Internet site of the Forbes family of business publications.

Virginia is headquarters to 37 Fortune 1000 companies and is ranked highly in three of the most comprehensive and impartial independent studies evaluating America's top states for business: Forbes.com and CNBC.

Virginia was ranked in *Area Development* magazine's 2019 "Top States for Doing Business" annual survey. Overall, the Commonwealth placed tenth out of twenty states, a change from being ranked eleventh in 2017 in the prestigious annual site consultants' survey, which also debuted in 2010.

In July 2019, CNBC listed Virginia the No. 1 ranking for "America's Top States for Business in 2019". The Commonwealth was also ranked No. 1 for Workforce and Education. This year's study also ranked Commonwealth No. 3 for Business Friendliness. In 2018, Virginia was ranked fourth in CNBC's "America's Top States for Business 2018". All 50 states are ranked on 60 measures of competitiveness, using input from business groups, economic development experts, companies, and the states themselves. The network separates those measures into 10 broad categories: cost of doing business, workforce, quality

of life, economy, infrastructure, technology and innovation, education, business friendliness, access to capital, and cost of living. Since the rankings began, Virginia has claimed the number one spot in 2007, 2009, and 2011 while receiving second in 2008 and 2010.

Education: The Constitution of Virginia vests the supervision of public elementary and secondary schools in local school boards. The State Board of Education is, however, required to prescribe standards of quality and has prescribed minimum competency tests for high school graduation.

Virginia's public schools are financed through a combination of state, local and federal funds. The private sector also contributes through partnerships with schools and school divisions. The apportionment of the state funds for public education is the responsibility of the General Assembly, through the Appropriations Act. General fund appropriations serve as the mainstay of state support for the commonwealth's public schools, augmented by retail sales and use tax revenues, state lottery proceeds, and other sources. Historically, state funding for public education represents about one-third of the state general fund budget.

Counties, cities and towns comprising school divisions also support public education by providing the locality's share to maintain an educational program meeting the commonwealth's Standards of Quality.

While public education is primarily a state and local responsibility, the federal government provides assistance to state and local education agencies in support of specific federal initiatives and mandates.

In the 2019-20 academic year, an estimated 383,865 students were enrolled in the Commonwealth's 39 public colleges, community colleges and universities. Of these students, an estimated 158,073 attended 23 community colleges on 40 campuses within the Virginia Community College System. A total of 1,298,083 students attended public elementary and secondary schools. The following table illustrates enrollment levels for all educational levels for the last 10 academic years.

ENROLLMENT FOR PUBLIC AND PRIVATE INSTITUTIONS
OF HIGHER EDUCATION AND PUBLIC PRIMARY AND SECONDARY SCHOOLS

Academic	Higher Education [1]			Public [2] Primary and
Year	Public	Private	Total	Secondary
2010-11	409,277	110,495	519,772	1,251,949
2011-12	413,019	122,275	535,294	1,258,520
2012-13	409,069	123,144	532,213	1,264,880
2013-14	403,975	125,343	529,318	1,273,211
2014-15	398,689	135,591	534,280	1,279,773
2015-16	393,545	135,121	528,666	1,284,680
2016-17	388,749	132,144	520,893	1,288,481
2017-18	388,334	133,110	521,444	1,293,049
2018-19	384,200	137,271	521,471	1,290,513
2019-20	383,865	141,470	525,335	1,298,083

Source: [1] State Council for Higher Education in Virginia; [2] Virginia Department of Education.

In 2019, Smart Asset ranked Virginia No.1 as best state for Higher Education. This makes five years in a row in which Virginia was ranked the best or second-best for higher education. The study compares four-year public colleges and universities in each state using multiple metrics, including the undergraduate graduation rate, the average net price, the 20-year return on investment and the student-faculty ratio. The study also calculated the in-state attendance rate to assess whether states can effectively educate their own residents.

Natural Resources: Virginia's geologic resources provide a wealth of opportunities for mineral and energy development. The historic contributions of these resources to economic growth is measured not only in the dollar value of the minerals produced each year, but also in the direct and indirect benefits of jobs created, support industries, new business opportunities, and revenues for local governments that provide community services. The total value of energy and mineral resources produced in Virginia in 2018 was estimated to be $2.7 billion, which is about 1.7% higher than the previous year. The value of non-fuel aggregates was about $1.5 billion, making up the larger share (58.3%) of the total value. The value of coal was estimated to be $1 billion, about 12% lower than the revised value from the previous year. Oil and natural gas production was valued at $361 million, 22% higher than 2017. The US Geological Survey estimated the value of non-fuel mineral production in 2018 to be about $1.3 billion, ranking Virginia 22nd among the 50 states. Non-fuel minerals include crushed stone, sand and gravel aggregate, clays and shale, and a diverse range of industrial minerals such as kyanite, vermiculite, dimension stone, titanium and zirconium sands, among others. Energy markets continue to evolve with greater utilization of renewable sources. Natural gas and coal will remain important fuels for electricity generation in the near future.

Virginia's forests provide more than $25.4 billion in annual economic benefits to the Commonwealth, and the forest industry provides employment for more than 108,000 Virginians. In addition, the nearly 16 million acres of forestland provide citizens environmental benefits, such as water quality and air quality, habitat for wildlife and plants, recreational opportunities and aesthetic beauty.

Virginia's geographic location contributes to the success of its seafood industry. The Virginia seafood industry is one of the oldest industries in the United States and largest seafood production states on the East Coast. In addition, Virginia is the nation's third largest producer of marine products with total landings of over 343.9 million pounds in 2017. Its ports are rarely closed in the winter. Its catch is widely diversified, preventing dependence on any one species. Among the 50 commercially valuable seafood species harvested from some 620,000 acres of water are sea scallops, eastern oysters, blue crabs, menhaden, northern quahog clam, summer flounder, striped bass and Atlantic croaker. The Virginia Institute of Marine Science has reported the annual economic impact of Virginia's seafood industry to be over $500 million.

Agriculture: The agricultural industry has an economic impact of $70 billion annually and provides nearly 334,000 jobs in the Commonwealth. The industries of agriculture and forestry together have a total economic impact of almost $91 billion. Every job in agriculture and forestry supports 1.7 jobs elsewhere in the Virginia economy.

Production agriculture employs nearly 55,000 farmers and workers in Virginia and generates approximately $3.8 billion in total output. Value-added industries, those that depend on farm commodities, employ an additional 69,000 workers. When the employment and value-added impact of agriculture and forestry are considered together, they make up 9.5 percent of the state's local gross domestic product.

A burgeoning wine industry is proving to be increasingly important to Virginia's economy. Released in early 2017, an economic impact study shows that Virginia's wine industry contributes more than $1.4 billion annually to Virginia's economy. Virginia is in the top six states in number of wineries and wine grape production. The report showed that the Virginia Wine industry employs over 8,218 in 261 wineries.

Tourism: Another of Virginia's most important economic assets is the travel and tourism industry. Tourism's economic contribution to Virginia in 2018 increased to $26.0 billion, including employment in such travel-related businesses as lodging establishments, restaurants, museums, amusement parks, retail stores and gasoline service stations. Tourism is also a significant source of government revenues and was responsible for $1.8 billion in combined state and local tax revenues in 2018, up 2.9 percent from 2017.

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APPENDIX D

COMMONWEALTH OF VIRGINIA AUDITED FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2019

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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
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	
	2019	2018 as restated	2019	2018	2019	2018 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).

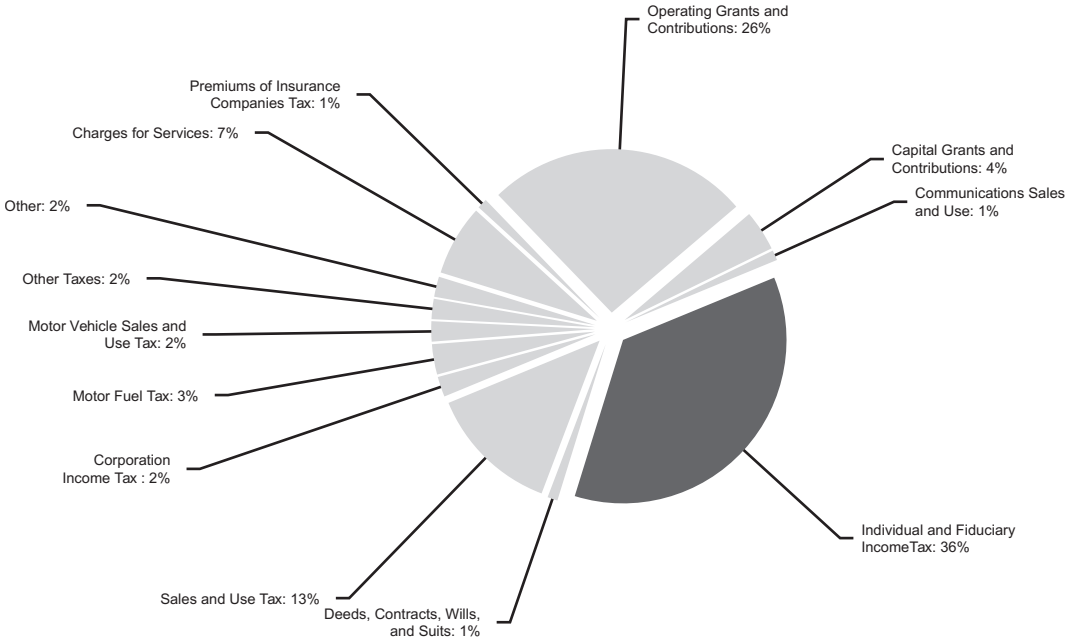
Figure 12
Changes in Net Position for the Fiscal Years Ended June 30, 2019 and 2018
(Dollars in Thousands)

	Governmental Activities		Business-type Activities		Total	
	2019	2018 as restated	2019	2018	2019	2018 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.

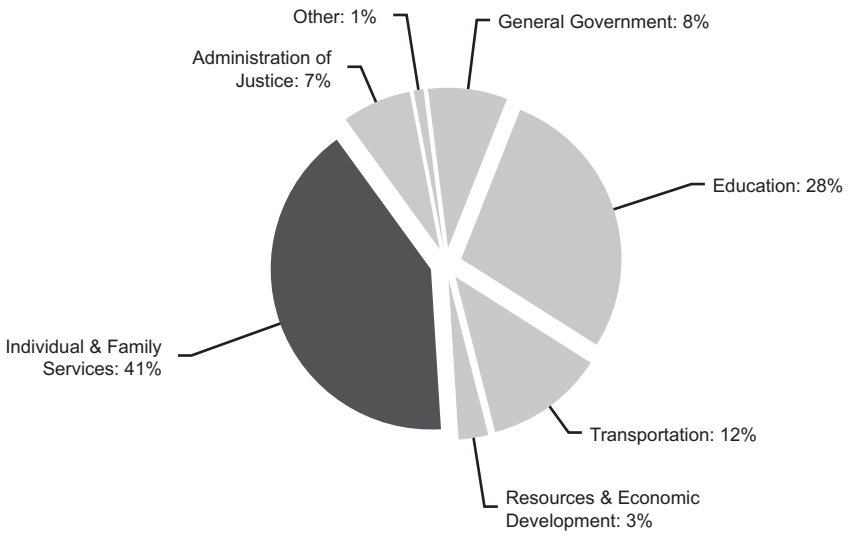
Figure 13
Revenues by Source – Governmental Activities
Fiscal Year 2019



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:

