

FINANCIAL STATEMENTS  
FOR THE YEAR ENDED  
June 30, 2018



**VCU**

VIRGINIA COMMONWEALTH UNIVERSITY

**Make it real.**

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## MANAGEMENT DISCUSSION AND ANALYSIS

## MANAGEMENT DISCUSSION AND ANALYSIS FOR THE YEAR ENDED JUNE 30, 2018 (unaudited)

Virginia Commonwealth University's Management Discussion and Analysis (MD&A) provides a discussion and overview of the financial performance during the fiscal year ended June 30, 2018, with comparative information presented for the fiscal year ended June 30, 2017. While maintaining its financial health is crucial to the long-term viability of the University, the primary mission of a public institution of higher education is to provide education, research and public service.

This discussion has been prepared by management along with the financial statements and related note disclosures and should be read in conjunction with the accompanying financial statements and notes. The financial statements, notes and this discussion are the responsibility of management.

### Understanding the Financial Statements

The MD&A focuses on VCU and is intended to foster a greater understanding of VCU's financial activities. Since this presentation includes summarized formats, it should be read in conjunction with the financial statements which have the following four components:

**Statement of Net Position** presents a snapshot of VCU's assets and liabilities under the accrual basis of accounting at the end of each fiscal year presented. The Statement of Net Position helps the reader understand the type and amounts of assets available to support operations, how much VCU owes to vendors and bond holders and net position delineated based upon their availability for future expenditures.

**Statement of Revenues, Expenses and Changes in Net Position** presents VCU's revenues and expenses categorized between operating, non-operating and other related activities. The Statement of Revenues, Expenses and Changes in Net Position reports VCU's operating results for each fiscal year presented.

**Statement of Cash Flows (SCF)** provides information about VCU's sources (receipts) and uses (payments) of cash during the fiscal year. The SCF classifies sources and uses of cash into four categories, assists in determining whether VCU has the ability to generate future net cash flows to meet its obligations as they come due and in determining the need for external financing.

**Notes to the Financial Statements (Notes)** provide additional information to clarify and expand on the financial statements.

In 2018, VCU adopted GASB Statement No. 75, *Accounting and Financial Reporting for Post Employment Benefits Other than Pensions*, which impacted noncurrent assets, noncurrent liabilities,

deferred inflows, deferred outflows and expenses. Amounts in management’s discussion and analysis have been restated, where applicable, to reflect the impact of the adoption of GASB 75.

The MD&A provides objective analysis of VCU’s financial activities based on currently known facts, decisions and conditions. The MD&A discusses the current year results in comparison to the prior year. To see discussions relating to the prior year, refer to last year’s annual financial report on VCU’s website.

## Statement of Net Position

The term “Net Position” refers to the difference between total assets and deferred outflows to total liabilities and deferred inflows, as an indicator of VCU’s financial condition. Changes in net position that occur over time indicate improvement or deterioration in VCU’s financial condition.

Assets and liabilities are generally measured using current values with capital assets as the one notable exception because they are stated at historical cost less an allowance for depreciation.

Condensed Statement of Net Position				
as of June 30,	2018	2017, as restated	\$ Change	% Change
Current and other assets	\$720,810,582	\$757,991,335	(\$37,180,753)	(5%)
Deferred outflows	66,451,261	88,490,481	(22,039,220)	(25%)
Capital assets - net	1,148,644,987	1,106,415,065	42,229,922	4%
<b>Total assets and deferred outflows</b>	<b>1,935,906,830</b>	<b>1,952,896,881</b>	<b>(16,990,051)</b>	<b>(1%)</b>
Current liabilities	226,615,066	205,146,970	21,468,096	10%
Noncurrent liabilities	931,937,493	1,027,515,451	(95,577,958)	(9%)
Deferred inflows	61,527,073	17,217,095	44,309,978	257%
<b>Total liabilities and deferred inflows</b>	<b>1,220,079,632</b>	<b>1,249,879,516</b>	<b>(29,799,884)</b>	<b>(2%)</b>
Net Position:				
Net investment in capital assets	797,125,240	736,646,107	60,479,133	8%
Restricted	103,757,873	92,439,933	11,317,940	12%
Unrestricted	(185,055,915)	(126,068,675)	(58,987,240)	47%
<b>Total net position</b>	<b>\$715,827,198</b>	<b>\$703,017,365</b>	<b>\$12,809,833</b>	<b>2%</b>

Total university assets and deferred outflows decreased by \$17 million or 1.0% during fiscal year 2018, bringing the total to \$1,935.9 million at year-end. Growth in capital assets was offset by a decrease in current assets and deferred outflows. The increase in capital assets, net (\$42.2 million) reflects the ongoing construction of university research and instructional facilities, and the capitalization of completed facilities discussed in detail in the following section, Capital Asset and Related Financing Activities. The reduction in deferred outflows is due the net difference between projected and actual investment earning on the pension plan. In fiscal year ending June 30, 2017 this amount was \$22M compared to \$0 in fiscal year ending June 30, 2018.

Total university liabilities and deferred inflows decreased by \$29.8 million or 2% during fiscal year 2018. The current liabilities increased \$21.5 million, noncurrent liabilities category decreased \$95.6 million and deferred inflows increased by \$44.3M. The increase in current liabilities was largely the result of an increase in unearned revenue for a cash advance for Qatar operations and an increase in the short-term portion of the compensated absences due to the transition in the first year to a new Human Resource Plan. The decrease in noncurrent liabilities is primarily due to a decrease in the pension and OPEB liabilities as well as a decrease in long-term debt outstanding. Deferred inflows increased \$28M due to the new adoption of GASB Statement No. 75 which required the recording of other post employment benefit items. Additionally, there was an increase of \$14M due the net difference between projected and actual investment earning on the pension plan.

### Total Net Position

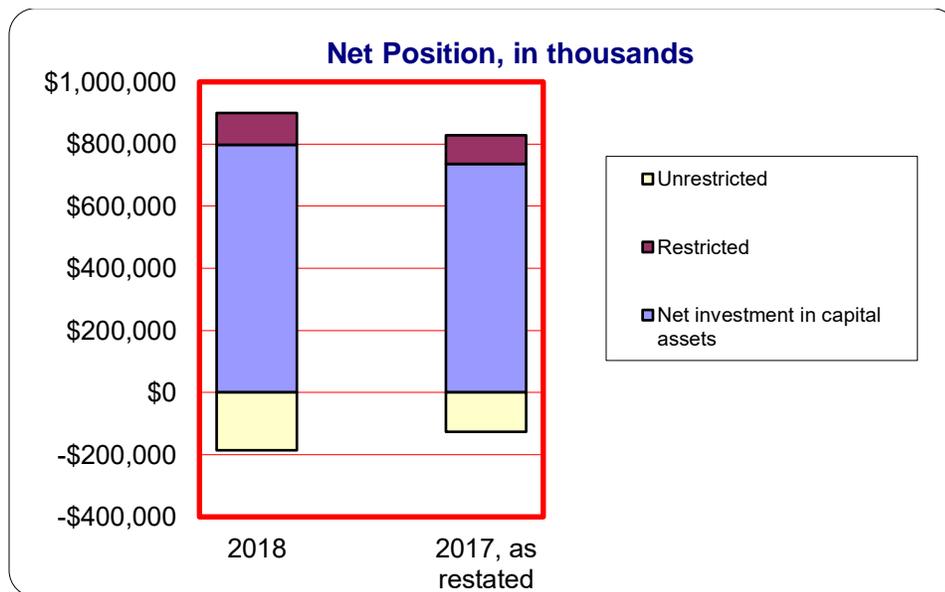
Net position is divided into three major categories:

Net investments in capital assets provide the University’s equity in property, plant and equipment owned by the University.

Restricted net assets are divided into two categories: nonexpendable and expendable. The corpus of nonexpendable restricted assets is only available for investment purposes. Expendable restricted assets are available for expenditure by the University but must be spent for purposes as determined by donors and/or external entities that have placed time or purpose restrictions on the use of the assets.

Unrestricted net position is available resources to the University for any lawful purpose.

The following graph and table illustrates the changes in the make-up of net position, between 2018 and 2017:



as of June 30,	Total Net Position			
	2018	2017, as restated	\$ Change	% Change
Net investment in capital assets	\$797,125,240	\$736,646,107	\$60,479,133	8%
Restricted	103,757,873	92,439,933	11,317,940	12%
Unrestricted	(185,055,915)	(126,068,675)	(58,987,240)	(47%)
Total net position	\$715,827,198	\$703,017,365	\$12,809,833	2%

- Net investment in capital assets increased due to investments in land, building, equipment and library book purchases.
- Unrestricted net position decreased due to spending on faculty start-up packages, the energy performance contract, library subscriptions and adoption of GASB 75.

### Statement of Revenues, Expenses and Changes in Net Position

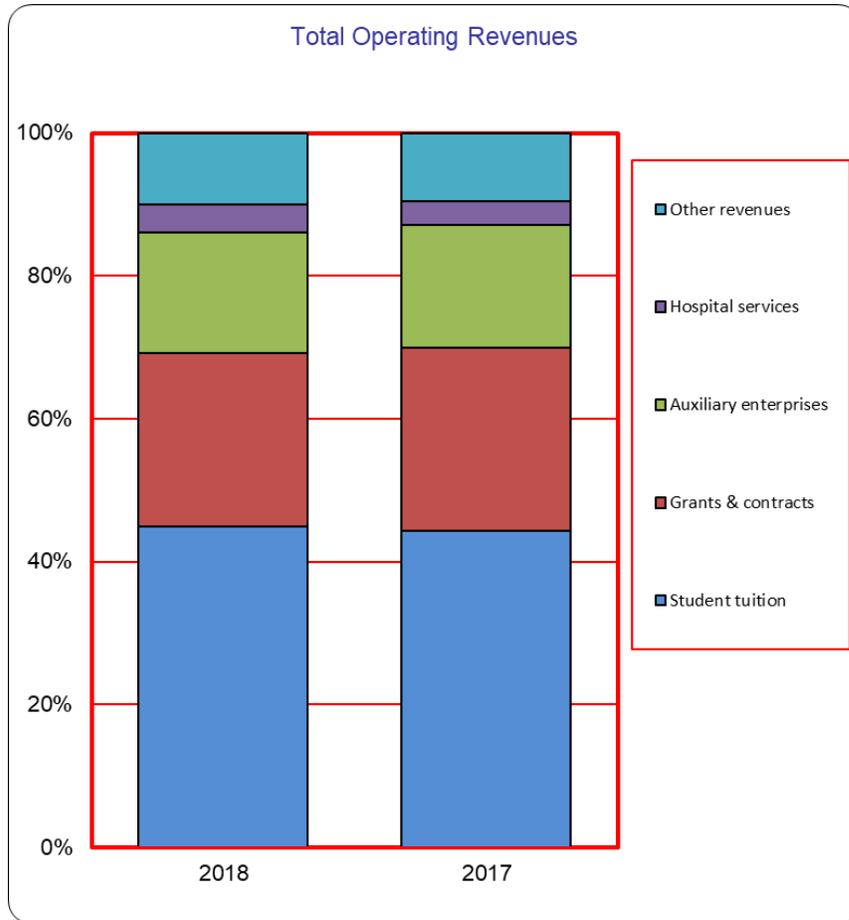
Due to the classification of certain revenues as non-operating revenue, VCU shows a loss from operations. State appropriations, while budgeted for operations, are considered non-operating revenues according to Governmental Accounting Standards Board (GASB) 35 standards and are reflected accordingly in the non-operating section of the Statement of Revenues, Expenses and Changes in Net Position, even though these funds are used solely for operating purposes.

The following is a summarized schedule of the revenues and expenses for the University:

Condensed Statement of Revenues, Expenses and Changes in Net Position				
For the Year Ended June 30,	2018	2017	\$ Change	% Change
Operating revenue	\$763,160,900	\$760,565,563	\$2,595,337	0%
Operating expense	1,118,906,328	1,052,901,169	66,005,159	6%
Operating loss	(355,745,428)	(292,335,606)	(63,409,822)	22%
Non-operating revenues, net of expenses	303,393,188	311,831,420	(8,438,232)	(3%)
Other revenues (expenses)	65,162,073	64,861,853	300,220	0%
Increase in net position	12,809,833	84,357,667	(71,547,834)	(85%)
Net position - beginning of year	703,017,365	800,688,312	(97,670,947)	(12%)
Cumulative effect of accounting changes	-	(182,028,614)	182,028,614	(100%)
Net position - end of year	\$715,827,198	703,017,365	\$12,809,833	2%

Revenues

Operating revenues increased \$2.6 million, or less than 1%, in 2018 compared to the prior year.

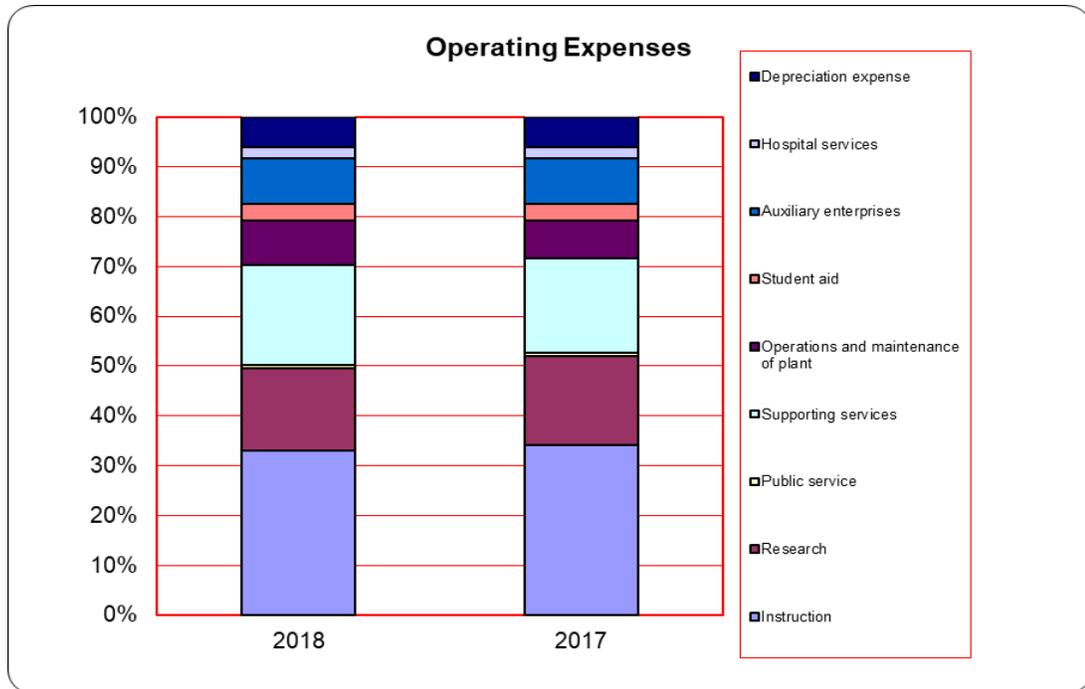


Total Operating Revenues				
For the Year Ended June 30,	2018	2017	\$ Change	% Change
Student tuition	\$343,183,127	\$336,426,527	\$6,756,600	2%
Grants & contracts	185,058,067	195,088,722	(10,030,655)	-5%
Auxiliary enterprises	128,533,025	131,684,586	(3,151,561)	-2%
Hospital services	30,171,533	24,841,325	5,330,208	21%
Other revenues	76,215,148	72,524,403	3,690,745	5%
<b>Total operating revenues</b>	<b>\$763,160,900</b>	<b>\$760,565,563</b>	<b>\$2,595,337</b>	<b>0%</b>

- Operating revenues grew due to increased tuition and fees and increased hospital services revenue from the addition of new positions reimbursed by the Authority.

Expenses

Operating expenses increased \$66 million, or 6%, over 2017 to \$1.119 billion. The following chart summarizes operating expenses by functional classification:



Operating Expenses by Function

For the Year Ended June 30,	2018	2017	\$ Change	% Change
Instruction	\$370,415,128	\$360,175,020	\$10,240,108	3%
Research	182,685,375	186,645,480	(3,960,105)	(2%)
Public service	9,588,225	8,575,248	1,012,977	12%
Supporting services	222,248,238	197,741,290	24,506,948	12%
Operations and maintenance of plant	99,993,620	81,186,479	18,807,141	23%
Student aid	38,571,683	35,293,701	3,277,982	9%
Auxiliary enterprises	102,079,265	96,632,623	5,446,642	6%
Hospital services	25,032,662	22,892,598	2,140,064	9%
Depreciation expense	68,272,988	63,742,468	4,530,520	7%
Other expense	19,144	16,262	2,882	18%
<b>Total operating expenses</b>	<b>\$1,118,906,328</b>	<b>\$1,052,901,169</b>	<b>\$66,005,159</b>	<b>6%</b>

- Increases in supporting services are due to \$9.9M in library subscription purchases, \$12.5M in salaries and benefits due to the adoption of GASB Statement No. 75 and a Human Resources Redesign project and \$2.2M in increased insurance costs.
- Increase in operations and maintenance of plant are due to an energy services contract and large non capital projects.

## Capital Assets and Related Financing Activities

### Capital Assets

At June 30, 2018, VCU had \$1.921 billion in capital assets, less accumulated depreciation of \$772 million, for net capital assets of \$1.149 billion. VCU is committed to a comprehensive program of capital initiatives in support of the University's strategic plan.

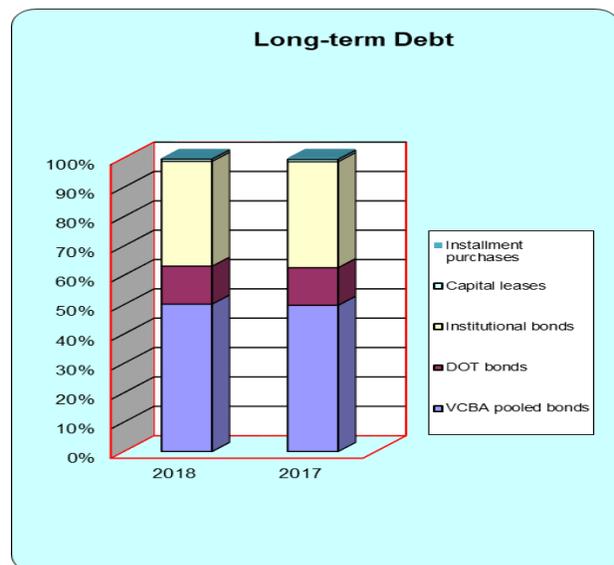
as of June 30,	Capital Assets, Net			
	2018	2017	\$ Change	% Change
Land	\$61,242,026	\$60,470,270	\$771,756	1%
Land improvements and infrastructure	1,419,264	1,281,278	137,986	11%
Buildings	907,490,296	833,990,115	73,500,181	9%
Equipment	68,973,775	71,152,208	(2,178,433)	(3%)
Intangible (computer software)	4,767,654	5,380,598	(612,944)	(11%)
Library books	14,818,699	24,209,472	(9,390,773)	(39%)
Construction in progress	89,933,273	109,931,124	(19,997,851)	(18%)
<b>Total</b>	<b>\$1,148,644,987</b>	<b>\$1,106,415,065</b>	<b>\$42,229,922</b>	<b>4%</b>

- Decreases in equipment and library books are due to depreciation.
- Building increases are principally due to expenses moving out of construction in progress for completed projects.
- Change in construction in progress is due to completion of the Institute for Contemporary Art, the Virginia Treatment Center for Children and the renovation of the Raleigh building.

### Debt

At June 30, 2018, the University had \$421 million in long-term debt outstanding.

A note payable in the amount of \$9,995,000 was issued in the year ending June 30, 2018 for the Allied Health Professions construction project.



## Statement of Cash Flows

The Statement of Cash Flows provides information about cash receipts and cash payments during the year. This statement assists users in assessing the University's ability to generate net cash flows and meet its obligations as they come due and its need for external financing.

The statement is divided into four sections:

1. Cash used by operating activities shows operating cash flows of the University.
2. Cash provided by noncapital financing activities reflects cash received and disbursed for purposes other than operating, investing and capital financing. GASB requires general appropriations from the Commonwealth and noncapital gifts be shown as cash flows from noncapital financing activities.
3. Cash used by capital and related financing activities presents cash used for the acquisition and construction of capital and related items. Plant fund and related long-term debt activities (except depreciation and amortization), as well as gifts to endowments, are included in cash flows from capital financing activities.
4. Cash used by investing activities reflects cash generated from investments which included purchases, proceeds and interest.

The following is a summary Statement of Cash Flows for the University for the years ended June 30, 2018 and 2017.

University	2018	2017	\$ Change	% Change
Cash provided (used) by:				
Operating activities	(\$262,210,397)	(\$246,960,661)	(\$15,249,736)	6%
Noncapital financing activities	312,039,667	299,654,498	12,385,169	4%
Capital and related financing activities	(72,063,740)	(72,939,934)	876,194	(1%)
Investing activities	4,944,658	8,679,503	(3,734,845)	(43%)
Net increase (decrease) in cash	(17,289,812)	(11,566,594)	(5,723,218)	49%
Cash and cash equivalents, beginning of year	91,771,212	103,337,806	(11,566,594)	(11%)
Cash and cash equivalents, end of year	\$74,481,400	\$91,771,212	(\$17,289,812)	(19%)

For more detailed information, see the accompanying Statement of Cash Flows.

Major operating activity sources of cash for the university included student tuition and fees (\$343.7 million), grants and contracts (\$189.0 million), and auxiliary enterprise revenues (\$128.4 million). Major operating activity uses of cash included compensation and benefits (\$687.1 million) and operating expenses (\$346.9 million). Operating activity uses of cash significantly exceeded operating activity sources of cash due to classification of state appropriations (\$231.6 million), Pell revenue (\$31.4M) and gifts (\$44.5 million) as noncapital financial activities. Significant cash outflows in the capital financing area were for the acquisition and construction of capital assets (\$114.2 million) and for principal (\$24.1 million) and interest (\$18.1 million) on capital-related debt. This reflects the university's continued investment in buildings, equipment, and infrastructure of the campus.

## Economic Outlook

The following are known facts and circumstances that will affect future financial results:

- The Board of Visitors approved a 1.5% salary increase for University Staff and 3% for Teaching and Research Faculty, effective November 10, 2018.
- Tuition and Fees are projected to increase \$22M in fiscal year 2019 based on enrollment projections as well as Board of Visitors approved increases in tuition and mandatory fees.

## FINANCIAL STATEMENTS

VIRGINIA COMMONWEALTH UNIVERSITY  
STATEMENT OF NET POSITION  
As of June 30, 2018

	University	VCU Health System Authority	MCV Foundation
<b>Current assets:</b>			
Cash and cash equivalents (Note 2)	\$ 65,649,781	\$ 395,385,719	\$ -
Short-term investments (Note 2)	274,186,543	76,928,218	-
<b>Accounts receivable:</b>			
Student and other, Net of allowance of \$6,127,309	10,937,880	-	120,608
Sponsors	30,792,973	-	-
Patient, Net of allowance of \$xxx	-	310,104,115	-
Third-party and non-patient	-	169,322,161	-
Contributions and gifts, Net of allowance of \$775,578 (Note 24)	-	-	8,184,000
Due from component units	6,826,747	-	143,392
Due from Commonwealth of Virginia	399,697	-	-
Due from VCBA	14,595,397	-	-
Loans receivable, current portion	3,312,311	-	-
Current portion of assets whose use is limited (Note 2)	-	5,800,000	-
Other assets	5,910,582	44,589,173	37,000
<b>Total current assets</b>	<b>412,611,911</b>	<b>1,002,129,386</b>	<b>8,485,000</b>
<b>Noncurrent assets:</b>			
Restricted cash and cash equivalents (Note 2)	8,831,619	-	15,191,000
Endowment investments (Note 2)	44,092,485	-	214,317,000
Other investments (Note 2)	102,788,608	60,325,873	313,615,000
Contributions and gifts, Net of discounts and allowance of \$2,997,045 (Note 24)	-	-	12,547,000
Loans and Other receivable, Net of allowance of \$1,291,746	17,435,796	-	347,000
Due from component units	124,632,163	-	-
Assets whose use is limited, less current portion (Note 2)	-	1,546,836,152	-
Other long-term assets (Note 3)	-	16,272,937	1,469,000
Post Employment Benefits (Note 10)	10,418,000	-	-
Nondepreciable capital assets (Note 4)	151,175,299	76,786,677	365,000
Depreciable capital assets (Note 4)	997,469,688	860,379,359	2,025,000
<b>Total noncurrent assets</b>	<b>1,456,843,658</b>	<b>2,560,600,998</b>	<b>559,876,000</b>
<b>Total assets</b>	<b>1,869,455,569</b>	<b>3,562,730,384</b>	<b>568,361,000</b>
<b>Deferred outflows (Note 1V)</b>			
	66,451,261	42,081,357	-
<b>Total assets and deferred outflows</b>	<b>1,935,906,830</b>	<b>3,604,811,741</b>	<b>568,361,000</b>
<b>Current liabilities:</b>			
Accounts payable and accrued liabilities (Note 6)	97,315,666	378,354,391	994,905
Unearned revenue (Note 7)	41,838,305	-	-
Due to component units	282,220	-	6,095
Long-term liabilities - current portion (Note 8)	67,054,152	50,495,860	730,000
Line of credit (Note 12)	20,124,723	-	-
<b>Total current liabilities</b>	<b>226,615,066</b>	<b>428,850,251</b>	<b>1,731,000</b>
<b>Noncurrent liabilities:</b>			
Funds held for others (Note 5)	23,919,640	-	-
Due to component units	-	-	1,200,000
Other	5,074,188	39,461,382	3,342,000
Long-term liabilities (Note 8)	420,686,117	656,018,744	5,250,000
Pension obligations (Note 10)	305,258,000	43,367,000	-
Post Employment Benefits (Note 10)	176,999,548	14,343,705	-
<b>Total noncurrent liabilities</b>	<b>931,937,493</b>	<b>753,190,831</b>	<b>9,792,000</b>
<b>Total liabilities</b>	<b>1,158,552,559</b>	<b>1,182,041,082</b>	<b>11,523,000</b>
<b>Deferred Inflows (Note 1V)</b>			
	61,527,073	19,056,962	-
<b>Total liabilities and deferred inflows</b>	<b>1,220,079,632</b>	<b>1,201,098,044</b>	<b>11,523,000</b>
<b>Net investment in capital assets</b>	<b>797,125,240</b>	<b>473,656,636</b>	<b>2,390,000</b>
<b>Restricted for:</b>			
<b>Nonexpendable:</b>			
Scholarships and fellowships	4,603,259	-	-
Departmental uses	56,717,455	23,528,945	222,053,000
<b>Expendable:</b>			
Scholarships and fellowships	2,554,699	-	-
Research	16,636,665	-	-
Departmental uses	20,181,917	3,098,945	269,995,000
Loans	3,063,878	-	-
<b>Unrestricted</b>	<b>(185,055,915)</b>	<b>1,903,429,171</b>	<b>62,400,000</b>
<b>Total net position</b>	<b>\$ 715,827,198</b>	<b>\$ 2,403,713,697</b>	<b>\$ 556,838,000</b>

VIRGINIA COMMONWEALTH UNIVERSITY  
STATEMENT OF NET POSITION  
As of June 30, 2018

	VCU Foundation	VCU Real Estate Foundation	VCU School of Business Foundation
<b>Current assets:</b>			
Cash and cash equivalents (Note 2)	\$ 646,796	\$ 4,802,898	\$ 6,540,869
Short-term investments (Note 2)	-	-	-
<b>Accounts receivable:</b>			
Student and other, Net of allowance of \$6,127,309	5,089	4,113	95,058
Sponsors	-	-	-
Patient, Net of allowance of \$xxx	-	-	-
Third-party and non-patient	-	-	-
Contributions and gifts, Net of allowance of \$775,578 (Note 24)	5,542,281	-	330,402
Due from component units	269,702	282,220	2,227
Due from Commonwealth of Virginia	-	-	-
Due from VCBA	-	-	-
Loans receivable, current portion	-	-	-
Current portion of assets whose use is limited (Note 2)	-	-	-
Other assets	27,546	84,351	127,702
Total current assets	<u>6,491,414</u>	<u>5,173,582</u>	<u>7,096,258</u>
<b>Noncurrent assets:</b>			
Restricted cash and cash equivalents (Note 2)	22,954,633	-	3,950,271
Endowment investments (Note 2)	31,544,094	-	13,576,546
Other investments (Note 2)	50,445,848	-	29,570,017
Contributions and gifts, Net of discounts and allowance of \$2,997,045 (Note 24)	6,991,897	-	594,876
Loans and Other receivable, Net of allowance of \$1,291,746	-	-	-
Due from component units	-	7,818,718	-
Assets whose use is limited, less current portion (Note 2)	-	-	-
Other long-term assets (Note 3)	-	-	-
Post Employment Benefits (Note 10)	-	-	-
Nondepreciable capital assets (Note 4)	-	26,078,266	-
Depreciable capital assets (Note 4)	-	54,617,635	26,184,616
Total noncurrent assets	<u>111,936,472</u>	<u>88,514,619</u>	<u>73,876,326</u>
Total assets	<u>118,427,886</u>	<u>93,688,201</u>	<u>80,972,584</u>
Deferred outflows (Note 1V)	-	-	-
Total assets and deferred outflows	<u>118,427,886</u>	<u>93,688,201</u>	<u>80,972,584</u>
<b>Current liabilities:</b>			
Accounts payable and accrued liabilities (Note 6)	150,429	62,640	178,589
Unearned revenue (Note 7)	-	4,436,765	285,557
Due to component units	1,074,986	2,394,897	1,779,654
Long-term liabilities - current portion (Note 8)	-	-	-
Line of credit (Note 12)	-	10,355,341	-
Total current liabilities	<u>1,225,415</u>	<u>17,249,643</u>	<u>2,243,800</u>
<b>Noncurrent liabilities:</b>			
Funds held for others (Note 5)	822,762	-	-
Due to component units	35,527,578	38,959,905	38,879,470
Other	291,465	1,593,190	-
Long-term liabilities (Note 8)	-	-	-
Pension obligations (Note 10)	-	-	-
Post Employment Benefits (Note 10)	-	-	-
Total noncurrent liabilities	<u>36,641,805</u>	<u>40,553,095</u>	<u>38,879,470</u>
Total liabilities	<u>37,867,220</u>	<u>57,802,738</u>	<u>41,123,270</u>
Deferred Inflows (Note 1V)	-	-	-
Total liabilities and deferred inflows	<u>37,867,220</u>	<u>57,802,738</u>	<u>41,123,270</u>
Net investment in capital assets	-	27,419,269	6,014,616
<b>Restricted for:</b>			
<b>Nonexpendable:</b>			
Scholarships and fellowships	-	-	-
Departmental uses	33,309,938	-	14,537,742
<b>Expendable:</b>			
Scholarships and fellowships	-	-	-
Research	-	-	-
Departmental uses	44,247,703	-	13,225,944
Loans	-	-	-
Unrestricted	3,003,025	8,466,194	6,071,012
Total net position	<u>\$ 80,560,666</u>	<u>\$ 35,885,463</u>	<u>\$ 39,849,314</u>

