

JAMES MADISON UNIVERSITY®

AUDITED FINANCIAL REPORT

FOR THE YEAR ENDED

JUNE 30, 2018

JAMES MADISON UNIVERSITY

AUDITED FINANCIAL REPORT 2017 – 2018

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MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)

Overview

This Management's Discussion and Analysis (MD&A) is required supplemental information under the Governmental Accounting Standards Board's (GASB) reporting model. It is designed to assist readers in understanding the accompanying financial statements and provides an overall view of the University's financial activities based on currently known facts, decisions, and conditions. This discussion includes an analysis of the University's financial condition and results of operations for the fiscal year ended June 30, 2018. Comparative numbers, where presented, are for the fiscal year ending June 30, 2017. Since this presentation includes highly summarized data, it should be read in conjunction with the accompanying basic financial statements, including notes and other supplementary information. University management is responsible for all of the financial information presented, including this discussion and analysis.

The University's financial statements referred to above were prepared in accordance with GASB Statement Number 35, *Basic Financial Statements—and Management's Discussion and Analysis—for Public Colleges and Universities*, as amended by GASB Statement Numbers 37, 38, 61 and 63. The three required financial statements are the Statement of Net Position (balance sheet), the Statement of Revenues, Expenses, and Changes in Net Position (operating statement), and the Statement of Cash Flows. These statements are summarized and analyzed in the following sections.

GASB Statement Number 61, *The Financial Reporting Entity: Omnibus—an amendment of GASB Statements No. 14 and No. 34*, addresses which fund-raising, research, or other foundations should be included as component units and how these component units should be displayed in the financial statements. Under Statement Number 61's standards, the James Madison University Foundation, Inc. (Foundation) meets the criteria and is included as a component unit. The Foundation is presented in a separate column on the University's financial statements; however, inter-company transactions between the University and the Foundation have not been eliminated. The remainder of this discussion and analysis excludes the Foundation's financial condition and activities.

The following GASB statements of standards became effective in fiscal year 2018: Statement 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*; Statement 81, *Irrevocable Split-Interest Agreements*; Statement 85, *Omnibus 2017*; and Statement 86, *Certain Debt Extinguishment Issues*. Only Statement 75 had a significant effect upon the university's financial statements for the current year. Statement 75 improves information provided by state and local governments whose employees are provided post-employment benefits other than pensions (OPEBs) such as Group Life Insurance, Healthcare Insurance Credits, Sickness and Disability benefits, and Line of Duty Act benefits. Statement 75 requires government employers that participate in OPEB plans to recognize a net OPEB liability (unfunded accrued liability) or asset in their statement of net position. The university recognized its proportionate share of the Virginia Retirement System's net OPEB liability in the amount of \$39.5 million and net OPEB asset in the amount of \$4.7 million for the fiscal year ending June 30, 2018. Additionally, the proportionate share of Virginia's Department of Human Resource Management's OPEB liability was recognized in the amount of \$44.4 million. Statement 75 resulted in a net reduction in beginning net position of \$84.9 million and also established standards for measuring and recognizing liabilities, deferred outflows of resources, deferred inflows of resources, and expenditures related to OPEBs. Expenses related to OPEBs will now be based on the net OPEB liability (asset) change between reporting dates, with some sources of the changes recognized immediately in expense and others amortized over a number of years. The Statement allows the reporting government to recognize a beginning deferred outflow of resources only for its OPEB contributions, if any, made subsequent to the measurement date of the beginning net OPEB liability (asset) but before the start of the government's fiscal year when it is not practical to determine the amounts of all applicable deferred inflows of

resources and deferred outflows of resources related to OPEBs. The University recognized deferred outflows of \$4.1 million and deferred inflows of \$2.8 million for the Virginia Retirement System's OPEB plans, as well as deferred outflows of \$2.5 million and deferred inflows of \$11.2 million for the Virginia Department of Human Resource Management's OPEB plan for the fiscal year ending June 30, 2018. Additionally Statement 75 requires an extensive footnote disclosure as well as required Supplementary Information. Prior to the implementation of GASB 75, VRS and DHRM did not measure assets and pension benefit obligations separately for individual state institutions. Footnote 1, part W to the financial statements breaks down the components making up the restatement amount related to beginning net position. Footnote 1, part O to the financial statements includes the summary of significant accounting policies for OPEB. Footnote 12 and the required supplementary information discloses information on the OPEB plans available to all full-time, salaried permanent employees of James Madison University, along with detail on OPEB liability and OPEB expense, and OPEB contributions by the University.