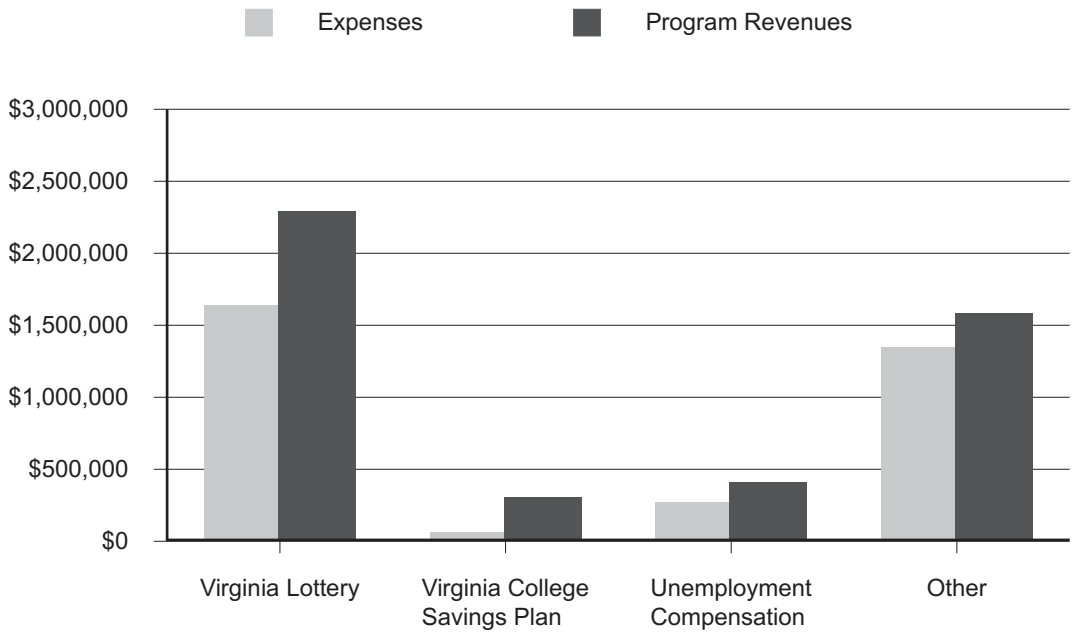
- Lottery sales were $2.3 billion, an increase of $153.7 million over the prior year. Net income was $653.5 million, an increase of $33.2 million (5.4 percent) from fiscal year 2018. Sales of scratch games increased by $37.3 million (3.1 percent) and online sales increased by $116.5 million (12.2 percent). 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	$ 33,804,048	$ 40,516	$ 33,844,564

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)

		Outstanding Debt			
		Primary Government			
	Debt Issuance Margin	Governmental Activities	Business-type Activities	Total	Component Units
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			
	Governmental Activities	Business-type Activities	Total	Component Units
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)	768,171	22,844	791,015	855,429
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)	4,493,029	27,060	4,520,089	754,009
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			
	Governmental Activities	Business-type Activities	Total	Component Units
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	$ 24,742,907	$ 2,471,977	$ 27,214,884	$ 29,632,961

Statement of Activities

For the Fiscal Year Ended June 30, 2019
(Dollars in Thousands)

Functions/Programs	Expenses	Program Revenues: Charges for Services	Program Revenues: Operating Grants and Contributions	Program Revenues: 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			
	Governmental Activities	Business-type Activities	Total	Component Units
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)	1,129,195	678,594	84,893	25,066
Total Liabilities and Deferred Inflows of Resources	3,963,358	1,729,948	1,681,486	228,063
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
—	—
$ 3,075,950	$ 15,309,705
$ 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
$ 3,075,950	$ 15,309,705

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
1,738,795	40,939,116
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
2,678,427	41,095,570
(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)
1,068,831	1,637,253
129,199	1,480,799
2,102,257	5,381,557
$ 2,231,456	$ 6,862,356

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)	3,653	2,022	—	17,169
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)	4,988	1,758	—	20,314
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.

Total	Governmental Activities 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
$ 951,426	$ 127,856
$ 570	$ 6,732
1,367	—
—	(568)
$ 1,937	$ 6,164

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 Employee 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			
	Expenses	Charges for Services	Operating Grants and Contributions (Note 1)	Capital Grants and Contributions	Net (Expenses) Revenue
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							
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 (Note 2)	Net Position (Deficit) June 30 (Note 4)
$ —	$ —	$ 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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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 politic 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:

	Years
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	$ 24,396,704	$ —	$ (59,338)	$ 24,337,366
Component Units	$ 27,816,792	$ 32,131	$ —	$ 27,848,923
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	$ 5,379,741	$ —	$ 1,816	$ 5,381,557
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	$ 27,816,792	$ 32,131	$ —	$ 27,848,923

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)

	General Fund	Commonwealth Transportation	Federal Trust	Literary	Nonmajor Governmental	Total
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	102,685	109,936	29,949	—	56,211	298,781
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	669,467	501,620	97,726	17,834	1,525,862	2,812,509
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	1,094,750	2,271,162	—	—	677,990	4,043,902
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	—	—	—	—	34,013	34,013
Unassigned	(264,229)	—	—	—	(62,620)	(326,849)
Total Fund Balance	$ 1,602,673	$ 2,882,718	$ 127,675	$ 17,834	$ 2,231,456	$ 6,862,356

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:

Security Type	Maximum Duration
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 Type	June 30, 2019	Investment Maturities (in years) Less Than 1	1-5	6-10	More Than 10
Debt Securities					
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	$ 18,802,754	$ 16,277,584	$ 1,723,363	$ 350,299	$ 451,508

Primary Government - Virginia College Savings Plan Investments

(Dollars in Thousands)

Investment Type	Prepaid529 (Major Enterprise Fund) June 30, 2019	Prepaid529 Weighted Avg. Effective Duration (in years)	Invest529 (Private Purpose Trust Fund) June 30, 2019	Invest529 Weighted Avg. Effective Duration (in years)
Debt Securities				
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	$ 1,450,914	3.1	$ 2,370,588	4.5

*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)

Investment Type	June 30, 2019	Weighted Avg. Effective Duration (in years)
Debt Securities		
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
Debt Securities - No Effective Duration		
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	$ 27,911,078	3.0

Component Unit Investments
(Dollars in Thousands)

Investment Type	June 30, 2019	Investment Maturities (in years)			
		Less Than 1	1-5	6-10	More Than 10
Debt Securities					
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	$ 4,919,183	$ 2,486,223	$ 1,139,164	$ 300,213	$ 993,583

Foundation Investments
(Dollars in Thousands)

Investment Type	Fair Value
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	$ 15,350,017

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 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	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				
Debt Securities (1)				
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	10,877,616	1,693,910	9,183,601	105
Equity Securities (2)				
Common and Pref erred 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	3,591,009	3,576,558	6,590	7,861
Total by Fair Value Level	14,468,625	$ 5,270,468	$ 9,190,191	$ 7,966
Total Fair Value Established Using the Net Asset Value (NAV) (3)	1,123,373			
Total Fair Value	$ 15,591,998			

(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	$ 1,006,360			

- **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	$ 117,013			

- **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				
Debt Securities (1)				
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	19,517,864	3,536,343	15,961,198	20,323
Equity Securities (2)				
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	25,576,914	24,606,357	115,419	855,138
Total by Fair Value Level	45,094,778	$ 28,142,700	$ 16,076,617	$ 875,461
Total Fair Value Established Using the Net Asset Value (NAV) (3)	37,036,480			
Total Fair Value	$ 82,131,258			

(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	8,835,794	—		
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	5,558,089	4,327,327		
Private equity funds				
Buyout funds	5,023,821	2,590,662		
Energy funds	701,245	255,246		
Grow th 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	9,521,407	5,744,731		
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	9,053,640	1,964,409		
U. S. Equity commingled funds	127,270	—		
Total investments measured at the NAV	$ 36,498,493	$ 12,036,467		

- **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				
Debt Securities (1)				
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	—
Equity Securities (2)				
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)	$ 4,058,219	$ 296,936	$ —	$ 806,275	$ 2,429,362
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	$ 1,908,400	$ 10,261,011	$ 3,293,365	$ 147,099	$ 7,058

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
$ 209,669	$ 995,675	$ 177,791	$ (2,235,740)	$ 6,738,187	$ 985,089
$ —	$ —	$ 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
$ —	$ —	$ 607,310	$ (1,037,844)	$ 15,186,399	$ 12,871,457

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	$ 246,092	Total Primary Government	$ 246,092

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	$ 96,681	Total Primary Government	$ 96,681

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	$ 271,152	Total Primary Government	$ 271,152

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	$ 3,950	$ 7,493	$ 31,329	$ 42,772
Discrete Component Units:				
Virginia Housing Development Authority (4)	$ —	$ —	$ 46,667	$ 46,667
Nonmajor Component Units (5)	610	—	59,883	60,493
Total Component Units	$ 610	$ —	$ 106,550	$ 107,160

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	8,927,572	1,754,706	(2,043,111)	8,639,167
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	38,249,987	2,348,078	(636,687)	39,961,378
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	13,858,344	1,324,439	(386,286)	14,796,497
Total Depreciable Capital Assets, Net	24,391,643	1,023,639	(250,401)	25,164,881
Total Capital Assets, Net	$ 33,319,215	$ 2,778,345	$ (2,293,512)	$ 33,804,048

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	$ 1,324,439

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	3,335	7,688	(136)	10,887
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	98,507	5,683	(931)	103,259
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	68,047	6,481	(898)	73,630
Total Depreciable Capital Assets, Net	30,460	(798)	(33)	29,629
Total Capital Assets, Net	$ 33,795	$ 6,890	$ (169)	$ 40,516

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	2,348,750	1,640,465	(933,431)	3,055,784	449,747	3,505,531
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	29,405,289	1,203,336	(231,434)	30,377,191	1,613,822	31,991,013
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	11,953,405	1,008,224	(187,798)	12,773,831	594,614	13,368,445
Total Depreciable Capital Assets, Net	17,451,884	195,112	(43,636)	17,603,360	1,019,208	18,622,568
Total Capital Assets, Net	$ 19,800,634	$ 1,835,577	$ (977,067)	$ 20,659,144	$ 1,468,955	$ 22,128,099

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			
	Governmental Activities	Business-type Activities	Total	Total Component Units
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	$ 768,171	$ 22,844	$ 791,015	$ 855,429
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	$ 4,493,029	$ 27,060	$ 4,520,089	$ 754,009

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	$ —	$ —	$ —	$ —	$ —	$ —
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	$ 1,129,195	$ 678,594	$ 84,893	$ 25,066	$ 34,791	$ 1,952,539

(Continued on next 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 Amount	Effective Date	Maturity Date	Credit Rate	June 30, 2019 Fair Value	June 30, 2018 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

	Changes in Fair Value		Fair Value at June 30, 2019		
Fund	Classification	Amount	Classification	Amount	Notional 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	Fair Value June 30, 2019		
Derivatives (by Type)	Amount	Classification	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 Maturities (in years)			
Investment Type	Fair Value June 30, 2019	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
Ukranian 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				$ 6,242	$ 24,389

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 MTIIE	(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 MTIIE	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 MIMUJPNN 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 MIMUJPNN 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)
	$ 423,500,000	100.0%	$ 434,539,513	$ 436,757,735	$ (2,218,222)

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)		
	Increase (Decrease)		
	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
Changes for the year			
Service cost	287,906	—	287,906
Interest	1,133,490	—	1,133,490
Differences between actual and expected experience	(228,970)	—	(228,970)
Assumption changes	—	—	—
Contributions - employer	—	436,385	(436,385)
Contributions - member	—	137,866	(137,866)
Net investment income	—	909,872	(909,872)
Benefit payments, including refunds	(902,389)	(911,179)	8,790
Administrative expense	—	(8,009)	8,009
Other changes	(78)	15,441	(15,519)
Net changes	289,959	580,376	(290,417)
Balances at June 30, 2019	$ 16,915,470	$ 12,987,509	$ 3,927,961