VIRGINIA COMMONWEALTH UNIVERSITY  
STATEMENT OF NET POSITION  
As of June 30, 2018

	VCU School of Engineering Foundation	Eliminations	Total
<b>Current assets:</b>			
Cash and cash equivalents (Note 2)	\$ 2,445,828	\$ -	\$ 475,471,891
Short-term investments (Note 2)	-	-	351,114,761
<b>Accounts receivable:</b>			
Student and other, Net of allowance of \$6,127,309	-	-	11,162,748
Sponsors	-	-	30,792,973
Patient, Net of allowance of \$xxx	-	-	310,104,115
Third-party and non-patient	-	-	169,322,161
Contributions and gifts, Net of allowance of \$775,578 (Note 24)	2,168,328	-	16,225,011
Due from component units	24,271	(7,548,559)	-
Due from Commonwealth of Virginia	-	-	399,697
Due from VCBA	-	-	14,595,397
Loans receivable, current portion	-	-	3,312,311
Current portion of assets whose use is limited (Note 2)	-	-	5,800,000
Other assets	-	(1,441,978)	49,334,376
Total current assets	<u>4,638,427</u>	<u>(8,990,537)</u>	<u>1,437,635,441</u>
<b>Noncurrent assets:</b>			
Restricted cash and cash equivalents (Note 2)	1,371,336	-	52,298,859
Endowment investments (Note 2)	13,369,726	-	316,899,851
Other investments (Note 2)	61,762,708	-	618,508,054
Contributions and gifts, Net of discounts and allowance of \$2,997,045 (Note 24)	1,616,454	-	21,750,227
Loans and Other receivable, Net of allowance of \$1,291,746	-	-	17,782,796
Due from component units	-	(132,450,881)	-
Assets whose use is limited, less current portion (Note 2)	-	-	1,546,836,152
Other long-term assets (Note 3)	450,073	-	18,192,010
Post Employment Benefits (Note 10)	-	-	10,418,000
Nondepreciable capital assets (Note 4)	3,857,317	-	258,262,559
Depreciable capital assets (Note 4)	37,311,166	(17,442,474)	1,960,544,990
Total noncurrent assets	<u>119,738,780</u>	<u>(149,893,355)</u>	<u>4,821,493,498</u>
Total assets	<u>124,377,207</u>	<u>(158,883,892)</u>	<u>6,259,128,939</u>
Deferred outflows (Note 1V)	-	-	108,532,618
Total assets and deferred outflows	<u>124,377,207</u>	<u>(158,883,892)</u>	<u>6,367,661,557</u>
<b>Current liabilities:</b>			
Accounts payable and accrued liabilities (Note 6)	-	-	477,056,620
Unearned revenue (Note 7)	-	(4,114,422)	42,446,205
Due to component units	3,785,707	(9,323,559)	-
Long-term liabilities - current portion (Note 8)	-	(1,025,271)	117,254,741
Line of credit (Note 12)	3,500,000	-	33,980,064
Total current liabilities	<u>7,285,707</u>	<u>(14,463,252)</u>	<u>670,737,630</u>
<b>Noncurrent liabilities:</b>			
Funds held for others (Note 5)	-	-	24,742,402
Due to component units	60,364,235	(174,931,188)	-
Other	-	-	49,762,225
Long-term liabilities (Note 8)	-	(8,341,902)	1,073,612,959
Pension obligations (Note 10)	-	-	348,625,000
Post Employment Benefits (Note 10)	-	-	191,343,253
Total noncurrent liabilities	<u>60,364,235</u>	<u>(183,273,090)</u>	<u>1,688,085,839</u>
Total liabilities	<u>67,649,942</u>	<u>(197,736,342)</u>	<u>2,358,823,469</u>
Deferred inflows (Note 1V)	-	-	80,584,035
Total liabilities and deferred inflows	<u>67,649,942</u>	<u>(197,736,342)</u>	<u>2,439,407,504</u>
Net investment in capital assets	4,449,943	(8,851,634)	1,302,204,070
<b>Restricted for:</b>			
<b>Nonexpendable:</b>			
Scholarships and fellowships	-	-	4,603,259
Departmental uses	14,793,687	-	364,940,767
<b>Expendable:</b>			
Scholarships and fellowships	-	-	2,554,699
Research	-	-	16,636,665
Departmental uses	10,727,474	-	361,476,983
Loans	-	-	3,063,878
Unrestricted	26,756,161	47,704,084	1,872,773,732
Total net position	<u>\$ 56,727,265</u>	<u>\$ 38,852,450</u>	<u>\$ 3,928,254,053</u>

VIRGINIA COMMONWEALTH UNIVERSITY  
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the year ended June 30, 2018

	University	VCU Health System Authority	MCV Foundation
<b>Operating revenues:</b>			
Student tuition and fees, Net of scholarship allowances of \$100,493,642	\$ 343,183,127	\$ -	\$ -
Federal grants and contracts	154,228,848	-	-
State grants and contracts	7,654,571	-	-
Local grants and contracts	711,273	-	-
Nongovernmental grants and contracts	22,463,375	-	-
Sales and services of educational departments	55,895,023	-	-
<b>Auxiliary enterprises:</b>			
Sales and services	82,930,459	-	-
Student fees, Net of scholarship allowances of \$6,121,820	45,602,566	-	-
Hospital services	30,171,533	3,399,538,893	-
Other revenues	20,320,125	-	1,165,000
Total operating revenues	<u>763,160,900</u>	<u>3,399,538,893</u>	<u>1,165,000</u>
<b>Operating expenses:</b>			
Instruction	370,415,128	-	-
Research	182,685,375	-	-
Public service	9,588,225	-	-
<b>Supporting services:</b>			
Academic support	116,504,994	-	21,022,000
Student services	17,127,287	-	-
Institutional support	88,615,957	-	3,456,000
Operations and maintenance of plant	99,993,620	-	-
Student aid	38,571,683	-	3,019,000
Auxiliary enterprises	102,079,265	-	-
Hospital services	25,032,662	3,175,316,382	-
Depreciation expense	68,272,988	97,233,370	73,000
Other expenses	19,144	-	111,000
Total operating expenses	<u>1,118,906,328</u>	<u>3,272,549,752</u>	<u>27,681,000</u>
Operating gain/(loss)	<u>(355,745,428)</u>	<u>126,989,141</u>	<u>(26,516,000)</u>
<b>Nonoperating revenues (expenses):</b>			
State appropriations (Note 22)	231,600,317	-	-
Gifts	45,621,627	3,917,652	20,201,000
Investment income, Net of investment expense of \$10,415,575	11,437,137	48,298,321	42,017,000
Interest on capital asset-related debt	(17,898,293)	-	-
Pell revenue	31,437,231	-	-
Other	1,195,169	(1,308,503)	-
Net nonoperating revenues	<u>303,393,188</u>	<u>50,907,470</u>	<u>62,218,000</u>
Income (loss) before other revenues and expenses	<u>(52,352,240)</u>	<u>177,896,611</u>	<u>35,702,000</u>
<b>Other Revenues (expenses)</b>			
Additions to permanent endowments	10,846	-	6,268,000
Capital appropriations	83,906,010	-	-
Capital gifts and grants	5,470,420	-	-
Increase in beneficial interest in trusts	-	1,018,060	-
Other	-	(16,697,376)	(176,000)
Reductions of capital appropriations	(24,225,203)	-	-
Increase (decrease) in net position	<u>12,809,833</u>	<u>162,217,295</u>	<u>41,794,000</u>
Net position - Beginning of year	<u>703,017,365</u>	<u>2,241,496,402</u>	<u>515,044,000</u>
Net position - End of year	<u>\$ 715,827,198</u>	<u>\$ 2,403,713,697</u>	<u>\$ 556,838,000</u>

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

VIRGINIA COMMONWEALTH UNIVERSITY  
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the year ended June 30, 2018

	VCU Foundation	VCU Real Estate Foundation	VCU School of Business Foundation
Operating revenues:			
Student tuition and fees, Net of scholarship allowances of \$100,493,642	\$ -	\$ -	\$ -
Federal grants and contracts	-	-	-
State grants and contracts	-	-	-
Local grants and contracts	-	-	-
Nongovernmental grants and contracts	-	-	-
Sales and services of educational departments	-	-	-
Auxiliary enterprises:			
Sales and services	-	-	-
Student fees, Net of scholarship allowances of \$6,121,820	-	-	-
Hospital services	-	-	-
Other revenues	715,000	8,975,428	4,068,609
Total operating revenues	<u>715,000</u>	<u>8,975,428</u>	<u>4,068,609</u>
Operating expenses:			
Instruction	-	-	1,212,584
Research	-	-	-
Public service	-	-	-
Supporting services:			
Academic support	-	-	-
Student services	-	-	-
Institutional support	-	-	-
Operations and maintenance of plant	-	2,116,896	-
Student aid	-	-	-
Auxiliary enterprises	-	-	-
Hospital services	-	-	-
Depreciation expense	-	2,787,510	1,341,017
Other expenses	13,524,563	111,741	3,336,133
Total operating expenses	<u>13,524,563</u>	<u>5,016,147</u>	<u>5,889,734</u>
Operating gain/(loss)	<u>(12,809,563)</u>	<u>3,959,281</u>	<u>(1,821,125)</u>
Nonoperating revenues (expenses):			
State appropriations (Note 22)	-	-	-
Gifts	12,593,825	-	1,258,028
Investment income, Net of investment expense of \$10,415,575	1,417,473	299,144	2,393,933
Interest on capital asset-related debt	-	(1,635,299)	(920,011)
Pell revenue	-	-	-
Other	146,727	-	168,362
Net nonoperating revenues	<u>14,158,025</u>	<u>(1,336,155)</u>	<u>2,900,312</u>
Income (loss) before other revenues and expenses	<u>1,348,462</u>	<u>2,623,126</u>	<u>1,079,187</u>
Other Revenues (expenses)			
Additions to permanent endowments	3,613,229	-	3,145,096
Capital appropriations	-	-	-
Capital gifts and grants	-	-	-
Increase in beneficial interest in trusts	(81,861)	-	-
Other	-	-	-
Reductions of capital appropriations	-	-	-
Increase (decrease) in net position	<u>4,879,830</u>	<u>2,623,126</u>	<u>4,224,283</u>
Net position - Beginning of year	<u>75,680,836</u>	<u>33,262,337</u>	<u>35,625,031</u>
Net position - End of year	<u>\$ 80,560,666</u>	<u>\$ 35,885,463</u>	<u>\$ 39,849,314</u>

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

VIRGINIA COMMONWEALTH UNIVERSITY  
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

For the year ended June 30, 2018

	VCU School of Engineering Foundation	Eliminations	Total
<b>Operating revenues:</b>			
Student tuition and fees, Net of scholarship allowances of \$100,493,642	\$ -	\$ (1,487,491)	\$ 341,695,636
Federal grants and contracts	-	-	154,228,848
State grants and contracts	-	-	7,654,571
Local grants and contracts	-	-	711,273
Nongovernmental grants and contracts	-	-	22,463,375
Sales and services of educational departments	-	(1,183,181)	54,711,842
<b>Auxiliary enterprises:</b>			
Sales and services	-	(949,220)	81,981,239
Student fees, Net of scholarship allowances of \$6,121,820	-	-	45,602,566
Hospital services	-	(27,454,776)	3,402,255,650
Other revenues	3,351,907	(22,911,055)	15,685,014
<b>Total operating revenues</b>	<b>3,351,907</b>	<b>(53,985,723)</b>	<b>4,126,990,014</b>
<b>Operating expenses:</b>			
Instruction	-	113,723	371,741,435
Research	-	(1,273,618)	181,411,757
Public service	-	-	9,588,225
<b>Supporting services:</b>			
Academic support	-	(21,872,194)	115,654,800
Student services	-	(1,860)	17,125,427
Institutional support	-	28,336	92,100,293
Operations and maintenance of plant	-	(4,056,163)	98,054,353
Student aid	-	(5,618)	41,585,065
Auxiliary enterprises	-	(194,661)	101,884,604
Hospital services	-	(43,279,877)	3,157,069,167
Depreciation expense	2,308,089	(1,203,905)	170,812,069
Other expenses	3,969,963	(19,122,080)	1,950,464
<b>Total operating expenses</b>	<b>6,278,052</b>	<b>(90,867,917)</b>	<b>4,358,977,659</b>
<b>Operating gain/(loss)</b>	<b>(2,926,145)</b>	<b>36,882,194</b>	<b>(231,987,645)</b>
<b>Nonoperating revenues (expenses):</b>			
State appropriations (Note 22)	-	-	231,600,317
Gifts	1,511,052	(39,675,437)	45,427,747
Investment income, Net of investment expense of \$10,415,575	4,943,066	(45,000)	110,761,074
Interest on capital asset-related debt	(1,736,333)	3,351,086	(18,838,850)
Pell revenue	-	-	31,437,231
Other	-	-	201,755
<b>Net nonoperating revenues</b>	<b>4,717,785</b>	<b>(36,369,351)</b>	<b>400,589,274</b>
<b>Income (loss) before other revenues and expenses</b>	<b>1,791,640</b>	<b>512,843</b>	<b>168,601,629</b>
<b>Other Revenues (expenses)</b>			
Additions to permanent endowments	59,240	-	13,096,411
Capital appropriations	-	-	83,906,010
Capital gifts and grants	-	(5,470,420)	-
Increase in beneficial interest in trusts	-	-	936,199
Other	-	-	(16,873,376)
Reductions of capital appropriations	-	-	(24,225,203)
<b>Increase (decrease) in net position</b>	<b>1,850,880</b>	<b>(4,957,577)</b>	<b>225,441,670</b>
<b>Net position - Beginning of year</b>	<b>54,876,385</b>	<b>43,810,027</b>	<b>3,702,812,383</b>
<b>Net position - End of year</b>	<b>\$ 56,727,265</b>	<b>\$ 38,852,450</b>	<b>\$ 3,928,254,053</b>

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

VIRGINIA COMMONWEALTH UNIVERSITY  
 STATEMENT OF CASH FLOWS  
 For the Year Ended June 30, 2018

	University
Cash flows from operating activities:	
Tuition and fees	\$ 343,718,732
Grants and contracts	188,999,003
Auxiliary enterprise charges	128,389,186
Sales and services of education departments	55,895,023
Hospital services charges	30,145,056
Payments to suppliers	(346,854,701)
Payments to employees	(687,115,953)
Loans issued to students	(4,401,009)
Collection of loans to students	3,627,951
Other receipts (payments)	25,386,315
Net cash used by operating activities	(262,210,397)
Cash flows from noncapital financing activities:	
State appropriations	231,600,317
Direct lending receipts	214,232,333
Direct lending disbursements	(214,232,333)
Agency receipts	52,615,853
Agency disbursements	(49,196,960)
Insurance recoveries	165,597
Pell revenue	31,437,231
Gifts	45,417,629
Net cash provided by noncapital financing activities	312,039,667
Cash flows from capital and related financing activities:	
Proceeds from issuance of note payable	10,862,460
Bond proceeds disbursed to VCUREF	(13,645)
Capital gifts	2,528,830
State appropriations for capital assets	70,950,653
Purchase of capital assets	(114,224,831)
Principal paid on capital-related debt	(24,089,277)
Interest paid on capital-related debt	(18,077,930)
Net cash used by capital financing activities	(72,063,740)
Cash flows from investing activities:	
Proceeds from sales and maturities of investments	1,501,553,779
Investment income	11,499,249
Purchases of investments	(1,508,108,370)
Net cash provided by investing activities	4,944,658
Net decrease in cash	(17,289,812)
Cash and cash equivalents - Beginning of year	91,771,212
Cash and cash equivalents - End of year	\$ 74,481,400

VIRGINIA COMMONWEALTH UNIVERSITY  
 STATEMENT OF CASH FLOWS  
 For the Year Ended June 30, 2018

RECONCILIATION OF NET OPERATING EXPENSES TO NET CASH

USED BY OPERATING ACTIVITIES:

Operating gain/(loss)	\$ (355,745,428)
Adjustments to reconcile net gain/(loss) to net cash used by	
Operating activities:	
Depreciation expense	68,272,988
Provision for uncollectible accounts	(633,247)
Changes in assets, liabilities, deferred inflows and deferred outflows:	
Receivables	5,674,114
Other assets	500,042
Deferred outflows of resources - pension and other post employment benefits	19,985,118
Accounts payable and other liabilities	8,834,551
Unearned revenue	5,012,175
Compensated absences and deferred compensation	7,442,390
Deposits	(1,492,489)
Other liabilities	3,633,494
Deferred inflows of resources - pension and other post employment benefits	41,788,543
Pension obligations and other post employment benefits	(65,482,648)
Net cash used by operating activities	<u>\$ (262,210,397)</u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES:

Assets acquired through a gift	\$ 5,470,420
Change in fair value of SWAP	\$ 2,602,459
Loss on disposal of capital assets	\$ (460,086)
Amortization of bond premium and discount	\$ (1,489,657)
Unrealized gain/(loss) on investments	\$ 3,400,463
Amortization of deferral on debt defeasance	\$ (6,779,901)

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

NOTES TO THE FINANCIAL STATEMENTS

## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Virginia Commonwealth University (VCU) is supported by the Commonwealth of Virginia to serve the Richmond area, the state and the nation through teaching, research, service and patient care. The VCU Health System supports the University's health care education, research and patient care mission.

VCU is a public research university located in Richmond, the state capital of Virginia. Founded in 1838 as the medical department of Hampden-Sydney College, VCU became the Medical College of Virginia in 1854. In 1968, the General Assembly merged MCV with the Richmond Professional Institute, founded in 1917, to create Virginia Commonwealth University.

Today, more than 31,000 students pursue 217 degree and certificate programs through VCU's 12 schools and 2 colleges. VCU is designated as a research university with very high research activity by the Carnegie Foundation. A broad array of university-approved centers and institutes of excellence, involving faculty from multiple disciplines in public policy, biotechnology and health care discoveries, supports the University's research mission. Nineteen graduate and first-professional programs are ranked by U.S. News & World Report as among the best in the country.

VCU and VCU Health System Authority's accounting policies conform to generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board (GASB), including all applicable GASB pronouncements. The accounting policies of the Medical College of Virginia Foundation, Virginia Commonwealth University Foundation, Virginia Commonwealth University Real Estate Foundation, Virginia Commonwealth University School of Business Foundation and Virginia Commonwealth University School of Engineering Foundation conform with the generally accepted accounting principles as prescribed by the Financial Accounting Standards Board (FASB), which are comparable to the GASB accounting principles except for certain disclosures.

The accompanying financial statements are prepared in accordance with generally accepted accounting principles as prescribed by GASB Statement 34 *Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments*, and GASB Statement 35 *Basic Financial Statements and Management's Discussion and Analysis of Public College and Universities*. Because the University is a component unit of the Commonwealth of Virginia, it is included in the Comprehensive Annual Financial Report of the Commonwealth.

### A. Reporting Entity

The accompanying financial statements include the accounts of all organizational units of Virginia Commonwealth University and the Virginia Commonwealth University Intellectual Property Foundation, a component unit which is blended (consolidated) with University operations. These statements are presented as stand-alone statements of the University.

The Virginia Commonwealth University Intellectual Property Foundation functions as a nonprofit charitable foundation solely to assist inventors, mainly from VCU, in licensing and patenting technologies. The sole purpose of this foundation is to promote, encourage and aid scientific investigation and research and to manage intellectual property developed at VCU for the benefit of the University.

In accordance with GASB Statement 39, *Determining Whether Certain Organizations Are Component Units* and GASB Statement 61, *The Financial Reporting Entity Omnibus*, amendments to GASB Statement 14, the financial statements include the Medical College of Virginia Foundation, Virginia Commonwealth University Foundation, Virginia Commonwealth University Real Estate Foundation, Virginia Commonwealth University School of Engineering Foundation, Virginia Commonwealth University School of Business Foundation and Virginia Commonwealth University Health System Authority which are presented discretely in the accompanying financial statements. Statement 39 provides additional guidance to determine whether certain organizations, for which the University is not financially accountable, should be reported as component units. Generally, it requires that an organization that raises and holds economic resources for the direct benefit of the University be reported as a component unit. As a result, where in the past the University presented summary financial information of certain of its foundations in the notes to the financial statements, the University is required under Statement 39 to include selected foundations in the body of its financial statements.

Virginia Commonwealth University Health System Authority (the Authority) is a public corporate body and political subdivision of the Commonwealth of Virginia created and established by an Act of the General Assembly of the Commonwealth of Virginia during 1996. The Authority is tax-exempt as an integral part of the Commonwealth of Virginia.

The Authority's principal activity is the operation of the Medical College of Virginia Hospitals (MCVH), Medical College of Virginia Associated Physicians (MCVAP), Community Memorial Hospital (CMH), Virginia Premier Health Plan (VA Premier), Children's Hospital (Children's) and University Health Services, Inc. (UHS). MCVH is an approximately 800-bed teaching hospital, which provides inpatient and outpatient services primarily to patients in the Commonwealth of Virginia.

MCVAP, formed in 1991 as a non-stock, not-for-profit charitable educational organization with the Authority as sole corporate member, functions as the group practice plan for those physicians and health care professionals who have faculty appointments in the VCU School of Medicine (SOM).

CMH located in South Hill, Virginia, is a not for profit healthcare facility. CMH provides inpatient, outpatient, emergency care and long-term care of residents of Southside Virginia. Effective July 1, 2014, the Authority and CMH entered in to an affiliation agreement. The Authority became sole member of CMH and, in addition to other contractual obligation, has committed to invest \$75,000,000 in facility replacements and enhancements to assist

CMH in carrying out certain strategic projects and initiatives to improve and enhance the delivery of health care services to communities it serves as an affiliate of the Authority. In accordance with the affiliation agreement, the Authority paid \$25,000,000 of the investment commitment in 2015 and \$35,300,000 in 2017. CMH also operates outpatient clinics in South Hill, Clarksville and Chase City, Virginia. Community Memorial Foundation (CMF Foundation) was established to solicit, administer and distribute funds to support the charitable purpose of CMH.

VA Premier is a Medicaid health maintenance organization (HMO) whose primary purpose is to provide quality health care within a managed care framework.

Children's was created in 1920 and is a Virginia not-for-profit corporation. The 47-bed hospital provides pediatric specialty care to both inpatients and outpatients.

UHS is a not-for-profit, non-stock, tax-exempt corporation, which was incorporated on January 26, 1995 to support the educational, scientific, and charitable purpose and activities of the University and, in particular, the activities of the SOM and MCVH. These activities include, but are not limited to, activities undertaken pursuant to Section 23-50.16B of the Code of Virginia.

The Medical College of Virginia Foundation (MCV Foundation) is a not-for-profit corporation organized to aid, strengthen and extend the work, services and objectives of the MCV Campus of the University. This mission is achieved by receiving contributions, investing and managing funds, disbursing current funds and a portion of the total return on endowment and providing information about the activities of the MCV Campus and the MCV Foundation. The MCV Foundation is exempt from federal income taxes under Internal Revenue Code Section 501(c) (3).

The Virginia Commonwealth University Foundation (VCU Foundation) is a Virginia corporation, which functions as a nonprofit charitable foundation solely to assist, support, and foster VCU in all proper ways that may, from time to time, be approved by the trustees of the VCU Foundation with the guidance of VCU. The VCU Foundation manages and distributes current and endowment gifts for schools, departments and programs throughout VCU with major emphasis on programs for the Monroe Park Campus. The VCU Foundation is exempt from federal income taxes under Internal Revenue Code Section 501(c) (3).

The Virginia Commonwealth University Real Estate Foundation is a Virginia corporation, which functions as a nonprofit charitable foundation solely to assist and support VCU by holding and managing real estate for its benefit. The Virginia Commonwealth University Real Estate Foundation is exempt from federal income taxes under Internal Revenue Code Section 501(c) (3).

The Virginia Commonwealth University Real Estate Foundation's subsidiary, the Art Station, LLC ("Art Station"), was established on April 30, 2013 for the purpose of

incurring rehabilitation expenditures eligible for historic tax credits. Additional subsidiaries include 535 West Broad Street LLC, 501 West Broad Street LLC, 916-918 Grace LLC, Sunshine RVA LLC, 1609 Sherwood LLC and Venture Development LLC.

The Virginia Commonwealth University School of Engineering Foundation is a Virginia corporation, which functions as a nonprofit charitable foundation solely to provide financial and other support to the School of Engineering for the benefit of VCU. The Foundation is exempt from federal income taxes under Internal Revenue Code Section 501(c) (3).

The Virginia Commonwealth University School of Business Foundation is a Virginia corporation, which functions as a nonprofit charitable foundation solely to provide financial and other support to the School of Business for the benefit of VCU. The Foundation is exempt from federal income taxes under Internal Revenue Code Section 501(c) (3).

The University also benefits from a number of organizations that exist mainly to support the various purposes and activities of the University and the Authority. The assets of these affiliated organizations, which are separately incorporated and managed by their own Boards, are not included in these statements. The affiliated organizations are listed below and are described in Note 11:

- Virginia Biotechnology Research Park Partnership Authority
- Virginia Commonwealth University Alumni Association
- Medical College of Virginia Alumni Association of VCU
- MCV/VCU Dental Faculty Practice Association
- VCU Investment Management Company
- Dentistry@VCU

Complete financial statements for the foundations can be obtained by writing the VCU Controller's Office, P.O. Box 843035, Richmond, VA 23284-3035.

## **B. Basis of Accounting**

The financial statements of the University have been prepared using the economic resources measurement focus and the accrual basis, including depreciation expense relating to capitalized fixed assets. Under the accrual basis, revenues are recognized when earned and expenses are recorded when an obligation has incurred. All significant intra-agency transactions have been eliminated.

Revenues, as reflected on the Statement of Revenues, Expenses and Changes in Net Position, include all exchange and non-exchange transactions earned in which all eligibility requirements have been satisfied, if measurable and probable for collections. Unearned revenue represents revenue collected, but not earned, as of June 30, 2018. This is primarily composed of revenue for grants and contracts and tuitions and fees. Revenues for

the summer term are prorated on the basis of student class days occurring before and after June 30.

The preparation of financial statements, in conformity with accounting principles generally accepted in the United States, require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

C. Allowance for Uncollectible Receivables

The allowance for uncollectible receivables is based on management's evaluation of the collectability of individual receivables. Receivables are charged against the allowance when deemed to be uncollectible. Subsequent recoveries are added to the allowance.

D. Pledges Receivable

Unconditional gifts are recognized when the donor makes a promise to give that is, in substance, unconditional. Unconditional gifts expected to be collected within one year are recorded at their net realizable value. Unconditional gifts expected to be collected in future years are recorded at the net present value of the estimated future cash flows.

Donations or contributions of land, buildings, equipment and gifts-in-kind except contributed services are recorded at fair market value when received or pledged, if earlier.

E. Investments

Investments in open-end mutual funds, debt securities and equity securities that have readily determinable fair values are carried at fair value. The fair values of marketable equity securities, bonds and other investments are based on quoted market prices. Investments held in the liquidity fund (securities with a maturity of less than one year) of the University are reported as current assets with the remaining investments reported as noncurrent assets.

F. Inventories

Inventories are valued at the lower of cost (generally determined on the first-in, first-out method) or market.

G. Investment Income

Investment income, including net realized and unrealized gains or losses on investment transactions and investment expense, is recorded as non-operating revenue.

It is the practice of the VCU Foundation, MCV Foundation, Virginia Commonwealth University School of Engineering Foundation and Virginia Commonwealth School of

Business Foundation to annually distribute a set percentage of each endowment corpus to be utilized for the purpose of the fund as stipulated by the donor and/or established by the Foundation. Any excess net investment income over the distribution percentage is added to the individual endowment fund corpus.

#### H. Accrued Compensated Absences

University full-time classified, part-time classified and faculty employed on or after January 1, 1999, who are also active members of the Virginia Retirement System (VRS), are covered under the “Virginia Sickness and Disability Program” (VSDP). The plan provides for sick leave, family and personal leave, short-term disability benefits and long-term disability benefits. Full-time classified, part-time classified and faculty employed prior to January 1, 1999, who are active members of VRS, participate in VSDP under one of two options or remain under the traditional sick leave program in which classified employees and twelve month faculty earn 5 hours of leave each pay period regardless of the length of state service and nine month faculty accrue 48 hours per semester. One VSDP option permitted eligible employees to convert accumulated sick leave balances to short-term disability credits. The other allowed for the conversion of sick leave balances to VRS service credit. The University was not required to currently fund the cost of conversion to VRS service credit. Enrollment in the VSDP is irrevocable and no additional enrollments are planned. Under VSDP, unused VSDP sick leave and family and personal leave balances do not carry forward from one year to the next and employees are not paid for unused balances upon termination. The converted short-term disability credits of classified employees are payable upon termination in accordance with the Commonwealth of Virginia’s sick leave payout policy discussed below. Faculty who converted sick leave balances to short-term disability credits are not compensated for these balances at termination.

Full-time and part-time, twelve-month faculty and classified employees earn annual leave based upon the number of years of continuous state service. Faculty and classified employees carry forward annual leave balances from one year to the next based on the years of service. Upon termination, the payout of unused annual leave balances is subject to the maximum payout policy for each category of employee.

University and academic professionals earn paid leave, university leave, based on their length of employment with the University. The equivalent of one year’s leave accrual can be carried over. Upon termination, all leave earned, but not used, is paid to the employee.

Employees who are not subject to the overtime provisions of the Fair Labor Standards Act may be eligible to earn compensatory leave. Leave is earned on an hour-for-hour basis for having worked additional hours in a workweek, holidays or scheduled days off.

Compensatory leave may be used for paid time off and is payable upon termination.

Accrued compensatory leave lapses, within 12 months from the date it is earned, and once lapsed may not be used or paid upon termination.

The University records a liability for all unused university leave, annual, non-VSDP sick and compensatory leave, unused short-term disability credits, as well as related fringe benefits. Compensatory and university leave balances are paid in full upon termination. Annual leave balances are paid in full up to a maximum number of hours, depending upon length of service. Non-VSDP sick leave and short-term disability credits are payable upon employment termination and are limited to 25 percent of the value accumulated or \$5,000, whichever is less, under the Commonwealth of Virginia's sick leave pay-out policy for employees with 5 or more years of service.

The Authority records a liability for all paid time off and related payroll taxes expected to be paid.

#### I. Capital Assets

Capital assets are stated at cost or, if donated, at acquisition value; however, transfers between related reporting entities are recorded at the carrying value at time of transfer. Equipment costing \$5,000 or more with a useful life of 2 or more years is capitalized. Infrastructure assets are included in the financial statements and are depreciated. The University and the Authority record depreciation on property, plant and equipment, including capital leases and excluding land and construction in progress, computed over the estimated useful lives of the assets based on the straight-line method. The general range of estimated useful lives is 10 to 40 years for buildings and fixtures and 5 to 20 years for equipment. The estimated useful life of library books is 5 years. The general range of estimated useful lives is 10 to 25 years for land improvements and infrastructure. Expenditures for construction in progress are capitalized as incurred and reflected in net investment in plant. Interest expense, relating to construction, is capitalized net of interest income earned on resources set aside for this purpose. Capital assets at the time of disposal revert to the Commonwealth of Virginia for disposition.