Statement of Net Position

The Statement of Net Position (SNP) presents the University's assets, liabilities, and net position as of the end of the fiscal year. The purpose of the statement is to present a snapshot of the University's financial position to the financial statement readers. The data presented aids readers in determining the assets available to continue the University's operations. It also allows readers to determine how much the University owes to vendors and creditors. Finally, the SNP provides a picture of the University's assets and the restrictions for expenditure for the net position components. Sustained increase in net position over time is one indicator of an organization's financial health.

Net position is classified as follows:

- Net investment in capital assets – Net investment in capital assets represents the University's total investment in capital assets, net of accumulated depreciation and outstanding debt obligations related to those capital assets. Debt incurred, but not yet expended for capital assets, is not included as a component of net investment in capital assets.
- Restricted net position, expendable – The expendable restricted position includes resources the University is legally or contractually obligated to expend in accordance with restrictions imposed by external third parties. The restricted, expendable component of net position absorbed 14% of the 2018 beginning balance adjustment for the OPEB asset resulting from the implementation of GASB 75.
- Restricted net position, nonexpendable – Non-expendable restricted net position consists of endowments and similar type funds where donors or other outside sources have stipulated that, as a condition of the gift instrument, the principal is to be maintained inviolate and in perpetuity, and invested for the purpose of producing present and future income to be expended or added to the principal.
- Unrestricted net position – Unrestricted net position represents resources used for the University's general operations. They may be used at the discretion of the University's Board of Visitors to meet current expenses for any lawful purpose in support of the University's primary missions of instruction, public service and outreach. These resources are derived from student tuition and fees, state appropriations and sales and services of auxiliary enterprises. The auxiliary enterprises are self-supporting entities that provide services for students, faculty and staff. The unrestricted component of net position absorbed 100% of the 2015 beginning balance adjustment for the pension liability resulting from implementation of GASB Statement 68 and 86% of the 2018

beginning balance adjustment for the OPEB liability resulting from the implementation of GASB 75.

Statement of Net Position
(In thousands)

			<u>Change</u>	
	2018	2017	Amount	Percent
Current Assets	\$ 214,197	\$ 217,809	\$ (3,612)	-1.7%
Noncurrent assets				
Capital assets, net	1,133,332	1,080,586	52,746	4.9%
Other noncurrent assets	60,944	32,370	28,574	88.3%
Total noncurrent assets	1,194,276	1,112,956	81,320	7.3%
Deferred outflow of resources	40,693	45,407	(4,714)	-10.4%
Total Assets and deferred outflow of resources	1,449,166	1,376,172	72,994	5.3%
Current liabilities	124,461	99,360	25,101	25.3%
Noncurrent liabilities				
Long-term liabilities	366,007	334,898	31,109	9.3%
Net pension liability	151,443	166,981	(15,538)	-9.3%
Net OPEB liability	82,736	-	82,736	-
Total Noncurrent liabilities	600,186	501,879	98,307	19.6%
Deferred inflow of resources	25,218	4,595	20,623	448.8%
Total liabilities and deferred inflow of resources	749,865	605,834	144,031	23.8%
Net position				
Net investment in capital assets	812,095	773,661	38,434	5.0%
Restricted - expendable	14,757	6,800	7,957	117.0%
Unrestricted	(127,551)	(10,123)	(117,428)	-1160.0%
Total net position	\$ 699,301	\$ 770,338	\$ (71,037)	-9.2%

In 2018, the University's total assets and deferred outflow of resources increased by \$73.0 million, primarily related to the \$52.7 million net increase in capital assets. Significant additions to capital assets included the completion of West Campus Dining Hall (\$28.4 million), and additions to construction-in-progress related to the Chesapeake Parking Deck (\$9.5 million) and the new East Campus Student Housing & Land Bridge (\$6.1 million). The increase in capital assets is further discussed in the next section of this analysis.