	VRS			SPORS		
	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	$ 13,091,321	$ 9,861,078	$ 3,230,243	$ 1,047,402	$ 796,073	$ 251,329
Changes for the year						
Service cost	209,055	—	209,055	18,187	—	18,187
Interest	893,442	—	893,442	71,251	—	71,251
Differences between actual and expected experience	(181,988)	—	(181,988)	(7,248)	—	(7,248)
Assumption changes	—	—	—	—	—	—
Contributions - employer	—	304,802	(304,802)	—	35,806	(35,806)
Contributions - member	—	112,277	(112,277)	—	6,311	(6,311)
Net investment income	—	724,109	(724,109)	—	58,148	(58,148)
Benefit payments, including refunds	(696,805)	(706,944)	10,139	(59,064)	(59,064)	—
Administrative expense	—	(6,384)	6,384	—	(509)	509
Other changes	—	15,848	(15,848)	—	(63)	63
Net changes	223,704	443,708	(220,004)	23,126	40,629	(17,503)
Balances at June 30, 2019	$ 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	$ 652,351	$ 540,009	$ 112,342	$ 1,877,566	$ 1,306,012	$ 571,554

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	$ 10,800,391	$ 8,345,371	$ 2,455,020

	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			SPORS		
Net Pension Liability			Net Pension Liability		
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%)
$ 4,557,668	$ 3,010,239	$ 1,707,649	$ 359,387	$ 233,826	$ 127,959

JRS			VaLORS		
Net Pension Liability			Net Pension Liability		
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%)
$ 171,387	$ 112,342	$ 61,007	$ 811,088	$ 571,554	$ 373,283

Component Units

VRS			VaLORS		
Net Pension Liability			Net Pension Liability		
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%)
$ 3,638,869	$ 2,403,393	$ 1,363,397	$ 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	100.0%		4.8%
		Inflation	2.5%
		Expected arithmetic nominal return	7.3%

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	$ 320,191	$ 267,191

	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	$ 310,975	$ 262,403	$ 9,216	$ 4,788

(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 Increase (Decrease)			VSDP 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 Increase (Decrease)			VSDP 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 Healthcare Cost Trend Rates		
LODA		
Proportionate Share of Net OPEB Liability		
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

(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	100.0%		4.8%
	Inflation		2.5%
Expected arithmetic nominal return			7.3%

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

	RHIC	VSDP	GLI	LODA
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

	RHIC: Non-State
2020	$ (19)
2021	(19)
2022	(19)
2023	6
2024	40
Thereafter	73

Component Units

	RHIC	VSDP	GLI	LODA
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

	PMRH Increase (Decrease) Total OPEB Liability
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	(175,052)
Balances at June 30, 2019	$ 585,499

Component Units

	PMRH Increase (Decrease) Total OPEB Liability
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	(118,212)
Balances at June 30, 2019	$ 420,141

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.

	Vendor	Salary / Wage	Retainage	Other	Foundations (1)	Total
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)	$ 1,027,330	$ 192,716	$ 10,625	$ 53,070	$ —	$ 1,283,741
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	$ 726,689	$ 507,534	$ 62,323	$ 25,656	$ 130,031	$ 1,452,233

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					
	General	Commonwealth Transportation	Federal Trust	Nonmajor Governmental Funds	Virginia Lottery	Virginia College Savings Plan (1)
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				
	Nonmajor Enterprise Funds	Internal Service Funds	Pension and Other Employee Benefit Trust Funds (2)	Agency Funds	Total Primary Government (3)
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					
	Virginia Housing Development Authority	Virginia Public School Authority	Virginia Resources Authority	Virginia College Building Authority	Nonmajor Component Units (4)	Total Component Units
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

(Dollars in Thousands)	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	416,501	51,610
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	6,982,091	364,398
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	6,275,132	262,265
Total Governmental Activities (3)	13,673,724	678,273
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	2,286,386	303,192
Total Business-type Activities	2,286,386	303,192
Total Primary Government	15,960,110	981,465

Continued on next page

Total Long-term Liabilities

June 30, 2019

(Continued from previous page)

(Dollars in Thousands)	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	19,995,855	1,117,074
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)	9,014,158	499,674
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	630,047	61,647
Total Other Long-term Obligations	9,644,205	561,321
Total Component Units	30,533,166	1,734,655
Total Long-term Liabilities	$ 46,493,276	$ 2,716,120

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	$ 6,061,270	$ 415,750	$ 6,477,020

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	$ 4,118,430,754	$ 1,539,114,394	$ 5,657,545,148

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	$ 2,844,656

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: Unaccreted 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	476,528	—	(60,027)	416,501
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	13,384,358	1,036,925	(1,164,060)	13,257,223
Total Governmental Activities	13,860,886	1,036,925	(1,224,087)	13,673,724
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	2,444,995	38,999	(197,608)	2,286,386
Total Primary Government	$ 16,305,881	$ 1,075,924	$ (1,421,695)	$ 15,960,110

*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

(Dollars in Thousands)

Schedule of Changes in Long-term Debt and Obligations (1) (2)
(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
$ 1,712,396	$ 30,533,166	$ 1,734,655

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		115,449
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)		2,245,147
Foundations:		
Notes Payable		269,662
Subtotal - Foundations		269,662
Total Component Units		2,514,809
Total Notes Payable	$	2,630,258

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).

Foundations' Notes Payable (Component Units) (1)

Maturity		Principal
2020	$	30,833
2021		12,617
2022		13,701
2023		25,613
2024		10,800
Thereafter		176,098
Total	$	269,662

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.

Installment Purchase Obligations from Direct Borrowings
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	$	114,931,104	$	14,293,493	$	129,224,597

Installment Purchase Obligations from Direct Borrowings
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	$	518,304	$	42,351	$	560,655

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	$ 63,018,000	$ 93,215,000	$ 156,233,000

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	$ 151,483	$ 377,736	$ 419,178	$ 21,565	$ 33,242

	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	$ 56,487	$ 4,880	$ 527,502	$ 1,592,073

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)

	Insurance Claims	Lottery Prize Expense	Total Prizes and Claims
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	$ 750,502	$ 1,399,749	$ 2,150,251
Internal Service Funds	$ 1,472,386	$ —	$ 1,472,386

32. OTHER EXPENSES

The following table summarizes Other Expenses for the fiscal year ended June 30, 2019.

(Dollars in Thousands)

	Grants and Distributions To Localities	Expendable Equipment/ Improvements	Other (1)	Total Other Expenses
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	$ 94	$ 3,603	$ 2,564	$ 6,261
Internal Service Funds	$ 1,886	$ 2,452	$ 6,497	$ 10,835
Pension and Other Employee Benefit Trust Funds (2)	$ —	$ —	$ 11,522	$ 11,522

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 In (Reported In):							
Transfers Out (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	$ (1,418,938)	$ —	$ (282,473)	$ (471,856)	$ (2,173,267)	$ (1,513,333)
Other Operating Revenue:						
Other Operating Revenue	$ —	$ —	$ 152	$ 5,206	$ 5,358	$ —
Total	$ —	$ —	$ 152	$ 5,206	$ 5,358	$ —
Other Operating Expense:						
Other Operating Expenses (1)	$ —	$ (2,185)	$ —	$ (2,265)	$ (4,450)	$ (10,011)
Total	$ —	$ (2,185)	$ —	$ (2,265)	$ (4,450)	$ (10,011)
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	$ 399	$ —	$ 5	$ 306,527	$ 306,931	$ 155,943
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	$ —	$ —	$ —	$ (40,469)	$ (40,469)	$ (98,201)

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 VPFP 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			
	Original Budget	Final Budget	Actual	Final/Actual Variance Positive (Negative)
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.

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

(Dollars in Thousands)

	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	$ 1,602,673	$ 2,882,718	$ 127,675

1. 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.

(Dollars in Thousands)	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	$ 22,611,142	$ 7,728,163	$ 10,537,233

1. Represents the budget appropriated through Chapter 2, 2018 Acts of Assembly Special Session 1, as amended by Chapter 854, 2019 Acts of Assembly.
2. Actions taken to reappropriate any prior year unexpended balances per authority of the language in the Appropriation Act.
3. 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).
4. Actions taken by the Governor and the General Assembly to adjust the budget.
5. Represents reversions of unexpended capital outlay and operating balances.
6. 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.
7. 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.
8. Budgetary reductions totaling $354.2 million are excluded since they were not available for disbursement during the current fiscal year.
9. 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)

	VRS State				
Change in the Net Pension Liability	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
$ 46,679,555	$ 45,417,520	$ 44,182,326	$ 42,930,422	$ 41,495,883
$ 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
$ 11,759,992	$ 12,297,975	$ 14,014,115	$ 12,586,350	$ 12,084,700
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
$ 1,070,528	$ 1,047,402	$ 1,086,958	$ 1,064,450	$ 1,031,856
$ 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
$ 233,826	$ 251,329	$ 356,270	$ 331,098	$ 310,866
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)

	VaLORS				
Change in the Net Pension Liability	**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
$ 652,351	$ 646,275	$ 621,605	$ 632,381	$ 616,680
$ 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
$ 112,342	$ 133,526	$ 154,216	$ 176,123	$ 174,486
82.8%	79.3%	75.2%	72.1%	71.7%
$ 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
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%

	VRS					
	State	Teacher	Political Subdivisions	SPORS	VaLORS	JRS
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 2019	RHIC 2018	VSDP 2019	VSDP 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
—	—	—	—
$ 48,384	$ 2,861	$ —	$ 51,245
$ —	$ —	$ —	$ —
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
5,551	—	—	5,551
5,551	—	—	5,551
—	—	—	—
42,833	2,861	—	45,694
—	—	—	—
—	—	—	—
—	—	—	—
42,833	2,861	—	45,694
$ 48,384	$ 2,861	$ —	$ 51,245

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	$ 201,077	$ (62,080)	$ 639,656	$ 778,653

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			
	Primary Government	Virginia Public Building Authority	Hampton Roads Transportation Accountability Commission	Total
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

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.

(Dollars in Thousands)	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	$ 201,077	$ 639,656

1. 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.

(Dollars in Thousands)	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	$ 753,479	$ 748,057

1. Represents the budget appropriated through Chapter 2, 2018 Acts of Assembly Special Session 1 as amended by Chapter 854, 2019 Acts of Assembly.
2. Actions taken to reappropriate any prior year unexpended balances per authority of the language in the Appropriation Act.
3. Actions taken by the Governor to appropriate any additional revenues collected so that they can be legally spent.
4. Actions taken by the Governor and the General Assembly to adjust the budget.
5. Represents reversions of unexpended capital outlay balances.
6. Represents transfers required by the Appropriation Act.
7. 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	179,474	815	8,913
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	(191,738)	—	(559)
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	(8,502)	(32)	—
Cash Flows from Investing Activities			
Investment Income on Cash, Cash Equivalents, and Investments	607	599	1,859
Net Cash Provided by Investing Activities	607	599	1,859
Net Increase (Decrease) in Cash and Cash Equivalents	(20,159)	1,382	10,213
Cash and Cash Equivalents, July 1	21,669	25,353	83,247
Cash and Cash Equivalents, June 30	$ 1,510	$ 26,735	$ 93,460
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	$ 1,510	$ 26,735	$ 93,460

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	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	$ 179,474	$ 815	$ 8,913
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	$ —	$ —	$ —

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	$ (800)	$ (68)	$ 2,030
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	$ —	$ —	$ 570

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	158,294	6,196	20,661	590,585
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	7,144	90,000	8,817	115
Total Assets	165,438	96,196	29,478	590,700
Deferred Outflows of Resources	2,991	567	3,342	594
Total Assets and Deferred Outflows of Resources	168,429	96,763	32,820	591,294
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 Secrities 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	167,095	15,188	7,135	206,400
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	23,319	96,274	17,810	3,475
Total Liabilities	190,414	111,462	24,945	209,875
Deferred Inflows of Resources	4,356	543	2,627	507
Total Liabilities and Deferred Inflows of Resources	194,770	112,005	27,572	210,382
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)	$ (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
$ 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	19,531	(1,764)	(3,365)	99,712
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	50,215	5,622	(880)	—
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	(150)	(2,331)	(253)	—
Cash Flows from Investing Activities				
Investment Income on Cash, Cash Equivalents, and Investments	—	—	—	9,822
Net Cash Provided by Investing Activities	—	—	—	9,822
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	$ 87,677	$ 6,193	$ 3,800	$ 459,565
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	$ 87,677	$ 6,193	$ 3,800	$ 459,565