The VCU School of Engineering Foundation, VCU School of Business Foundation and VCU Foundation record the acquisition of real estate at cost, or if donated, at fair market value at the time of donation; however, transfers between related reporting entities are recorded at the carrying value at time of transfer. Depreciation is provided for properties that are actively rented, using the straight-line method, at rates adequate to amortize the cost of the property over its estimated useful life. The estimated lives of these properties are between 10 and 40 years.

The VCU Real Estate Foundation records the acquisition of equipment at cost, or if donated, at fair market value at the time of donation; however, transfers between related reporting entities are recorded at the carrying value at time of transfer. Depreciation is computed using the straight-line method over the estimated lives of the equipment. The estimated useful lives for equipment are between 5 and 20 years.

The MCV Foundation records property and equipment at cost for purchased items and at fair value for donated items; however, transfers between related reporting entities are recorded at the carrying value at time of transfer. Acquisitions of fixed assets, with a cost less than \$5,000, are expensed as acquired. Depreciation is computed on a straight-line basis over the estimated useful life of the asset. The estimated useful lives range between 3 and 39 years.

J. Hospital Services

In addition to the services provided by the Authority to patients, the University provides facilities, graduate medical education, clinical support and administrative support to hospitals. The revenues and expenditures necessary to provide the services are classified as hospital services.

K. Uncompensated Care

The Authority provides care to patients who meet certain criteria under its indigent care policy without charge or at amounts less than its established rates. Because the Authority does not pursue collection of charges determined to qualify as uncompensated care from the patients, they are not reported as revenue. The costs of providing these services are included in the Authority's operating expenses. Medicaid reimburses the Authority for a substantial portion of its costs of providing services to Medicaid and indigent patients. The Authority's estimated costs for the services provided for this care, net of reimbursement from the Commonwealth of Virginia, approximated \$25,089,000 in 2018.

L. Net Patient Service Revenue

Net patient service revenue is reported in hospital services at the estimated net realizable amounts from patients, third-party payors and others for services rendered, including estimated retroactive adjustments under reimbursement agreements with third-party payors. Retroactive adjustments are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as adjustments and settlements become known or as years are no longer subject to such audits, reviews, appeals and investigations. The effect of these settlement adjustments was to increase the Authority's net patient service revenue by approximately \$33,047,000 in 2018. Settlements due to and from third-party payors include amounts that are currently under appeal with various federal and state agencies. Net patient service revenue includes an estimate of uncollectable charges which is a deduction from gross revenue. The Authority's estimated cost associated with these charges is approximately \$82,140,000 for the year ended June 30, 2018.

A summary of the payment arrangements with major third-party payers follows:

- Anthem - Inpatient acute care services rendered to Anthem subscribers are paid at prospectively determined rates per discharge or discounted rates. Outpatient services rendered to Anthem subscribers are reimbursed at

discounted rates or applicable fee schedule. The rates can be subject to retroactive adjustments based on quality standards or calculations above a predetermined charge increase percentage.

- Medicare - Inpatient acute care services and defined capital costs rendered to Medicare program beneficiaries are paid at prospectively determined rates per discharge. These rates may vary according to a patient classification system that is based on clinical, diagnostic and other factors. Inpatient non-acute services, certain outpatient services and education related to Medicare beneficiaries are paid based on prospectively determined rates and a discounted cost reimbursement methodology. The Authority is reimbursed for cost reimbursable items at a tentative rate with final settlement determined after submission of annual cost reports by the Authority and audits thereof by the Medicare fiscal intermediary. The Authority's Medicare cost reports have been final audited by the Medicare fiscal intermediary through June 30, 2010.
- Medicaid - Inpatient acute care services rendered to Medicaid program beneficiaries are paid at a per diem rate and APDRG (rates per discharge) on an interim basis but eventually settle to a percentage of cost. Outpatient services rendered to Medicaid program beneficiaries are reimbursed on prospectively determined rates and a cost reimbursement methodology. In addition to inpatient and outpatient services provided to Medicaid program beneficiaries, Medicaid reimburses the Authority most of its costs related to services provided to indigent patients and its education mission which resulted in total Medicaid and indigent reimbursement to the Authority of approximately \$499,100,000 in 2018. The Authority's Medicaid cost reports have been audited by the Medicaid program representative through June 30, 2014.

M. Premiums Earned

VA Premier has contracts with the Virginia Department of Medical Assistance Services (DMAS) wherein VA Premier provides health care services to the Low Income Families with Children (LIFC), the Family Access to Medical Insurance Security (FAMIS) and Aged, Blind and Disabled (ABD) and Acute Care Program (HAP) residents of Virginia on a prepaid basis through a health maintenance organization (HMO). VA Premier recognizes premiums received from DMAS for members in the period to which health care coverage relates.

In August 20017, Virginia Premier entered into a new DMAS program called Medicaid Long Term Services and Supports (MLTSS), which provide services to coordinate delivery of primary, preventative, acute, behavioral and long term services and support dual-eligible participants. On January 1, 2017, Virginia Premier started a Medicare Special Needs plan and on January 1, 2018 Virginia Premier started a Medicare Advantage plan in a limited market within the Commonwealth of Virginia.

N. Uncollectible Patient Accounts

A provision for uncollectible accounts is recorded during the period in which collection is considered doubtful.

O. Estimated Medical Claims Payable

Estimated medical claims payable is comprised of billed and unbilled medical obligations for VA Premier Members that are unpaid at year-end. The estimate of costs incurred for unbilled services is based upon historical experience and actuarial calculations. Although considerable variability is inherent in such estimates, management believes that adequate provision has been made.

P. Net Position

GASB standards require the classification of net position into three components: net investment in capital assets, amounts that are restricted and amounts that are unrestricted. These classifications are defined as follows:

- Net investment in capital assets represents the net value of capital assets (property, plant and equipment) less the debt incurred to acquire or construct the asset. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction or improvement of those assets or related debt are included in this component.
- Nonexpendable restricted consists of gifts that have been received for endowment purposes, the corpus of which cannot be expended.
- Expendable restricted represents restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Assets may be restricted through external constraints imposed by grantors, contributors or creditors through bond covenants.
- Unrestricted is the net amount of assets, deferred outflows of resources, related liabilities and deferred inflows of resources that do not have external restrictions on the use of the funds.

Unexpended appropriations for capital projects are included in expendable restricted net position as they are not available for general operating purposes.

When an expense is incurred and both restricted and unrestricted resources are available that are properly chargeable to the restricted resources, the University's policy is to apply the expense towards restricted resources before unrestricted resources.

The Authority's investment balances include resources restricted for debt service under bond indenture agreements, by insurance regulations of the Commonwealth of Virginia and unrestricted resources appropriated or designated by the Board of Directors for quasi-

endowment, capital acquisition, medical malpractice program and workers' compensation programs are reported as assets whose use is limited and are carried at fair value.

The Authority's restricted net position consists principally of beneficial interests in perpetual trust funds established by split interest agreements. Split interest agreements are trust agreements established by donors under which the Authority receives benefits that are shared with other beneficiaries. The trust agreements established by donors provide for a third party to hold the trust assets. These trusts do not permit donors to revoke their charitable contributions. Trust assets of \$18,638,990 are restricted by donors for MCVH in perpetuity and are included in assets whose use is limited at June 30, 2018 at fair value.

**Q. Scholarship Allowances and Student Aid**

Financial aid to students is reported in the financial statements under the alternative method as prescribed by the National Association of College and University Business Officers (NACUBO). Certain aid (loans, funds provided to students as awarded by third parties and Federal Direct Lending) is accounted for as third party payments (credited to the student's account as if the student made the payment). All other aid is reflected in the financial statements as operating expenses or scholarship allowances, which reduce revenues. The amount reported as operating expense represents the portion of aid that was provided to the student in the form of cash. Scholarship allowances represent the portion of aid provided to the student in the form of reduced tuition. Under the alternative method, these amounts are computed on a total University basis by allocating the cash payments to students, excluding payments for services, on the ratio of all aid to the aid not considered to be third party aid.

**R. Revenue and Expense Classifications**

Operating revenues include activities that have the characteristics of exchange transactions such as: (1) student tuition and fees, net of scholarship discounts and allowances; (2) sales and services of auxiliary enterprises, net of scholarship allowances; and (3) federal, state, and nongovernmental grants and contracts.

Non-operating revenues include activities that have the characteristics of non-exchange transactions such as gifts, and other revenue sources that are defined as non-operating revenues by GASB 9, *Reporting Cash Flows of Proprietary and Nonexpendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting*, and GASB 34, such as state appropriations and investment and interest income.

Non-operating expenses include interest on debt related to the purchase of capital assets and losses on the disposal of capital assets. All other expenses are classified as operating expenses.

S. Noncurrent Cash and Investments

Cash and investments that are externally restricted to make debt service payments, reserve funds, or purchase or construct capital and other noncurrent assets are classified as noncurrent assets in the Statement of Net Position.

T. Cash and Cash Equivalents

Cash represents cash with the Treasurer of Virginia, on deposit, in receivable and undeposited receipts. This classification includes all highly liquid investments with an original maturity of 90 days or less.

U. Discounts, Premiums and Bond Issuance Costs

Notes and bonds payable on the Statement of Net Position are reported net of related discounts and premiums which are amortized over the life of the note or bond. Bond issue costs are expensed as incurred.

V. Deferred Outflows and Deferred Inflows

Deferred outflows of resources are defined as the consumption of net assets applicable to a future reporting period. The deferred outflows of resources have a positive effect on net position similar to assets. Deferred inflows of resources are defined as the acquisition of net assets applicable to a future reporting period. The deferred inflows of resources have a negative effect on net position similar to liabilities.

The composition of deferred outflows and inflows of resources at June 30, 2018 is summarized as follows:

	Other Post Employment Benefits	Pension Related	Gain / Loss on Debt Refunding	Interest Rate Swap Agreements	Total
At June 30, 2018					
Deferred outflows of resources	\$12,501,518	\$35,927,301	\$18,022,442	-	\$66,451,261
Deferred inflows of resources	\$27,961,543	\$23,031,000	\$1,532,683	\$9,001,847	\$61,527,073

The composition of deferred outflows and inflows of resources at June 30, 2018 for the Authority is summarized as follows:

	Pension and Other Post Employment Benefits Related	Gain / Loss on Debt Refunding	Interest Rate Swap Agreements	Total
At June 30, 2018				
Deferred outflows of resources	\$4,926,693	\$37,154,664	-	\$42,081,357
Deferred inflows of resources	\$11,556,807	-	7,500,155	\$19,056,962

W. Pensions

The Virginia Retirement System (VRS) State Employee Retirement Plan and the Virginia Law Officer’s System (VaLORS) Retirement plan are single employer pension plans that are treated like cost-sharing plans. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Virginia Retirement System (VRS) State Employee Retirement Plan and the Virginia Law Officers’ System (VaLORS) Retirement Plan; and the additions to/deductions from the VRS State Employee Retirement Plan’s and the VaLORS Retirement Plan’s net fiduciary position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

X. VRS Disability Insurance Program

The Virginia Retirement System (VRS) Disability Insurance Program (Virginia Sickness and Disability Program) is a single employer plan that is presented as a multiple-employer, cost-sharing plan. The Disability Insurance Program was established pursuant to §51.1-1100 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The Disability Insurance Program is a managed care program that provides sick, family and personal leave and short-term and long-term disability benefits for State Police Officers, state employees, and VaLORS employees. For purposes of measuring the net Disability Insurance Program OPEB liability (asset), deferred outflows of resources and deferred inflows of resources related to the Disability Insurance Program OPEB, and Disability Insurance Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Disability Insurance Program OPEB Plan and the additions to/deductions from the VRS Disability Insurance Program OPEB Plan’s net fiduciary position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Y. Line of Duty Act Program

The Virginia Retirement System (VRS) Line of Duty Act Program (LODA) is a multiple-employer, cost-sharing plan. The Line of Duty Act Program was established pursuant to §9.1-400 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The Line of Duty Act Program provides death and health insurance 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. In addition, health insurance benefits are provided to eligible survivors and family members. For purposes of measuring the net Line of Duty Act Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Line of Duty Act Program OPEB, and Line of Duty Act Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Line of Duty Act Program OPEB Plan and the additions to/deductions from the VRS Line of Duty Act Program OPEB Plan's net fiduciary position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Z. State Employee Health Insurance Credit Program

The Virginia Retirement System (VRS) State Employee Health Insurance Credit Program is a single employer plan that is presented as a multiple-employer, cost-sharing plan. The State Employee Health Insurance Credit Program was established pursuant to §51.1-1400 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The State Employee Health Insurance Credit Program is a defined benefit plan that provides a credit toward the cost of health insurance coverage for retired state employees. For purposes of measuring the net State Employee Health Insurance Credit Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the State Employee Health Insurance Credit Program OPEB, and the State Employee Health Insurance Credit Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) State Employee Health Insurance Credit Program; and the additions to/deductions from the VRS State Employee Health Insurance Credit Program's net fiduciary position have been determined on the same basis as they were reported by VRS. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

AA. Group Life Insurance

The Virginia Retirement System (VRS) Group Life Insurance Program is a multiple employer, cost-sharing plan. It provides coverage to state employees, teachers, and employees

of participating political subdivisions. The Group Life Insurance Program was established pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The Group Life Insurance Program is a defined benefit plan that provides a basic group life insurance benefit for employees or participating employers. For purposes of measuring the net Group Life Insurance Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Group Life Insurance Program OPEB, and Group Life Insurance Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Group Life Insurance program OPEB and the additions to/deductions from the VRS Group Life Insurance Program OPEB's net fiduciary position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**AB. Recently Adopted Accounting Pronouncements**

The information provided for the other postemployment benefits reflects the implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. This statement replaces the requirements of GASB Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended and GASB Statement No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. Net position as of July 1, 2017 has been restated as follows for this implementation.

<b>University</b>	
Net Position as previously reported at June 30, 2017	\$ 885,045,979
Virginia Sickness and Disability Program OPEB Asset - June 30, 2016 measurement date	8,492,000
Group Life Insurance, Health Insurance Credit, Line of Duty Act and Pre-Medicare Retirees OPEB Liability - June 30, 2016 measurement date	(201,647,196)
Deferred Outflows - Fiscal year 2017 contributions	11,126,582
Total Net Position Restatement	<u>\$ (182,028,614)</u>
Net Position - beginning of year, as restated	<u>\$ 703,017,365</u>
<b>Authority</b>	
Net Position as previously reported at June 30, 2017	\$ 2,257,625,853
Cumulative effect of change in accounting	(16,129,451)
Net Position - beginning of year, as restated	<u>\$ 2,241,496,402</u>

**2. CASH, CASH EQUIVALENTS AND INVESTMENTS**

The University's deposits and investments may be subject to the following risks:

- **Custodial Credit Risk** – This is the risk that in the event of the failure of a depository financial institution or financial counterparty, the agency will not be able to recover the value of its deposits or investments or recover collateral securities that are in the

possession of an outside third party. The University had a minimal indirect exposure to custodial risk through its investments in the Long-Term Tier with VCU Investment Management Company, (“VCIMCO”) as of June 30, 2018.

- Interest Rate Risk – Interest rate risk is the risk that interest rate changes will adversely affect the fair value of an investment. The University holds investments where fair value may be adversely affected by changes in interest rates. The University invests in accordance with its Investment Policy, which establishes appropriate levels of interest rate exposure for each fixed-income fund through the use of a duration methodology. In accordance with the Investment Policy, the short-term tier consists of the University’s operating funds and operating revenues, and is invested in accordance with the Virginia Investment of Public Funds Act, Chapter 45 (§ 2.2-4500 et seq.) of Title 2.2 of the Code of Virginia, as amended. Within the short-term tier, there are target durations for two funds, as outlined in the chart below.

	<u>Target Duration</u>
Primary liquidity pool	< 9 months
Extended duration fund	
Short duration portfolio	Per applicable benchmark
Intermediate duration portfolio	Per applicable benchmark
Long duration portfolio	Per applicable benchmark

The Primary Liquidity Fund and Extended Duration Fund investment managers’ maximum duration is limited to +10% of the target duration or the applicable benchmark duration. Applicable benchmarks for the Extended Duration Fund include such benchmarks as the BofA ML 1-3 year US Treasury Index, BofA ML 1-3 year Govt/Corp Index, Barclays 1-3 Year Government Bond Index, Barclays US Treasury Intermediate Index, Barclays US Intermediate Government Index, Barclays US Intermediate Gov/Credit Bond Index, Barclays US Aggregate Treasury Index, Barclays U.S. Aggregate Government Index, Barclays US Aggregate Bond Index, or other benchmark(s) that more appropriately reflects the investment manager(s) style within this portfolio.

- Credit Risk – This is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The University holds investments which carry varying levels of credit risk. The University invests in accordance with its Investment Policy, which establishes appropriate levels of credit risk though the use of minimum credit rating restrictions for individual securities in each fixed income fund in accordance with the Virginia Investment of Public Funds Act. The Authority’s investment portfolio is monitored and evaluated on a quarterly basis by the Authority’s investment advisor and Finance Committee of the Board of Directors to ensure credit risk is kept at an appropriate level.

- Concentration of Credit Risk – This is the risk of loss attributed to the magnitude of investments in a single issuer of fixed income securities. As of June 30, 2018, the University does not have investments in any one issuer (excluding investments issued or explicitly guaranteed by the U.S. Government and mutual fund or pool investments) representing 5 percent or more of its total investments. Each individual portfolio within the Primary Liquidity Fund and the Extended Duration Fund will be diversified with no more than 3 percent of the value of the respective portfolios invested in the securities or individual trusts of any single issuer under normal market circumstances. This limitation shall not apply to the U.S. Government, an agency thereof, or U.S. Government sponsored enterprises, securities fully insured and/or fully guaranteed by the U.S. Government, or money market funds.
- Foreign Currency Risk – This is the risk that investments denominated in foreign currencies may lose value due to adverse fluctuations in the value of the U.S. dollar relative to foreign currencies. The University may, at times, be exposed to limited amounts of currency risk through its investments in VCU Investment Management Company, (“VCIMCO”). As of June 30, 2018, the total foreign currency exposure accounted for 1.7% of the University’s investments managed by VCIMCO.

### Cash and Cash Equivalents

All cash of the University, except as described below, is maintained in accounts collateralized in accordance with the Virginia Security for Public Deposits Act, Section 2.2-4400 et seq. of the Code of Virginia or covered by federal depository insurance. As of June 30, 2018 the carrying value of deposits totaled \$66,140,162 and the account balances reported by the depositories or custodial financial institutions totaled \$78,166,505. Of this total \$250,000 is covered by federal depository insurance, \$64,933,886 is collateralized in accordance with the Virginia Security for Public Deposits Act, \$490,393 is held by investment managers and \$12,492,226 is held in Qatar.

### Investments

Professional investment managers manage the University’s investments. The University's investments are governed by an Investment Policy, adopted by its Board of Visitors. The primary investment objective is to provide a framework for prudent investment management, while allowing for sufficient flexibility to capture investment opportunities as they may incur. The investment policy is established by the Board of Visitors and is monitored by its Finance, Budget and Investment Committee. Short-Term Tier investment managers may invest in the following types of investments: direct obligations of the United States, obligations unconditionally guaranteed by the United States, non-negotiable CD’s and time deposits, negotiable CD’s and bank deposit notes, repurchase agreements, banker’s acceptances, commercial paper, money market funds, corporate debt, municipal securities, asset-backed securities with AAA ratings by at least two nationally recognized rating agencies (one of which must be either Standard & Poor’s or Moody’s Investors Service), and international bank for reconstruction and development, Asian development bank,

and African development bank obligations. In accordance with the Investment Policy, the Long-Term Tier consists of gifts, local funds, and nongeneral fund reserves and balances that are endowments or have been designated by the Board to be treated as endowment (“quasi-endowments”) and is invested in accordance with the Virginia Uniform Prudent Management of Institutional Funds Act (“UPMIFA”), Chapter 11 (§ 64.2-1100 et seq.) of Title 64.2 of the Code of Virginia, as amended; and § 23-50.10:01 of the Code of Virginia, as amended, concerning the University’s investment of endowment funds, endowment income, and gifts. The University engaged VCIMCO as its investment advisor for the Long-Term Tier in the year ending June 30, 2016. Long-Term Tier assets are invested in the Ram Fund, LP and the Ram Private Assets Fund, LP and are managed by VCIMCO. Given the uncertain and continuously evolving nature of investment markets, no static list of security types, asset classes, or definitions of investment management strategies can continuously express prudent practice. Therefore, in the process by which investment decisions are developed, analyzed, adopted and executed VCIMCO must satisfy relevant standards of care. However, based upon the University’s risk tolerance together with capital market risk and return estimates, the Board sets a strategic asset allocation designed to achieve the objectives stated in the Investment Policy Statement. The strategic asset allocation is prudently diversified across asset classes. VCIMCO invests the Long-Term tier in keeping with the parameters of the Strategic Asset Allocation below.

<u>Asset Class</u>	<u>Long-Term Policy</u>	<u>Range</u>
Equity	65%	40-70
Real Assets	10%	0-20
Fixed Income and Cash	25%	5-45
Total	100%	

The Authority’s investments are governed by an Investment Policy Statement, adopted by its Board of Directors. In accordance with this policy, MCVH’s investment portfolio assets are allocated among the following asset classes: global equity, absolute strategies, fixed income, real estate, real assets, private equity and cash.

For management purposes, endowment funds and funds internally designated to function as an endowment, except the Glasgow Trust, are held in the investment pools of the VCU Foundation, VCU School of Business Foundation, VCU School of Engineering Foundation and MCV Foundation. These funds remain the property of the University. The investment pools consist of cash equivalents, bonds, preferred and common stocks, fixed asset instruments, hedge funds and real estate. The University’s equity in the investment pools is based on units or shares in the investment pools. The University’s share of the investments is shown as a Due from Component Unit on the Statement of Net Position.

The University received \$31.230 million from the Margaret Branch Glasgow Trust on January 4, 2012 and \$4.057 million from the Arthur Glasgow Trust on February 6, 2012. Additional contributions of \$1.339 million and \$8.036 million were received during fiscal years 2015 and 2013, respectively. This endowment is managed by VCIMCO. Net appreciation of the Margaret

Glasgow Trust is recorded in the restricted-expendable net position to reflect the fact that the net appreciation must be spent in accordance with the stipulations set forth in the underlying endowment agreement. The Arthur Glasgow Trust placed no restrictions on spending so the net appreciation is recorded as unrestricted net position. As of June 30, 2018, net appreciation for the Glasgow Trust was \$1,698,610.

The Glasgow Trust is governed by the University's Investment Policy and as part of the Long-Term Tier is governed by a spending policy, which is meant to maintain the purchasing power of the Long-Term Tier, with the goal of providing a predictable and sustainable level of income. Under this policy, spending for a given year equals the trailing three-year average market value of the Long-Term Tier multiplied by the long-term spending rate of 4.5%.

If investment funds fall "underwater," the payout and distribution shall be in compliance with Virginia Uniform Prudent Management of Institutional Funds Act, determining what portion of investment funds is appropriate for expenditure or accumulation as the University and VCIMCO determine is prudent for the uses, benefits, purposes, and duration for which the investment funds were established.

As of June 30, 2018, the University held the following investments:

	Rating Agency	Credit Rating	Fair Value	Investment Maturities (in years)			
				<1	1 to 5	6 to 10	>10
U.S. Treasury and agency securities	Moody's	Aaa	\$35,635,660	\$14,753,924	\$17,035,625	-	\$3,846,109
Corporate notes							
	Moody's	Aa2	6,196,811	-	6,196,811	-	-
	Moody's	Aa3	5,220,293	-	5,220,293	-	-
	Moody's	A1	5,016,656	1,323,602	3,693,054	-	-
	Moody's	A2	11,524,681	2,944,557	8,580,124	-	-
	Moody's	A3	6,734,194	999,870	5,734,324	-	-
	Moody's	A3	2,661,687	99,842	2,561,845	-	-
Corporate bonds							
	Moody's	Aaa	5,739,447	4,825,708	-	-	913,739
	Moody's	Aa2	6,396,887	3,035,972	3,360,915	-	-
	Moody's	Aa3	4,385,432	4,186,096	199,336	-	-
	Moody's	A1	22,261,393	3,744,605	18,516,788	-	-
	Moody's	A2	6,353,472	2,370,536	3,982,936	-	-
	Moody's	A3	10,756,591	1,991,820	8,764,771	-	-
	Moody's	A3	3,829,781	347,679	3,482,102	-	-
	Moody's	A3	195,993	-	195,993	-	-
	Moody's	Baa1	218,642	-	218,642	-	-
Asset backed securities							
	Moody's	Aaa	97,164,211	-	89,734,474	930,601	6,499,136
Municipal securities							
	Moody's	Aaa	1,229,423	-	99,133	1,130,290	-
	Moody's	Aa1	250,313	-	250,313	-	-
	Moody's	Aa2	1,162,215	230,000	932,215	-	-
	Moody's	Aa3	921,798	-	304,079	-	617,719
	Moody's	A1	595,962	595,962	-	-	-
Agency unsecured bonds and notes							
	Moody's	Aaa	12,334,283	3,281,610	9,052,673	-	-
Agency mortgage backed securities							
	Moody's	Aaa	17,675,233	-	10,742,836	3,910,490	3,021,907
Mutual and money market funds							
	Moody's	Aaa	3,377,259	3,377,259	-	-	-
	Moody's	P-1	6,348,238	6,348,238	-	-	-
Other Assets:							
Alternative assets		N/A	1,466,941	-	-	-	-
Ram Private Assets Fund, LP		N/A	3,593,079	-	-	-	-
Ram Fund, LP		N/A	141,821,061	-	-	-	-
Total			<u>\$421,067,636</u>	<u>\$54,457,280</u>	<u>\$198,859,282</u>	<u>\$5,971,381</u>	<u>\$14,898,610</u>

N/A-Investment maturity not applicable to type of investments noted.

As of June 30, 2018, the Authority held the following investments, which includes assets whose use is limited:

Investment Type:	Fair Value	Investments Maturities (in years)			
		<1	1-5	6-10	>10
Cash and cash equivalents	\$52,523,788	\$52,523,788	-	-	-
U.S. Treasury notes	39,162,233	21,237,535	11,232,854	3,102,179	3,589,665
Asset backed securities	38,440,241	120,259	38,027,334	-	292,648
Agency backed mortgages	36,493,707	10,637,385	15,916,025	608,313	9,331,984
Certificate of deposits	3,996,840	3,996,840	-	-	-
Commercial paper	25,291,691	25,291,691	-	-	-
Corporate bonds, notes and municipal securities	184,768,571	103,485,364	72,312,551	5,577,316	3,393,340
Beneficial interest in perpetual trust	18,638,990	N/A	N/A	N/A	N/A
Equity interest in foundation	4,131,404	N/A	N/A	N/A	N/A
Index funds	158,512,536	N/A	N/A	N/A	N/A
Marketable equity securities	41,414,541	N/A	N/A	N/A	N/A
Real estate	19,813,277	N/A	N/A	N/A	N/A
Investment companies	1,066,702,424	N/A	N/A	N/A	N/A
Total	<u>\$1,689,890,243</u>	<u>\$217,292,862</u>	<u>\$137,488,764</u>	<u>\$9,287,808</u>	<u>\$16,607,637</u>

*N/A-Investment maturity not applicable to type of investments noted.*

As of June 30, 2018 the credit quality ratings for the Authority's fixed income investments were 32.0% AAA (U.S. Treasury notes, asset back securities, municipal bonds, corporate bonds and mortgage backed securities), 13% AA (corporate bonds), 34% A (corporate bonds) and 7.8% below A (corporate bonds).

As of June 30, 2018, the foundations held the following investments:

Investment Type:	VCU Foundation	VCU School of Business Foundation	VCU School of Engineering Foundation	Medical College of Virginia Foundation
US Treasury and agency securities	-	-	-	\$71,776,000
Common & preferred stocks	-	25,275,917	-	83,755,000
Corporate bonds	-	-	-	17,017,000
Mutual and money market funds	-	8,383,742	-	-
Motgage and Asset backed securities	-	-	-	10,266,000
Alternative investments				
International fund	-	-	-	91,646,000
Real estate funds	2,496,546	899,399	-	11,917,000
Private equity	-	-	-	62,733,000
Hedge funds				
International fund	-	-	16,118,825	-
Opportunistic/macro	-	1,245,306	-	-
Long only equities	-	-	-	29,029,000
Long/short equities	-	2,460,597	3,579,609	73,394,000
Event driven/merger arbitrage	-	775,750	-	-
Multi-strategy	-	-	-	74,039,000
Distressed credit	-	444,369	-	-
Relative value	69,502	2,694,660	-	-
Diversified strategies	4,885	966,823	-	-
Other assets				
Ram Fund Private Assets Fund, LP	3,351,239	-	-	-
Ram Fund, LP	75,206,983	-	55,434,000	-
Life income investment	860,787	-	-	2,360,000
<b>Total</b>	<u>\$81,989,942</u>	<u>\$43,146,563</u>	<u>\$75,132,434</u>	<u>\$527,932,000</u>

Fair value measurements are categorized within the fair value hierarchy established by generally accepted accounting principles.

Level 1: Inputs are quoted prices in active markets for identical assets.

Level 2: Inputs are significant other observable inputs. These can include quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full contractual term of the assets or liabilities.

Level 3: Inputs are significant unobservable inputs. These can require management's judgement or estimation of assumptions that market participants would use in pricing the assets or liabilities.

Therefore, the values are determined using factors that involve considerable judgement and interpretations, including but not limited to private and public comparable, discounted cash flow models and fund manager estimates.