The \$3.6 million decrease in current assets primarily relates to a decrease of \$2.9 million in capital appropriations available from the Commonwealth, due to the reversion of general fund capital appropriations related to the Madison Hall Renovation project. Other non-current assets increased by \$28.6 million, largely due to a \$24.9 million increase in restricted cash and cash equivalents. This increase was the result of a \$17.8

million increase in unspent bond proceeds held as restricted cash equivalents, which will be used for the East Campus Student Housing construction project, and an \$8.3 million increase in restricted cash held for use on the College of Business Renovation/Expansion project.

Current liabilities increased \$23.9 million, including an increase of \$12.8 million in accounts payable, \$8.6 million in obligations under securities lending, and a \$2.4 million increase in the current portion of long-term debt. The increase in accounts payable is primarily due to the timing of accounts payable related to capital projects. The obligations under securities lending increase is due to the reinstatement of that program by the Commonwealth of Virginia.

Non-current liabilities increased by \$99.5 million, primarily due to the initial recognition of \$83.9 million in OPEB liabilities required by GASB 75. Additionally, there was a \$31.1 million increase in long-term liabilities and a \$15.5 million decrease in net pension liability related to the University's portion of VRS' unfunded pension liability. The increase in long-term liabilities is mainly due to a \$31.4 million increase in long-term debt. For more detailed debt information, see the Capital Asset and Debt Administration section.

The increase in total assets and deferred outflows of resources along with the increase in total liabilities and deferred inflow of resources is reflected in the year-over-year decrease of the University's net position of \$71.0 million, mainly attributable to the implementation of GASB 75. Net investment in capital assets increased \$38.4 million, reflecting the university's continued investment in new facilities and equipment supporting the university's missions, as well as prudent management of the university's fiscal resources.

Capital Asset and Debt Administration

A critical factor in ensuring quality University academic, research, and residential life functions is the development and renewal of its capital assets. The University continues to maintain and upgrade current facilities as well as pursue funding opportunities for construction and purchase of additional facilities. Investment in new and upgrading current structures serves to enrich high-quality instructional programs, research activities, and residential lifestyles.

Depreciable capital asset additions totaled \$106.6 million (excludes land, artwork, and construction-in-progress) in 2018, as compared to \$69.9 million in 2017.

PROJECTS COMPLETED OR ACQUIRED DURING 2017-18 *(in thousands)*

PROJECT	CAPITALIZED COST
Construct West Campus Dining Hall	\$ 69,740
Construct University Services Building Annex	7,384
All other capitalized additions	29,434
TOTAL	\$ 106,558

Non-depreciable additions for 2018 include \$0.5 million for various land purchases. Depreciation expense was \$43.1 million with net asset retirements of \$3.9 million.

Major projects under construction in 2018 totaled \$51.8 million, as compared to \$59.1 million in 2017.

PROJECTS IN PROGRESS AT YEAR-END *(in thousands)*

PROJECT	AMOUNT
Union Bank and Trust Center	\$10,009
Chesapeake Parking Deck	9,649
College of Business Renovation/Expansion	7,941
East Campus Student Housing and Land Bridge	6,826
East Campus Parking Deck	4,958
Wilson Hall Renovation	3,234
Phillips Dining Replacement	2,695
All other projects in progress	6,475
TOTAL	\$51,787

The University's total long-term debt increased to \$378.2 million in 2018 from \$344.5 million in fiscal year 2017. The increase is the result of new debt in 2018 of \$50.5 million for the construction of the New Student Housing and its associated premium of \$4.4 million, offset by debt principal payments made throughout the year on outstanding debt balances.

The University's Board of Visitors approved "Debt Management Guidelines and Procedures" established that the maximum annual debt service costs as a percentage of total operating revenues shall not exceed ten percent for non-revenue producing capital projects. The University's 2018 ratio was 5.7 percent, as compared to 5.8 percent for 2017.

Overall, unpaid construction commitments increased from \$59.8 million in 2017 to \$259.7 million in 2018, and other related contractual commitments increased from \$4.3 million to \$7.6 million, respectively.