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	$ 19,531	$ (1,764)	$ (3,365)	$ 99,712
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	$ —	$ (578)	$ 10	$ —

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	$ 5,103,668	$ 189	$ 257

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
$ 4,447	$ 9,875	$ 66	$ 5,118,502

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	$ 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
$ 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	$ 5,307,553	$ 118,276	$ 5,425,829

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	$ 287,247	$ 5,389	$ 48,185	$ 450,702
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	$ 287,247	$ 5,389	$ 48,185	$ 450,702

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	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
$ 23,073	$ 14,441	$ 758	$ 43	$ 785	$ 4,076	$ 1,291	$ 3,230
$ 3,307	$ —	$ —	$ —	$ —	$ —	$ 1	$ —
—	—	—	—	—	—	—	—
245	—	—	—	—	—	—	—
—	—	—	—	—	159	—	241
18,896	14,441	758	43	—	—	—	—
625	—	—	—	785	3,917	1,290	2,989
—	—	—	—	—	—	—	—
$ 23,073	$ 14,441	$ 758	$ 43	$ 785	$ 4,076	$ 1,291	$ 3,230

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	—	—	1,062	—
Due to Claimants, Participants, Escrows and Providers	18	7	12,479	208
Other Liabilities	—	—	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
$ —	$ 32,455	$ 886,125
$ —	$ —	$ 8,998
—	—	283,329
—	—	4,016
—	—	2,403
—	—	46,850
—	32,455	540,156
—	—	373
$ —	$ 32,455	$ 886,125

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			
	Expenses	Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions	Net (Expenses) Revenue
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	15,746,120	10,902,216	2,672,910	591,489	(1,579,505)
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	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)

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	663,561	17,500	106,890	(7,528)	566,643
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	4,916,080	1,088,503	1,086,449	(120,045)	4,798,089
Total Authorized and Unissued Tax-Supported Debt	$ 5,579,641	$ 1,106,003	$ 1,193,339	$ (127,573)	$ 5,364,732

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) *(continued)*					
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) *(continued)*					
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	46,660	40,435	(1,800)	38,635	06/01/20-34
Longwood University					
Dining Hall - 2004B Refunding Portion	934	218	(218)	—	
Residence Hall Improvements - 2004B Refunding Portion	880	203	(203)	—	
Radford University					
Renovate Residence Halls	11,080	9,600	(425)	9,175	06/01/20-34
University of Mary Washington					
Residence Hall Renovation - 2004B Refunding Portion	656	247	(123)	124	6/1/2020
University of Virginia					
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	

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
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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Financial Trends 317

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
- Changes in Net Position – Accrual Basis of Accounting
- Fund Balance, Governmental Funds – Modified Accrual Basis of Accounting
- Changes in Fund Balance, Governmental Funds – Modified Accrual Basis of Accounting
- Comparison of General Fund Balance

Revenue Capacity 331

These schedules contain information to help the reader assess the factors affecting the Commonwealth's ability to generate its income taxes.

- Personal Income Tax Rates
- Effective Tax Rates
- Personal Income Tax Filers and Liability by Income Level
- Personal Income by Industry
- Taxable Sales by Business Class
- Sales Tax Revenue by Business Class

Debt Capacity 339

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.

- Ratios of Outstanding Debt by Type
- Ratios of General Obligation Bonded Debt Outstanding
- Computation of Legal Debt Limit and Margin
- Schedule of Pledged Revenue Bond Coverage – Primary Government 9(d) General Long-term Debt

Demographic and Economic Information 345

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.

- Schedule of Demographic and Economic Statistics
- Principal Employers

Operating Information 347

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.

- State Employees by Function
- Operating Indicators by Function
- Capital Asset Statistics by Function

Employees of the Department of Accounts 356

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
$ 17,082	$ 17,003	$ 16,960	$ 16,540	$ 17,228	$ 17,102
$ (21,575)	$ (20,814)	$ (19,459)	$ (18,767)	$ (17,753)	$ (16,973)
986	1,214	966	892	842	248
$ (20,589)	$ (19,600)	$ (18,493)	$ (17,875)	$ (16,911)	$ (16,725)
$ 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
22,443	21,567	20,519	20,160	18,852	17,562
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)
$ 21,760	$ 20,855	$ 19,859	$ 19,502	$ 18,248	$ 16,977
$ 868	$ 753	$ 1,060	$ 1,394	$ 1,099	$ 589
303	502	306	234	238	(337)
$ 1,171	$ 1,255	$ 1,366	$ 1,628	$ 1,337	$ 252

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	Fund Balance: 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

	Tax Year Ended December 31, 2017				Tax Year Ended December 31, 2008			
Income Level	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
$ 432,785	$ 410,473	$ 405,848	$ 396,552	$ 376,231	$ 355,743

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
$ 96,204	$ 94,584	$ 93,318	$ 89,068	$ 86,418	$ 85,866
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	$ 19,718,337	$ 18,794,741	$ 17,600,400	$ 16,971,972
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	$ 6,802,826	$ 6,484,186	$ 6,072,138	$ 5,855,330
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	$ 21,108,294	$ 19,999,629	$ 19,157,506	$ 18,261,430
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)	$ 5,377,542	$ 5,114,348	$ 4,918,244	$ 4,708,336
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	$ 20,602,433	$ 19,601,755	$ 18,753,213	$ 17,926,510
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)

Primary Government Revenue Bonds:	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) Principal	Debt Service Requirements (3) (4) Interest	Coverage
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
Department of Transportation
Department of the Treasury
State Council of Higher Education for Virginia

Employees of the Department of Accounts

Deborah J. Abbott — Shannon L. Adams — Shenda D. Allen — Monica B. Anderson — Srikanth R. Annem — Diana K. Attuso — Demetria R. Baugh — Diane D. Becken — Pamela P. Benos — Andrew B. Binks — Kristen N. Bolden — Henry A. Bosman — Hope A. Broughman — Donna R. Brown — Lora L. Brown — Megan R. Buchanan — Rudy B. Burgess — Stephanie D. Bussenger — George W. Byrd — William H. Campbell — Adrian L. Carr — Catrina W. Case — Nadine Chambers — Donna L. Choice — Kevita F. Clayborne — Charisse Cofield — Shauntell D. Cox — Joseph M. Crawford — Erika M. Daly — Stephanie D. Day — Pamela W. Dodson — Riya P. Doshi — Sarah D. Drysdale — Bryan L. Duffee — Emily T. Dunford — Valerie Dunmars-Hurdle — Robert D. Eddleton — Christine K. Elam — Vicki D. Eppes-Ward — Beth Fauerbach — Deborah A. Fields-Harris — Lanine M. Fisher — Gwendolyn T. Fleming — Priscilla D. Fleming — Abigail C. Folliard — LaTanya M. Foreman — Wayne A. Gabbert — Kayleen P. Gonzalez — Cathy P. Gravatt — Virginia G. Grigsby — Shannon M. Gulasky — Melissa J. Hagan — Michael D. Hall — Michael J. Hall — Edmanda C. Harmon — Tiffany L. Harris — Shantel L. Harvey — Peichi Hockaday — Carmelita L. Holmes — Tiffany D. Hopkins — Rhonda S. Hutsell — Ashlyn S. Jinnette — Marcy D. Jones — Shirleen L. Jones — Susan L. Jones — Lance O. Kaeberle — Hussein H. Karsh — Esther Kim — Hemalatha Krishnakumar — Sharon H. Lawrence — Marquinta Y. Lee-Reynolds — Verna P. Left — Betsy M. Lewerenz — Steven W. Lewerenz — Diana M. Lyon — Lewis R. McCabe, Jr. — Andrew C. McCarty — Stacy D. McCracken — Kevin H. McElroy — Cathy C. McGill — Carlton R. McKinnon — Marianne P. Madison — Jessica B. Martin — Cynthia D. Matthews — William E. Matthews — Thomas E. Mays — Martese A. Motley — Jennifer E. Mott — Sandra Muir — Jennifer A. Nolen-Vaughn — Dirk K. North — Austin F. Oakes — Barbara S. Orndorff — Douglas N. Page — Melinda L. Pearson — Melissa L. Pentz — Frank J. Pitera — Angelica D. Powers — Donna K. Rabender — Robert E. Ramey — Norma J. Roberts — Patrice A. Robinson — Catherine A. Royal — Timothy N. Sartini — Trenika N. Satterwhite — Sandra Savoia — Linda W. Scott — Amy C. Shearin — Brandon W. Shearin — Andrew Short — Marvin A. Simon — Amanda R. Simpson — John J. Sotos — Jamie Z. Spears — Dominique R. Spiers — Erin E. Sprouse — Laura L. Swecker — Pamela W. Tauer — Joseph J. Teleoglou — Audra M. Terrell — Imelda B. Tran — Debra S. Trefsgar — Christy Tuck — Brittany E. Tucker — Keya H. Turakhia — Jean S. Turlington — Elizabeth J. Vlahos — David A. Von Moll — Brandon W. Walton — Darnita E. Washington — Nekheeta S. Washington — Sandra H. Weaver — Kim G. Webster — Kimberly N. White — Matthew K. Wiggins — John C. Willard — Eunice R. Williams — Lori L. Williams — Penny B. Williams — Raymond L. Williams, Jr. — Taylor E. Williams — Vera D. Williams — Asim H. Wilson — Jennifer A. Wykoff — Carol H. York — Janet L. Yu

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APPENDIX E

BOOK-ENTRY ONLY SYSTEM

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BOOK-ENTRY ONLY SYSTEM

The description that follows of the procedures and recordkeeping with respect to beneficial ownership interests in the 2020A Bonds, payments of principal, premium, if any, and interest on the 2020A Bonds to DTC, its nominee, Direct Participants, Indirect Participants, or Beneficial Owners, each as hereinafter defined, confirmation and transfer of beneficial ownership interests in the 2020A Bonds and other bond-related transactions by and between DTC, Direct Participants, and Indirect Participants and Beneficial Owners is based solely on information furnished by DTC.

The Depository Trust Company ("DTC"), New York, New York, will act as securities depository for the 2020A Bonds. The 2020A Bonds will be issued as fully-registered bonds registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each of the 2020A Infrastructure Revenue Bonds and the 2020A Moral Obligation Bonds, each in the aggregate principal amount of such series, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of 2020A Bond certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of 2020A Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2020A Bonds on DTC's records. The ownership interest of each actual purchaser of each 2020A Bond ("Beneficial Owner") is in turn to be recorded on the records of Direct Participants and Indirect Participants, as applicable. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct Participant or Indirect Participant, as applicable, through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2020A Bonds are to be accomplished by entries made on the books of Direct Participants and/or Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in 2020A Bonds, except in the event that use of the book-entry system for the 2020A Bonds is discontinued.

To facilitate subsequent transfers, all 2020A Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be

requested by an authorized representative of DTC. The deposit of 2020A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2020A Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2020A Bonds are credited, which may or may not be the Beneficial Owners. The Direct Participants and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all of the 2020A Bonds within a series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to 2020A Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an omnibus proxy (an "Omnibus Proxy") to VRA as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts 2020A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Redemption proceeds and payments on the 2020A Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from VRA or the Trustee on payable date in accordance with their respective holdings shown on DTC's records. Payments by Direct Participants and/or Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Direct Participant or Indirect Participant, as applicable, and not of DTC, the Trustee, or VRA, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds and payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of VRA or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct Participants and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the 2020A Bonds at any time by giving reasonable notice to VRA or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, 2020A Bond certificates are required to be printed and delivered.