The University establishes the fair value of its investments in funds that do not have a readily determinable fair value by using net asset value (NAV) per share, or its equivalent, as reported by the external fund manager when NAV per share is calculated as of the measurement date in a manner consistent with FASB's measurement principles for investment companies. The classifications of fair value measurements within the valuation hierarchy as of June 30, 2018 are as follows:

Investment Type:	Total	Level 1	Level 2	Level 3	----- measured at the NAV
U.S. Treasury and agency securities	\$35,635,660	\$31,789,549	\$3,846,111	-	-
Corporate notes	37,354,322	-	37,354,322	-	-
Corporate bonds	60,137,638	-	60,137,638	-	-
Asset backed securities	97,164,211	-	97,164,211	-	-
Municipal securities	4,159,711	-	4,159,711	-	-
Agency unsecured bonds and notes	12,334,283	-	12,334,283	-	-
Agency backed mortgages	17,675,233	-	17,675,233	-	-
Mutual and money market funds	9,725,497	-	9,725,497	-	-
Other assets					
Event-driven hedge funds	211,658	-	-	-	211,658
Opportunistic/macro	7,848	-	-	-	7,848
Relative value/credit	101,870	-	-	-	101,870
Private investments/real estate funds	1,107,438	-	-	-	1,107,438
Alternative investments	38,127	-	38,127	-	-
Ram Private Assets Fund, LP	3,593,079	-	-	-	3,593,079
Ram Fund, LP	141,821,061	-	-	-	141,821,061
<b>Total</b>	<b>\$421,067,636</b>	<b>\$31,789,549</b>	<b>\$242,435,133</b>	<b>\$0</b>	<b>\$146,842,954</b>

Authority

Investment Type:	Total	Level 1	Level 2	Level 3	Investments Measured at the NAV
Investments by fair value level					
Cash and cash equivalents	\$52,523,788	\$52,523,788	-	-	-
Beneficial trust	18,638,990	-	-	18,638,990	-
Equity interest	4,131,404	-	-	4,131,404	-
Debt securities					
US treasury notes	39,162,233	39,162,233	-	-	-
Asset backed securities	38,440,241	-	38,440,241	-	-
Agency backed mortgages	36,493,707	-	36,493,707	-	-
Certificates of deposit	3,996,840	3,996,840	-	-	-
Corporate bonds and notes	210,025,076	-	210,025,076	-	-
Municipal securities	35,186	-	35,186	-	-
Equity securities					
Consumer discretionary	11,423,731	11,423,731	-	-	-
Consumer staples	720,385	720,385	-	-	-
Financials	11,085,849	11,085,849	-	-	-
Health care	3,089,076	3,089,076	-	-	-
Industrials	3,999,294	3,999,294	-	-	-
Information technology	7,704,944	7,704,944	-	-	-
Energy	1,231,974	1,231,974	-	-	-
Material	1,750,534	1,750,534	-	-	-
Telecommunication	294,592	294,592	-	-	-
Utilities	114,162	114,162	-	-	-
Real estate	6,931,220	6,931,220	-	-	-
Equity mutual funds	177,504,797	177,504,797	-	-	-
Fixed income bond fund	95,181,512	95,181,512	-	-	-
Investments measured at NAV					
Equity long only hedge funds	108,193,350	-	-	-	108,193,350
Equity long/short hedge funds	78,306,498	-	-	-	78,306,498
Event-driven hedge funds	29,787,241	-	-	-	29,787,241
Relative value/credit	16,560,761	-	-	-	16,560,761
Opportunistic/macro	4,379,249	-	-	-	4,379,249
Absolute strategies funds	117,228,891	-	-	-	117,228,891
Private investments	51,347,206	-	-	-	51,347,206
Multi-strategy investment fund	521,291,580	-	-	-	521,291,580
Bond funds	38,315,932	-	-	-	38,315,932
<b>Total</b>	<b>\$1,689,890,243</b>	<b>\$416,714,931</b>	<b>\$284,994,210</b>	<b>\$22,770,394</b>	<b>\$965,410,708</b>

VCU School of Business Foundation

Investment Type:	June 30, 2018	Level 1	Level 2	Level 3	Measured at NAV
Common & preferred stocks	\$25,275,917	\$25,275,917	-	-	-
Mutual and money market funds	8,383,742	8,383,742	-	-	-
Alternative investments					
Real estate funds	899,399	-	-	899,399	-
Hedge funds					
Opportunistic/macro	1,245,306	-	-	-	1,245,306
Long/short equities	2,460,597	-	-	-	2,460,597
Event driven/merger arbitrage	775,750	-	-	-	775,750
Distressed credit	444,369	-	-	-	444,369
Relative value	2,694,660	-	-	-	2,694,660
Diversified strategies	966,823	-	-	-	966,823
<b>Total</b>	<b>\$43,146,563</b>	<b>\$33,659,659</b>	<b>\$0</b>	<b>\$899,399</b>	<b>\$8,587,505</b>

VCU Foundation

Investment Type:	June 30, 2018	Level 1	Level 2	Level 3	Measured at NAV
Alternative investments					
Real estate funds	\$2,496,546	-	-	\$2,496,546	-
Hedge funds					
Event driven/merger arbitrage	-	-	-	-	-
Relative value	69,502	-	-	-	69,502
Diversified strategies	4,885	-	-	-	4,885
Other assets					
Ram Fund Private Assets Fund, LP	3,351,239	-	-	-	3,351,239
Ram Fund, LP	75,206,983	-	-	-	75,206,983
Life income investment	860,787	-	-	860,787	-
<b>Total</b>	<b>\$81,989,942</b>	<b>\$0</b>	<b>\$0</b>	<b>\$3,357,333</b>	<b>\$78,632,609</b>

VCU School of Engineering Foundation

Investment Type:	June 30, 2018	Level 1	Level 2	Level 3	Measured at NAV
Hedge funds					
International fund	\$16,118,825	-	-	-	\$16,118,825
Long/short equities	3,579,609	-	-	-	3,579,609
Other assets					
Ram Fund, LP	55,434,000	-	-	-	55,434,000
<b>Total</b>	<b>\$75,132,434</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$75,132,434</b>

MCV Foundation

Investment Type:	June 30, 2018	Level 1	Level 2	Level 3	Measured at NAV
US Treasury and agency securities	\$71,776,000	\$11,684,000	\$60,092,000	-	-
Common & preferred stocks	83,755,000	53,410,000	30,345,000	-	-
Corporate bonds	17,017,000	1,102,000	15,915,000	-	-
Asset backed securities	10,266,000	-	10,266,000	-	-
Alternative investments					
International fund	91,646,000	-	-	-	91,646,000
Real estate funds	11,917,000	-	-	-	11,917,000
Private equity	62,733,000	-	-	-	62,733,000
Hedge funds					
Long only equities	29,029,000	-	-	-	29,029,000
Long/short equities	73,394,000	-	-	-	73,394,000
Multi-strategy	74,039,000	-	-	-	74,039,000
Life income investment	2,360,000	-	-	-	2,360,000
<b>Total</b>	<b>\$527,932,000</b>	<b>\$66,196,000</b>	<b>\$116,618,000</b>	<b>\$0</b>	<b>\$345,118,000</b>

For investments in entities that calculate net asset value or its equivalent whose fair value is not readily determinable, the following tables provide information about the liquidity of these investments as of June 30, 2018:

University

Investment Type:	June 30, 2018	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Event-driven hedge funds	211,658	-	Annually/ quarterly	60-65 days
Opportunistic/macro	7,848	-	Annually/ semi-annually	90 days
Relative value/credit	101,870	-	Quarterly	65 days
Private investments/real estate	1,107,438	-	Illiquid	N/A
Ram Private Assets Fund, LP	3,593,079	6,139,095	N/A	N/A
Ram Fund, LP	141,821,061	-	Quarterly	120 days
<b>Total</b>	<b>\$146,842,954</b>	<b>\$6,139,095</b>		

Authority

Investment Type:	June 30, 2018	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Equity long only hedge funds	\$108,193,350	-	Annually/quarterly/monthly/daily	10-90 days
Equity long/short hedge funds	78,306,498	-	Annually/semi annually/quarterly	45-90 days
Event-driven hedge funds	29,787,241	-	Annually/quarterly	60-180 days
Relative value/credit	16,560,761	-	Quarterly/monthly	60-180 days
Opportunistic/macro	4,379,249	-	Annually/quarterly/monthly	60-180 days
Absolute strategies funds	117,228,891	-	Annually/semi annually/quarterly/monthly	60-180 days
Private investments	51,347,206	33,312,717	N/A	N/A
Multi-strategy investment fund	521,291,580	-	Quarterly	120 days
Bond funds	38,315,932	-	Monthly	10-60 days
<b>Total</b>	<b>\$965,410,708</b>	<b>\$33,312,717</b>		

VCU School of Business Foundation

Investment Type:	June 30, 2018	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Opportunistic/macro	\$1,245,306	-	Annually/ quarterly	45-65 days
Long/short equities	2,460,597	-	Annually/quarterly/monthly	30-90 days
Event driven/merger arbitrage	775,750	-	Semi annually/quarterly/ N/A	45-60 days
Distressed credit	444,369	-	Annually/quarterly	90-120 days
Relative value	2,694,660	-	Semi annually/ Quarterly/monthly/other	30-90 days
Diversified strategies	966,823	-	Quarterly/monthly	45-90 days
<b>Total</b>	<b>\$8,587,505</b>	<b>\$0</b>		

VCU Foundation

Investment Type:	June 30, 2018	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Relative value	\$69,502	-	Quarterly	65 days
Diversified strategies	4,885	-	Quarterly	70 days
Ram Fund Private Assets Fund, LP	3,351,239	-	N/A	N/A
Ram Fund, LP	75,206,983	-	Quarterly	120 days
<b>Total</b>	<b>\$78,632,609</b>	<b>\$0</b>		

VCU School of Engineering Foundation

Investment Type:	June 30, 2018	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
International Fund	\$16,118,825	-	Monthly	60 days
Long/Short Equities	3,579,609	-	N/A	N/A
Ram Fund, LP	55,434,000	-	Quarterly	120 days
Total	<u>\$75,132,434</u>	<u>-</u>		

MCV Foundation

Investment Type:	June 30, 2018	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
International fund	\$91,646,000	-	Semi annually/ Quarterly/monthly/other	30-90 days
Real estate funds	11,917,000	1,595,543	Upon sale of Investment property	N/A
Private equity	62,733,000	61,231,031	Upon sale of Investment property	N/A
Long only equities	29,029,000	-	Annually/quarterly/monthly	30-60 days
Long/short equities	73,394,000	-	Annually/Semi annually/ Quarterly/other	45-90 days
Multi-strategy	74,039,000	6,800,000	Annually/Semi annually/ Quarterly/other	60-180 days*
Life income investment	2,360,000	-	Annually/quarterly/other	N/A
	<u>345,118,000</u>	<u>69,626,574</u>		

\*Also includes certain assets that are only liquid upon sale of investment

3. **JOINT VENTURES AND EQUITY INVESTMENTS**

**Investment in 7th and Marshall Corporation**

Included in other long-term assets on the accompanying Statement of Net Position is a capital contribution to 7th and Marshall Corporation of \$500,000. UHS and The Doorways (formerly known as Hospital Hospitality House, Inc.) are the sole members of the 7th and Marshall Corporation, a not-for-profit corporation formed to support the charitable, educational and scientific activities of UHS and The Doorways. The investment is carried at \$231,907.

**Investment in Spotsylvania Radiation Therapy Center, LLC**

Included in other long-term assets on the accompanying Statement of Net Position is a capital contribution to Spotsylvania Radiation Therapy Center, LLC in the amount of \$4,113,316. VCUHS and Spotsylvania Medical Center, Inc. formed this joint venture for the purpose of developing, owning and managing a radiation therapy center to provide access to high quality radiation therapy services to patients in the Spotsylvania region. The investment is carried at \$2,269,089.

**Rehab Institute JV, LLC**

Sheltering Arms Rehab Institute is a joint venture between Sheltering Arms Hospital and VCU Health System for the purpose of combining inpatient rehabilitation programs of Sheltering Arms and VCU Health System, to provide comprehensive and innovative physical rehabilitative inpatient care for people who have sustained a stroke, brain injury, spinal cord injury or similar illnesses and injuries. As of June 30 2018, no investments have been made.

4. CAPITAL ASSET

Capital asset activity for the year ended June 30, 2018 was as follows:

University:	Beginning Balance	Additions	Reductions	Ending Balance
Nondepreciable capital assets:				
Land	\$60,470,270	\$771,756	-	\$61,242,026
Construction in progress	109,931,124	87,994,723	107,992,574	89,933,273
Total nondepreciable capital assets	170,401,394	88,766,479	107,992,574	151,175,299
Depreciable capital assets:				
Land improvements and infrastructure	19,861,334	500,377	-	20,361,711
Buildings	1,305,405,876	111,878,441	763,458	1,416,520,859
Equipment	215,447,727	14,932,650	6,266,455	224,113,922
Intangible assets	14,615,709	884,351	386,409	15,113,651
Library books	91,509,706	1,993,271	92,560	93,410,417
Total depreciable capital assets	1,646,840,352	130,189,090	7,508,882	1,769,520,560
Less accumulated depreciation for:				
Land improvements and infrastructure	18,580,056	362,391	-	18,942,447
Buildings	471,415,761	38,311,159	696,357	509,030,563
Equipment	144,295,519	16,722,497	5,877,869	155,140,147
Intangible assets	9,235,111	1,492,897	382,011	10,345,997
Library books	67,300,234	11,384,044	92,560	78,591,718
Total accumulated depreciation	710,826,681	68,272,988	7,048,797	772,050,872
Total depreciable capital assets, net	936,013,671	61,916,102	460,085	997,469,688
Total capital assets - net	\$1,106,415,065	\$150,682,581	\$108,452,659	\$1,148,644,987

Interest capitalized as part of construction in progress was \$465,224.

Included in Buildings is an asset acquired through a capital lease whose net book value is \$2.8M and accumulated depreciation of \$3.1M.

Authority:	Beginning Balance	Additions	Reductions	Ending Balance
Nondepreciable capital assets:				
Land	\$16,249,840	\$560,000	-	\$16,809,840
Construction in progress	146,092,933	153,871,561	239,987,657	59,976,837
Total nondepreciable capital assets	162,342,773	154,431,561	239,987,657	76,786,677
Depreciable capital assets:				
Land improvements	3,225,860	629,051	-	3,854,911
Buildings	1,017,261,979	150,199,131	201,999	1,167,259,111
Equipment	477,215,672	80,955,044	5,267,270	552,903,446
Intangible assets	118,673,729	8,997,185	-	127,670,914
Total depreciable capital assets	1,616,377,240	240,780,411	5,469,269	1,851,688,382
Less accumulated depreciation	898,453,877	97,226,416	4,371,270	991,309,023
Total depreciable capital assets, net	717,923,363	143,553,995	1,097,999	860,379,359
Total capital assets - net	\$880,266,136	\$297,985,556	\$241,085,656	\$937,166,036

MCV Foundation:	Beginning Balance	Additions	Reductions	Ending Balance
Land	\$365,000	-	-	\$365,000
Construction in progress	-	-	-	-
Total nondepreciable capital assets	365,000	-	-	365,000
Depreciable capital assets:				
Property and equipment	2,626,000	489,300	6,300	3,109,000
Less accumulated depreciation	1,017,000	67,000	-	1,084,000
Total depreciable capital assets, net	1,609,000	422,300	6,300	2,025,000
Total capital assets - net	\$1,974,000	\$422,300	\$6,300	\$2,390,000

VCU Real Estate Foundation:	Beginning Balance	Additions	Reductions	Ending Balance
Nondepreciable capital assets:				
Land	\$20,465,731	\$5,455,314	-	\$25,921,045
Construction in progress	134,897	7,119,349	7,097,025	157,221
Total nondepreciable capital assets	20,600,628	12,574,663	7,097,025	26,078,266
Depreciable capital assets:				
Buildings	72,584,391	1,653,521	-	74,237,912
Equipment	3,184,102	27,348	-	3,211,450
Total depreciable capital assets	75,768,493	1,680,869	-	77,449,362
Less accumulated depreciation	20,074,156	2,757,571	-	22,831,727
Total depreciable capital assets, net	55,694,337	(1,076,702)	-	54,617,635
Total before eliminations	76,294,965	11,497,961	7,097,025	80,695,901
Less included on University	7,975,272	-	274,523	7,700,749
Total capital assets - net	\$68,319,693	\$11,497,961	\$6,822,502	\$72,995,152

VCU School of Business Foundation:	Beginning Balance	Additions	Reductions	Ending Balance
Total nondepreciable capital assets	-	-	-	-
Total depreciable capital assets, net	27,524,553	-	1,339,937	26,184,616
Total capital assets - net	\$27,524,553	\$0	\$1,339,937	\$26,184,616

VCU School of Engineering Foundation:	Beginning Balance	Additions	Reductions	Ending Balance
Total nondepreciable capital assets	\$3,857,317	-	-	\$3,857,317
Total depreciable capital assets, net	38,989,494	629,761	2,308,089	37,311,166
Total before eliminations	42,846,811	629,761	2,308,089	41,168,483
Less included on University	10,602,977	-	861,252	9,741,725
Total capital assets - net	\$32,243,834	\$629,761	\$1,446,837	\$31,426,758

GASB 42, *Accounting and Reporting for the Impairment of Capital Assets and for Insurance Recoveries*, effective for periods beginning after December 15, 2004, requires disclosure of insurance recoveries for circumstances other than impairment of capital assets. Fiscal year 2018 insurance recoveries of \$165,597 are reported as other non-operating income.

5. FUNDS HELD FOR OTHERS

At June 30, 2018, the University held deposits for others, which are composed of the following:

	Funds Held for Others
Federal loan programs	\$21,793,654
Student organizations and others	2,125,986
Total	<u>\$23,919,640</u>

6. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities consisted of the following as of June 30, 2018:

	University	Authority	MCV Foundation	VCU Foundation	VCU Real Estate Foundation	VCU School of Business
Vendor payable	\$35,836,968	\$110,746,164	\$843,905	\$150,429	\$62,640	\$99,563
Retainage payable	30,224	-	-	-	-	-
Accrued wages	55,688,904	80,292,452	58,000	-	-	-
Interest payable	3,527,998	10,441,478	93,000	-	-	79,026
Post employment benefits	2,231,572					
Estimated medical claims payable	-	167,956,372	-	-	-	-
Settlements due to third parties	-	8,917,925	-	-	-	-
	<u>\$97,315,666</u>	<u>\$378,354,391</u>	<u>\$994,905</u>	<u>\$150,429</u>	<u>\$62,640</u>	<u>\$178,589</u>
				Total		<u>\$477,056,620</u>

7. UNEARNED REVENUE

Unearned revenue consisted of the following as of June 30, 2018:

Prepaid tuition and fees	\$13,481,184
Grants and contracts	16,819,588
Other cash advances	11,537,533
	<u>\$41,838,305</u>

## 8. LONG TERM LIABILITIES

Long term liabilities consist of bonds, notes payable, capital leases, installment purchases, delayed compensation, compensated absences and estimated losses on malpractice claims.

### Bonds Payable

The Commonwealth of Virginia issues bonds for agencies and institutions of the Commonwealth. The University has received a portion of the proceeds to fund capital construction. The University recognizes a liability associated with its share of the bonds and remits principal and interest payments related to this liability to the Treasurer of Virginia. The General Revenue Pledge Bonds, Section 9(d) Bonds, issued either by the Commonwealth or the University carry interest rates of 1.5% to 5% and are due through 2043. Included in the total General Revenue Pledge Bonds are outstanding bonds payable in the amount of \$41,328,099, which will be repaid by the VCU Real Estate Foundation.

### Callable Bonds

Series 2012A&B bonds are callable by the bondholder, US Bank, with a put date of June 25, 2027. The amount outstanding at the put date will be \$23,135,000. The University can request an extension no sooner than 365 days but no later than 180 days prior to the put date, and the bank, at its discretion, can choose to extend or not, with new proposed terms. If the bank exercises the put provision, the University will be required to make a principal payment in the amount referenced above. However, on or prior to the put date, it is the University's intention is to either negotiate with the bank to extend the put date on the existing bonds, or to refinance the bonds in their entirety. Letters of credit and liquidity facilities supporting this issuance is not needed because there is a single put date in the future and it is not continuously callable by the bank/bondholder. There are no take out agreements, but per the terms noted above, the University intends to either request an extension or refinance these bonds on or prior to the put date. Thus, there are no fees paid for these types of facilities. Since the put date is greater than 1 year from the fiscal year end, these bonds are included in long-term liabilities.

Series 2015B bonds are callable by the bondholder, TD Bank, with a put date of November 1, 2030. The amount outstanding at the put date will be \$2,470,907. The University can request an extension no sooner than 180 days but no later than 60 days prior to the put date, and the bank, at its discretion, can choose to extend or not, with new proposed terms. If the bank exercises the put provision, the University will be required to make a principal payment in the amount referenced above. However, on or prior to the put date, it is the University's intention to either negotiate with the bank to extend the put date on the existing bonds, or to refinance the bonds in their entirety. Letters of credit and liquidity facilities supporting this issuance is not needed because there is a single put date in the future and it is not continuously callable by the bank/bondholder. There are no take out agreements, but per the terms noted above, the University intends to either request an extension or refinance these bonds on or prior to the put date. Thus, there are no fees paid for

these types of facilities. Since the put date is greater than 1 year from the fiscal year end, these bonds are included in long-term liabilities.

### General Obligation Bonds

Section 9(c) bonds are general obligation bonds issued by the Commonwealth on behalf of the University, which are secured by the net revenues of the completed project and the full faith, credit and taxing power of the Commonwealth. The General Obligation Bonds carry interest rates of 2% to 5% and are due through 2037.

### Virginia College Building Authority

The Virginia College Building Authority (VCBA) issues Educational Facilities Revenue Bonds (Public Higher Education Financing Program). As a participating institution in this program, the University issued a note payable to the VCBA. This note, along with the notes of other institutions, is held by the VCBA as security for the Educational Facilities Revenue Bonds. For accounting purposes, the financing arrangement is considered to represent a note payable. The notes have interest rates of 2% to 5%.

### Virginia Public Building Authority

The University participates in a financing arrangement with the Virginia Public Building Authority to construct a steam plant adjacent to the MCV Campus. The University considers this financing arrangement to be a capital lease with imputed interest rates of 2% to 5.75%. In November 2017 the University issued a note to the VCBA totaling \$9,995,000 for the Allied Health Professions construction project.

### Ad Center Development LLC

The University leases space for the VCU Brand Center which is owned by the VCU Real Estate Foundation and leased through Ad Center LLC. For accounting purposes, this arrangement is considered to be a capital lease with an imputed interest rate of 4.3%.

### Defeasance of Debt

In prior fiscal years, a portion of the Commonwealth of Virginia Revenue Bonds, of which the University has a share, has been defeased. Details relating to the current and prior years' defeasances are reported in the Comprehensive Annual Financial Report of the Commonwealth. As of June 30, 2018, \$24,250,000 of defeased bonds is outstanding.

The changes in long-term liabilities are as shown below:

University:	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Bonds Payable:					
General revenue pledge bonds	\$167,539,849	-	(\$9,475,613)	\$158,064,236	\$9,768,195
Commonwealth of Virginia revenue bonds	59,673,524	-	(2,447,195)	57,226,329	2,319,551
Total bonds payable	<u>227,213,373</u>	<u>-</u>	<u>(11,922,808)</u>	<u>215,290,565</u>	<u>12,087,746</u>
Notes Payable:					
Virginia College Building Authority	<u>231,158,312</u>	<u>10,862,460</u>	<u>(19,813,926)</u>	<u>222,206,846</u>	<u>18,360,000</u>
Capital Leases:					
AD Center Development LLC	<u>3,670,081</u>	<u>-</u>	<u>(282,908)</u>	<u>3,387,173</u>	<u>295,271</u>
Installment purchases	<u>2,316,422</u>	<u>-</u>	<u>(603,577)</u>	<u>1,712,845</u>	<u>615,788</u>
Total long-term debt	<u>464,358,188</u>	<u>10,862,460</u>	<u>(32,623,219)</u>	<u>442,597,429</u>	<u>31,358,805</u>
Compensated absences	34,190,836	41,927,370	(34,478,142)	41,640,064	34,682,305
Deferred compensation	<u>3,509,614</u>	<u>1,227,321</u>	<u>(1,234,159)</u>	<u>3,502,776</u>	<u>1,013,042</u>
Total	<u>\$502,058,638</u>	<u>\$54,017,151</u>	<u>(\$68,335,520)</u>	<u>\$487,740,269</u>	<u>\$67,054,152</u>

Authority:	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
General revenue pledge bonds	\$496,449,222	219,215,623	(\$105,573,756)	\$610,091,089	\$5,680,000
Notes payable	21,868,716	-	(1,847,873)	20,020,843	1,507,029
Capital leases	<u>564,059</u>	<u>2,081,227</u>	<u>(811,748)</u>	<u>1,833,538</u>	<u>407,753</u>
Total long-term debt	<u>518,881,997</u>	<u>221,296,850</u>	<u>(108,233,377)</u>	<u>631,945,470</u>	<u>7,594,782</u>
Estimated losses on malpractice claims	24,317,161	329,454	-	24,646,615	3,500,000
Workers compensation	15,452,207	-	(2,630,766)	12,821,441	2,300,000
Compensated absences	<u>35,088,764</u>	<u>68,628,156</u>	<u>(66,615,842)</u>	<u>37,101,078</u>	<u>37,101,078</u>
Total	<u>\$593,740,129</u>	<u>\$290,254,460</u>	<u>(\$177,479,985)</u>	<u>\$706,514,604</u>	<u>\$50,495,860</u>

MCV Foundation:	Beginning Balance	Additions	Reductions	Ending Balance	Due Within One Year
Note payable	<u>\$6,675,000</u>	<u>\$0</u>	<u>(\$695,000)</u>	<u>\$5,980,000</u>	<u>\$730,000</u>

Long-term debt matures as follows:

	Fiscal Year	Revenue Bonds	Notes Payable	Capital Leases	Installment Purchases	Total
<b>University:</b>						
	2019	\$12,087,746	\$18,360,000	\$295,271	\$615,788	\$31,358,805
	2020	12,463,660	18,255,000	308,173	184,699	31,211,532
	2021	12,810,571	19,005,000	321,640	188,420	32,325,631
	2022	11,437,994	18,945,000	335,696	192,216	30,910,906
	2023	11,831,922	19,900,000	350,364	196,089	32,278,375
	2024-2028	64,501,430	77,195,000	1,776,029	335,633	143,808,092
	2029-2033	57,380,617	28,285,000	-	-	85,665,617
	2034-2038	19,011,523	3,235,000	-	-	22,246,523
	2039-2043	10,690,000	-	-	-	10,690,000
	Add Premium	3,075,102	19,026,846	-	-	22,101,948
	<b>Total</b>	<b>\$215,290,565</b>	<b>\$222,206,846</b>	<b>\$3,387,173</b>	<b>\$1,712,845</b>	<b>\$442,597,429</b>
<b>Authority:</b>						
	2019	\$5,680,000	\$1,507,029	\$428,458	-	\$7,615,487
	2020	7,490,000	998,467	414,033	-	8,902,500
	2021	7,780,000	1,220,567	420,410	-	9,420,977
	2022	8,135,000	1,314,352	426,885	-	9,876,237
	2023	8,395,000	1,330,535	143,752	-	9,869,287
	2024-2028	100,240,000	5,277,065	-	-	105,517,065
	2029-2033	89,915,000	2,632,350	-	-	92,547,350
	2034-2038	117,570,000	2,640,712	-	-	120,210,712
	2039-2043	47,205,000	2,844,193	-	-	50,049,193
	2044-2048	191,085,000	255,573	-	-	191,340,573
	2049-2053	5,920,000	-	-	-	5,920,000
	Premium	20,676,089	-	-	-	20,676,089
	<b>Total</b>	<b>\$610,091,089</b>	<b>\$20,020,843</b>	<b>\$1,833,538</b>	<b>\$0</b>	<b>\$631,945,470</b>
<b>MCV Foundation:</b>						
	2019	-	\$730,000	-	-	\$730,000
	2020	-	770,000	-	-	770,000
	2021	-	810,000	-	-	810,000
	2022	-	850,000	-	-	850,000
	2023	-	925,000	-	-	925,000
	Thereafter	-	1,895,000	-	-	1,895,000
	<b>Total</b>	<b>\$0</b>	<b>\$5,980,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,980,000</b>

A summary of future interest requirements is as follows:

	Fiscal Year	Revenue Bonds	Notes Payable	Total
<u>University:</u>				
	2019	\$7,084,766	\$8,622,450	\$15,707,216
	2020	6,743,725	7,750,869	14,494,594
	2021	6,395,127	6,854,700	13,249,827
	2022	6,025,511	5,919,205	11,944,716
	2023	5,663,875	4,979,426	10,643,301
	2024-2028	22,346,212	14,009,177	36,355,389
	2029-2033	11,650,625	2,669,069	14,319,694
	2034-2038	4,293,134	248,175	4,541,309
	2039-2043	1,483,006	-	1,483,006
	<u>Total</u>	<u>\$71,685,981</u>	<u>\$51,053,071</u>	<u>\$122,739,052</u>
	Fiscal Year	Revenue Bonds	Notes Payable	Total
<u>Authority:</u>				
	2019	\$22,097,633	\$414,796	\$22,512,429
	2020	21,846,198	377,746	22,223,944
	2021	21,584,411	331,703	21,916,114
	2022	21,310,713	314,444	21,625,157
	2023	20,997,378	280,125	21,277,503
	2024-2028	92,804,753	966,099	93,770,852
	2029-2033	79,327,959	526,964	79,854,923
	2034-2038	64,054,268	337,034	64,391,302
	2039-2043	51,351,363	133,553	51,484,916
	2044-2048	7,521,362	1,558	7,522,920
	2049-2053	-	-	-
	<u>Total</u>	<u>\$402,896,038</u>	<u>\$3,684,022</u>	<u>\$406,580,060</u>

9. **VIRGINIA COMMONWEALTH UNIVERSITY FACULTY EARLY RETIREMENT INCENTIVE PLAN**

The University established the Virginia Commonwealth University Faculty Early Retirement Incentive Plan for Faculty (Plan) to provide a financial early retirement incentive for certain tenured faculty that will facilitate the release of tenured faculty resources for budget reallocation or reduction in accordance with the University Strategic Plan goals, changes in enrollment and other

University needs. Tenure is a permanent appointment granted to associate professors and professors, which continues until the faculty member leaves the University, is dismissed for cause or is terminated due to a financial crisis.

The Plan provides an annuity for five years from the date of retirement equal to 20% of the average University salary of the faculty members eligible to participate in the Plan, not to exceed 30% of the participant’s base annual salary from University resources at the time the agreement was signed. In addition, the University provides a health care benefit supplement until the participant becomes Medicare eligible (currently age 65) if the participant retires, or up to 18 months of COBRA benefits if the participant does not retire.

As of June 30, 2018, 49 faculty members were enrolled in the plan. Payments during fiscal year 2018 were \$1,234,159. The present value of the future plan payment schedule follows:

<u>Fiscal Year</u>	<u>Plan Obligations</u>
2019	\$1,013,042
2020	941,884
2021	745,732
2022	503,763
2023	267,758
2024	30,298
2025	299
Total	<u><u>\$3,502,776</u></u>

10. RETIREMENT, PENSION PLANS, AND POST EMPLOYMENT BENEFITS OTHER THAN PENSION BENEFITS

**University**

**Pension Plan Description**

All full-time, salaried permanent employees of the University are automatically covered by the VRS State Employee Retirement Plan or the VaLORS Retirement Plan upon employment. These plans are administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. The State Employee Retirement Plan is a single employer plan treated as a cost-sharing employer plan for financial reporting purposes. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the *Code of Virginia*, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave, and previously refunded service.