UNPAID CONSTRUCTION COMMITMENTS AT YEAR-END *(in thousands)*

PROJECT	UNPAID COMMITMENT
Union Bank and Trust Center	\$ 76,303
College of Business Renovation/Expansion	68,724
East Campus Student Housing and Land Bridge	45,250
East Campus Parking Deck	31,528
Wilson Hall Renovation	19,192
All other construction contracts	18,672
TOTAL	\$259,669

Further information relating to capital assets, construction, and capital debt is included in the Notes to Financial Statements in Notes 5 and 8. Information on other contractual commitments is included in Note 17.

Statement of Revenues, Expenses, and Changes in Net Position

Operating and non-operating activities creating changes in the University's total net position are presented in the Statement of Revenues, Expenses, and Changes in Net Position. The purpose of the statement

is to present all revenues received and accrued, all expenses paid and accrued, and gains or losses from investment and capital asset activities.

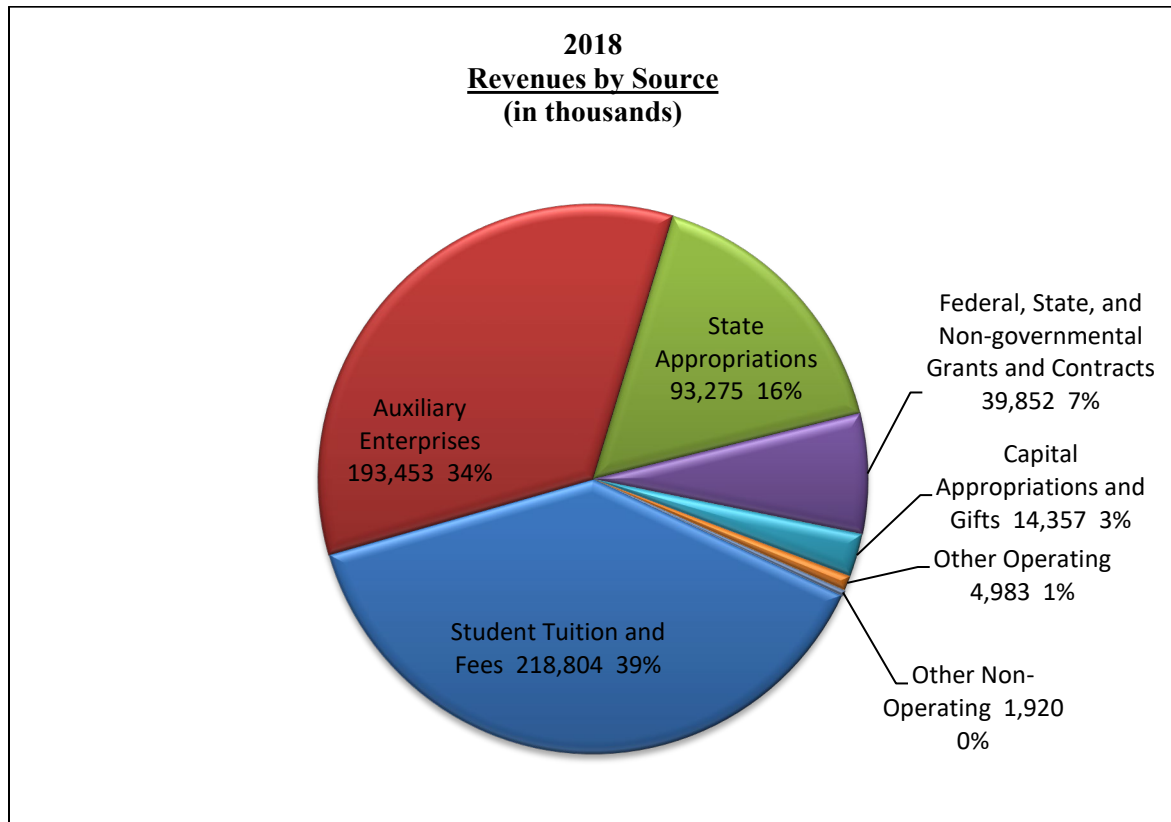
Generally, operating revenues are received through providing goods and services to students and other constituencies of the University. Operating expenses are those expenses made to acquire or produce the goods and services provided in return for the operating revenues and to carry out the University's mission. Salaries and wages, and fringe benefits for faculty and staff are the largest type of operating expense.