VRA may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, 2020A Bond certificates will be printed and delivered to DTC.

The foregoing information in this Appendix concerning DTC and DTC's book-entry system has been obtained from sources that VRA believes to be reliable, but VRA takes no responsibility for the accuracy thereof.

NEITHER VRA, THE TRUSTEE, ANY LOCAL GOVERNMENT, THE UNDERWRITERS, WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DIRECT PARTICIPANTS, TO INDIRECT PARTICIPANTS OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (I) THE

ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY DIRECT PARTICIPANT, OR ANY INDIRECT PARTICIPANT; (II) THE PAYMENT BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT WITH RESPECT TO THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON, THE 2020A BONDS; (III) ANY NOTICE WHICH IS PERMITTED OR REQUIRED TO BE GIVEN TO BONDHOLDERS; (IV) ANY CONSENT GIVEN BY DTC OR OTHER ACTION TAKEN BY DTC AS BONDHOLDER; OR (V) THE SELECTION BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY BENEFICIAL OWNERS TO RECEIVE PAYMENT IN THE EVENT OF A PARTIAL REDEMPTION OF THE 2020A BONDS.

So long as Cede & Co. is the registered owner of the 2020A Bonds, as nominee of DTC, references in this Official Statement to the Owner or Owners of the 2020A Bonds or Owners shall mean Cede & Co. and shall not mean the Beneficial Owners, and the Trustee will treat Cede & Co. as the only Owner or Bondholder of the 2020A Bonds for all purposes under the Indenture.

VRA may enter into amendments to its agreement with DTC or any successor depository without the consent of the Beneficial Owners.

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APPENDIX F

PROPOSED FORMS OF BOND COUNSEL OPINION LETTERS

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McGUIREWOODS

June 3, 2020

Virginia Resources Authority
1111 East Main Street, Suite 1920
Richmond, Virginia 23219

Virginia Resources Authority

$12,195,000 Infrastructure Revenue Bonds
(Virginia Pooled Financing Program)
Series 2020A (Tax-Exempt)

and

$5,245,000 State Moral Obligation Revenue Bonds
(Virginia Pooled Financing Program)
Series 2020A (Tax-Exempt)

Ladies and Gentlemen:

We have served as Bond Counsel to the Virginia Resources Authority ("VRA") in connection with the issuance of VRA's $12,195,000 Infrastructure Revenue Bonds (Virginia Pooled Financing Program), Series 2020A (Tax-Exempt) (the "2020A Tax-Exempt Infrastructure Revenue Bonds") and $5,245,000 State Moral Obligation Revenue Bonds (Virginia Pooled Financing Program), Series 2020A (Tax-Exempt) (the "2020A Tax-Exempt Moral Obligation Bonds," and, together with the 2020A Tax-Exempt Infrastructure Revenue Bonds, the "2020A Tax-Exempt Bonds"). The issuance of the 2020A Tax-Exempt Bonds has been authorized pursuant to the resolutions adopted by VRA's Board of Directors on June 11, 2019, as amended on April 28, 2020, and the 2020A Tax-Exempt Bonds have been issued under (i) the Virginia Resources Authority Act, Chapter 21, Title 62.1, Code of Virginia of 1950, as amended (the "VRA Act"), and (ii) a Master Indenture of Trust dated as of December 1, 2003, as previously supplemented and amended (the "Master Indenture"), between VRA and U.S. Bank National Association, as successor trustee (the "Trustee"), and as further supplemented by a Forty-Seventh Supplemental Series Indenture of Trust dated as of June 1, 2020 (the "Forty-Seventh Supplemental Series Indenture," and, together with the Master Indenture, the "Indenture"), between VRA and the Trustee. We refer you to the 2020A Tax-Exempt Bonds and the Indenture for a description of the purposes for which the 2020A Tax-Exempt Bonds are issued, their terms and the security for them. Unless otherwise defined, each capitalized term used in this opinion letter has the meaning given it in the Indenture.

In connection with our opinion, we have examined the Constitution of Virginia and the applicable laws of both the Commonwealth of Virginia (the "Commonwealth"), including the VRA Act, and the United States of America, including the Internal Revenue Code of 1986, as amended (the "Code"), and such certified proceedings and other documents relating to the issuance of the 2020A Tax-Exempt Bonds and VRA as we deem necessary to render this opinion.

Without undertaking to verify them by independent investigation, as to questions of fact material to this opinion we have relied upon (i) representations of VRA contained in the Indenture and related documents, (ii) certifications of public officials furnished to us, including certifications made on behalf of the 2020A Local Governments (as defined in VRA's Official Statement dated May 20, 2020), and (iii) certifications and representations contained in certificates of VRA and others delivered at closing. In addition, without undertaking to verify the same by independent investigation, we have relied on computations provided to us by Davenport & Company LLC, VRA's financial advisor, the mathematical accuracy of which was verified by Bingham Arbitrage Rebate Services, Richmond, Virginia, relating to the sufficiency of and the yield on investments in the refunding escrow funds established with a portion of the proceeds of the 2020A Bonds and the arbitrage yield on the 2020A Bonds.

We have assumed that all signatures on documents, certificates and instruments examined by us are genuine, all documents, certificates and instruments submitted to us as originals are authentic, and all documents, certificates and instruments submitted to us as copies conform to the originals. In addition, we have assumed that all documents, certificates and instruments relating to this transaction have been duly authorized, executed, and delivered by all parties to them other than VRA, and we have further assumed the due organization, existence, and powers of all parties other than VRA.

Based on the foregoing, we are of the opinion that, under current law:

(1) VRA is a public body corporate and a political subdivision of the Commonwealth duly created by the VRA Act and vested with all of the rights and powers conferred by the VRA Act.

(2) VRA has the requisite authority and power under the VRA Act to enter into the Indenture, to issue and sell the 2020A Tax-Exempt Bonds, and to apply the proceeds from the issuance and sale of the 2020A Tax-Exempt Bonds as set forth in the Indenture. All conditions precedent to the issuance of the 2020A Tax-Exempt Bonds as set forth in the VRA Act and the Indenture have been fulfilled.

(3) The principal of, premium, if any, and interest on the 2020A Tax-Exempt Bonds do not constitute a debt of the Commonwealth or any of its political subdivisions other than VRA. Neither the Commonwealth nor any of its political subdivisions, including VRA, is legally obligated to pay the principal of, premium, if any, or interest on the 2020A Tax-Exempt Bonds or other costs incident to them except from the revenues, money and property of VRA pledged for such purpose, and neither the faith and credit nor the taxing power of the Commonwealth or any of its political subdivisions, including VRA, is pledged to the payment of the principal of, or premium, if any, or interest on the 2020A Tax-Exempt Bonds.

(4) The 2020A Tax-Exempt Infrastructure Revenue Bonds have been duly authorized, executed, and delivered in accordance with the VRA Act and the Indenture and constitute valid and binding limited obligations of VRA, payable solely from the revenues, money and property of VRA specifically pledged for such purpose under the Indenture on a parity with the other Outstanding Infrastructure Revenue Bonds heretofore or hereafter issued under the Indenture.

(5) The 2020A Tax-Exempt Moral Obligation Bonds have been duly authorized, executed, and delivered in accordance with the VRA Act and the Indenture and constitute valid and binding limited obligations of VRA, payable solely from the revenues, money and property of VRA specifically pledged for such purpose under the Indenture, which pledge is (i) on a parity with the other Outstanding Moral Obligation Bonds heretofore or hereafter issued under the Indenture and (ii) subordinate as to certain revenues, money and property to the pledge thereof securing the 2020A Tax-Exempt Infrastructure Revenue Bonds issued on the date hereof and the other Outstanding Infrastructure Revenue Bonds heretofore or hereafter issued under the Indenture.

(6) The Indenture has been duly authorized, executed and delivered by VRA, constitutes the valid and binding obligation of VRA, pledges the Revenues and the Infrastructure Revenue Bond Revenues to the Trustee as security for the Infrastructure Revenue Bonds, pledges the Revenues on a subordinate basis to the Moral Obligation Bonds, and is enforceable against VRA in accordance with its terms. The Forty-Seventh Supplemental Series Indenture is authorized and permitted by the Master Indenture and will have no adverse effect on the excludability of the interest on any of the Bonds Outstanding on the date hereof from gross income for federal income tax purposes.

(7) Additional Infrastructure Revenue Bonds and Moral Obligation Bonds may be issued from time to time under the conditions, limitations, and restrictions set forth in the Indenture, and may be secured equally and ratably thereunder with the 2020A Tax-Exempt Infrastructure Revenue Bonds and the other Outstanding Infrastructure Revenue Bonds or the 2020A Tax-Exempt Moral Obligation Bonds and the other Outstanding Moral Obligation Bonds, as the case may be.

(8) Interest on the 2020A Tax-Exempt Bonds, including any accrued "original issue discount" properly allocable to the owners of the 2020A Tax-Exempt Bonds, (i) is excludable from gross income for federal income tax purposes under Section 103 of the Code and (ii) is not a specific item of tax preference for purposes of the federal alternative minimum tax (a "Specific Tax Preference Item"). The "original issue discount" on any 2020A Tax-Exempt Bond is the excess of its stated redemption price at maturity over the initial offering price to the public at which price a substantial amount of the 2020A Tax-Exempt Bonds of the same maturity was sold. The "public" does not include bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers. We express no opinion regarding other federal tax consequences arising with respect to the 2020A Tax-Exempt Bonds.

In delivering this opinion, we are (i) relying on opinions from other firms of municipal bond attorneys serving as bond counsel to all of the 2020A Local Governments regarding the application of the proceeds of the 2020A Tax-Exempt Bonds and the ownership, use and

operation of the property financed or refinanced thereby, and (ii) assuming continuing compliance with the Covenants, as hereinafter defined, by VRA and each of the 2020A Local Governments, so that interest on the 2020A Tax-Exempt Bonds will (x) remain excludable from gross income for federal income tax purposes and (y) not become a Specific Tax Preference Item. VRA and the 2020A Local Governments, as applicable, have covenanted in their respective tax agreements to comply with the provisions of the Code applicable to the 2020A Tax-Exempt Bonds including, among other things, requirements as to the use, expenditure and investment of the proceeds thereof, the use of the property financed or refinanced thereby, the source of the payment thereof and the security therefor, the arbitrage yield restrictions and rebate payment obligations imposed by the Code and certain other actions that could cause interest thereon to be includable in gross income of their owners (the "Covenants"). Failure by VRA or any of the 2020A Local Governments, as applicable, to comply with the Covenants could cause interest on the 2020A Tax-Exempt Bonds to become includable in gross income for federal income tax purposes retroactive to their date of issue. In the event of noncompliance with the Covenants, the available enforcement remedies may be limited by applicable provisions of law and, therefore, may not be adequate to prevent interest on the 2020A Tax-Exempt Bonds from becoming includible in gross income for federal income tax purposes.

We have no responsibility to monitor compliance with the Covenants after the date of issue of the 2020A Tax-Exempt Bonds.

Certain requirements and procedures contained, incorporated or referred to in the above-referenced tax agreements, including the Covenants, may be changed and certain actions may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such agreements. We express no opinion concerning any effect on the excludability of interest on the 2020A Tax-Exempt Bonds from gross income for federal income tax purposes of any such subsequent change or action that may be made, taken or omitted upon the advice or approval of counsel other than this firm.

(9) In accordance with Section 62.1-219 of the VRA Act, the 2020A Tax-Exempt Bonds and the income from them, including any profit made on their sale, are exempt from taxation by the Commonwealth and any of its political subdivisions. We express no opinion regarding (i) other tax consequences arising with respect to the 2020A Tax-Exempt Bonds under the laws of the Commonwealth or (ii) any consequences arising with respect to the 2020A Tax-Exempt Bonds under the tax laws of any state or local jurisdiction other than the Commonwealth and its political subdivisions.