The System administers three different benefit structures for covered employees in the VRS State Employee Retirement Plan – Plan 1, Plan 2, and, Hybrid and two different benefit structures for covered employees in the VaLORS Retirement Plan – Plan 1 and Plan 2. Each of these benefit structures has a different eligibility criteria. The specific information for each plan and the eligibility for covered groups within each plan are set out in the table below:

Retirement Plan Provisions by Plan Structure		
Plan 1	Plan 2	Hybrid Retirement Plan
<p><b>About Plan 1</b> 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.</p>	<p><b>About Plan 2</b> 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.</p>	<p><b>About the Hybrid Retirement Plan</b> 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.</p>
<p><b>Eligible Members</b> Employees are in Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013, and they have not taken a refund</p>	<p><b>Eligible Members</b> Employees are in Plan 2 if their membership date is on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013.</p>	<p><b>Eligible Members</b> Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes: state employees and 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.</p>
<p><b>Hybrid Opt-In Election</b> 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.</p>	<p><b>Hybrid Opt-In Election</b> 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.</p>	<p><b>*Non-Eligible Members</b> Some employees are not eligible to participate in the Hybrid Retirement Plan. They include: members of the Virginia Law Officers' Retirement System (VaLORS). 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.</p>
<p><b>Retirement Contributions</b> State employees, excluding state elected officials, 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 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.</p>	<p><b>Retirement Contributions</b> State employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction.</p>	<p><b>Retirement Contributions</b> 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 contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.</p>

<p><b>Creditable Service</b> 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 their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.</p>	<p><b>Creditable Service</b> Same as Plan 1.</p>	<p><b>Creditable Service Defined Benefit Component:</b> 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 their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit. <b>Defined Contributions Component:</b> Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.</p>
<p><b>Vesting</b> 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.</p>	<p><b>Vesting</b> Same as Plan 1.</p>	<p><b>Vesting Defined Benefit Component:</b> 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. <b>Defined Contributions Component:</b> 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</p>
<p><b>Calculating the Benefit</b> 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.</p>	<p><b>Calculating the Benefit</b> See definition under Plan 1.</p>	<p><b>Calculating the Benefit Defined Benefit Component:</b> See definition under Plan 1. <b>Defined Contribution Component:</b> 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.</p>
<p><b>Average Final Compensation</b> A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.</p>	<p><b>Average Final Compensation</b> A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.</p>	<p><b>Average Final Compensation</b> Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.</p>
<p><b>Service Retirement Multiplier VRS:</b> 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%. <b>ValORS:</b> The retirement multiplier for ValORS employees is 1.70% or 2.00%.</p>	<p><b>Service Retirement Multiplier VRS:</b> Same as Plan 1 for service earned, purchased or granted prior to January 1, 2013. For nonhazardous duty members the retirement multiplier is 1.65% for creditable service earned, purchased or granted on or after January 1, 2013. <b>ValORS:</b> The retirement multiplier for ValORS employees is 2.00%.</p>	<p><b>Service Retirement Multiplier Defined Benefit Component:</b> <b>VRS:</b> 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. <b>ValORS:</b> Not applicable. <b>Defined Contribution Component:</b> Not applicable.</p>
<p><b>Normal Retirement Age VRS:</b> Age 65. <b>ValORS:</b> Age 60.</p>	<p><b>Normal Retirement Age VRS:</b> Normal Social Security retirement age. <b>ValORS:</b> Same as Plan 1.</p>	<p><b>Normal Retirement Age Defined Benefit Component:</b> <b>VRS:</b> Same as Plan 2. <b>ValORS:</b> Not applicable. <b>Defined Contribution Component:</b> Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>

<p><b>Earliest Unreduced Retirement Eligibility VRS:</b> Age 65 with at least five years (60 months) of creditable service or at age 50 with at least 30 years of creditable service. <b>ValORS:</b> Age 60 with at least five years of creditable service or age 50 with at least 25 years of creditable service.</p>	<p><b>Earliest Unreduced Retirement Eligibility VRS:</b> Normal Social Security retirement age with at least five years (60 months) of creditable service or when their age and service equal 90. <b>ValORS:</b> Same as Plan 1.</p>	<p><b>Earliest Unreduced Retirement Eligibility <u>Defined Benefit Component:</u></b> 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. <b>ValORS:</b> Not applicable. <b><u>Defined Contribution Component:</u></b> Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>
<p><b>Earliest Reduced Retirement Eligibility VRS:</b> Age 55 with at least five years (60 months) of creditable service or age 50 with at least 10 years of creditable service. <b>ValORS:</b> 50 with at least five years of creditable service.</p>	<p><b>Earliest Reduced Retirement Eligibility VRS:</b> Age 60 with at least five years (60 months) of creditable service. <b>ValORS:</b> Same as Plan 1.</p>	<p><b>Earliest Reduced Retirement Eligibility <u>Defined Benefit Component:</u></b> VRS: Age 60 with at least five years (60 months) of creditable service. <b>ValORS:</b> Not applicable. <b><u>Defined Contribution Component:</u></b> Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>
<p><b>Cost-of-Living Adjustment (COLA) in Retirement</b> 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 increase (up to 4%) up to a maximum COLA of 5%. <b>Eligibility:</b> 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 less 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. <b>Exceptions to COLA Effective Dates:</b> 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 retires directly from short-term or long-term disability under the Virginia Sickness and Disability Program (VSDP). 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</p>	<p><b>Cost-of-Living Adjustment (COLA) in Retirement</b> 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%. <b>Eligibility:</b> Same as Plan 1. <b>Exceptions to COLA Effective Dates:</b> Same as Plan 1.</p>	<p><b>Cost-of-Living Adjustment (COLA) in Retirement <u>Defined Benefit Component:</u></b> Same as Plan 2. <b><u>Defined Contribution Component:</u></b> Not applicable. <b>Eligibility:</b> Same as Plan 1 and Plan 2. <b>Exceptions to COLA Effective Dates:</b> Same as Plan 1 and Plan 2.</p>
<p><b>Disability Coverage</b> Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.7% on all service, regardless of when it was earned, purchased or granted. 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.</p>	<p><b>Disability Coverage</b> 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 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.</p>	<p><b>Disability Coverage</b> 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 are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.</p>
<p><b>Purchase of Prior Service</b> 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. Only active members are eligible to purchase prior service. Members also may be eligible to purchase periods of leave without pay.</p>	<p><b>Purchase of Prior Service</b> Same as Plan 1.</p>	<p><b>Purchase of Prior Service <u>Defined Benefit Component:</u></b> Same as Plan 1, with the following exception: Hybrid Retirement Plan members are ineligible for ported service. <b><u>Defined Contribution Component:</u></b> Not applicable.</p>

## Contributions

The contribution requirement for active employees is governed by §51.1-145 of the *Code of Virginia*, as amended, but may be impacted as a result of funding provided to the University by the Virginia

General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement. Prior to July 1, 2012, the 5.00% member contribution was paid by the employer. Beginning July 1, 2012 University employees were required to pay the 5.00% member contribution and the University was required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution. The University's contractually required contribution rate for the year ended June 30, 2018 was 13.49% of covered employee compensation for employees in the VRS State Employee Retirement Plan. For employees in the VaLORS Retirement Plan, the contribution rate was 21.05% of covered employee compensation. These rates were based on actuarially determined rates from an actuarial valuation as of June 30, 2015. The contribution rate for the VRS State Employee Retirement Plan also reflects the transfer in June 2016 of \$162,406,273 as an accelerated payback of the deferred contribution in the 2010-12 biennium. The contribution rate for the VaLORS Retirement Plan also reflects the transfer in June 2016 of \$16,491,559 as an accelerated payback of the deferred contribution in the 2010-12 biennium. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from the University to the VRS State Employee Retirement Plan were \$29,337,693 and \$27,649,005 for the years ended June 30, 2018 and June 30, 2017, respectively. Contributions from the University to the VaLORS Retirement Plan were \$893,608 and \$856,350 for the years ended June 30, 2018 and June 30, 2017, respectively.

### **Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

At June 30, 2018, the University reported a liability of \$297,415,000 for its proportionate share of the VRS State Employee Retirement Plan Net Pension Liability and a liability of \$7,843,000 for its proportionate share of the VaLORS Retirement Plan Net Pension Liability. The Net Pension Liability was measured as of June 30, 2017 and the total pension liability used to calculate the Net Pension Liability was determined by an actuarial valuation as of that date. The University's proportion of the Net Pension Liability was based on the University's actuarially determined employer contributions to the pension plan for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2017, the University's proportion of the VRS State Employee Retirement Plan was 5.10362% as compared to 5.11595% at June 30, 2016. At June 30, 2017, the University's proportion of the VaLORS Retirement Plan was 1.19516% as compared to 1.115% at June 30, 2016.

For the year ended June 30, 2018, the University recognized pension expense of \$23,373,000 for the VRS State Employee Retirement Plan and \$911,000 for the VaLORS Retirement Plan. Since there was a change in proportionate share between June 30, 2016 and June 30, 2017 a portion of the pension expense was related to deferred amounts from changes in proportion and from differences between University contributions and the proportionate share of University contributions.

At June 30, 2018, the University reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$654,000	\$9,025,000
Net difference between projected and actual earnings on pension plan investments	-	12,922,000
Change in assumptions	2,889,000	510,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	2,153,000	574,000
Employer contributions subsequent to the measurement date	30,231,301	-
Total	<u>\$35,927,301</u>	<u>\$23,031,000</u>

\$30,231,301 reported as deferred outflows of resources related to pensions resulting from the University's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the fiscal year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year Ended June 30</u>	
FY 2019	(\$10,168,000)
FY 2020	1,553,000
FY 2021	(29,000)
FY 2022	(8,691,000)
	<u>(\$17,335,000)</u>

### **Actuarial Assumptions**

The total pension liability for the VRS State Employee Retirement Plan was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5 percent
Salary increases, including Inflation	3.5 percent – 5.35 percent

Investment rate of return 7.0 percent, net of pension plan investment expenses, including inflation\*

\*Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of pension liabilities.

Mortality rates:

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males set back 1 year, 85% of rates; females set back 1 year.

Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB; males set forward 1 year; females set back 1 year with 1.5% increase compounded from ages 70 to 85.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males 115% of rates; females 130% of rates.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (pre-retirement, post retirement healthy and disabled): Update to a more current mortality table RP-2014 projected to 2020

Retirement Rates: Lowered rates at older ages and changed final retirement from 70 to 75

Withdraw Rates: Adjusted rates to better fit experience at each year age and service through 9 years of service

Disability Rates: Adjusted rates to better match experience

Salary Scale: No change

Line of Duty Disability: Increased rate from 14% to 25%

The total pension liability for the VaLORS Retirement Plan was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following

assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5 percent
Salary increases, including Inflation	3.5 percent – 4.75 percent
Investment rate of return	7.0 percent, net of pension plan investment expense, including inflation*

\*Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of pension liabilities.

Mortality rates:

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 90% of rates; females set forward 1 year.

Post-Retirement:

RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB; males set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 1 year.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (pre-retirement, post retirement healthy and disabled): Update to a more current mortality table RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience

Retirement Rates: Increased age 50 rates and lowered rates at older ages

Withdraw Rates: Adjusted rates to better fit experience at each year age and service through 9 years of service

Disability Rates: Adjusted rates to better match experience

Salary Scale: No change

Line of Duty Disability: Decreased rate from 50% to 35%

**Net Pension Liability**

The net pension liability (NPL) is calculated separately for each system and represents that particular system’s total pension liability determined in accordance with GASB Statement No. 67, less that system’s fiduciary net position. As of June 30, 2017, NPL amounts for the VRS State Employee Retirement Plan and the VaLORS Retirement Plan are as follows (amounts expressed in thousands):

	State Employee Retirement Plan	VaLORS Retirement Plan
Total pension liability	\$23,617,412	\$2,002,184
Plan fiduciary net position	17,789,888	1,345,887
Employers’ net pension liability (asset)	<u>\$5,827,524</u>	<u>\$656,297</u>

Plan fiduciary net position as a percentage of the total pension liability	75.33%	67.22%
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The total pension liability is calculated by the System’s actuary, and each plan’s fiduciary net position is reported in the System’s financial statements. The net pension liability is disclosed in accordance with the requirements of GASB Statement No. 67 in the System’s notes to the financial statements and required supplementary information.

**Long-Term Expected Rate of Return**

The long-term expected rate of return on pension System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System 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 asset allocation and best estimate of arithmetic real rates of return for each major asset class 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	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	<u>100.00%</u>		<u>4.80%</u>
	Inflation		<u>2.50%</u>
	*Expected arithmetic nominal return		<u>7.30%</u>

\* The above allocation provides a one-year return of 7.30%. 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 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 6.83%, including expected inflation of 2.50%.

**Discount Rate**

The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the University for the VRS State Employee Retirement Plan and the VaLORS Retirement Plan will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, all agencies are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

**Sensitivity of the University’s Proportionate Share of the Net Pension Liability to Changes in the Discount Rate**

The following presents the University’s proportionate share of the VRS State Employee Retirement Plan net pension liability using the discount rate of 7.00%, as well as what the University’s proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
University's proportionate share of the VRS State Employee Retirement Plan Net Pension Liability	\$439,322,000	\$297,415,000	\$178,244,000

The following presents the University's proportionate share of the VaLORS Retirement Plan net pension liability using the discount rate of 7.00%, as well as what the University's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
University's proportionate share of the VaLORS Retirement Plan Net Pension Liability	\$10,942,000	\$7,843,000	\$5,281,000

**Pension Plan Fiduciary Net Position**

Detailed information about the VRS State Employee Retirement Plan's Fiduciary Net Position or the VaLORS Retirement Plan's Fiduciary Net Position is available in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**Payables to the Pension Plan**

Included in accounts payable and other liabilities is an outstanding liability as of June 30, 2018 of \$1,861,072 due to VRS.

**Optional Retirement Plans**

Full-time faculty and certain administrative staff are eligible to participate in other retirement plans. These are fixed-contribution programs where the retirement benefits received are based upon the employer (5.4%) and employee (5%) contributions (all of which are paid by the University for faculty hired before July 1, 2010) plus interest and dividends. For faculty hired on or after July 1, 2010, the 5% employee contribution is paid by the employee and the employer contribution, paid by the University, is 8.5%. The two providers are TIAA-CREF and Fidelity. The total pension expense for fiscal year 2018 related to these optional retirement plans was \$20,926,170. Included in accounts payable and other liabilities is an outstanding liability as of June 30, 2018 of \$1,767,704 related to these plans.

Certain employees of Virginia Commonwealth University are participating in The Select Plan. The Select Plan is a 401(a) defined contribution plan and participation is limited to executives (Dean and above) by invitation. It is primarily designed to continue defined contributions at the regular other retirement plan percentages of salary (as applicable depending upon the faculty member's plan) for executives whose base salaries exceed the compensation maximum for the other retirement plans (currently \$265,000). Total pension expense related to The Select Plan for fiscal year 2018 was \$55,716. Included in accounts payable and other liabilities is an outstanding liability as of June 30, 2018 of \$28,315 related to this plan.

Individual contracts issued under these plans provide for full and immediate vesting of both the University's and the employee's contributions. Contributions to other retirement plans were calculated using the base salary \$221,166,623 in fiscal year 2018. Total pension costs under these plans were \$20,981,886 in fiscal year 2018. Included in accounts payable and other liabilities is an outstanding liability as of June 30, 2018 of \$1,796,019 related to these plans.

### **Authority**

#### **MCVH Virginia Retirement System Plan (VRS Plan)**

Prior to July 1, 1997, employees of MCVH were employees of the Commonwealth of Virginia (the Commonwealth). These employees were eligible to participate in a defined benefit pension plan administered by the Virginia Retirement System (VRS). After July 1, 1997, employees could choose to remain in the VRS Plan or enroll in the MCVH Authority Defined Contribution Plan (the Plan). As of June 30, 2018, approximately 349 employees remain enrolled in VRS. Participating MCVH employees are eligible for VRS's Plan 1 benefit structure in which the retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. The Commonwealth, not MCVH, has overall responsibility for these plans. The VRS also administers health-related plans for retired employees. A description of the pension plan, contributions, actuarial assumptions, net pension liability, long-term expected rate of return and discount rate can be found under the University's section described previously.

The contribution requirement for active employees is governed by 51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to the University by the Virginia General Assembly. Employees are required to contribute 5% of their compensation toward their retirement. Prior to July 1, 2013, the 5% member contribution was paid by MCVH. Beginning July 1, 2013, MCVH employees were required to pay the 5% member contribution. The University's (including MCVH) contractually required contribution rate for the year ended June 20, 2018 was 13.49% of covered employee compensation for employees in the Plan. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. The contribution rate for the Plan also reflects the transfer in June 2016 of \$162,406,273 as an accelerated payback of the deferred contribution in the 2010-12 biennium. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employee during the year, with an additional amount to finance any unfunded

accrued liability. Contributions from MCVH to the Plan were \$3,602,983 for the year ended June 30, 2018.

**Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

MCVH reported a liability of \$43,367,000 for its proportionate share of the Net Pension Liability for the year ended June 30, 2018. The Net Pension Liability was measured as of June 30, 2017 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. MCVH’s proportion of the Net Pension Liability was based on MCVH’s actuarially determined employer contributions to the pension plan for the year ended June 30, 2016, relative to the total of the actuarially determined employer contribution for all participating employers. At June 30, 2017, MCVH’s proportion of the VRS Plan was 0.74% as compared to 0.79% at June 30, 2016.

MCVH recognized pension income of \$1,999,000 for the Plan for the year ended June 30, 2018. Since there was a change in proportionate share between June 30, 2016 and June 30, 2017, a portion of the pension expense was related to deferred amounts from changes in proportion and from differences between employer contributions and the proportionate share of employer contributions. At June 30, 2018, MCVH reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$92,000	\$1,312,000
Change in assumptions	421,000	-
Net difference between projected and actual earnings on pension plan investments	-	1,853,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	5,612,000
Employer contributions subsequent to the measurement date	3,602,983	-
Total	<u>\$4,115,983</u>	<u>\$8,777,000</u>

Deferred outflows of resources related to employer contributions subsequent to the measurement date totaling \$3,602,983 will be recognized as a reduction of the net pension liability in the year ended June 30, 2019. Deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30,	
2019	(\$4,862,000)
2020	(1,567,000)
2021	(589,000)
2022	(1,246,000)
	<u>(\$8,264,000)</u>

**Sensitivity of the Authority’s Proportionate Share of the Net Pension Liability to Changes in the Discount Rate**

The following presents the MCVH’s proportionate share of the Plan’s net pension liability using the discount rate of 7%, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6%) or one percentage point higher (8%) than the current rate:

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
MCVH’s proportionate share of the Retirement Plan Net Pension Liability	\$64,059,000	\$43,367,000	\$25,990,000

**VCUHS Retirement Plan (VCUHS 401(A) Plan)**

The MCVH Authority Defined Contribution Plan (the Plan) was amended and restated effective January 1, 2002 and is now referred to as the VCUHS Retirement Plan (VCUHS 401(a) Plan). All employees, excluding house staff, working at least 20 hours a week in a benefit-eligible position are eligible to participate in the VCUHS 401(a) Plan. At June 30, 2018, there were 7,454 participants in the VCUHS 401(a) Plan. Per the VCUHS 401(a) Plan document as approved by the Authority’s Board of Directors, MCVH contributes up to 10% of the participant’s salary to the VCUHS 401(a) Plan not to exceed the lesser of (a) the amount in accordance with Code 415(d), or (b) one hundred percent (100%) of the Participant’s Compensation for such limitation year. Contributions are a function of the employee’s age plus years of service per the table below. Total contributions to the VCUHS 401(a) Plan for the year ended June 30, 2018 was approximately \$24,616,000. MCVH shall have the right at any time, and without the consent of any party, to terminate the VCUHS 401(a) Plan in its entirety. Any changes to the provisions of the VCUHS 401(a) Plan, including the contribution requirements, must be approved in writing by the Authority’s Board of Directors.

Age Plus Years of Service	Employer Contribution 401(a) Plan
65+	10%
55-65	8
45-55	6
35-45	4
<35	2

MCVH also sponsors the VCUHS Savings Plan (VCUHS 157(b) Plan), a savings plan that represents employee contributions and employees may also receive a 2% matching contribution in their VCUHS 401(a) Plan based on their 157(b) contribution.

MCVH has also established the HCP Plan. All persons hired as a health care provider on or after July 1, 1993 and prior to July 1, 1997 and working at least 35 hours of service per week are eligible to participate in the HCP Plan. At June 30, 2018 there were 3 participants in the HCP Plan. All significant provisions of the HCP Plan, including the contribution requirements, are similar to the VCUHS 401(a) Plan. Total contributions to the HCP Plan for the year ended June 30, 2018 was approximately \$29,322.

The VCUHS 401(a) Plan and the HCP Plan use the accrual basis of accounting and the VCUHS 401(a) Plan assets, which consist of mutual funds, are carried at fair market value. The fair market values of the mutual funds are based on quoted market prices. Investments with investment managers are as follows:

	2018
Fidelity Investments	\$263,195,827
TIAA/CREF	119,695,222
The Variable Annuity Life Insurance Company (VALIC)	12,125,090
	<u>\$395,016,139</u>

**MCVAP**

MCVAP sponsors the MCVAP 401(a) Retirement Plan (the 401(a) Plan), a noncontributory, defined contribution plan, which covers substantially all full-time clinical provider employees of MCVAP and the MCVAP 403(b) Salary Deferral Plan (the 403(b) Plan), a salary deferral plan that represents physician contributions. Contributions to the 401(a) Plan by MCVAP, as determined annually at the discretion of the Board of Directors, were approximately \$20,281,000 for the year ended June 30, 2018.

MCVAP also participates in the VCUHS Retirement Plan (VCUHS 401(a) Plan), a defined contribution plan, which covers all benefited nonclinical provider employees of MCVAP; the VCUHS Savings Plan (VCUHS 457(b) Plan), a savings plan that represents employee contribution and the MCVAP 403(b) Supplemental Plan (the 403(b) Highly Compensated Plan), a noncontributory defined contribution plan for highly compensated employees. The VCUHS 401(a) Plan contributions (as a percentage of the employee’s salary) are a function of the employee’s age plus years of service per the table below. MCVAP employees may contribute to the VCUHS 457(b) Savings Plan. Employees may also receive a 2% matching contribution in their VCUHS 401(a) Plan based on their 457(b) contribution. Contributions to the VCUHS 401(a) Plan for the year ended June 30, 2018 was approximately \$4,682,000.

Age Plus Years of Service	Employer Contribution VCUHS 401(a) Plan
65+	10%
55-65	8
45-55	6
35-45	4
<35	2

**CMH**

CMH participants in the VCUHS 401(a) Plan and retirement plan expense was approximately \$1,760,000 for the year ending June 30, 2018.

**VA Premier**

Effective August 1, 1999, VA Premier adopted a 401(k) plan for which Fidelity Investments is the trustee. Prior to January 1, 2015, employees become eligible to participate after completing one year of service, during which the employee completed 1,000 hours of service. Effective January 1, 2015, employees became eligible to participate following one month of service. There is no minimum service or age requirement to participate in the 401(k) plan. Employees may contribute 1% to 90% of their compensation. VA Premier will match 50% of the employee’s contributions up to 4% of the employee’s compensation. Matching will occur based on the biweekly pay periods.

In addition, VA Premier also contributes 3% of each employee’s compensation (Safe Harbor contribution). VA Premier also contributes 2% of each employee’s compensation (Non Elective base contribution). Virginia Premier made the Safe Harbor and Non Elective base contributions in an annual installment at the end of the calendar year through December 2014. Starting January 2015, Safe Harbor and Non Elective base contributions are made on the bi-weekly pay periods. Also starting January 2015, Virginia Premier may make additional contributions (Non Elective employer contributions) based on age plus years of service as of January 1<sup>st</sup> of the plan year. This additional Non Elective contribution was made after the end of calendar years 2016 and 2015. Employees are fully vested after four years of service in which the employee begins employment. The number of covered employees was 1,675 as of June 30, 2018. Virginia Premier’s expense for its contributions to this plan was approximately \$5,954,000 for the ended June 30, 2018.

Age Plus Years of Service	Employer Contribution 401(a) Plan
65+	5%
55-65	3
45-55	1
<55	

## **Children's**

Children's has a noncontributory defined benefit pension plan (Pension Plan) covering substantially all Children's employees. The Pension Plan provides benefits that are based on the five consecutive years for which an employee's compensation is highest. Children's funding policy is to make the minimum annual contribution that is required by applicable regulations, plus such amounts as Children's may determine to be appropriate from time to time. Effective June 30, 2010, Children's decided to freeze all future benefit accruals for those who were active plan participants. The Pension Plan is also frozen to new participants as of that date.

The measurement date for determining the Pension Plan's funded status is June 30. The Pension Plan's fair value of plan assets of \$10,396,182 as of June 30, 2018, is recorded in other assets on the accompanying consolidated statements of net position. The Pension Plan's liability of \$11,711,365 as of June 30, 2018 is included in other liabilities on the accompanying consolidated statement of net position. Children's participants in the VCUHS 401(a) Plan and retirement plan expense was approximately \$1,156,000 for the year ended June 30, 2018.

## **Other Post-Employment Benefits**

### **University**

#### **Deferred Compensation Plan (DCP)**

The Deferred Compensation Plan (DCP) gives full and part-time faculty and staff who contribute at least \$10 each pay period through the Tax Deferred Annuity Program (TDA) a matching contribution of 50%, up to a maximum of \$20 each pay period, of the amount faculty and staff contribute through the TDA Program. The Deferred Compensation Plan is a qualified defined contribution plan under Section 401(a) of the Internal Revenue Code. Total employer contributions under the Deferred Compensation Plan including both VRS and other retirement plan participants, were approximately \$1,728,608 for the fiscal year ending 2018.

#### **Group Life Insurance Program**

##### **Plan Description**

All full-time, salaried permanent employees of the University, teachers and employees of participating political subdivisions are automatically covered by the VRS Group Life Insurance Program upon employment. This plan is administered by the Virginia Retirement System (the System), along with pensions and other OBEB plans, for public employer groups in the Commonwealth of Virginia. The Group Life Insurance Program is a multiple employer, cost sharing plan.

In addition to the Basic Group Life Insurance benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured program, it is not included as part of the Group Life Insurance Program OPEB. The specific information for Group Life Insurance Program OPEB, including eligibility, coverage and benefits is set out in the table below:

<b>GROUP LIFE INSURANCE PROGRAM PLAN PROVISIONS</b>
<p style="text-align: center;"><b>Eligible Employees</b></p> <p>The Group Life Insurance Program was established July 1, 1960, for state employees, teachers and employees of political subdivisions that elect the program, including the following employers that do not participate in VRS for retirement:</p> <ul style="list-style-type: none"> <li>• City of Richmond</li> <li>• City of Portsmouth</li> <li>• City of Roanoke</li> <li>• City of Norfolk</li> <li>• Roanoke City Schools Board</li> </ul> <p>Basic group life insurance coverage is automatic upon employment. Coverage end for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest.</p>
<p style="text-align: center;"><b>Benefit Amounts</b></p> <p>The benefits payable under the Group Life Insurance Program have several components.</p> <ul style="list-style-type: none"> <li>• <b><u>Natural Death Benefit</u></b> - The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.</li> <li>• <b><u>Accidental Death Benefit</u></b> - The accidental death benefit is double the natural death benefit.</li> <li>• <b><u>Other Benefit Provisions</u></b> - In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include:             <ul style="list-style-type: none"> <li>○ Accidental dismemberment benefit</li> <li>○ Safety belt benefit</li> <li>○ Repatriation benefit</li> <li>○ Felonious assault benefit</li> <li>○ Accelerated death benefit option</li> </ul> </li> </ul>

**Reduction in benefit Amounts**

The benefit amounts provided to members covered under the Group Life Insurance Program are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value.

**Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)**

For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the Group Life Insurance Program. The minimum benefit was set at \$8,000 by statute. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment and is currently \$8,111.

**Contributions**

The contribution requirements for the Group Life Insurance Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to the University and school divisions by the Virginia General Assembly. The total rate for the Group Life Insurance Program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% X 60%) and the employer component was 0.52% (1.31% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer’s contractually required employer contribution rate for the year ended June 30, 2018 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contribution to the Group Life Insurance Program from the University were \$5,799,061 and \$5,483,131 for the years ended June 30, 2018 and June 30, 2017, respectively. Employer required contributions to the Group Life Insurance Program were \$2,319,624 and \$2,193,252 for the years ended June 30, 2018 and June 30, 2017, respectively.

**GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Group Life Insurance Program OPEB**

At June 30, 2018, the University reported a liability of \$34,569,000 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2017 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation as of that date. The covered employer’s proportion of the Net GLI OPEB Liability was based on the covered employer’s actuarially determined employer contributions to the Group Life Insurance Program for the year ended June 30, 2017 relative to the total of the

actuarially determined employer contributions for all participating employers. At June 30, 2017, the University’s proportion was 2.27455% as compared to 2.27635% at June 30, 2016. At June 30, 2017, the University’s proportion of VaLOR’s was 0.02256% as compared to 0.02226% at June 30, 2016.

For the year ended June 30, 2018, the University recognized GLI OPEB expense of \$382,000. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2018, the employer reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	-	\$767,000
Net difference between projected and actual earnings on GLI OPEB program investments	-	1,301,000
Change in assumptions	-	1,780,000
Changes in proportion	4,000	25,000
University contributions subsequent to the measurement date	2,319,624	-
<b>Total</b>	<b>\$2,323,624</b>	<b>\$3,873,000</b>

\$5,799,061 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer’s contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

<b>Year Ended June 30</b>	
FY 2019	(\$797,000)
FY 2020	(796,000)
FY 2021	(796,000)
FY 2022	(796,000)
FY 2023	(472,000)
Thereafter	(212,000)
	<u><u>(\$3,869,000)</u></u>

**Actuarial Assumptions**

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5 percent
Salary increases, including inflation -	
General state employees	3.5 percent - 5.35 percent
Teachers	3.5 percent - 5.95 percent
SPORS employees	3.5 percent - 4.75 percent
VaLORS employees	3.5 percent - 4.75 percent
JRS employees	4.5 percent
Locality - General employees	3.5 percent - 5.35 percent
Locality - Hazardous Duty employees	3.5 percent - 4.75 percent
Investment rate of return	7.0 Percent, net of pension plan investment expenses, including inflation*

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of the OPEB liabilities.

**Mortality rates – General State Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males set back 1 year, 85% of rates; females set back 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 set forward 1 year; females set back 1 year with 1.5% increase compounded from ages 70 to 85.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males 115% of rates; females 130% of rates.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%

**Mortality rates – VaLORS Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 90% of rates; females set forward 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 set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 50% to 35%

**Net GLI OPEB Liability**

The net OPEB liability (NOL) for the Group Life Insurance Program represents the program’s total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of June 30, 2017, NOL amounts for the Group Life Insurance Program is as follows (amounts expressed in thousands):

	<b>Group Life Insurance <u>OPEB Program</u></b>
Total GLI OPEB Liability	\$ 2,942,426
Plan Fiduciary Net Position	<u>1,437,586</u>
Employers’ Net GLI OPEB Liability(Asset)	<u>\$1,504,840</u>
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	48.86%

The total GLI OPEB liability is calculated by the System’s actuary, and each plan’s fiduciary net position is reported in the System’s financial statements. The net GLI OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the System’s notes to the financial statements and required supplementary information.

**Long-Term Expected Rate of Return**

The long-term expected rate of return on the System’s investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of System’s 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 asset allocation and best estimate of arithmetic real rates of return for each major asset class 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	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	<u>100.00%</u>		<u>4.80%</u>
	Inflation		<u>2.50%</u>
	*Expected arithmetic nominal return		<u>7.30%</u>

\* The above allocation provides a one-year return of 7.30%. 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 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 6.83%, including expected inflation of 2.50%.