Non-operating revenues are revenues received for which goods and services are not directly provided. State appropriations and gifts are included in this category, but provide substantial support for paying the University's operating expenses. Therefore, the University, like most public institutions, will expect to show an operating loss.

Statement of Revenues, Expenses, and Changes in Net Position
(In thousands)

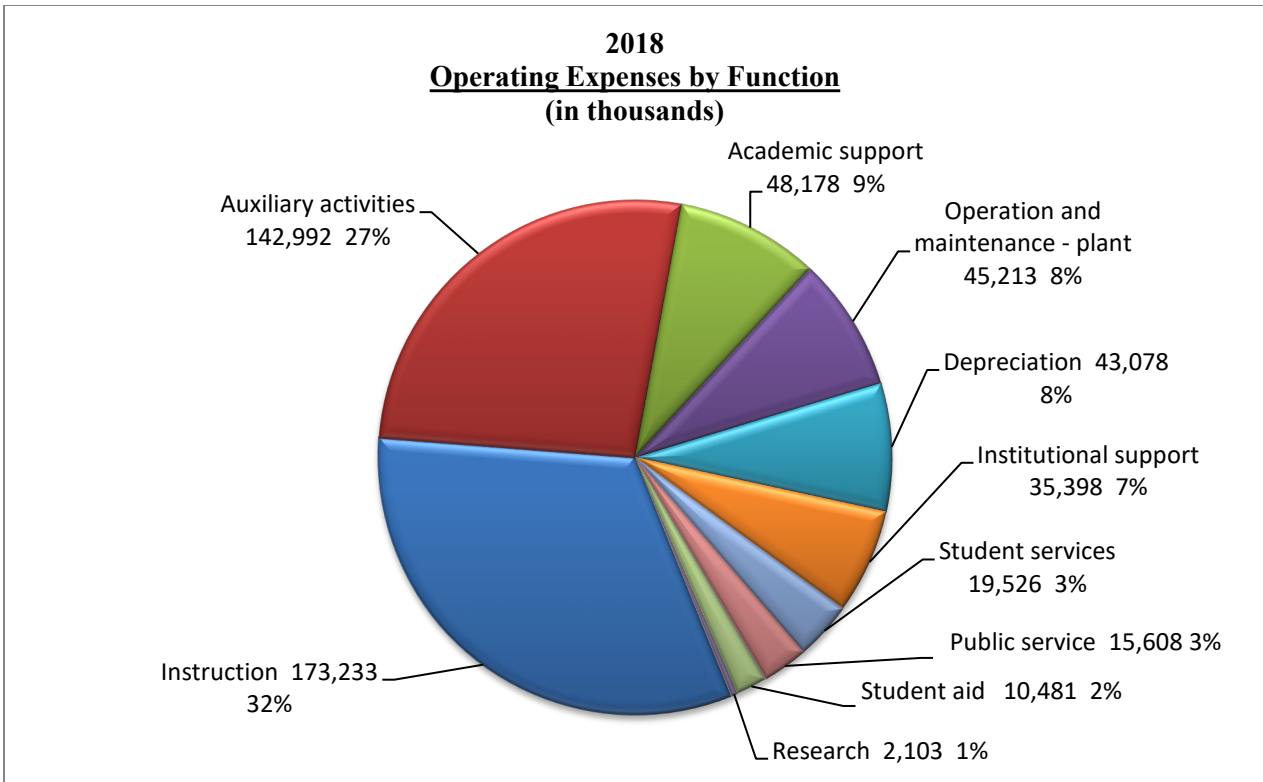
	2018	2017	Amount	Percent
Operating revenues	\$ 443,104	\$ 419,668	\$ 23,436	5.6%
Operating expenses	535,810	512,688	23,122	4.5%
Operating loss	(92,706)	(93,020)	314	-0.3%
Nonoperating revenues (expenses)				
State appropriations	93,275	91,681	1,594	1.7%
Grants and Contracts	13,988	12,489	1,499	12.0%
Gifts	5	7	(2)	-28.6%
Pension related contribution revenue (expense)	(1,035)	2,552	(3,587)	-140.6%
Investment Income	1,915	1,595	320	20.1%
Interest on capital asset related debt	(9,084)	(7,963)	(1,121)	14.1%
Loss on disposal of plant assets	(3,783)	(1,142)	(2,641)	231.3%
Payments to the Commonwealth	(3,098)	(2,930)	(168)	5.7%
Net nonoperating revenue (expenses)	92,183	96,289	(4,106)	-4.3%
Income (loss) before other revenues, expenses, gains, or losses	(523)	3,269	(3,792)	-116.0%
Capital appropriations and contributions	7,334	14,426	(7,092)	-49.2%
Capital gifts	7,023	4,225	2,798	66.2%
Total other	14,357	18,651	(4,294)	-23.0%
Increase in net position	13,834	21,920	(8,086)	-36.9%
Net position - beginning of year	770,338	748,418	21,920	2.9%
Adjustment to beginning net position	(84,871)	-	(84,871)	100.0%
Net position - end of year	\$ 699,301	\$ 770,338	\$ (71,037)	-9.2%