The rights of the registered owners of the 2020A Tax-Exempt Bonds and the enforceability of VRA's obligations under the 2020A Tax-Exempt Bonds and the Indenture may be limited or otherwise affected by bankruptcy, insolvency, reorganization, moratorium, and similar laws now or hereafter in effect affecting creditors' rights. The enforceability of those rights and obligations is also subject to the exercise of judicial discretion in accordance with general principles of equity.

Our services as Bond Counsel have been limited to rendering the foregoing opinion based on our review of such legal proceedings as we deem necessary to approve the validity of the 2020A Tax-Exempt Bonds and the tax-exempt status of the interest on them and the

enforceability of the Indenture. The foregoing opinion is in no respect an opinion as to VRA's business or financial resources or its ability to provide for the payment of the 2020A Tax-Exempt Bonds or the accuracy or completeness of any information, including VRA's Preliminary Official Statement dated May 15, 2020, and Official Statement dated May 20, 2020, that anyone may have relied upon in making the decision to purchase the 2020A Tax-Exempt Bonds.

This opinion is given as of the date hereof, and we assume no obligation to revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law that may hereafter occur.

Very truly yours,

To be signed: McGuireWoods LLP

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McGUIREWOODS

June 3, 2020

Virginia Resources Authority
1111 East Main Street, Suite 1920
Richmond, Virginia 23219

Virginia Resources Authority

$37,880,000 Infrastructure Revenue Bonds
(Virginia Pooled Financing Program)
Series 2020A (Taxable)

Ladies and Gentlemen:

We have served as Bond Counsel to the Virginia Resources Authority ("VRA") in connection with the issuance of VRA's $37,880,000 Infrastructure Revenue Bonds (Virginia Pooled Financing Program), Series 2020A (Taxable) (the "2020A Taxable Bonds"). The issuance of the 2020A Taxable Bonds were authorized by resolutions adopted by VRA's Board of Directors on June 11, 2019, as amended on April 28, 2020, and the 2020A Taxable Bonds have been issued under (i) the Virginia Resources Authority Act, Chapter 21, Title 62.1, Code of Virginia of 1950, as amended (the "VRA Act"), and (ii) a Master Indenture of Trust dated as of December 1, 2003, as previously supplemented and amended (the "Master Indenture"), between VRA and U.S. Bank National Association, as successor trustee (the "Trustee"), and as further supplemented by a Forty-Seventh Supplemental Series Indenture of Trust dated as of June 1, 2020 (the "Forty-Seventh Supplemental Series Indenture," and, together with the Master Indenture, the "Indenture"), between VRA and the Trustee. We refer you to the 2020A Taxable Bonds and the Indenture for a description of the purposes for which the 2020A Taxable Bonds are issued, their terms and the security for them. Unless otherwise defined, each capitalized term used in this opinion letter has the meaning given it in the Indenture.

In connection with this opinion letter, we have examined the Constitution of Virginia and the applicable laws of both the Commonwealth of Virginia (the "Commonwealth"), including the VRA Act, and such certified proceedings and other documents relating to the issuance of the 2020A Taxable Bonds and VRA as we deem necessary to render our opinions.

Without undertaking to verify them by independent investigation, as to questions of fact material to our opinions we have relied upon (i) representations of VRA contained in the Indenture and related documents, (ii) certifications of public officials furnished to us, including certifications made on behalf of the Southwest Virginia Regional Jail Authority, which is the

2020A Local Government that will receive proceeds from the 2020A Taxable Bonds, (iii) certifications and representations contained in certificates of VRA and others delivered at closing. In addition, without undertaking to verify the same by independent investigation, we have relied on computations provided to us by Davenport & Company LLC, VRA's financial advisor, the mathematical accuracy of which was verified by Bingham Arbitrage Rebate Services, Richmond, Virginia, relating to the sufficiency of and yield on investments in the refunding escrow funds established with a portion of the proceeds of the 2020A Taxable Bonds.

We have assumed that all signatures on documents, certificates and instruments examined by us are genuine, all documents, certificates and instruments submitted to us as originals are authentic, and all documents, certificates and instruments submitted to us as copies conform to the originals. In addition, we have assumed that all documents, certificates and instruments relating to this transaction have been duly authorized, executed, and delivered by all parties to them other than VRA, and we have further assumed the due organization, existence, and powers of all parties other than VRA.

Based on the foregoing, we are of the opinion that, under current law:

(1) VRA is a public body corporate and a political subdivision of the Commonwealth duly created by the VRA Act and vested with all of the rights and powers conferred by the VRA Act.

(2) VRA has the requisite authority and power under the VRA Act to enter into the Indenture, to issue and sell the 2020A Taxable Bonds, and to apply the proceeds from the issuance and sale of the 2020A Taxable Bonds as set forth in the Indenture. All conditions precedent to the issuance of the 2020A Taxable Bonds as set forth in the VRA Act and the Indenture have been fulfilled.

(3) The principal of, premium, if any, and interest on the 2020A Taxable Bonds do not constitute a debt of the Commonwealth or any of its political subdivisions other than VRA. Neither the Commonwealth nor any of its political subdivisions, including VRA, is legally obligated to pay the principal of, premium, if any, or interest on the 2020A Taxable Bonds or other costs incident to them except from the revenues, money and property of VRA pledged for such purpose, and neither the faith and credit nor the taxing power of the Commonwealth or any of its political subdivisions, including VRA, is pledged to the payment of the principal of, premium, if any, or interest on the 2020A Taxable Bonds.

(4) The 2020A Taxable Bonds have been duly authorized, executed, and delivered in accordance with the VRA Act and the Indenture and constitute valid and binding limited obligations of VRA, payable solely from the revenues, money and property of VRA specifically pledged for such purpose under the Indenture on a parity with the other Outstanding Infrastructure Revenue Bonds heretofore or hereafter issued under the Indenture.

(5) The Indenture has been duly authorized, executed and delivered by VRA, constitutes the valid and binding obligation of VRA, pledges the Revenues and the Infrastructure Revenue Bond Revenues to the Trustee as security for the Infrastructure Revenue Bonds, pledges the Revenues on a subordinate basis to the Moral Obligation Bonds, and is enforceable against

VRA in accordance with its terms. The Forty-Seventh Supplemental Series Indenture is authorized and permitted by the Master Indenture and will have no adverse effect on the excludability of the interest on any of the Bonds Outstanding on the date hereof from gross income for federal income tax purposes.

(6) Additional Infrastructure Revenue Bonds and Moral Obligation Bonds may be issued from time to time under the conditions, limitations, and restrictions set forth in the Indenture, and may be secured equally and ratably thereunder with the 2020A Taxable Bonds and the other Outstanding Infrastructure Revenue Bonds, as the case may be.

(7) Interest on the 2020A Taxable Bonds is includable in the gross income of the owners of the 2020A Taxable Bonds for federal income tax purposes. We express no opinion regarding any other federal tax consequences with respect to the 2020A Taxable Bonds.

(8) In accordance with Section 62.1-219 of the VRA Act, the 2020A Taxable Bonds and the income from them, including any profit made on their sale, are exempt from taxation by the Commonwealth and any of its political subdivisions. We express no opinion regarding (i) other tax consequences arising with respect to the 2020A Taxable Bonds under the laws of the Commonwealth or (ii) any consequences arising with respect to the 2020A Taxable Bonds under the tax laws of any state or local jurisdiction other than the Commonwealth and its political subdivisions.

The rights of the registered owners of the 2020A Taxable Bonds and the enforceability of VRA's obligations under the 2020A Taxable Bonds and the Indenture may be limited or otherwise affected by bankruptcy, insolvency, reorganization, moratorium, and similar laws now or hereafter in effect affecting creditors' rights. The enforceability of those rights and obligations is also subject to the exercise of judicial discretion in accordance with general principles of equity.

Our services as Bond Counsel have been limited to rendering the foregoing opinions based on our review of such legal proceedings as we deem necessary to approve the validity of the 2020A Taxable Bonds and the tax status of the interest on them and the enforceability of the Indenture. The foregoing opinions are in no respect opinions as to VRA's business or financial resources or its ability to provide for the payment of the 2020A Taxable Bonds or the accuracy or completeness of any information, including VRA's Preliminary Official Statement dated May 15, 2020, and Official Statement dated May 20, 2020 that anyone may have relied upon in making the decision to purchase the 2020A Taxable Bonds.

Our opinions are given as of the date hereof, and we assume no obligation to revise or supplement this opinion letter to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law that may hereafter occur.

Very truly yours,

To be signed: McGuireWoods LLP

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APPENDIX G

FORM OF CONTINUING DISCLOSURE AGREEMENT
OF THE COMMONWEALTH OF VIRGINIA

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CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the "Disclosure Agreement") is executed and delivered by the Commonwealth of Virginia (the "Commonwealth") in connection with the issuance by the Virginia Resources Authority (the "Authority") of $55,320,000 aggregate principal amount of its Infrastructure and State Moral Obligation Revenue Bonds (Virginia Pooled Financing Program), Series 2020A (the "Bonds") pursuant to the provisions of a Master Indenture of Trust dated as of December 1, 2003, as supplemented by a Forty-Seventh Supplemental Series Indenture of Trust dated as of June 1, 2020, between the Authority and U.S. Bank National Association, as trustee. The proceeds of the Bonds are being used by the Authority to finance and refinance qualified infrastructure projects for various localities in the Commonwealth. The Authority has advised the Commonwealth that it has determined that the Commonwealth constitutes an "obligated person" within the meaning of the Rule in respect of the Bonds and the Commonwealth concurs in such determination. The Commonwealth hereby covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Agreement. This Disclosure Agreement is being executed and delivered by the Commonwealth for the benefit of the Holders and in order to assist the Participating Underwriters in complying with the Rule. The Commonwealth acknowledges that it is undertaking primary responsibility for any reports, notices or disclosures that may be required under this Agreement.

SECTION 2. Definitions. In addition to the definitions set forth in the Indenture, which apply to any capitalized term used in this Disclosure Agreement unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

"Annual Report" shall mean any Annual Report provided by the Commonwealth pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

"Dissemination Agent" shall mean the Commonwealth, acting in its capacity as Dissemination Agent hereunder, or any successor Dissemination Agent designated in writing by the Commonwealth and which has filed with the Commonwealth a written acceptance of such designation.

"EMMA" shall mean the MSRB's Electronic Municipal Market Access System, the internet address of which is http://emma.msrb.org/, and any successor thereto.

"Financial Obligation" means a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) a guarantee of (i) or (ii). The term Financial Obligation does not include municipal securities as to which a final official statement has been otherwise provided to the MSRB under the Rule.

"Fiscal Year" shall mean the twelve-month period, at the end of which the financial position of the Commonwealth and results of its operations for such period are determined. Currently, the Commonwealth's Fiscal Year begins July 1 and continues through June 30 of the next year.

"Holder" shall mean, for purposes of this Disclosure Agreement, any person who is a record owner or beneficial owner of a Bond.

"MSRB" shall mean the Municipal Securities Rulemaking Board.

"Participating Underwriter" shall mean any of the original underwriters of the Bonds required to comply with the Rule in connection with the offering of such Bonds.

"Rule" shall mean Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports; Audited Financial Statements.

(a) Not later than seven months following the end of each Fiscal Year of the Commonwealth, commencing with the Fiscal Year ending June 30, 2020, the Commonwealth shall, or shall cause the Dissemination Agent (if different from the Commonwealth) to, submit to EMMA an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Agreement. Not later than 10 days prior to said date, the Commonwealth shall provide the Annual Report to the Dissemination Agent (if applicable). In each case, the Annual Report (i) may be submitted as a single document or as separate documents comprising a package, (ii) may cross-reference other information as provided in Section 4 of this Disclosure Agreement, and (iii) shall include such financial statements as may be required by the Rule.