**Discount Rate**

The discount rate used to measure the total GLI OPEB liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by the entity for the GLI OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI OPEB’s fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI OPEB liability.

**Sensitivity of the University’s Proportionate Share of the Net GLI OPEB Liability to Changes in the Discount Rate**

The following presents the employer’s proportionate share of the net GLI OPEB liability using the discount rate of 7.00%, as well as what the employer’s proportionate share of the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
University's proportionate share of the Group Life Insurance Program Net OPEB Liability	\$44,271,000	\$34,229,000	\$26,088,000
University's proportionate share of the VaLOR's Group Life Insurance Program Net OPEB Liability	\$439,000	\$340,000	\$259,000

**Group Life Insurance Program Fiduciary Net Position**

Detailed information about the Group Life Insurance Program's Fiduciary Net Position is available in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**Payables to the VRS Group Life Insurance OPEB Plan**

Included in accounts payable and other liabilities is an outstanding liability as of June 30, 2018 of \$356,585 due to VRS.

**Health Insurance Credit Program**

**Plan Description**

All full-time, salaried permanent employees of the University are automatically covered by the VRS State Employee Health Insurance Credit Program. This plan is administered by the Virginia Retirement System (the System), along with pension and other OPEB plans, for public employer groups in the Commonwealth of Virginia. The VRS Political Subdivision Health Insurance Credit Plans are part of the agent, multi-employer component of the Retiree Health Insurance Credit Program. Members earn one month of service credit toward the benefit for each month they are employed and for which their employer pays contributions to VRS. The health insurance credit is a tax-free reimbursement in an amount set by the General Assembly for each year of service credit against qualified health insurance premiums retirees pay for single coverage, excluding any portion covering the spouse or dependents. The credit cannot exceed the amount of the premiums and ends upon the retiree's death.

The specific information about the State Health Insurance Credit Program OPEB, including eligibility, coverage and benefits is set out in the table below:

STATE EMPLOYEE HEALTH INSURANCE CREDIT PROGRAM (HIC) PLAN PROVISIONS
<p><b>Eligible Employees</b>                      The State Employee Retiree Health Insurance Credit Program was established January 1, 1990 for retired state employees covered under VRS, SPORS, VaLORS and JRS who retire with at least 15 years of service credit.</p> <p>Eligible employees are enrolled automatically upon employment. They include:</p> <ul style="list-style-type: none"> <li>• Full-time and part-time permanent salaried state employees covered under VRS, SPORS, VaLORS and JRS.</li> </ul>
<p><b>Benefit Amounts</b>                      The State Employee Retiree Health Insurance Credit Program provides the following benefits for eligible employees:</p> <ul style="list-style-type: none"> <li>• <b><u>At Retirement</u></b> - For State employees who retire, the monthly benefit is \$4.00 per year of service per month with no cap on the benefit amount.</li> <li>• <b><u>Disability Retirement</u></b> - For State employees, other than state police officers, who retire on disability or go on long-term disability under the Virginia Sickness and Disability Program (VSDP), the monthly benefit is \$120.00 or \$4.00 per year of service, whichever is higher.</li> </ul> <p>For State police officers employees with a non-work-related disability who retire on disability or go on long-term disability under the Virginia Sickness and Disability Program (VSDP) the monthly benefit is \$120.00 or \$4.00 per year of service, whichever is higher.</p> <p>For State police officers employees with a work-related disability, there is no benefit provided under the State Employee Retiree Health Insurance Credit Program if the premiums are being paid under the Virginia Line of Duty Act. However, they may receive the credit for premiums paid for other qualified health plans.</p>
<p><b>Health Insurance Credit Program Notes:</b></p> <ul style="list-style-type: none"> <li>• The monthly Health Insurance Credit benefit cannot exceed the individual premium amount.</li> <li>• Employees who retire after being on long-term disability under VSDP must have at least 15 years of service credit to qualify for the health insurance credit as a retiree.</li> </ul>

**Contributions**

The contribution requirement for active employees is governed by §51.1-1400(D) of the Code of Virginia, as amended, but may be impacted as a result of funding provided to the University by the

Virginia General Assembly. The University's contractually required employer contribution rate for the year ended June 30, 2018 was 1.18% of covered employee compensation for employees in the VRS State Employee Health Insurance Credit Program. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. The actuarially determined rate was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from the University to the VRS State Employee Health Insurance Credit Program were \$5,228,683 and \$4,951,560 for the years ended June 30, 2018 and June 30, 2017, respectively.

**State Employee Health Insurance Credit Program OPEB Liabilities, State Employee Health Insurance Credit Program OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to State Employee Health Insurance Credit Program OPEB**

At June 30, 2018, the University reported a liability of \$59,419,000 for its proportionate share of the VRS State Employee Health Insurance Credit Program Net OPEB Liability. The Net VRS State Employee Health Insurance Credit Program OPEB Liability was measured as of June 30, 2017 and the total VRS State Employee Health Insurance Credit Program OPEB liability used to calculate the Net VRS State Employee Health Insurance Credit Program OPEB Liability was determined by an actuarial valuation as of that date. The University's proportion of the Net VRS State Employee Health Insurance Credit Program OPEB Liability was based on the University's actuarially determined employer contributions to the VRS State Employee Health Insurance Credit Program OPEB plan for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2017, the University's proportion of the VRS State Employee Health Insurance Credit Program was 6.46210% as compared to 6.48015% at June 30, 2016. At June 30, 2017, the University's proportion of the VaLOR's VRS State Employee Health Insurance Credit Program was 0.06372% as compared to 0.6324% at June 30, 2016.

For the year ended June 30, 2018, the University recognized VRS State Employee Health Insurance Credit Program OPEB expense of \$5,136,000. Since there was a change in proportionate share between June 30, 2016 and June 30, 2017 a portion of the VRS State Employee Health Insurance Credit Program Net OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2018, the University reported deferred outflows of resources and deferred inflows of resources related to the VRS State Employee Health Insurance Credit Program OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	-	-
Net difference between projected and actual earnings on State HIC		
OPEB plan investments	-	145,000
Change in assumptions	-	670,000
Changes in proportionate share	3,000	139,000
University contributions subsequent to the measurement date	5,228,683	-
<b>Total</b>	<b>\$5,231,683</b>	<b>\$954,000</b>

\$5,228,683 reported as deferred outflows of resources related to the State Employee HIC OPEB resulting from the University’s contributions subsequent to the measurement date will be recognized as a reduction of the Net State Employee HIC OPEB Liability in the Fiscal Year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the State Employee HIC OPEB will be recognized in the State Employee HIC OPEB expense in future reporting periods as follows:

<u>Year Ended June 30</u>	
FY 2019	(\$191,000)
FY 2020	(191,000)
FY 2021	(191,000)
FY 2022	(192,000)
FY 2023	(154,000)
Thereafter	(32,000)
	<u>(\$951,000)</u>

### **Actuarial Assumptions**

The total State Employee HIC OPEB liability for the VRS State Employee Health Insurance Credit Program was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5 percent
Salary increases, including inflation –	
General state employees	3.5 percent – 5.35 percent
SPORS employees	3.5 percent – 4.75 percent
VaLORS employees	3.5 percent – 4.75 percent
JRS employees	4.5 percent

Investment rate of return 7.0 percent, net of plan investment expenses, including inflation\*

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of the OPEB liabilities.

**Mortality rates – General State Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males set back 1 year, 85% of rates; females set back 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 set forward 1 year; females set back 1 year with 1.5% increase compounded from ages 70 to 85.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males 115% of rates; females 130% of rates.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%

**Mortality rates – VaLORS Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 90% of rates; females set forward 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 set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%

**Net State Employee HIC OPEB Liability**

The net OPEB liability (NOL) for the State Employee Health Insurance Credit Program represents the program’s total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of June 30, 2017, NOL amounts for the VRS State Employee Health Insurance Credit Program is as follows (amounts expressed in thousands):

	<b>State Employee HIC OPEB Plan</b>
Total State Employee HIC OPEB Liability	\$ 990,028
Plan Fiduciary Net Position	<u>79,516</u>
State Employee net HIC OPEB Liability (Asset)	<u>\$ 910,512</u>

Plan Fiduciary Net Position as a Percentage  
of the Total State Employee HIC OPEB Liability 8.03%

The total State Employee HIC OPEB liability is calculated by the System’s actuary, and the plan’s fiduciary net position is reported in the System’s financial statements. The net State Employee HIC OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the System’s notes to the financial statements and required supplementary information.

**Long-Term Expected Rate of Return**

The long-term expected rate of return on VRS System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of VRS System 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 asset allocation and best estimate of arithmetic real rates of return for each major asset class 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	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	100.00%		4.80%
	Inflation		2.50%
	*Expected arithmetic nominal return		7.30%

\* The above allocation provides a one-year return of 7.30%. 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 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 6.83%, including expected inflation of 2.50%.

## Discount Rate

The discount rate used to measure the total State Employee HIC OPEB was 7.00%. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made in accordance with the VRS funding policy at rates equal to the actuarially determined contribution rates adopted by the VRS Board of Trustees. Through the fiscal year ending June 30, 2019, the rate contributed by the University for the VRS State Employee Health Insurance Credit Program will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, all agencies are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the State Employee HIC OPEB plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total State Employee HIC OPEB liability.

## Sensitivity of the University’s Proportionate Share of the State Employee HIC Net OPEB Liability to Changes in the Discount Rate

The following presents the University’s proportionate share of the VRS State Employee Health Insurance Credit Program net HIC OPEB liability using the discount rate of 7.00%, as well as what the University’s proportionate share of the net HIC OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
University’s proportionate share of the VRS University HIC OPEB Plan Net HIC OPEB Liability	\$65,061,000	\$58,839,000	\$53,488,000

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
University’s proportionate share of the VaLOR’s VRS University HIC OPEB Plan Net HIC OPEB Liability	\$641,000	\$580,000	\$527,000

## State Employee HIC OPEB Fiduciary Net Position

Detailed information about the VRS State Employee Health Insurance Credit Program’s Fiduciary Net Position is available in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System’s Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**Payables to the State Employee Health Insurance Credit Program OPEB Plan**

Included in accounts payable and other liabilities is an outstanding liability as of June 30, 2018 of \$319,762 due to VRS.

**Line of Duty Act Program**

**Plan Description**

All paid employees and volunteers in hazardous duty positions in Virginia localities and hazardous duty employees who are covered under the Virginia Retirement System (VRS), the State Police Officers’ Retirement System (SPORS), or the Virginia Law Officers’ Retirement System (VaLORS) are automatically covered by the Line of Duty Act Program (LODA). As required by statute, the Virginia Retirement System (the System) is responsible for managing the assets of the program. This plan is a multi-employer, cost-sharing plan. Participating employers made contributions to the program beginning in FY 2012. The employer contributions are determined by the System’s actuary using anticipated program costs and the number of covered individuals associated with all participating employers.

The specific information for Disability Insurance Program OPEB, including eligibility, coverage and benefits is set out in the table below:

<b>LINE OF DUTY ACT PROGRAM (LODA) PLAN PROVISIONS</b>
<p><b>Eligible Employees</b>                      The eligible employees of the Line of Duty Act Program (LODA) are paid employees and volunteers in hazardous duty positions in Virginia localities and hazardous duty employees who are covered under the Virginia Retirement System (VRS), the State Police Officers’ Retirement System (SPORS), or the Virginia Law Officers’ Retirement System (VaLORS).</p>
<p><b>Benefit Amounts</b>                      The Line of Duty Act Program (LODA) provides death and health insurance benefits for eligible individuals:</p> <ul style="list-style-type: none"> <li>• <b><u>Death</u></b> - The Line of Duty Act program death benefit is a one-time payment made to the beneficiary or beneficiaries of a covered individual. Amounts vary as follows:                             <ul style="list-style-type: none"> <li>○ \$100,000 when a death occurs as the direct or proximate result of performing duty as of January 1, 2006, or after.</li> <li>○ \$25,000 when the cause of death is attributed to one of the applicable presumptions and occurred earlier than five years after the retirement date.</li> <li>○ An additional \$20,000 benefit is payable when certain members of the National Guard and U.S. military reserves are killed in action in any armed conflict on or after October 7, 2001.</li> </ul> </li> <li>• <b><u>Health Insurance</u></b> - The Line of Duty Act program provides health insurance benefits through the Virginia Department of Human Resource Management (DHRM). The health benefits are modeled after the State Employee Health benefits Program plans and provide consistent, premium-free continued health plan coverage for LODA-eligible</li> </ul>

disabled individuals, survivors and family members. Individuals receiving the health insurance benefits must continue to meet eligibility requirements as defined by the Line of Duty Act.

## Contributions

The contribution requirements for the Line of Duty Act Program (LODA) are governed by §9.1-400.1 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to the University by the Virginia General Assembly. Each employer’s contractually required employer contribution rate for the Line of Duty Act Program (LODA) for the year ended June 30, 2018 was \$567.37 per covered full-time-equivalent employee. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015 and represents the pay-as-you-go funding rate and not the full actuarial cost of the 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. Contributions to the Line of Duty Act Program (LODA) from the entity were \$50,496 and \$44,822 for the years ended June 30, 2018 and June 30, 2017, respectively.

## **Line of Duty Act Program (LODA) OPEB Liabilities, LODA OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the LODA OPEB**

At June 30, 2018, the entity reported a liability of \$1,093,000 for its proportionate share of the Net LODA OPEB Liability. The Net LODA OPEB Liability was measured as of June 30, 2017 and the total LODA OPEB liability used to calculate the Net LODA OPEB Liability was determined by an actuarial valuation as of that date. The University’s proportion of the Net LODA OPEB Liability was based on the entity’s actuarially determined pay-as-you-go employer contributions to the LODA OPEB plan for the year ended June 30, 2017 relative to the total of the actuarially determined pay-as-you-go employer contributions for all participating employers. At June 30, 2017, the entity’s proportion was 0.41559% as compared to 0.49455% at June 30, 2016.

For the year ended June 30, 2018, the entity recognized LODA OPEB expense of \$72,000. Since there was a change in proportionate share between measurement dates, a portion of the LODA OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2018, the agency reported deferred outflows of resources and deferred inflows of resources related to the LODA OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	-	-
Net difference between projected and actual earnings on LODA		
OPEB plan investments	-	2,000
Change in assumptions	-	113,000
Changes in proportion	-	196,000
University contributions subsequent to the measurement date	50,496	-
Total	<u>\$50,496</u>	<u>\$311,000</u>

\$50,496 reported as deferred outflows of resources related to the LODA OPEB resulting from the entity's contributions subsequent to the measurement date will be recognized as a reduction of the Net LODA OPEB Liability in the Fiscal Year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in LODA OPEB expense in future reporting periods as follows:

<b>Year Ended June 30</b>	
FY 2019	(\$38,000)
FY 2020	(38,000)
FY 2021	(38,000)
FY 2022	(38,000)
FY 2023	(38,000)
Thereafter	(121,000)
	<u>(\$311,000)</u>

### Actuarial Assumptions

The total LODA OPEB liability was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.50 percent
Salary increases, including Inflation -	
General state employees	3.50 percent - 5.35 percent
SPORS employees	3.50 percent - 4.75 percent
VaLORS employees	3.50 percent - 4.75 percent

Locality employees	3.50 percent – 4.75 percent
Medical cost trend rates assumption –	
Under age 65	7.75 percent – 5.00 percent
Ages 65 and older	5.75 percent – 5.00 percent
Investment rate of return	3.56 Percent, net of OPEB plan
	Investment expenses, including inflation*

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 3.56%. However, since the difference was minimal, a more conservative 3.56% investment return assumption has been used. Since LODA is funded on a current-disbursement basis, the assumed annual rate of return of 3.56% was used since it approximates the risk-free rate of return.

**Mortality rates – General State Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males set back 1 year, 85% of rates; females set back 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 set forward 1 year; females set back 1 year with 1.5% increase compounded from ages 70 to 85.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males 115% of rates; females 130% of rates.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
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Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%

**Mortality rates – VaLORS Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 90% of rates; females set forward 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 set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 50% to 35%

**Net LODA OPEB Liability**

The net OPEB liability (NOL) for the Line of Duty Act Program (LODA) represents the program’s total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of June 30, 2017, NOL amounts for the Line of Duty Act Program (LODA) is as follows (amounts expressed in thousands):

	<u>Line of Duty Act Program</u>
Total LODA OPEB Liability	\$266,252
Plan Fiduciary Net Position	<u>3,461</u>
Employers' Net OPEB Liability (Asset)	<u>\$ 262,791</u>
Plan Fiduciary Net Position as a Percentage of the Total LODA OPEB Liability	1.30%

The total LODA OPEB liability is calculated by the System's actuary, and each plan's fiduciary net position is reported in the System's financial statements. The net OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the System's notes to the financial statements and required supplementary information.

### **Long-Term Expected Rate of Return**

The long-term expected rate of return on LODA OPEB Program's investments was set at 3.56% for this valuation. Since LODA is funded on a current-disbursement basis, the assumed annual rate of return of 3.56% was used since it approximates the risk-free rate of return. This Single Equivalent Interest Rate (SEIR) is the applicable municipal bond rate based on the Bond Buyer of Governors of the Federal Reserve System as of the measurement date of June 30, 2017.

### **Discount Rate**

The discount rate used to measure the total LODA OPEB liability was 3.56%. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made per the VRS Statutes and that they will be made in accordance with the VRS funding policy and at rates equal to the actuarially determined contribution rates adopted by the VRS Board of Trustees. Through the fiscal year ending June 30, 2019, the rate contributed by participating employers to the LODA OPEB Program will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the LODA OPEB Program's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total LODA OPEB liability.

### **Sensitivity of the University's Proportionate Share of the Net LODA OPEB Liability to Changes in the Discount Rate**

The following presents the covered employer's proportionate share of the net LODA OPEB liability using the discount rate of 3.56%, as well as what the covered employer's proportionate share of the

net LODA OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.56%) or one percentage point higher (4.56%) than the current rate:

	Current Discount Rate		
	1.00% Decrease (2.56%)	(3.56%)	1.00% Increase (4.56%)
Covered University's proportionate share of the total LODA Net OPEB Liability	\$1,239,000	\$1,093,000	\$970,000

**Sensitivity of the University's Proportionate Share of the Net LODA OPEB Liability to Changes in the Health Care Trend Rate**

Because the Line of Duty Act Program (LODA) contains a provisions for the payment of health insurance premiums, the liabilities are also impacted by the health care trend rates. The following presents the covered employer's proportionate share of the net LODA OPEB liability using health care trend rate of 7.75% decreasing to 5.00%, as well as what the covered employer's proportionate share of the net LODA OPEB liability would be if it were calculated using a health care trend rate that is one percentage point lower (6.75% decreasing to 4.00%) or one percentage point higher (8.75% decreasing to 6.00%) than the current rate:

	Health Care Trend Rates		
	1.00% Decrease (6.75% decreasing to 4.00%)	(7.75% decreasing to 5.00%)	1.00% Increase (8.75% decreasing to 6.00%)
Covered University's proportionate share of the total LODA Net OPEB Liability	\$927,000	\$1,093,000	\$1,298,000

**LODA OPEB Plan Fiduciary Net Position**

Detailed information about the Line of Duty Act Program (LODA) Fiduciary Net Position is available in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**VRS Disability Insurance Program**

**Plan Description**

All full-time and part-time permanent salaried state employees who are covered under the Virginia Retirement System (VRS), the State Police Officers' Retirement System (SPORS), or the Virginia Law Officers' Retirement System (VaLORS) hired on or after January 1, 1999 are automatically covered by the Disability Insurance Program (VSDP) upon employment. The Disability Insurance

Program also covers state employees hired before January 1, 1999 who elected to transfer to VSDP rather than retain their eligibility to be considered for disability retirement. This plan is administered by the Virginia Retirement System (the System), along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia. The Disability Insurance Program is a single employer plan that is presented as a multiple-employer, cost sharing plan.

The specific information for Disability Insurance Program OPEB, including eligibility, coverage and benefits is set out in the table below:

<b>DISABILITY INSURANCE PROGRAM (VSDP) PLAN PROVISIONS</b>
<p><b>Eligible Employees</b>                      The Virginia Sickness and Disability Program (VSDP), also known as the Disability Insurance Trust Fund was established January 1, 1999 to provide short-term and long-term disability benefits for non-work-related and work-related disabilities.</p> <p>Eligible employees are enrolled automatically upon employment. They include:</p> <ul style="list-style-type: none"> <li>• Full-time and part-time permanent salaried state employees covered under VRS, SPORS and VaLORS (members new to VaLORS following its creation on October 1, 1999, have been enrolled since the inception of VSDP).</li> <li>• 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.</li> <li>• Public college and University faculty members who elect the VRS defined benefit plan. They may participate in VSDP or their institution’s disability program, if offered. If the institution does not offer the program or the faculty member does not make an election, he or she is enrolled in VSDP.</li> </ul>
<p><b>Benefit Amounts</b>                      The Virginia Sickness and Disability Program (VSDP) provides the following benefits for eligible employees:</p> <ul style="list-style-type: none"> <li>• <b>Leave</b> - Sick, family and personal leave. Eligible leave benefits are paid by the employer.</li> <li>• <b>Short-Term Disability</b> - The program provides a short-term disability benefit beginning after a seven-calendar-day waiting period from the first day of disability. The benefit provides income replacement beginning at 100% of the employee’s pre-disability income, reducing to 80% and then 60% based on the period of the disability and the length of service of the employee. Short-term disability benefits are paid by the employer.</li> <li>• <b>Long-Term Disability</b> - The program provides a long-term disability benefit beginning after 125 workdays of short-term disability and continuing until the employee reaches his or her normal retirement age. The benefit provides income replacement of 60% of the employee’s pre-disability income. If an employee becomes disabled within five years of his or her normal retirement age, the employee will receive up to five years of VSDP benefits, provided he or she remains medically eligible. Long-term disability benefits are paid for by the Virginia Disability Insurance Program (VSDP) OPEB Plan.</li> </ul>

- **Income Replacement Adjustment** – The program provides for an income replacement adjustment to 80% for catastrophic conditions.
- **VSDP Long-Term Care Plan** – The program also includes a self-funded long-term care plan that assists with the cost of covered long-term care services.

**Cost-of-Living Adjustment (COLA)**

- During periods an employee receives long-term disability benefits, the LTD benefit may be increased annually by an amount recommended by the actuary and approved by the Board.
  - Plan 1 employees vested as of 1/1/2013 – 100% of the VRS Plan 1 COLA (The first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%).
  - Plan 1 employee non-vested as of 1/1/2013, Plan 2 and Hybrid Plan employees – 100% of the VRS Plan 2 and Hybrid COLA (The first 2% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 2%) up to a maximum COLA of 3%).
- For participating full-time employees taking service retirement, the creditable compensation may be increased annually by an amount recommended by the actuary and approved by the Board, from the date of the commencement of the disability to the date of retirement.
  - 100% of the increase in the pay over the previous plan year for continuing VSDP members in the State, SPORS and VaLORS Plans, with a maximum COLA of 4.00%
- For participating full-time employees receiving supplemental (work-related) disability benefits, the creditable compensation may be increased annually by an amount recommended by the actuary and approved by the Board, from the date of the commencement of the disability to the date of retirement
  - 100% of the increase in the pay over the previous plan year for continuing VSDP members in the State, SPORS and VaLORS Plans, with a maximum COLA of 4.00%.

**Contributions**

The contribution requirements for the Disability Insurance Program (VSDP) are governed by §51.1-1140 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to the University by the Virginia General Assembly. Each employer’s contractually required employer contribution rate for the Disability Insurance Program (VSDP) for the year ended June 30, 2018 was 0.66% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. 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. Contributions to the Disability Insurance

Program (VSDP) from the entity were \$1,343,402 and \$1,221,414 for the years ended June 30, 2018 and June 30, 2017, respectively.

**Disability Insurance Program (VSDP) OPEB Liabilities (Assets), VSDP OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the VSDP OPEB**

At June 30, 2018, the entity reported an asset of \$10,418,000 for its proportionate share of the Net VSDP OPEB Liability (Asset). The Net VSDP OPEB Liability (Asset) was measured as of June 30, 2017 and the total VSDP OPEB liability used to calculate the Net VSDP OPEB Liability (Asset) was determined by an actuarial valuation as of that date. The University’s proportion of the Net VSDP OPEB Liability (Asset) was based on the agency’s actuarially determined employer contributions to the VSDP OPEB plan for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2017, the University’s proportion was 4.98190% as compared to 4.99722% at June 30, 2016. At June 30, 2017, the University’s VaLOR’s proportion was 0.09222% as compared to 0.08971% at June 30, 2016.

For the year ended June 30, 2018, the University recognized VSDP OPEB expense of \$875,000. Since there was a change in proportionate share between measurement dates, a portion of the VSDP OPEB expense was related to deferred amounts from changes in proportion.

At June 30, 2018, the University reported deferred outflows of resources and deferred inflows of resources related to the VSDP OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	-	-
Net difference between projected and actual earnings on VSDP OPEB plan investments	-	818,000
Change in assumptions	-	781,000
Changes in proportion	23,000	-
University contributions subsequent to the measurement date	1,343,402	
<b>Total</b>	<b>\$1,366,402</b>	<b>\$1,599,000</b>

\$1,366,402 reported as deferred outflows of resources related to the VSDP OPEB resulting from the University’s contributions subsequent to the measurement date will be recognized as an adjustment of the Net VSDP OPEB Liability (Asset) in the Fiscal Year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the VSDP OPEB will be recognized in VSDP OPEB expense in future reporting periods as follows:

**Year Ended June 30**

FY 2019	(\$309,000)
FY 2020	(309,000)
FY 2021	(309,000)
FY 2022	(309,000)
FY 2023	(104,000)
Thereafter	(236,000)
	<u>(\$1,576,000)</u>

**Actuarial Assumptions**

The total VSDP OPEB liability was based on an actuarial valuation as of June 30, 2016, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2017.

Inflation	2.5 percent
Salary increases, including	
Inflation - General state employees	3.5 percent - 5.35 percent
SPORS employees	3.5 percent - 4.75 percent
VaLORS employees	3.5 percent - 4.75 percent
Investment rate of return	7.0 Percent, net of OPEB plan investment expenses, including inflation*

\* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of OPEB liabilities.

**Mortality rates – General State Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males set back 1 year, 85% of rates; females set back 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 set forward 1 year; females set back 1 year with 1.5% increase compounded from ages 70 to 85.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males 115% of rates; females 130% of rates.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020
Retirement Rates	Lowered rates at older ages and changed final retirement from 70 to 75
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%

**Mortality rates – VaLORS Employees**

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 90% of rates; females set forward 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 set forward 1 year with 1.0% increase compounded from ages 70 to 90; females set forward 3 years.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years; unisex using 100% male.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table - RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 50% to 35%

**Net VSDP OPEB Liability (Asset)**

The net OPEB asset (NOA) for the Disability Insurance Program (VSDP) represents the program’s total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of June 30, 2017, NOA amounts for the Disability Insurance Program (VSDP) is as follows (amounts expressed in thousands):

	<b>Disability Insurance Program</b>
	<u>Program</u>
Total VSDP OPEB Liability	\$237,013
Plan Fiduciary Net Position	<u>442,334</u>
Employers’ Net OPEB Liability (Asset)	<u>(\$205,321)</u>
Plan Fiduciary Net Position as a Percentage of the Total VSDP OPEB Liability	186.63%

The total VSDP OPEB liability is calculated by the System’s actuary, and each plan’s fiduciary net position is reported in the System’s financial statements. The net OPEB asset is disclosed in accordance with the requirements of GASB Statement No. 74 in the System’s notes to the financial statements and required supplementary information.

### Long-Term Expected Rate of Return

The long-term expected rate of return on System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of VRS System 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 asset allocation and best estimate of arithmetic real rates of return for each major asset class 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	40.00%	4.54%	1.82%
Fixed Income	15.00%	0.69%	0.10%
Credit Strategies	15.00%	3.96%	0.59%
Real Assets	15.00%	5.76%	0.86%
Private Equity	15.00%	9.53%	1.43%
Total	100.00%		4.80%
	Inflation		2.50%
	*Expected arithmetic nominal return		7.30%

\* The above allocation provides a one-year return of 7.30%. 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 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 6.83%, including expected inflation of 2.50%.

### Discount Rate

The discount rate used to measure the total VSDP OPEB liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made per the VRS Statutes and that they will be made in accordance with the VRS funding policy and at rates equal to the actuarially determined contribution rates adopted by the VRS Board of Trustees. Through the fiscal year ending June 30, 2019, the rate contributed by participating employers to the VSDP OPEB Program will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2019 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the VSDP OPEB Program's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the

long-term expected rate of return was applied to all periods of projected benefit payments to determine the total VSDP OPEB liability.

**Sensitivity of the University’s Proportionate Share of the Net VSDP OPEB Liability (Asset) to Changes in the Discount Rate**

The following presents the University’s proportionate share of the net VSDP OPEB liability (asset) using the discount rate of 7.00%, as well as what the University’s proportionate share of the net VSDP OPEB liability (asset) would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	Current Discount Rate		
	1.00% Decrease (6.00%)	(7.00%)	1.00% Increase (8.00%)
University’s proportionate share of the total VSDP Net OPEB Liability (Asset)	(\$9,736,000)	(\$10,229,000)	(\$11,084,000)

	Current Discount Rate		
	1.00% Decrease (6.00%)	(7.00%)	1.00% Increase (8.00%)
University’s proportionate share of the total VaLOR’s VSDP Net OPEB Liability (Asset)	(\$180,000)	(\$189,000)	(\$205,000)

**VSDP OPEB Fiduciary Net Position**

Detailed information about the Disability Insurance Program (VSDP) Fiduciary Net Position is available in the separately issued VRS 2017 Comprehensive Annual Financial Report (CAFR). A copy of the 2017 VRS CAFR may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2017-annual-report.pdf>, or by writing to the System’s Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**Payables to the Disability Insurance Program (VSDP) OPEB Plan**

Included in accounts payable and other liabilities is an outstanding liability as of June 30, 2018 of \$81,654 due to VRS.

**State Health Plans Program for Pre-Medicare Retirees**

**Plan Description**

The Commonwealth provides a healthcare plan established by Title 2.2, Chapter 28 of the Code of Virginia for retirees who are not yet eligible to participate in Medicare. Pre-Medicare Retiree Healthcare is a single employer defined benefit OPEB plan and is administered by Human Resource Management. For a retiree to participate in the Plan, the participant must be eligible for a monthly annuity from the VRS or a periodic benefit from one of the qualified Optional Retirement Plan (ORP) vendors, and:

- be receiving (not deferring) the annuity or periodic benefit immediately upon retirement;
- have his or her last employer before retirement be the state;

- be eligible for coverage as an active employee in the State Health Benefits Program until his or her retirement date (not including Extended Coverage); and,
- have submitted within 31 days of his or her retirement date an Enrollment Form to his or her Benefits Administrator to enroll.

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.

This fund is reported as part of the Commonwealth’s Healthcare 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 5,600 retirees and 91,000 active employees in the program in fiscal year 2017. 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.