Following is a graphic illustration of revenues by source (both operating and non-operating) used to fund the University's activities for the year ended June 30, 2018. As noted above, critical recurring revenue sources such as state and capital appropriations are considered non-operating.



Operating revenues, consisting mostly of tuition and fees and auxiliary enterprises, increased \$23.4 million or six percent from the prior fiscal year. Student tuition and fees, net of scholarship allowances, increased by \$11.8 million or six percent in fiscal year 2018. The 2018 tuition increase was due to a combination of average rate increases of five percent and a two percent increase in headcount, offset by changes in the mix of in-state vs. out-of-state students. Auxiliary revenues increased by \$10.9 million or six percent. The increase reflects an approximate four percent rate increase in room and board, and a three percent increase in the comprehensive fee.

The following graphical illustration presents total operating expenses for fiscal year 2018 by function.



Total 2018 operating expenses increased \$23.1 million or five percent. Compensation expenses, consisting of the natural expense classifications salaries, wages, and fringe benefits, comprise the largest University expense. Compensation expenses comprised 57 percent of the University's total operating expenses in 2018 and 57 percent in 2017. Compensation expense increased by \$14.1 million, or five percent. The increase is a result of increases in salaries/wages (\$9.6 million) due to faculty/staff salary increases, employee headcount increases, and increases in medical insurance premiums (\$3.6 million).

Net non-operating revenue and expenses totaled \$92.2 million, a decrease of \$4.1 million from the prior year. The decrease in this category results primarily from the recognition in 2017 of pension-related contribution revenue of \$4.1 million due to the special revenue allocation stemming from the general assembly's accelerated payback of the deferred VRS contribution in the 2010-12 biennium. There was no similar revenue allocation in 2018. Other increases in state appropriations (\$1.6 million) and grants and contracts (\$1.5 million) were offset by a \$2.6 million increase in loss on disposal of capital assets.

Statement of Cash Flows

The Statement of Cash Flows presents detailed information about the University's cash activity during the year. Operating cash flows will always be different from the operating loss on the Statement of Revenues, Expenses, and Changes in Net Position (SRECNP). This difference occurs because the SRECNP is prepared on the accrual basis of accounting and includes non-cash items such as depreciation expense, and the Statement of Cash Flows presents cash inflows and outflows without regard to accrual items. The Statement of Cash Flows assists readers in assessing the ability of an institution to generate sufficient cash flows necessary to meet obligations.

The statement is divided into five sections. The first section shows the net cash used by the University's operating activities. The next section reflects the cash flows from non-capital financing activities and includes state appropriations for the University's educational and general programs and financial aid. This section reflects the cash received and spent for items other than operating, investing, and capital financing purposes. Cash flows from capital financing activities presents cash used for the acquisition and construction of capital and related items. The next section shows cash flows related to purchases, proceeds, and interest received from investing activities. The last section reconciles the net cash used by operating activities to the operating loss reflected on the SRECNP.