(b) The annual financial statements of the Commonwealth shall be prepared on the basis of generally accepted accounting principles and will be audited. Copies of the audited annual financial statements, which may be filed separately from the Annual Report, will be submitted to EMMA when they become publicly available.

(c) If the Commonwealth fails to submit an Annual Report to EMMA by the date required in subsection (a) hereof, or to submit its audited annual financial statements to EMMA when they become publicly available, the Commonwealth shall send, in a timely manner, an appropriate notice to the MSRB in substantially the form attached hereto as Exhibit A.

SECTION 4. Content of Annual Reports. Each Annual Report required to be filed hereunder shall include, at a minimum, the information referred to in Exhibit B as it relates to the Commonwealth, all with a view toward assisting Participating Underwriters in complying with the Rule. Any or all of such information may be incorporated by reference from other documents, including official statements containing information with respect to the Commonwealth, which have been filed with the MSRB, or the Securities and Exchange Commission. If the document incorporated by reference is a final official statement, it must be available from the MSRB. The Commonwealth shall clearly identify each such other document so incorporated by reference.

SECTION 5. Notice of Rating Changes. The Commonwealth will provide in a timely manner not in excess of ten business days after the occurrence of the event to the Authority and to EMMA notice of any changes in the ratings of the Commonwealth's general obligation bonds by the rating agencies requested by the Commonwealth to rate such bonds.

SECTION 6. Notice of Bankruptcy, Insolvency, Receivership or Similar Event. The Commonwealth will provide in a timely manner not excess of ten business days after the occurrence of the event, to the Authority and to EMMA notice of any bankruptcy, insolvency, receivership or similar event of the Commonwealth. For purposes of this Section, a bankruptcy, insolvency, receivership or similar event of the Commonwealth is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the Commonwealth in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Commonwealth, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan or reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Commonwealth.

SECTION 7. Notice of Merger, Consolidation, Acquisition or Similar Event. The Commonwealth will provide in a timely manner not in excess of ten business days after the occurrence of the event to the Authority and to EMMA notice of any consummation of a merger, consolidation, or acquisition involving the Commonwealth or the sale of all or substantially all of the assets of the Commonwealth, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material.

SECTION 8. Notice of Incurrence of Financial Obligation. The Commonwealth will provide in a timely manner not in excess of ten business days after the occurrence of the event to the Authority and to EMMA notice of any incurrence of a Financial Obligation of the Commonwealth, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Commonwealth, any of which affect Holders of the Bonds, if material.

SECTION 9. Notice of Financial Difficulties with respect to a Financing Obligation. The Commonwealth will provide in a timely manner not in excess of ten business days after the occurrence of the event to the Authority and to EMMA notice of any default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Commonwealth, any of which reflect financial difficulties.

SECTION 10. Termination of Reporting Obligation. The obligations of the Commonwealth under this Disclosure Agreement shall terminate upon the earlier to occur of the legal defeasance or final retirement of the Bonds, and the Authority shall notify the Commonwealth promptly upon the occurrence of either such event.

SECTION 11. Dissemination Agent. The Commonwealth may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement and may discharge any

such Agent, with or without appointing a successor Dissemination Agent. If at any time there is not any other designated Dissemination Agent, the Commonwealth shall be the Dissemination Agent.

SECTION 12. Amendment. Notwithstanding any other provision of this Disclosure Agreement, the Commonwealth may amend this Disclosure Agreement, if such amendment is supported by an opinion of independent counsel with expertise in federal securities laws to the effect that such amendment is permitted or required by the Rule.

SECTION 13. Additional Information. Nothing in this Disclosure Agreement shall be deemed to prevent the Commonwealth from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Report or notices described in Sections 5 through 9 above, in addition to that which is required by this Disclosure Agreement. If the Commonwealth chooses to include any information in any Annual Report or notice described in Sections 5 through 9 above, in addition to that which is specifically required by this Disclosure Agreement, the Commonwealth shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report or notice.

SECTION 14. Default. Any person referred to in Section 15 (other than the Commonwealth) may take such action as may be permitted by law against the appropriate public official to secure compliance with the obligation of the Commonwealth to file its Annual Report or to give notices as described in Sections 5 through 9 above. In addition, Holders of not less than a majority in aggregate principal amount of Bonds outstanding may take such actions as may be permitted by law to challenge the adequacy of any information provided pursuant to this Disclosure Agreement, or to enforce any other obligation of the Commonwealth hereunder. A default under this Disclosure Agreement shall not be deemed an event of default under any applicable resolution or other debt authorization of the Commonwealth, and the sole remedy under this Disclosure Agreement in the event of any failure of the Commonwealth to comply herewith shall be an action to compel performance. Nothing in this provision shall be deemed to restrict the rights or remedies of any Holder pursuant to the Securities Exchange Act of 1934, the rules and regulations promulgated thereunder, or other applicable laws.

SECTION 15. Beneficiaries. This Disclosure Agreement shall inure solely to the benefit of the Commonwealth, the Authority, the Participating Underwriters, and Holders from time to time of the Bonds, and shall create no rights in any other person or entity.

SECTION 16. Counterparts. This Disclosure Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

SECTION 17. EMMA. All filings under this Disclosure Agreement shall be made solely by transmitting such filings to the Municipal Securities Rulemaking Board via EMMA, as described in 1934 Act Release No. 59062. Should the Securities and Exchange Commission approve any additional or subsequent internet-based electronic filing system for satisfying the continuing disclosure filing requirements of the Rule, any filings required under this Disclosure Agreement may be made by transmitting such filing to such system, as described in the applicable Securities and Exchange Commission regulation or release approving such filing system.

Date: June 3, 2020

COMMONWEALTH OF VIRGINIA

By: _____
State Treasurer

AGREED TO & ACKNOWLEDGED:

VIRGINIA RESOURCES AUTHORITY

By: _____
Executive Director

EXHIBIT A

NOTICE OF FAILURE TO FILE ANNUAL REPORT
[AUDITED ANNUAL FINANCIAL STATEMENT]

COMMONWEALTH OF VIRGINIA

in connection with
Virginia Resources Authority
$55,320,000
Infrastructure and State Moral Obligation Revenue Bonds
(Virginia Pooled Financing Program), Series 2020A

Dated: June 3, 2020

$12,195,000 Infrastructure Revenue Bonds Series 2020A (Tax-Exempt) CUSIP Numbers 92818N LG1 – MB1
$5,245,000 State Moral Obligation Revenue Bonds Series 2020A (Tax-Exempt) CUSIP Numbers 92818N MC9 – MX3
$37,880,000 Infrastructure Revenue Bonds Series 2020A (Taxable) CUSIP Numbers 92818N MY1 – NQ7

NOTICE IS HEREBY GIVEN that the Commonwealth of Virginia has not provided an Annual Report [Audited Annual Financial Statements] as required by Section 3 of the Continuing Disclosure Agreement, which was entered into in connection with the above-named bonds issued pursuant to a Master Indenture of Trust dated as of December 1, 2003, as supplemented by a Forty-Seventh Supplemental Series Indenture of Trust dated as of June 1, 2020, between the Authority and U.S. Bank National Association, as trustee. The Commonwealth anticipates that the Annual Report [Audited Annual Financial Statements] will be filed by _____.

Dated: _____

COMMONWEALTH OF VIRGINIA

By: _____
State Treasurer

EXHIBIT B

CONTENT OF ANNUAL REPORT

General Fund. Information concerning revenues, sources of revenues, expenditures, categories of expenditures and balances of the General Fund of the Commonwealth for the preceding fiscal year.

Appropriation Act. A summary of the material budgetary aspects of the Appropriation Act for the current biennium.

Debt. Updated information respecting tax-supported and other outstanding debt of the Commonwealth including a historical summary of outstanding tax-supported debt; a summary of authorized but unissued tax-supported debt and a summary of annual debt service on outstanding tax-supported debt.

Retirement Plans. Updated information (to the extent not shown in the latest audited annual financial statements) respecting pension and retirement plans administered by the Commonwealth including a summary of membership, revenues, expenses and actuarial valuation(s) of such plans.

Litigation. A summary of material litigation pending against the Commonwealth.

Demographic Information. Updated demographic information respecting the Commonwealth such as its population and tax base.

Economic Information. Updated economic information respecting the Commonwealth such as income, employment, industry and infrastructure data.

In general, the foregoing will include information as of the end of the most recent fiscal year or as of the most recent practicable date. Where information for the fiscal year just ended is provided, it may be preliminary and unaudited. Where information has historically been provided for more than a single period, comparable information will in general be provided for the same number of periods where valid and available. Where comparative demographic or economic information for the Commonwealth and the United States as a whole is contemporaneously available and, in the judgment of the Commonwealth, informative, such information may be included. Where, in the judgment of the Commonwealth, an accompanying narrative is required to make data presented not misleading, such narrative will be provided.

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APPENDIX H

SUMMARY OF CONTINUING DISCLOSURE UNDERTAKINGS BY VIRGINIA RESOURCES AUTHORITY

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The following is a summary of the continuing disclosure undertaking made by VRA pursuant to the Forty-Seventh Supplemental Series Indenture for the benefit of the holders of the 2020A Bonds. Unless otherwise defined, each capitalized term used herein will have the meaning given it above in this Official Statement.

Annual Disclosure

(a) Directly or through a below-described Dissemination Agent, VRA shall provide annually the following financial information or operating data in each case as of the end of VRA's most recent fiscal year:

(i) an update of the table (the "Participating Local Governments Table") contained under the heading "Aggregate Participation in the Virginia Pooled Financing Program" in the subsection "THE 2020A LOCAL GOVERNMENTS AND THE OTHER PARTICIPATING LOCAL GOVERNMENTS" in Section Three of this Official Statement;

(ii) a list showing each Local Government constituting a "Material Local Government," which may be included in the updated Participating Local Governments Table provided under (a)(i) above; and

(iii) the balance and a list of the investments, if any, held in each of the Infrastructure Revenue Debt Service Reserve Fund, the Capital Reserve Fund and the Operating Reserve Fund and a statement as to whether the balance was at least equal to the level required under the Indenture.

(b) VRA shall provide annually the financial information or operating data described in subsection (a) above (collectively, the "Annual Disclosure") on or before March 31 after the end of each of VRA's fiscal years, commencing with VRA's fiscal year ended June 30, 2020, to the Municipal Securities Rulemaking Board (the "MSRB") in an electronic format as prescribed by the MSRB.

(c) Any Annual Disclosure may be included by specific reference to other documents available to the public on the MSRB's internet web site or previously filed with the SEC; provided, however, that any final official statement incorporated by reference must be available from the MSRB.

(d) VRA shall provide in a timely manner to the MSRB, in an electronic format as prescribed by the MSRB, notice specifying any failure of VRA to provide the Annual Disclosure by the date specified.