**Actuarial Assumptions and Methods**

The total Pre-Medicare Retiree Healthcare OPEB liability was based on an actuarial valuation with a valuation date of June 30, 2017. 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 8.62 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.

Valuation Date	Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported.
Measurement Date	June 30, 2017 (one year prior to the end of the fiscal year)
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level dollar, Closed
Effective Amortization Period	6.43 years
Discount Rate	3.58%

Projected Salary Increases	4.0%
Medical Trend Under 65	Medical & Rx: 8.62% to 5.00% Dental: 4.00% Before reflecting Excise tax
Year of Ultimate Trend	2025
Mortality	Mortality rates vary by participant status
Pre-Retirement:	RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with Scale BB to 2020; males setback 1 year, 85% 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 set forward 1 year; females setback 1 year with 1.5% increase compounded from ages 70 to 85
Post-Disablement:	RP-2014 Disabled Mortality Rates projected with Scale BB to 2020; males 115% of rates; females 130% 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, 2017.

Changes of Assumptions: The following assumptions were updated since the July 1, 2016 valuation based on the results of a Virginia Retirement System actuarial experience study performed for the period of July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Mortality rates -updated to a more current mortality table – RP-2014 projected to 2020
- Retirement rates - lowered rates at older ages and changed final retirement from 70 to 75
- Withdrawal rates - adjusted rates to better fit experience at each year age and service through 9 years of service

The discount rate was increased from 2.85% to 3.58% based on the Bond Buyers GO 20 Municipal Bond Index. Spousal coverage was reduced from 70% to 50% based on a blend of recent spousal coverage election rates and the prior year assumption. Based on the 2017 census, new retirees since 1/1/2015 have chosen to cover their spouses approximately 20% of the time. However, active employees cover their spouses at a rate close to 53%.

**Pre-Medicare Retiree Healthcare OPEB Liabilities, OPEB Expense, and Deferred Outflow of Resources and Deferred Inflows of Resources**

At June 30, 2018, the employer reported a liability of \$84,150,119 for its proportionate share of the collective total Pre-Medicare Retiree Healthcare OPEB liability of \$1.3 billion. The Pre-Medicare Retiree Healthcare OPEB liability was measured as of June 30, 2017 and was determined

by an actuarial valuation as of June 30, 2017. The covered employer’s proportion of the Pre-Medicare Retiree Healthcare OPEB liability was based on each employer’s healthcare premium contributions as a percentage of the total employer’s healthcare premium contributions for all participating employers. At June 30, 2017, the participating employer’s proportion was 6.47855% as compared to 6.38042% at June 30, 2016. For the year ended June 30, 2018, the participating employer recognized Pre-Medicare Retiree Healthcare OPEB expense of \$6,953,309.

At June 30, 2018, the employer reported deferred outflows or resources and deferred inflows of resources related to Pre-Medicare Retiree Healthcare from the following sources:

	Deferred Outflows	Deferred Inflows
Difference between actual and expected experience	-	\$3,384,639
Changes in assumptions	-	17,839,904
Changes in proportion	1,297,741	-
Sub Total	1,297,741	21,224,543
Amounts associated with transactions subsequent to the measurement date	2,231,572	-
Total	\$3,529,313	\$21,224,543

\$2,231,572 reported as deferred outflows of resources related to the Pre-Medicare Retiree Healthcare OPEB resulting from amounts associated with transactions subsequent to the measurement date will be recognized as a reduction of the total OPEB Liability in the fiscal year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the Pre-Medicare Retiree Healthcare OPEB will be recognized in the Pre-Medicare Retiree Healthcare OPEB expense as follows:

<u>Year Ended June 30</u>	
FY 2019	(\$3,669,760)
FY 2020	(3,669,760)
FY 2021	(3,669,760)
FY 2022	(3,669,760)
FY 2023	(3,669,760)
Thereafter	(1,578,002)
	<u>(\$19,926,802)</u>

**Sensitivity of the University’s Proportionate Share of the OPEB Liability to Changes in the Discount Rate**

The following presents the employer’s proportionate share of the Pre-Medicare Retiree Healthcare OPEB liability using the discount rate of 3.58%, as well as what the employer’s proportionate share

of the Pre-Medicare Retiree Healthcare OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.58%) or one percentage point higher (4.58%) than the current rate:

	1.00% Decrease (2.58%)	Current Rate (3.58%)	1.00% Increase (4.58%)
OPEB Liability	\$90,143,986	\$84,150,119	\$78,407,352

**Sensitivity of the University’s Proportionate Share of the OPEB Liability to Changes in the Healthcare Cost Trend Rates**

The following presents the employer’s proportionate share of the Pre-Medicare Retiree Healthcare OPEB liability using healthcare cost trend rate of 8.62% decreasing to 5%, as well as what the employer’s proportionate share of the Pre-Medicare Retiree Healthcare OPEB liability would be if it were calculated using a healthcare cost trend rate that is one percentage point lower (7.62% decreasing to 4.00%) or one percentage point higher (9.62% decreasing to 6.00%) than the current rate:

	1.00% Decrease (7.62% decreasing to 4.00%)	Trend Rate (8.62% decreasing to 5.00%)	1.00% Increase (9.62% decreasing to 6.00%)
OPEB Liability	\$74,872,267	\$84,150,119	\$95,026,572

**Authority**

**Health Insurance Credit Program**

Prior to July 1, 1997, employees of MCVH were employees of the Commonwealth of Virginia (the Commonwealth). These employees were automatically covered by the Employee Health Insurance Credit Program administered by the Virginia Retirement System (VRS). The HIC Plan is a defined benefit plan that provides a credit towards the cost of health insurance coverage for retirees with at least fifteen years of service. After July 1, 1997, new employees are not eligible for the HIC Plan. As of June 30, 2018, 619 employees remain enrolled in the HIC Plan. The Commonwealth, not MCVH, has overall responsibility for these plans. VRS issues a Comprehensive Annual Financial Report (CAFR) containing detailed information about the VRS State Employee Health Insurance Credit Program’s Fiduciary Net Position. The CAFR may be downloaded from the VRS website or a copy may be obtained by submitting a request to the VRS Chief Financial Officer, P.O. Box 2500, Richmond, VA. The plan description, actuarial

assumptions, long-term expected rate of return, discount rate, net State Employee HIC OPEB liability and State Employee HIC OPEB fiduciary net position can be found under the University's section described previously.

### **Contributions**

The contribution requirement for active employees is governed by 51.1-1400 (D) of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies by the Virginia General Assembly. Each state agency's (including MCVH) contractually required employer contribution rate for the year ended June 30, 2018 was 1.18% of covered employee compensation for employees in the HIC Plan. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2015. The actuarially determined rate was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from MCVH to the HIC Plan were \$647,255 and \$622,000 for the years ended June 30, 2018 and June 30, 2017, respectively.

### **Employee Health Insurance Credit Program OPEB Liabilities, Employee Health Insurance Credit Program OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Employee Health Insurance Credit Program OPEB**

At June 30, 2018, MCVH reported a liability of \$8,180,000 for its proportionate share of the HIC Plan OPEB Liability. The Net HIC Plan OPEB Liability was measured as of June 30, 2017 and the total HIC Plan OPEB liability was determined by an actuarial valuation as of that date. MCVH's proportion of the Net HIC Plan OPEB Liability was based on MCVH's actuarially determined employer contributions to the HIC Plan for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2017, MCVH's proportion of the HIC Plan was .90% as compared to 0.96% at June 30, 2016.

For the year ended June 30, 2018, MCVH recognized HIC Plan expense of \$622,000. Since there was a change in proportionate share between June 30, 2016 and June 30, 2017 a portion of the HIC Plan expense was related to deferred amounts from changes in proportion.

At June 30, 2018, MCVH reported deferred outflows of resources and deferred inflows of resources related to the HIC Plan from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	-	-
Net difference between projected and actual earnings on State HIC		
OPEB plan investments	-	20,000
Change in assumptions	-	92,000
Changes in proportionate share	-	463,000
University contributions subsequent to the measurement date	647,255	-
<b>Total</b>	<b>\$647,255</b>	<b>\$575,000</b>

Deferred outflows of resources related to employer contributions subsequent to the measurement date totaling \$647,255 will be recognized as a reduction of the net HIC Plan liability in the year ending June 30, 2019. The net inflows of resources related to HIC OPEB will be recognized in pension expense as follows:

<b>Year Ended June 30</b>	
FY 2019	(\$112,000)
FY 2020	(\$112,000)
FY 2021	(\$112,000)
FY 2022	(\$112,000)
FY 2023	(\$112,000)
Thereafter	(20,000)
	<u>(\$580,000)</u>

### **Sensitivity of the Net Pension Liability to Changes in the Discount Rate**

The following presents MCVH’s proportionate share of the HIC Plan’s net HIC OPEB liability using the discount rate at 7.00%, as well as what the net HIC OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	Current Discount Rate		
	1.00% Decrease (6.00%)	(7.00%)	1.00% Increase (8.00%)
Authority’s proportionate share of the VRS University HIC OPEB Plan Net HIC OPEB Liability	\$9,044,000	\$8,180,000	\$7,436,000

### **State Health Plans Program for Pre-Medicare Retirees**

Prior to July 1, 1997, employees of MCVH were employees of the Commonwealth. Employees who elected to remain in the VRS Plan and continued enrollment in the State Health Benefits Program after July 1, 1997, remain eligible for the Retiree Healthcare Plan. As of June 30, 2018,

356 employees remain enrolled in the Retiree Healthcare Plan through the State Health Benefits Program.

This fund is reported as part of the Commonwealth’s Healthcare Internal Service Fund. Benefit payments are recognized when due and payable in accordance with benefit terms. The Retiree Healthcare Plan is administered by the Department of Human Resource Management. The plan description, actuarial assumptions, long-term expected rate of return and discount rate can be found under the University’s section described previously.

**Pre-Medicare Retiree Healthcare OPEB Liabilities, OPEB Expense, and Deferred Outflow of Resources and Deferred Inflows of Resources**

At June 30, 2018, MCVH reported a liability of \$6,163,705 for its proportionate share of the total Retiree Healthcare OPEB Liability. The Retiree Healthcare OPEB liability was measured as of June 30, 2017 and was determined by an actuarial valuation as of June 30, 2017. MCVH’s proportion of the Retiree Healthcare OPEB Liability was based on MCVH’s healthcare premium contributions as a percentage of the total health premium contributions for all participating employers. At June 30, 2017, MCVH’s proportion was of the Retiree Healthcare Plan 0.47% as compared to 0.52% at June 30, 2016.

For the year ended June 30, 2018, MCVH recognized Retiree Healthcare Plan expense of \$372,061. Since there was a change in proportionate share between June 30, 2016 and June 30, 2017 a portion of the Retiree Healthcare Plan expense was related to deferred amounts from changes in proportion.

At June 30, 2018, MCVH reported deferred outflows of resources and deferred inflows of resources related to the Retiree Healthcare Plan from the following sources:

	Deferred Outflows	Deferred Inflows
Difference between actual and expected experience	-	\$247,913
Changes in assumptions	-	1,306,711
Changes in proportion	-	650,183
Sub Total	-	2,204,807
Amounts associated with transactions subsequent to the measurement date	163,455	-
Total	\$163,455	\$2,204,807

Deferred outflows of resources related to employer contributions subsequent to the measurement date totaling \$2,204,807 will be recognized as a reduction of the net HIC Plan liability in the year ending June 30, 2019. The net inflows of resources related to HIC OPEB will be recognized in pension expense as follows:

**Year Ended June 30**

FY 2019	(\$406,042)
FY 2020	(\$406,042)
FY 2021	(\$406,042)
FY 2022	(\$406,042)
FY 2023	(\$406,042)
Thereafter	(174,597)
	<u>(\$2,204,807)</u>

**Sensitivity of the Authority’s Proportionate Share of the OPEB Liability to Changes in the Discount Rate**

The following presents MCVH’s proportionate share of the Retiree Healthcare OPEB liability using the discount rate at 3.58%, as well as what the Retiree Healthcare OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.58%) or one percentage point higher (4.58%) than the current rate:

	1.00% Decrease (2.58%)	Current Rate (3.58%)	1.00% Increase (4.58%)
OPEB Liability	\$6,602,735	\$6,163,705	\$5,743,067

**Sensitivity of the Authority’s Proportionate Share of the OPEB Liability to Changes in the Healthcare Cost Trend Rates**

	1.00% Decrease (7.62% decreasing to 4.00%)	Trend Rate (8.62% decreasing to 5.00%)	1.00% Increase (9.62% decreasing to 6.00%)
OPEB Liability	\$5,484,134	\$6,163,705	\$6,960,368

**11. RELATED PARTIES**

The financial statements do not include the assets, liabilities or fund balances of affiliated organizations. All of these organizations are separately incorporated entities managed by their own Boards and audited by other independent certified public accounting firms. Each organization is described below.

### Medical College of Virginia Alumni Association of VCU

The purpose of the Medical College of Virginia Alumni Association of VCU is to organize alumni activities for Virginia Commonwealth University. The University provided funding of \$360,019 in 2018 as the principal source of funding for the Association's operation.

### Virginia Commonwealth University Alumni Association

The Association was formed for educational purposes to further the best interests of the University, its alumni and students. The University provided funding of \$725,595 in 2018 as the principal source of funding for the Association's operation.

### MCV/VCU Dental Faculty Practice Association

The Association, also known as Dentistry@VCU, was established to support the education, research, service and patient care mission of the School of Dentistry (School) of Virginia Commonwealth University. The Association promotes and coordinates the delivery of superior patient care at the School.

The Association reimburses VCU for certain other expenses including personnel, telephone, postage, payroll, physical repairs for the building and supplies. These payments were \$3,941,075 for the year ended June 30, 2018. The Association purchased equipment of \$159,768 in the year ended June 30, 2018, which conveys to the University.

At times, the Association collects revenue on behalf of the VCU Dental School and either maintains those funds as cash and investments, or, periodically remits those funds to the VCU School of Dentistry as needed. As of June 30, 2018, the Association held cash and investments totaling \$4,325,877.

The Association also incurs expenses on behalf of the VCU Dental School. For the year ended June 30, 2018, the Association paid clinic and non-clinic expenses totaling \$263,462. The Association paid for VCU Dental School related payroll and fringe benefits totaling \$3,084,227 for the year ended June 30, 2018. Additionally, the Association was reimbursed by the School for payroll and fringe benefits in the amount of \$2,843,205 in the year ended June 30, 2018.

### Virginia Biotechnology Research Park Partnership Authority

The primary purpose of the Virginia Biotechnology Research Park Partnership Authority is to expand knowledge pertaining to scientific and technological research, and development among public and private entities, promote the economic and industrial development of the City of Richmond and the Commonwealth of Virginia. The Authority does not have taxing powers. Operations are funded from lease and ancillary service revenues. Bond issuances, long-term notes payable, line of credit debt, appropriations from the Commonwealth, voluntary assessments from property owners located in the Research Park and contract support payments from VCU have funded both the operations and the acquisition and construction of capital assets.

In November 2011, the Authority entered into a lease agreement with Virginia Commonwealth University for the use of the real property, building and improvements located at 800 East Leigh Street, otherwise known as Biotech Center. Biotech Center is the property from which the Authority conducts the majority of its operations. The rent under the lease agreement was \$30 and was paid in a lump sum at the beginning of the lease; therefore, there is no related rent expense represented within these financial statements. The lease term ends November 2041.

**VCU Investment Management Company**

The VCU Investment Management Company, a non-profit, non-stock corporation, organized under Virginia law for exclusively charitable and educational purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code was formed to advise the University and its affiliated foundations on the management of its investments. Approved by the VCU Board of Visitors and VCU Health Board of Directors in June 2015, the VCU Investment Management Company (VCIMCO) will provide investment and investment management services to VCU, VCU Health and affiliated foundations.

In May 2017, VCIMCO entered into a loan agreement with the University borrowing \$875,000 at an interest rate of 4.67% with the loan maturing in 2021.

**12. LINE OF CREDIT**

	Beginning Balance	Additions	Reductions	Ending Balance
Uses:				
Construct basketball practice facility	\$8,600,000	-	\$1,954,496	\$6,645,504
Construct allied health professional building	9,744,502	1,055,498	10,800,000	-
Construct Institute of Contemporary Art	-	4,100,608	-	4,100,608
Energy Service Companys	-	3,633,494	-	3,633,494
Expansion School of Engineering research facility	2,126,654	3,618,463	-	5,745,117
Total line of credit	<u>\$20,471,156</u>	<u>\$12,408,063</u>	<u>\$12,754,496</u>	<u>\$20,124,723</u>

**13. FUNDS HELD IN TRUST BY OTHERS**

Under the provisions of the wills of certain benefactors, the University's portion of principal sums with market values of \$14,681,280 at June 30, 2018, was held in trust by others. These assets are not included in the University's balance sheet.

14. COMMITMENTS

The University and the Authority are party to various construction commitments. As of June 30, 2018, the remaining commitments were \$28,072,549 for the University and approximately \$448,510,000 for the Authority.

The University also is committed under various operating leases (for buildings, computer equipment, business equipment, etc.). The University has renewal options on the leased assets for another similar term. In most cases, the University expects that, in the normal course of business, these leases will be replaced by similar leases. Rental expense for the fiscal year ended June 30, 2018, was \$10,194,308 for the University and \$16,417,995 for the Authority.

The VCU Real Estate Foundation has entered into 17 leases for residential properties located in Doha, Qatar for the purpose of providing housing for faculty and staff of VCU Qatar. The payments are approximately \$1,112,204 (US Dollars) annually based upon the exchange rates as of June 30, 2018. The Qatar Foundation advances the funds to the University and the University makes all rent payments directly to the landlords.

The University has, as of June 30, 2018, the following total future minimum rental payments due under the above leases:

Fiscal Year	University	Authority
2019	\$9,464,992	\$13,975,965
2020	7,505,630	10,102,241
2021	6,723,782	7,551,335
2022	5,797,779	6,953,171
2023	4,994,318	25,779,862
2024-2028	15,745,449	-
2029-2033	12,154,473	-
2034-2038	2,943,666	-
	\$65,330,089	\$64,362,574

15. LITIGATION

The University, Authority and/or individuals acting within their scope of employment on behalf of the University or Authority have been named as a defendant in a number of lawsuits. The final outcome of any of these lawsuits cannot be determined at this time. However, management is of the opinion that any ultimate liability to which the University and Authority may be exposed will not have a material effect upon the entity's financial position.

**16. TRANSACTIONS BETWEEN COMPONENT UNITS**

The University and its component units provide services and support to each other so as to avoid duplication of efforts as much as possible.

The VCU Foundation, the VCU School of Business Foundation and the VCU School of Engineering Foundation hold the University's investments that function as endowments, both true and quasi. As of June 30, 2018, the VCU Foundation and the VCU School of Engineering Foundation held University investments of \$26,586,837 and \$6,762,774, respectively. The VCU School of Business Foundation held investments of \$1,190,624. The University has a due from component units for these investments, which is eliminated in the total column.

The VCU Foundation also holds investments for the VCU Intellectual Properties Foundation in the amount of \$1,122,023 and for the VCU Real Estate Foundation in the amount of \$7,818,718. The MCV Foundations hold investments for the VCU Intellectual Properties Foundation in the amount of \$1,200,000. The University has a due from component units for these investments, which is eliminated in the total column.

The VCU School of Engineering Foundation has constructed two buildings with the proceeds of debt issued by the University. The School of Engineering Foundation transfers sufficient funds to the University annually to fund the debt service. The annual transfer is recorded at the University as a gift received. The University includes one of the buildings and the liability for both buildings on the Statement of Net Position. The VCU School of Engineering Foundation has the phase I building, deferred bond issuance costs, prepaid bond interest, a liability and an accrued contribution to the University on their financial statements which are eliminated in the Statement of Net Position.

The VCU School of Business Foundation has constructed a building with the proceeds of debt issued by the University. The School of Business Foundation transfers sufficient funds to the University annually to fund the debt service. The University has the liability for the outstanding debt on the Statement of Net Position. The VCU School of Business Foundation has deferred issuance costs, a liability and an accrued contribution to the University on their financial statements which are eliminated in the Statement of Net Position.

The MCV Foundation, VCU Foundation, VCU School of Engineering Foundation and VCU School of Business Foundation solicit funds to benefit the University and transfer a portion of those funds to the University to support programs. These transactions have been eliminated from the Statement of Revenues, Expenses and Changes in Net Position from gift revenue and supporting services.

MCV Associated Physicians, a component of the VCU Health System, transfer a portion of their patient revenues to the University to support the academic and research missions. Those transfers are eliminated from hospital services expenses and other operating revenue.

The VCU Real Estate Foundation acquires facilities and rents them to the University and the VCU Health System. Those rental expenses are eliminated from operations and maintenance expenses and other revenues.

The University and the VCU Health System support each other through the sharing of capabilities and resources. Reimbursements of costs are made between the entities to ensure that each entity bears the proper portion of costs. Those transactions are eliminated between the revenue recorded and the expense category so that the expense is included in the expense category that reflects the service delivered to the student or public.

## 17. CONTINGENCIES

MCVH is self-insured for professional liability claims. There have been malpractice claims asserted against MCVH by various claimants. The claims are in various stages of processing and some may ultimately be brought to trial. There are also known incidents that have occurred that may result in the assertion of additional claims. In addition, there may be other claims from unreported incidents arising from services provided to patients. Management of MCVH accrues estimated losses on malpractice claims to the extent they fall within the limits of the MCVH's self-insurance program or exceed the limits of the excess insurance coverage in place at the date of the claim. The undiscounted liability is actuarially determined using industry data and MCVH's historical experience.

Investments have been set aside based on actuarially determined reserves and are included in assets whose use is limited in the accompanying consolidated statements of net position. At June 30, 2018, the internally restricted funds for MCVH include \$3,504,793 for claims and related legal expenses for reported and unreported incidents occurring since July 1, 1998.

The Authority believes that its consolidated financial position would not be materially affected by the difference between the amounts recorded and the ultimate cost related to asserted or unasserted MCVH claims, if any, as of June 30, 2018.

In addition, MCVAP is self-insured for all malpractice claims. There have been malpractice claims asserted against MCVAP by various claimants. The claims are in various stages of processing and some may ultimately be brought to trial. There are also known incidents that have occurred that may result in the assertion of additional claims. In addition there may be other claims from unreported incidents arising from services provided to patients. Management of MCVAP accrues estimated losses on malpractice claims. The undiscounted liability is actuarially determined using industry data and MCVAP's historical experience. Assets whose use is limited of \$21,141,822 have been internally restricted as of June 30, 2018, for payment of claims and related legal expenses for reported and unreported incidents.

The Authority believes that its combined financial position would not be materially affected by the difference between the amounts recorded and the ultimate cost related to asserted and unasserted MCVAP claims, if any, as of June 30, 2018.

CMH is exposed to various risks of loss from torts, theft of, damage to and destruction of assets; business interruptions; errors and omissions; employee injuries and illness; natural disasters; malpractice; and employee health, dental and accidental benefits. Insurance coverage is purchased for claims arising from such matters. CMH can be involved in litigation during the ordinary course of business related to professional liability claims. Management and legal counsel believe all claims should be settled within the limits of insurance coverage, less a \$25,000 deductible. The basic level of coverage limits are \$1 million per event and \$3 million aggregate with an Umbrella policy of \$5.9 million per event and \$5.9M aggregate.

VA Premier maintains general and professional liability policies. The general liability policy in force is occurrence-based. The coverage under the professional liability policy is on a claims-made basis and must be renewed or replaced with the equivalent insurance if claims were incurred during its terms, but asserted after its expiration, are to be insured. Coverage limits for the general liability policy are \$1 million per occurrence and \$3 million in the annual aggregate. The coverage limit for the professional liability policy is \$10 million in the annual aggregate. Management does not believe the amount of liability for any claims incurred but unreported as of June 30, 2018 is significant.

Children's maintains professional liability insurance coverage on the claims-made basis. Should Children's not renew its policy or replace it with equivalent insurance, occurrences during its term but asserted after its term will be uninsured, unless Children's obtains tail coverage.

The Authority believes that its combined financial position would not be materially affected by the ultimate cost related to unasserted claims, if any, as of June 30, 2018.

## 18. STOP-LOSS COVERAGE

VA Premier has a stop-loss arrangement to limit losses on individual claims. These contracts provide stop-loss coverage for all enrollee claims. The VA Premier contract provides coverage for 90% of all inpatient and outpatient services, physician services and drug related services in excess of \$375,000 subject to certain limitations and a lifetime limit of \$5 million per enrollee. Premiums paid to the reinsurer for the year ended June 30, 2018 were approximately \$5,247,000 and are included in other expenses in the accompanying consolidated statement of revenues, expenses and changes in net position. Benefits of approximately \$5,640,000 were provided by the reinsurer for the year ended June 30, 2018 and are netted with medical claims expense in the accompanying consolidated statement of revenues, expenses and changes in net position.

19. INDEMNIFICATIONS

The MCV Foundation has certain obligations to indemnify its current and former officers and directors for certain events or occurrences while the officer or director is, or was serving, at the Foundation’s request in such capacities. The maximum liability under these obligations is limited by the Code of Virginia. The Foundation has a director and officer insurance policy that further limits its exposure and enables the organization to recover a portion of any future amounts paid.

20. NET PATIENT SERVICE REVENUE

The Authority’s patient service revenue is as follows for the year ended June 30, 2018:

Gross Patient Revenue:	
Inpatient	\$3,154,814,404
Outpatient	<u>2,466,851,559</u>
	5,621,665,963
Provision for uncompensated care and contractual adjustments	<u>(3,964,778,701)</u>
Net patient service revenue (hospitals)	1,656,887,262
MCVAP's net patient service revenue	277,178,131
CMH's net patient service revenue	84,425,465
Children's patient service revenue	30,924,827
Eliminations	<u>(43,565,037)</u>
Consolidated net patient service revenue	<u><u>\$2,005,850,648</u></u>

This balance is included in the hospital services line item of the Statement of Revenues, Expenses

21. ESTIMATED MEDICAL CLAIMS PAYABLE

Claim expenses and liabilities arising from services rendered to VA Premier’s HMO members are reported when it is probable that services have been provided and the amount of the claim can be reasonably estimated. The claims payable includes an estimate of claims that have been incurred but not reported. As of June 30, 2018, the amount of these liabilities included in accounts payable and accrued liabilities was \$167,956,372.

22. STATE APPROPRIATIONS

The University receives state appropriations from the General Fund of the Commonwealth. The Appropriations Act specifies that such unexpended appropriations shall revert at the end of the biennium, as specifically provided by the General Assembly, unless the University meets management standards.

The following is a summary of the state appropriations for the year ended June 30, 2018:

Original Legislative Appropriation per Chapter 836:	
Educational and general programs	\$178,368,304
Higher education student financial assistance ch. 836 item 208	30,063,417
Governor's research initiative for biomedical engineering and regenerative medicine ch. 836 item 209	1,162,500
Higher education research initiative for cancer research ch. 836 item 209	12,500,000
Parkinson's and movement disorder center ch. 836 item 209	350,000
Supplemental Adjustments:	
Virtual Library of Virginia- VIVA	23,579
Virginia military survivors and dependent education program	385,261
Two year college transfer grant program	147,041
Richmond teacher residency	866,640
Rehab research training center	225,000
Behavioral intervention and support	197,000
Autism transition	100,089
Special education teacher support	103,317
CFP	20,100
Higher education equipment trust fund 11 ch. 732 item 251	9,848,982
Higher education equipemnt trust fund NGF	(401,647)
Capital fee for out of state students ch. 732 item 276	<u>(2,359,266)</u>
Total	<u><u>\$231,600,317</u></u>

23. **RISK MANAGEMENT**

The University is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; nonperformance of duty; injuries to employees; and natural disasters. The University participates in insurance plans maintained by the Commonwealth of Virginia. The state employee health care and worker's compensation plans are administered by the department of Human Resource Management and the risk management insurance plans are administered by the Department of Treasury, Division of Risk Management. Risk management insurance includes property, general liability, medical malpractice, faithful performance of duty bond, automobile, air and watercraft plans. The University pays premiums to each of these departments for its insurance coverage. The University also purchases certain contingency insurance coverage related to the VCU School of the Arts in Qatar. Information relating to the Commonwealth's insurance plans is available in the Commonwealth of Virginia's *Comprehensive Annual Financial Report*.

24. CONTRIBUTIONS RECEIVABLE

MCV Foundation:	
Receivable in less than one year	\$8,628,000
Receivable in one to five years	13,609,000
Receivable in more than five years	1,135,000
	<u>23,372,000</u>
Less:	
Discounts	(1,437,000)
Allowances	(1,204,000)
Net contribution receivable	<u>\$20,731,000</u>

Discount rate of 2.98% was used in determining the present value of the contributions receivable.

VCU Foundation:	
Receivable in less than one year	\$5,824,416
Receivable in one year or more	7,551,525
	<u>13,375,941</u>
Less:	
Discounts	(193,893)
Allowances	(647,870)
Net contribution receivable	<u>\$12,534,178</u>

Discount rate between 0.11% and 2.03% were used in determining the present value of the contributions receivable.

VCU School of Business Foundation:	
Receivable in less than one year	\$358,739
Receivable in one to five years	676,081
	<u>1,034,820</u>
Less:	
Discounts	(27,800)
Allowances	(81,742)
Net contribution receivable	<u>\$925,278</u>

Discount rate between 1.01% and 2.73% were used in determining the present value of the contributions receivable.

VCU School of Engineering Foundation:

Receivable in less than one year	\$2,189,434
Receivable in one to seven years	<u>1,776,666</u>
	3,966,100
Less:	
Discounts	(143,088)
Allowances	<u>(38,230)</u>
Net contribution receivable	<u><u>\$3,784,782</u></u>

Discount rate between .10% and 1.89% were used in determining the present value of the contributions receivable.

25. DERIVATIVE INSTRUMENT

As of June 30, 2018, the University had two fixed-payer interest rate swaps with a notional amount of \$51,770,000, which declines to \$4,835,000 at the termination date of November 1, 2030. The swaps are used as cash flow hedges by the University in order to provide a hedge against changes in interest rates on a similar amount of the University's 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.

The University pays a fixed rate of 3.436% and the counterparty pays 67% of LIBOR (1.40% as of June 30, 2018). The payments are settled monthly at the first of each month. Payments or receipts under the terms of the swap are recorded as non-operating revenue or expense. As of June 30, 2018, the change in the fair market value of the swap, since reestablishing hedge accounting in November 2012, of \$9,001,847 is included in deferred inflows in the accompanying consolidated balance sheets.

In November 2012, the University refunded the Series 2006 A and B General Revenue bonds associated with these swaps. At that time, the hedging relationship between the interest rate swap agreements and the 2006 Series A and B bonds was terminated, and the accumulated change in fair value of the interest rate swaps was included in the calculation of the deferred loss on refunding. With GASB 65, this deferred loss on refunding was reclassified as deferred outflows and is being amortized over the life of the swaps. Concurrently, the University reestablished hedge accounting by designating the 2012 Series A and B bonds as the hedged debt.