Event Disclosure

VRA shall provide, or cause to be provided through the Dissemination Agent, to the MSRB, notice of the occurrence of any of the following events that may from time to time occur with respect to the 2020A Bonds, such notice to be given in a timely manner not in excess of 10 business days after the occurrence of the event:

(a) principal and interest payment delinquencies;

(b) non-payment related defaults, if material;

(c) unscheduled draws on debt service reserves reflecting financial difficulties;

(d) unscheduled draws on any credit enhancement maintained with respect to the 2020A Bonds reflecting financial difficulties;

(e) substitution of credit or liquidity providers, or their failure to perform;

(f) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701 – TEB) or other material notices or determinations with respect to the tax status of the 2020A Bonds, or other material events affecting the tax status of the 2020A Bonds;

(g) modifications to rights of the Owners of the 2020A Bonds, if material;

(h) bond calls, if material, and tender offers;

(i) defeasance of all or any portion of the 2020A Bonds;

(j) release, substitution, or sale of property securing repayment of the 2020A Bonds, if material;

(k) rating changes;

(l) bankruptcy, insolvency, receivership or similar event of VRA, which event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for VRA in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of VRA, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation of a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of VRA;

(m) the consummation of a merger, consolidation, or acquisition involving VRA or the sale of all or substantially all of the assets of VRA, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such action, other than pursuant to its terms, if material;

(n) appointment of a successor or additional trustee or the change of name of a trustee, if material; and

(o) the failure of VRA on or before the date required by this Disclosure Agreement to provide Annual Financial Information to the persons and in the manner required by the Forty-Seventh Supplemental Series Indenture;

(p) incurrence of a Financial Obligation (as defined below) of VRA, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of VRA, any of which affect security holders, if material. "Financial Obligation" means a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of a payment for, an existing or planned debt obligation; or (iii) a guarantee of (i) or (ii). The term Financial Obligation does not include municipal securities as to which a final official statement has been otherwise provided to the MSRB under the Rule; and

(q) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of VRA, any of which reflect financial difficulties

Objective Criteria

(a) The objective criteria for identifying a Material Local Government with respect to the 2020A Bonds shall be based upon a determination by VRA on the date of sale of each Series of Bonds pursuant to the Indenture (each a "Sale Date") and as of the end of each of VRA's fiscal years of the level of participation of each Local Government in the Program, which is funded by the Bonds issued under the Indenture. Any Local Government, the aggregate outstanding principal amount of Local Obligations of which represents 15% or more of the aggregate outstanding principal amount of all Local Obligations purchased or acquired with proceeds of Bonds issued under the Master Indenture, shall be a Material Local Government with respect to the 2020A Bonds as long as such Local Government satisfies such objective criteria. VRA shall determine whether any of the Local Governments are (or remain) Material Local Governments as of each Sale Date and as of the end of each of VRA's fiscal years, commencing June 30, 2020.

(b) VRA covenants to require that each Agreement and Financing Lease with a Local Government contain a continuing disclosure undertaking substantially in the form summarized in Appendix I to this Official Statement.

(c) VRA shall, within 45 days of the end of each fiscal year of VRA, notify each Local Government satisfying the objective criteria set forth above that such Local Government is a "Material Local Government" as of the end of such fiscal year.

Format of Disclosure

All documents provided to the MSRB pursuant to the requirements of the Rule shall be accompanied by identifying information as prescribed by the MSRB.

Termination

The obligations of VRA will terminate upon the redemption, defeasance (within the meaning of the Rule) or payment in full of all the 2020A Bonds.

Amendment

VRA may modify its continuing disclosure obligations without the consent of the underwriters of the 2020A Bonds or Owners of any of the Bonds, provided that the undertaking as so modified complies with the Rule, as determined by the opinion of Bond Counsel, as it exists at the time of modification. VRA shall within a reasonable time thereafter send to the MSRB a description of such modification(s).

Defaults

(a) If VRA fails to comply with any covenant or obligation described in this Appendix H, any holder (within the meaning of the Rule) of Bonds then Outstanding may, by notice to VRA, proceed to protect and enforce its rights and the rights of the holders by an action for specific performance of such covenant or obligation.

(b) Notwithstanding anything in the Forty-Seventh Supplemental Series Indenture to the contrary, any failure of VRA to comply with any covenant or obligation described in this Appendix H shall not (i) be deemed to constitute an event of default under the Bonds or the Indenture or (ii) give rise to any right or remedy other than that described in paragraph (a) above.

Additional Disclosure

VRA may from time to time disclose certain information and data in addition to that described in this Appendix H. Notwithstanding anything in the Indenture to the contrary, VRA shall not incur any obligation to continue to provide, or to update, such additional information or data.

Dissemination Agent

VRA may, in its discretion, from time to time appoint or engage an entity to serve as Dissemination Agent to assist VRA in fulfilling its covenants and obligations described in this Appendix H. VRA may engage or appoint as Dissemination Agent, among others, Digital Assurance Certification LLC or similar organizations that may exist from time to time. It is not necessary that the Dissemination Agent have any agency or other legal, contractual or implied relationship with VRA for purposes of state law.

APPENDIX I

SUMMARY OF CONTINUING DISCLOSURE UNDERTAKINGS BY LOCAL GOVERNMENTS

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Part I

SUMMARY OF CONTINUING DISCLOSURE UNDERTAKINGS BY LOCAL GOVERNMENTS

The following is a summary of the continuing disclosure undertakings that each Local Government will be required to make under its respective Agreement or Financing Lease for the benefit of the Owners of the 2020A Bonds. Unless otherwise defined, each capitalized term used herein will have the meaning given it above in this Official Statement.

Annual Disclosure

The provisions described under this heading shall apply from the time the Local Government has been notified by VRA that it is a Material Local Government until it has been further notified by VRA that it is no longer a Material Local Government.

(a) The Local Government shall provide or cause to be provided annually financial information and operating data in accordance with the provisions of Section (b)(5)(i) of the Rule as follows:

(i) audited financial statements of the Local Government, prepared in accordance with generally accepted accounting principles; and

(ii) the operating data of the type set forth in Part II hereof for a General Obligation Bond Local Government, a Financing Lease Local Government, a Revenue Bond Local Government or a Double Barrel Bond Local Government, as appropriate.

If the financial statements filed pursuant to this subsection (a) are not audited, the Local Government shall file such statements as audited when available.

(b) The Local Government shall provide or cause to be provided annually the financial information and operating data described in subsection (a) above (collectively, the "Annual Disclosure") to the Municipal Securities Rulemaking Board (the "MSRB") in an electronic format as prescribed by the MSRB within seven months after the end of the Local Government's fiscal year, but only as of the end of a fiscal year during which such Local Government constitutes a "Material Local Government.

(c) Any Annual Disclosure may be included by specific reference to other documents available to the public on the MSRB's internet web site or previously filed with the SEC; provided, however, that any final official statement incorporated by reference must be available from the MSRB.

(d) The Local Government shall provide or cause to be provided in a timely manner to the MSRB, in an electronic format as prescribed by the MSRB, notice specifying any failure of the Local Government to provide the Annual Disclosure by the date specified.

Event Disclosure

The 2020A Local Governments shall notify VRA of the occurrence of any of the following events that may from time to time occur with respect to the Local Obligation, such notice to be given in a timely manner not in excess of five business days after the occurrence of the event:

(a) principal and interest payment delinquencies;

(b) non-payment related defaults;

(c) unscheduled draws on debt service reserves reflecting financial difficulties;

(d) unscheduled draws on any credit enhancement maintained with respect to the Local Bond reflecting financial difficulties;

(e) substitution of credit or liquidity providers, or their failure to perform;

(f) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701 – TEB) or other material notices or determinations with respect to the Local Obligation that could affect the tax status of the 2020A Bonds, or other material events with respect to the Local Obligation that could affect the tax status of the 2020A Bonds;

(g) modifications to rights of holders, if material;

(h) bond calls, if material, and tender offers;

(i) defeasances;

(j) release, substitution, or sale of property securing repayment of the Local Obligation, if material;

(k) rating changes;

(l) bankruptcy, insolvency, receivership or similar event of the Local Government, which event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the Local Government in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Local Government, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation of a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Local Government;

(m) the consummation of a merger, consolidation, or acquisition involving the Local Government or the sale of all or substantially all of the assets of the Local Government, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such action, other than pursuant to its terms;

(n) appointment of a successor or additional trustee for the Local Obligation, if any, or the change of name of a trustee; and

(o) the failure of the Local Government on or before the date required by the Financing Agreement to provide Annual Financial Information to the persons and in the manner required by the Financing Agreement;

(p) incurrence of a Financial Obligation (as defined below) of the Local Government, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Local Government, any of which affect security holders, if material. "Financial Obligation" means a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of a payment for, an existing or planned debt obligation; or (iii) a guarantee of (i) or (ii). The term Financial Obligation does not include municipal securities as to which a final official statement has been otherwise provided to the MSRB under the Rule; and

(q) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Local Government, any of which reflect financial difficulties

Termination

The obligations of the Local Government will terminate upon the redemption, defeasance (within the meaning of the Rule) or payment in full of all the Bonds.

Amendment

The Local Government may modify its continuing disclosure obligations in the Agreement without the consent of Bondholders, provided that the Agreement as so modified complies with the Rule as it exists at the time of modification. The Local Government shall within a reasonable time thereafter send to VRA and to the MSRB a description of such modifications.

Defaults

(a) If the Local Government fails to comply with any covenant or obligation regarding Annual Disclosure specified in the Agreement, any holder (within the meaning of the Rule) of Bonds then Outstanding may, by notice to the Local Government, proceed to protect and enforce its rights and the rights of the holders by an action for specific performance of the Local Government's covenant to provide the Annual Disclosure.

(b) Notwithstanding anything herein to the contrary, any failure of the Local Government to comply with any obligation regarding Annual Disclosure specified in the Agreement (i) shall not be deemed to constitute an event of default under the Local Obligations, the Bonds or the Indenture and (ii) shall not give rise to any right or remedy other than that described in subsection (a) above.

Additional Disclosure

The Local Government may from time to time disclose certain information and data in addition to the Annual Disclosure. Notwithstanding anything in the Agreement to the contrary, the Local Government shall not incur any obligation to continue to provide, or to update, such additional information or data.

Format of Disclosure

All documents provided to the MSRB pursuant to the requirements of the Rule shall be accompanied by identifying information as prescribed by the MSRB.

Dissemination Agent

The Local Government may, in its discretion, from time to time appoint or engage an entity to serve as Dissemination Agent to assist the Local Government in providing its Annual Disclosure under this Agreement.

Part II

CONTENT OF ANNUAL DISCLOSURE

Operating Data for General Obligation Bond Local Government and Financing Lease Local Government

Description of Local Government. A description of the Local Government, including a summary of its form of government and budgetary processes.

Debt. A description of the terms of the Local Government's outstanding tax-supported and other debt, including capital leases and moral obligations, including a historical summary of outstanding tax-supported debt; a summary of authorized but unissued tax-supported debt; a summary of legal debt margin; a summary of overlapping debt; and a summary of annual debt service on outstanding tax-supported debt as of the end of the preceding fiscal year. The Annual Disclosure should also include (to the extent not shown in the latest audited financial statements) a description of contingent obligations as well as pension plans administered by the Local Government and any unfunded pension liabilities.

Financial Information and Operating Data. Financial information and operating data respecting the Local Government including a description of revenues and expenditures for its major funds and a summary of its tax policy, structure and collections as of the end of the preceding fiscal year.

Operating Data for Revenue Bond Local Government

Description of Local Government. A description of the Local Government, including a summary description of the revenue-producing system (the "System").

Debt. A description of the terms of the Local Government's outstanding debt including a historical summary of outstanding debt and a summary of annual debt service on outstanding debt as of the end of the preceding fiscal year. The Annual Disclosure should also include (to the extent not shown in the latest audited financial statements) a description of contingent obligations as well as pension plans administered by the Local Government and any unfunded pension liabilities.

Financial Information and Operating Data. Financial information for the System as of the end of the preceding fiscal year, including a description of revenues and expenditures, largest users, a summary of rates, fees and other charges of the System, and a historical summary of debt service coverage.

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APPENDIX J

REFUNDED BONDS

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The Refunded Bonds include (i) the outstanding principal amount of the County of York, Virginia's Sewer System Revenue Bonds, Series 2010B (Taxable Build America Bonds), and (ii) portions of the maturities of the VRA bond issue listed below.

Issue	Maturities or Portions Thereof Being Refunded (Years Inclusive)	Aggregate Principal Amount to be Refunded	Redemption Date	Redemption Price
County of York, Virginia, Sewer System Revenue Bonds, Series 2010B (Taxable Build America Bonds)	2030 and 2040	$13,000,000	July 8, 2020	100%
Virginia Pooled Financing Program Infrastructure Revenue Bonds, Series 2013A	2024-2037, 2042	$32,555,000	November 1, 2023	100%

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VRA Virginia Resources Authority