Risk

The use of derivatives may introduce certain risk for the University, including:

Credit risk is the risk that a counterparty will not settle an obligation in full, either when due or at any time thereafter. As of June 30, 2018, the \$51,770,000 notional amount of swaps outstanding

had a negative market value of \$5,074,188 recorded in non-current liabilities, representing the amount the University would pay if the swaps were terminated on that date.

The fair values of the swaps were calculated by Deutsche Bank using undisclosed proprietary methods and were categorized as level 2 in the fair value hierarchy. The University would be exposed to credit risk of its swap counterparties any time the swaps had a positive market value. At June 30, 2018, the University had no credit risk related to its swaps.

Interest rate risk is the risk that an unexpected change in interest rates will negatively affect the collective value of a hedge and a hedged item. When viewed collectively, the hedges and the hedged item are subject to interest rate risk in that a change in interest rate will impact the collective market value of both the hedge and hedged item. Conversely, the collective effect of the hedges and the hedged item serve to reduce cash flow variability caused by changes in interest rates.

Basis risk arises when different indexes are used in connection with a derivative resulting in the hedge and hedged item not experiencing price changes in entirely opposite directions from each other. The University's swaps are deemed to be effective hedges of its variable-rate debt with an amount of basis risk that is within guidelines for establishing hedge effectiveness.

Termination risk arises when the unscheduled termination of a derivative could have an adverse effect on the University's strategy or could lead to potentially significant unscheduled payments. The University's derivative contract uses the international Swap Dealers Association Master Agreement, which included standard termination events, such as failure to pay and bankruptcy. The University or the counterparty may terminate the swap if the other party fails to perform under the terms of the contract. If at the time of termination the swap has a negative market value, the University would be liable to the counterparty for a payment equal to the swaps' market value.

Rollover risk arises when a derivative associated with a hedged item does not extend all the way to the maturity date of the hedged item, thereby creating a gap in the protection otherwise afforded by the derivative. The University's hedges serve to hedge its variable rate Series 2012A and 2012B bonds maturing in November 2030.

Market-access risk arises when an entity enters into a derivative in anticipation of entering the credit market at a later date, but is ultimately prevented from doing so. The University has no market-access risk.

Foreign currency risk is the risk of a hedge's value changing due to changes in currency exchange rates. The University's derivatives have no foreign currency risk.

Below are debt service requirements of the University's debt and net receipts/payments on associated derivative instruments. These amounts assume that current variable and reference rates on the hedging instruments will remain the same for their terms. As these rates vary, net receipt/payments on the hedging instruments will vary.

Maturity	Principal	Variable Interest	Hedging Derivative Instruments, Net	Total
2019	\$3,095,000	\$1,412,270	\$1,053,795	\$5,561,065
2020	3,225,000	1,327,839	990,796	5,543,635
2021	3,355,000	1,239,862	925,149	5,520,011
2022	3,500,000	1,148,339	856,857	5,505,196
2023	3,645,000	1,052,860	785,614	5,483,474
2024-2028	20,630,000	3,686,988	2,751,123	27,068,111
2029-2031	14,320,000	786,474	586,845	15,693,319
Total	<u>\$51,770,000</u>	<u>\$10,654,632</u>	<u>\$7,950,179</u>	<u>\$70,374,812</u>

In June 2007, MCVH entered into two interest rate swap agreements in anticipation of the issuance of the Series 2008 tax-exempt bonds. The swaps have a combined notional amount of \$125,000,000 which declines over time to \$15,700,000 at the termination date of July 1, 2037. The nominal amount as of June 30, 2018 was \$116,855,000. MCVH pays a fixed rate of 3.84% and the counterparty pays 67% of LIBOR (1.40% as of June 30, 2018). The payments are settled monthly at the first of each month. Payments or receipts under the terms of the swap are recorded as interest expense. As of June 30, 2018, the fair market value of the swap of \$27,222,812 is included in other liabilities in the accompanying consolidated statements of net position. For the year ended June 30, 2018, the change in fair value of the swaps was \$8,017,840.

In June 2013, MCVH refunded the Series 2008 Bonds using proceeds of the Series 2013A Bonds. At that time, the hedging relationship between the interest rate swap agreements and the Series 2008 bonds was terminated, and the accumulated change in fair value of the interest rate swaps was included in the calculation of the deferred loss on refunding. In June 2013, MCVH reestablished hedge accounting by designating the Series 2013A Bonds as the hedged debt.

In December 2005, MCVH entered into an interest rate swap agreement in conjunction with the issuance of its Series 2005 tax-exempt bonds. The swap has a notional amount of \$75,000,000 which declines over time to \$8,000,000 at the maturity date of July 1, 2030. The nominal amount as of June 30, 2018 was \$63,125,000. MCVH pays a fixed rate of 3.50% and the counterparty pays 67% of LIBOR (1.40% as of June 30, 2018). The payments are settled monthly at the first of each month. Payments or receipts under the terms of the swap are recorded as interest expense. As of June 30, 2018, the fair market value of the swap of \$7,329,336 is included in other liabilities in the accompanying consolidated statements of net position. For the year ended June 30, 2018, the change in fair value of the swap was \$3,317,464.

In June 2013, MCVH refunded the Series 2005 bonds using proceeds of the Series 2013B bonds. At that time, the hedging relationship between the interest rate swap agreement and the Series 2005 bonds was terminated, and the accumulated change in fair value of the interest rate swap was included in the calculation of the deferred loss on refunding. In June 2013, MVCH reestablished hedge accounting by designating the Series 2013B bonds as hedged debt.

MCVH uses interest rate swap agreements to limit this exposure to rising interest rates on its variable-rate debt. Interest rate differentials to be paid or received as a result of the swap agreements are accrued and recognized as an adjustment of interest expense related to the associated debts. Derivatives are recognized on the statements of net position at their fair value. Fair value is calculated using the zero-coupon method, which considers known and projected contractual cash flows. MCVH assesses, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are effective in offsetting changes in cash flows of hedged items. Changes in fair value of a derivative that are effective and are designated and qualify as cash flow hedges are recorded as deferred inflows or outflows on the accompanying consolidated statements of net position.

Below are debt service requirements of MCVH's debt and net receipts/payments on associated derivative instruments. These amounts assume that current variable and reference rates on the hedging instruments will remain the same for their terms. As these rates vary, net receipt/payments on the hedging instruments will vary.

Maturity	Principal	Interest	Hedging	
			Derivative	Total
			Instruments, Net	
2019	\$2,990,000	\$3,471,808	\$2,914,759	\$9,376,567
2020	3,160,000	3,408,923	2,869,353	9,438,276
2021	3,260,000	3,344,036	2,821,248	9,425,284
2022	3,415,000	3,276,088	2,771,661	9,462,749
2023	3,535,000	3,205,753	2,719,636	9,460,389
2024-2028	37,010,000	14,020,728	12,399,928	63,430,656
2029-2033	53,860,000	9,315,884	9,169,082	72,344,966
2034-2038	72,875,000	2,910,580	3,895,823	79,681,403
Total	<u>\$180,105,000</u>	<u>\$42,953,800</u>	<u>\$39,561,490</u>	<u>\$262,620,290</u>

Per FASB rules, the School of Business Foundation and the School of Engineering Foundation have recorded unrealized gain and losses on the interest rate swap and reduced or increased their liability by the amount of the gain or loss. The University records this amount in other liabilities.

Following is a reconciliation of the net position of the foundations.

<u>VCU School of Engineering Foundation</u>	
Net assets per Foundation financial statements	\$53,608,036
Add: Unrealized loss on interest rate swap	<u>3,119,229</u>
Net assets as reported on University's financial statements	<u><u>\$56,727,265</u></u>
<u>VCU School of Business Foundation</u>	
Net assets per Foundation financial statements	\$37,894,355
Add: Unrealized loss on interest rate swap	<u>1,954,959</u>
Net assets as reported on University's financial statements	<u><u>\$39,849,314</u></u>

## 26. SUBSEQUENT EVENTS

Subsequent to year end, the VCU Real Estate Foundation entered into a purchase agreement for the acquisition of real property totaling \$7,500,000.

### **Refinancing of East Hall and Snead Hall Bonds**

From time-to-time the University treasury office will review opportunities to refinance existing debt. During August 2018, the University treasury office provided a compelling analysis to refinance existing debt from a privately placed variable rate bond with a related fixed-payor swap to a true fixed rate refunding bond sold in the public markets. Subject to continued favorable market conditions, the Executive Committee of the School of Business Foundation approved a conceptual plan to refinance the Snead Hall bonds on September 7, 2018 and the Executive Committee of the College of Engineering Foundation Board approved a conceptual plan to refinance the East Hall bonds on September 28, 2018. The University Board of Visitors approved the bond financing in a meeting of the Executive Committee on October 8, 2018. The bonds are expected to close on November 1, 2018.

### **Debt Issuance**

Included in the debt issuance mentioned above, the University will issues bonds in the amount of \$56,785,000. Proceeds of the bonds, together with other available funds, will be used to finance the acquisition, construction and equipping of one or more research facilities and to refund the University's obligations related to an existing line of credit which was used for the acquisition, construction and equipping of the University's basketball practice facilities.

**Deutsche Bank LIBOR Settlement – East Hall and Snead Hall Bonds**

The University entered into a 25-year swap agreement, maturing in 2030 whereby the University is obligated to pay a fixed rate of 3.436% to a swap counterparty (Deutsche Bank) in exchange for 67% of the one-month London Interbank Offering Rate. The counterparty swap value, managed by Deutsche Bank, is linked to an index based on the London Interbank Offered Rate (Libor). Over the past several years a group of banks (which includes Deutsche Bank) that compose the “Libor Dollar Panel” were sued by a group large group of plaintiffs who claimed the Dollar Panel unfairly manipulated Libor rates. According to the U.S. District Court (Southern District N.Y.), a group of Settling Defendants, including Virginia Commonwealth University, will be entitled to their respective portion a \$220 million settlement to be paid by Deutsche Bank. The University treasury office estimates the Engineering Foundation and the School of Business Foundation will be the recipient of approximately \$1.05 million and \$660,000, respectively, subject to final court approvals and subsequent administrative. The Development and Financing Agreement between the University and Foundation will be amended to reflect the settlement transfer.

The Authority formed a captive insurance company in May 2018. Aries Insurance Services, LTD. (Aries) is a wholly owned stock company domiciled in the Cayman Islands. Aries was created to manage certain various insurance risks and reduce the insurance cost to the companies that comprise the Authority. This is being accomplished by using conservative self-insurance retention levels, consolidating and reducing the number of commercial insurance policies and taking advantage of less costly reinsurance policies only available to licensed insurance companies.

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

SCHEDULE OF EMPLOYER'S SHARE OF NET PENSION LIABILITY

For the Years Ending up to June 30, 2018, 2017, 2016 and 2015

University - State Employee	2018	2017	2016	2015
Employer's portion of the net pension liability	5.10%	5.12%	5.10%	4.97%
Employer's proportionate share of net pension liability	\$297,415,000	\$337,179,000	\$312,358,000	\$277,982,000
Employer's covered-employee payroll	\$204,261,684	\$201,682,517	\$196,421,847	\$191,084,233
Employer's proportionate share of the net pension liability as a percentage of its covered-employee payroll	145.60%	167.18%	159.02%	145.48%
Plan fiduciary net position as a percentage of the total pension liability	75.33%	71.29%	72.81%	74.28%

University - VaLORS	2018	2017	2016	2015
Employer's portion of the net pension liability	1.20%	1.15%	1.15%	1.06%
Employer's proportionate share of net pension liability	\$7,843,000	\$8,914,000	\$8,182,000	\$7,120,000
Employer's covered-employee payroll	\$4,082,915	\$4,006,294	\$3,900,759	\$3,694,440
Employer's proportionate share of the net pension liability as a percentage of its covered-employee payroll	192.09%	222.50%	209.75%	192.72%
Plan fiduciary net position as a percentage of the total pension liability	67.22%	61.01%	62.64%	63.05%

Authority	2018	2017	2016	2015
Employer's portion of the net pension liability	0.74%	0.79%	0.87%	0.94%
Employer's proportionate share of net pension liability	\$43,367,000	\$52,121,000	\$53,472,000	\$52,598,000
Employer's covered-employee payroll	\$32,650,805	\$34,987,924	\$38,331,215	\$41,277,334
Employer's proportionate share of the net pension liability as a percentage of its covered-employee payroll	132.82%	148.97%	139.50%	127.43%
Plan fiduciary net position as a percentage of the total pension liability	75.33%	71.29%	72.81%	74.28%

Schedule is intended to show information for 10 years. 2015 was the first year for this presentation, additional years will be included as they become available.

The amounts presented have a measurement date of the previous year end.

SCHEDULE OF EMPLOYER CONTRIBUTIONS  
NET PENSION LIABILITY

University: State Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$29,337,693	\$29,337,693	\$0	\$217,121,483	13.5%
2017	\$27,649,005	\$27,649,005	\$0	\$204,261,684	13.5%
2016	\$28,015,041	\$28,015,041	\$0	\$201,682,517	13.9%
2015	\$23,961,950	\$23,961,950	\$0	\$196,421,847	12.2%

University: VaLORS Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$893,608	\$893,608	\$0	\$4,243,397	21.1%
2017	\$856,350	\$856,350	\$0	\$4,082,915	21.0%
2016	\$751,154	\$751,154	\$0	\$4,006,294	18.7%
2015	\$684,450	\$684,450	\$0	\$3,900,759	17.5%

Authority

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$3,602,983	\$3,602,983	\$0	\$24,977,594	14.4%
2017	\$3,926,430	\$3,926,430	\$0	\$32,650,805	12.0%
2016	\$4,761,770	\$4,761,770	\$0	\$34,987,924	13.6%
2015	\$4,145,864	\$4,145,864	\$0	\$38,331,215	10.8%

Schedule is intended to show information for 10 years. 2015 was the first year for this presentation, additional years will be included as they become available. The amounts presented have a measurement date of the previous year end.

SCHEDULE OF EMPLOYER'S SHARE OF NET OPEB LIABILITY  
 GROUP LIFE INSURANCE PROGRAM  
 For the Year Ending up to June 30, 2018

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University - State Employee

	<u>2018</u>
Employer's portion of the net GLI OPEB liability (asset)	2.28%
Employer's proportionate share of net GLI OPEB liability (asset)	\$34,229,000
Employer's covered-employee payroll	\$418,142,546
Employer's proportionate share of the net GLI OPEB liability (asset) as a percentage of its covered-employee payroll	8.19%
Plan fiduciary net position as a percentage of the total GLI OPEB liability (asset)	48.86%

University - VaLORS

	<u>2018</u>
Employer's portion of the net GLI OPEB liability (asset)	0.02%
Employer's proportionate share of net GLI OPEB liability (asset)	\$340,000
Employer's covered-employee payroll	\$4,133,842
Employer's proportionate share of the net GLI OPEB liability (asset) as a percentage of its covered-employee payroll	8.22%
Plan fiduciary net position as a percentage of the total GLI OPEB liability (asset)	48.86%

Schedule is intended to show information for 10 years. 2018 was the first year for this presentation, additional years will be included as they become available.

The amounts presented have a measurement date of the previous year end.

University: State Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$2,297,057	\$2,297,057	\$0	\$440,481,209	0.5%
2017	\$2,171,653	\$2,171,653	\$0	\$418,142,546	0.5%
2016	\$2,414,037	\$2,414,037	\$0	\$407,818,905	0.6%
2015	\$2,321,674	\$2,321,674	\$0	\$392,915,118	0.6%
2014	\$1,790,598	\$1,790,598	\$0	\$379,206,046	0.5%
2013	\$1,309,792	\$1,309,792	\$0	\$350,535,680	0.4%
2012	\$385,424	\$385,424	\$0	\$342,152,098	0.1%
2011	\$391,591	\$391,591	\$0	\$322,853,891	0.1%
2010	\$1,006,824	\$1,006,824	\$0	\$318,656,724	0.3%
2009	\$1,034,960	\$1,034,960	\$0	\$313,739,193	0.3%

University: VaLORS Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$22,568	\$22,568	\$0	\$4,296,991	0.5%
2017	\$21,600	\$21,600	\$0	\$4,133,842	0.5%
2016	\$19,179	\$19,179	\$0	\$4,026,481	0.5%
2015	\$18,643	\$18,643	\$0	\$3,904,178	0.5%
2014	\$17,729	\$17,729	\$0	\$3,710,294	0.5%
2013	\$13,564	\$13,564	\$0	\$3,568,673	0.4%
2012	\$3,748	\$3,748	\$0	\$3,343,980	0.1%
2011	\$4,056	\$4,056	\$0	\$3,341,477	0.1%
2010	\$10,774	\$10,774	\$0	\$3,394,989	0.3%
2009	\$10,928	\$10,928	\$0	\$3,284,777	0.3%

SCHEDULE OF EMPLOYER'S SHARE OF NET OPEB LIABILITY  
HEATH INSURANCE PROGRAM  
For the Year Ending up to June 30, 2018

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University - State Employee

	<u>2018</u>
Employer's portion of the net HIC OPEB liability (asset)	6.46%
Employer's proportionate share of net HIC OPEB liability (asset)	\$58,839,000
Employer's covered-employee payroll	\$417,460,707
Employer's proportionate share of the net HIC OPEB liability (asset) as a percentage of its covered-employee payroll	14.09%
Plan fiduciary net position as a percentage of the total HIC OPEB liability (asset)	8.03%

University - VaLORS

	<u>2018</u>
Employer's portion of the net HIC OPEB liability (asset)	0.64%
Employer's proportionate share of net HIC OPEB liability (asset)	\$580,000
Employer's covered-employee payroll	\$4,089,113
Employer's proportionate share of the net HIC OPEB liability (asset) as a percentage of its covered-employee payroll	14.18%
Plan fiduciary net position as a percentage of the total HIC OPEB liability (asset)	8.03%

Authority

	<u>2018</u>
Employer's portion of the net HIC OPEB liability (asset)	0.90%
Employer's proportionate share of net HIC OPEB liability (asset)	\$8,180,000
Employer's covered-employee payroll	\$47,623,512
Employer's proportionate share of the net HIC OPEB liability (asset) as a percentage of its covered-employee payroll	17.18%
Plan fiduciary net position as a percentage of the total HIC OPEB liability (asset)	8.03%

Schedule is intended to show information for 10 years. 2018 was the first year for this presentation, additional years will be included as they become available.

The amounts presented have a measurement date of the previous year end.

SCHEDULE OF EMPLOYER CONTRIBUTIONS  
HEATH INSURANCE PROGRAM

University: State Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$5,178,561	\$5,178,561	\$0	\$438,789,637	1.2%
2017	\$4,903,507	\$4,903,507	\$0	\$417,460,707	1.2%
2016	\$4,271,222	\$4,271,222	\$0	\$406,766,035	1.1%
2015	\$4,106,009	\$4,106,009	\$0	\$391,795,589	1.0%
2014	\$3,781,851	\$3,781,851	\$0	\$378,181,031	1.0%
2013	\$3,370,765	\$3,370,765	\$0	\$349,939,742	1.0%
2012	\$341,126	\$341,126	\$0	\$341,114,030	0.1%
2011	\$440,466	\$440,466	\$0	\$321,805,526	0.1%
2010	\$3,195,334	\$3,195,334	\$0	\$317,202,172	1.0%
2009	\$3,694,112	\$3,694,112	\$0	\$312,882,408	1.2%

University: VaLORS Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$50,122	\$50,122	\$0	\$4,247,624	1.2%
2017	\$48,054	\$48,054	\$0	\$4,089,113	1.2%
2016	\$42,146	\$42,146	\$0	\$4,010,090	1.1%
2015	\$40,901	\$40,901	\$0	\$3,903,520	1.0%
2014	\$37,006	\$37,006	\$0	\$3,700,434	1.0%
2013	\$34,545	\$34,545	\$0	\$3,585,990	1.0%
2012	\$3,298	\$3,298	\$0	\$3,299,413	0.1%
2011	\$4,653	\$4,653	\$0	\$3,333,591	0.1%
2010	\$34,152	\$34,152	\$0	\$3,389,167	1.0%
2009	\$38,601	\$38,601	\$0	\$3,268,909	1.2%

SCHEDULE OF EMPLOYER'S SHARE OF NET OPEB LIABILITY  
 LINE OF DUTY ACT PLAN  
 For the Year Ending up to June 30, 2018

University - VaLORS	2018
Employer's portion of the net LODA OPEB liability (asset)	0.42%
Employer's proportionate share of net LODA OPEB liability (asset)	\$1,093,000
Employer's covered-employee payroll	N/A*
Employer's proportionate share of the net LODA OPEB liability (asset) as a percentage of its covered-employee payroll	N/A*
Plan fiduciary net position as a percentage of the total LODA OPEB liability (asset)	1.30%

Schedule is intended to show information for 10 years. 2018 was the first year for this presentation, additional years will be included as they become available. The amounts presented have a measurement date of the previous year end.

\* The contributions for the Line of Duty Act Program are based on the number of participants in the program using a per capita-based contribution verses a payroll-based contribution.

SCHEDULE OF EMPLOYER CONTRIBUTIONS  
 LINE OF DUTY ACT PLAN

University: State Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$50,496	\$50,496	\$0	N/A*	N/A*
2017	\$44,822	\$44,822	\$0	N/A*	N/A*
2016	\$48,252	\$48,252	\$0	N/A*	N/A*
2015	\$48,252	\$48,252	\$0	N/A*	N/A*
2014	\$48,021	\$48,021	\$0	N/A*	N/A*
2013	\$35,561	\$35,561	\$0	N/A*	N/A*
2012	\$0	\$0	\$0	N/A*	N/A*
2011	N/A**	N/A**		N/A*	N/A*
2010	N/A**	N/A**		N/A*	N/A*
2009	N/A**	N/A**		N/A*	N/A*

\* The Line of Duty Program (LODA) includes full-time employees, part-time employees and volunteers. Contributions for the program are based on the number of full-time equivalent employees in the program using a per capita-based contributions versus a payroll-based contribution.

\*\* FY 2011 was the first year for the Line of Duty Act Program, however there were no contributions.

SCHEDULE OF EMPLOYER'S SHARE OF NET OPEB LIABILITY  
 VIRGINIA SICKNESS AND DISABILITY PROGRAM  
 For the Year Ending up to June 30, 2018

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University - State Employee

	<u>2018</u>
Employer's portion of the net VSDP OPEB liability (asset)	4.98%
Employer's proportionate share of net VSDP OPEB liability (asset)	(\$10,229,000)
Employer's covered-employee payroll	\$181,590,244
Employer's proportionate share of the net VSDP OPEB liability (asset) as a percentage of its covered-employee payroll	-5.63%
Plan fiduciary net position as a percentage of the total VSDP OPEB liability (asset)	186.63%

University - VaLORS

	<u>2018</u>
Employer's portion of the net VSDP OPEB liability (asset)	0.09%
Employer's proportionate share of net VSDP OPEB liability (asset)	(\$189,000)
Employer's covered-employee payroll	\$3,459,464
Employer's proportionate share of the net VSDP OPEB liability (asset) as a percentage of its covered-employee payroll	-5.46%
Plan fiduciary net position as a percentage of the total VSDP OPEB liability (asset)	186.63%

Schedule is intended to show information for 10 years. 2018 was the first year for this presentation, . additional years will be included as they become available

The amounts presented have a measurement date of the previous year end.

SCHEDULE OF EMPLOYER CONTRIBUTIONS  
VIRGINIA SICKNESS AND DISABILITY PROGRAM

University: State Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$1,319,716	\$1,319,716	\$0	\$199,956,901	0.7%
2017	\$1,198,583	\$1,198,583	\$0	\$181,590,244	0.7%
2016	\$1,170,366	\$1,170,366	\$0	\$177,323,042	0.7%
2015	\$1,119,865	\$1,119,865	\$0	\$171,670,250	0.7%
2014	\$782,635	\$782,635	\$0	\$166,520,709	0.5%
2013	\$771,180	\$771,180	\$0	\$171,529,852	0.4%
2012	\$0	\$0	\$0	\$178,207,451	0.0%
2011	\$69,471	\$69,471	\$0	\$167,038,189	0.0%
2010	\$1,676,282	\$1,676,282	\$0	\$167,503,403	1.0%
2009	\$3,051,494	\$3,051,494	\$0	\$167,143,872	1.8%

University: VaLORS Employee

Plan for the year ended June 30,	Contributions Relation to			Employer's Covered Employee Payroll	Contributions as a % of Covered Employee Payroll
	Contractually Required Contribution	Contractually Required Contribution	Contribution Deficiency (Excess)		
2018	\$23,686	\$23,686	\$0	\$3,588,886	0.7%
2017	\$22,831	\$22,831	\$0	\$3,459,464	0.7%
2016	\$22,075	\$22,075	\$0	\$3,344,820	0.7%
2015	\$21,156	\$21,156	\$0	\$3,245,297	0.7%
2014	\$14,189	\$14,189	\$0	\$3,018,829	0.5%
2013	\$14,933	\$14,933	\$0	\$3,324,072	0.4%
2012	\$0	\$0	\$0	\$3,295,667	0.0%
2011	\$1,470	\$1,470	\$0	\$3,333,591	0.0%
2010	\$33,917	\$33,917	\$0	\$3,389,167	1.0%
2009	\$59,541	\$59,541	\$0	\$3,274,589	1.8%

SCHEDULE OF EMPLOYER'S SHARE OF NET OPEB LIABILITY  
 PRE-MEDICARE RETIREES HEALTH PROGRAM  
 For the Year Ending up to June 30, 2018

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University - State Employee	2018
Employer's portion of the net OPEB liability (asset)	6.48%
Employer's proportionate share of net OPEB liability (asset)	\$84,150,119
Employer's covered payroll	\$452,159,327
Employer's proportionate share of the net Retiree Healthcare OPEB liability as a percentage of its covered payroll	18.6%

Authority	2018
Employer's portion of the net OPEB liability (asset)	0.47%
Employer's proportionate share of net OPEB liability (asset)	\$6,163,705
Employer's covered payroll	\$20,659,339
Employer's proportionate share of the net Retiree Healthcare OPEB liability as a percentage of its covered payroll	29.8%

Schedule is intended to show information for 10 years. 2018 was the first year for this presentation, additional years will be included as they become available.

The amounts presented have a measurement date of the previous year end.

**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION**

**VRS State Employee Pension Plan, Group Life Insurance Program, Health Insurance Credit Program, Line of Duty Act Program and Disability Insurance Program**

Changes of benefit terms - There have been no actuarially material changes to the system benefit provisions since the prior actuarial valuation. The 2014 valuation includes Hybrid Retirement Plan members for the first time. The hybrid plan applies to most new employees hired on or after January 1, 2014 and not covered by enhanced hazardous duty benefits. Because this is still a fairly new benefit and the number of participants was relatively small, the impact on the liabilities as of the measurement date of June 30, 2017 are not material.

Changes of assumptions - The following changes in actuarial assumptions were made for the General State Employees effective June 30, 2016, based on the most recent experience study of the System for the four-year period ending June 30, 2016:

- Update to more current mortality table - RP-2014 projected to 2020
- Lowered retirement rates at older ages and changed final retirement from 70 to 75
- Adjusted withdraw rates to better fit experience at each age and service through 9 years of service
- Adjusted disability rates to better match experience

- Increased line of duty disability rate from 14% to 25%

The following changes in actuarial assumptions were made for the VaLORS Employees effective June 30, 2016, based on the most recent experience study of the System for the four year period ending June 30, 2016:

- Update to more current mortality table – RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
- Increased age 50 retirement rates and lowered rates at older ages
- Adjusted withdraw rates to better fit experience at each age and service through 9 years of service
- Adjusted disability rates to better match experience
- Increased line of duty disability rate from 14% to 25%

The following changes in actuarial assumptions were made for the SPORS Employees effective June 30, 2016, based on the most recent experience study of the System for the four year period ending June 30, 2016:

- Update to more current mortality table – RP-2014 projected to 2020 and reduced margin for future improvement in accordance with experience
- Increased age 50 retirement rates and lowered rates at older ages
- Adjusted withdraw rates to better fit experience
- Adjusted disability rates to better match experience
- Increased line of duty disability rate from 60% to 85%

The following changes in actuarial assumptions were made for the JRS Employees effective June 30, 2016, based on the most recent experience study of the System for the four year period ending June 30, 2016:

- Update to more current mortality table – RP-2014 projected to 2020
- Decreased retirement rates at first retirement eligibility
- Removed disability rates

### **Pre-Medicare Retirees Health Program**

Changes of benefit terms – There have been no actuarially material changes to the system benefit provisions since the prior actuarial valuation.

Changes of assumptions – The following assumptions were updated since the July 1, 2016, valuation based on the results of a Virginia Retirement System actuarial experience study performed for the period of July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

- Update to more current mortality table – RP-2014 projected to 2020
- Lowered retirement rates at older ages and changed final retirement from 70 to 75
- Adjusted withdraw rates to better fit experience at each age and service through 9 years of service

The discount rate was increased from 2.85% to 3.58% based on the Bond Buyers GO 20 Municipal Bond Index and spousal coverage was reduced from 70% to 50% based on a blend of recent spousal coverage election rates and the prior year assumption. Based on the 2017 census, new retirees since 1/1/2015 have chosen to cover their spouses approximately 20% of the time. However, active employees cover their spouses at a rate close to 53%.



Martha S. Mavredes, CPA  
Auditor of Public Accounts

# Commonwealth of Virginia

*Auditor of Public Accounts*

P.O. Box 1295  
Richmond, Virginia 23218

November 16, 2018

The Honorable Ralph S. Northam  
Governor of Virginia

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

Board of Visitors  
Virginia Commonwealth University

## INDEPENDENT AUDITOR'S REPORT

### **Report on Financial Statements**

We have audited the accompanying financial statements of the business-type activities and aggregate discretely presented component units of Virginia Commonwealth University, a component unit of the Commonwealth of Virginia, as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise the University'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 the aggregate discretely presented component units of the University, which are discussed in Note 1. Those financial statements were audited by other auditors whose reports thereon have been furnished to us, and our opinion, insofar as it

relates to the amounts included for the component units of the University, is 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 component units of the University that 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 financial position of the business-type activities and aggregate discretely presented component units of the University as of June 30, 2018, and the respective changes in financial position and cash flows, where applicable, thereof for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

### *Emphasis of Matter*

#### Change in Accounting Principle

As discussed in Note 1 of the accompanying financial statements, the University implemented Governmental Accounting Standards Board (GASB) Statement No. 75, related to post-employment benefits and financial reporting for employers. 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 on pages 2 through 11, the Schedule of Employer's Share of Net Pension Liability, the Schedule of Employer Contributions, on pages 127 through 128; the Schedule of Employer's Share of Net OPEB Liability, the Schedule of Employer Contributions for the Health Insurance Credit, Group Life Insurance, Disability Insurance and Line of Duty programs on pages 129 through 135; and the notes to required supplementary information on pages 136 through 137. 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.

### **Other Reporting Required by Government Auditing Standards**

In accordance with Government Auditing Standards, we have also issued our report dated November 16, 2018 on our consideration of the Virginia Commonwealth University'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. 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 University's internal control over financial reporting and compliance.



AUDITOR OF PUBLIC ACCOUNTS

KKH/vks

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