Statement of Cash Flows
(in thousands)

	2018	2017	Change	
			Amount	Percent
Cash provided (used) by:				
Operating activities	\$ (43,245)	\$ (41,167)	\$ (2,078)	5.0%
Non-capital financing activities	102,973	99,431	3,542	3.6%
Capital financing activities	(46,254)	(17,899)	(28,355)	158.4%
Investing activities	3,697	388	3,309	852.8%
Net increase in cash	17,171	40,753	(23,582)	-57.9%
Cash - beginning of the year	217,048	176,295	40,753	23.1%
Cash - end of the year	\$ 234,219	\$ 217,048	\$ 17,171	7.9%

Major sources of cash from operating activities include student tuition and fees (\$218.8 million in 2018 and \$208.3 million in 2017), auxiliary enterprises receipts (\$193.3 million in 2018 and \$183.2 million in 2017), and grants and contracts (\$25.6 million in 2018 and \$26.8 million in 2017). Major uses of cash include payments for salaries, wages, and fringe benefits (\$297.5 million in 2018 and \$282.4 million in 2017), payments for supplies, services, and utilities (\$148.1 million in 2018 and \$141.6 million in 2017), and payments for non-capitalized plant improvements and equipment (\$30.0 million in 2018 and \$30.1 million in 2017).

Cash flows from non-capital financing activities include state appropriations for the University's educational and general programs and financial aid of \$93.2 million and \$91.7 million in 2018 and 2017, respectively. The cash flows from capital financing activities section deals with cash used for the acquisition and construction of capital and related items. Primary sources of cash from capital financing activities in 2018 and 2017 include capital appropriations and contributions (\$7.8 million in 2018 and \$33.8 million in 2017) and proceeds from issuance of capital related debt (\$54.5 million in 2018 and \$60.0 million in 2017). Significant cash outflows include purchases and construction of capital assets (\$83.0 million in 2018 and \$82.7 million in 2017) and repayment of principal and interest on capital related debt (\$30.8 million in 2018 and \$29.6 million in 2017).

Economic Outlook

The University, as a public institution, is subject to many of the macro-economic conditions impacting the nation and the Commonwealth of Virginia. Economic factors related to the Commonwealth can be found in the Commonwealth's Comprehensive Annual Financial Report (CAFR). As a public institution, the University receives significant Commonwealth support from operating and capital appropriations. State

operating appropriations currently cover 27 percent of operating expenses, excluding auxiliary activities and depreciation.

Slow state revenue growth and growing nondiscretionary costs have limited the Commonwealth's ability to make significant, sustaining investments in higher education. For example, advancements in state funding for higher education made in the 2016-18 biennium were later offset by statewide budget reductions to address state revenue shortfalls. The University's 2018 original General fund support of \$83.1 million for educational and general programs was reduced by \$3.3 million. This recurring pattern of economic uncertainty continues to produce fluctuations in state investment for operations. However, during 2018, improved revenue growth allowed the General Assembly to increase the University's general fund support to \$84.3 million in 2019 and \$86.8 million in 2020.

The fluctuations in state support has prompted continuous evaluation of cost containment measures and strategies for revenue enhancement. While the University's Board of Visitors' maintains its authority to establish tuition and fee rates, significant national and state emphasis continues to focus on slowing the rate of tuition growth for undergraduate students, particularly state residents. The Board voted in November 2017 to approve the "Madison Pledge." The pledge increased annual tuition by \$1,000 for new students (both in and out-of-state) in the Fall of 2018, and will increase tuition again by \$1,000 for new students arriving in the Fall of 2019. In doing so, the University guarantees that tuition will not increase on current students by more than 3% each year as long as state funding remains relatively stable. The Madison Pledge will strengthen the University's ability to deliver on its mission by:

- Hiring more top faculty for in-demand fields of study
- Increasing career planning staff
- Increasing informational technology capacity
- Enhancing affordability for deserving students

The Higher Education Restructuring Act (Act) provides a framework for the University to potentially gain additional decentralized authority from the Commonwealth in financial and administrative operations. In exchange for meeting 11 state goals listed in the Act, the University will be eligible for the immediate benefits of level one autonomy. Benefits include additional flexibility and authority with regard to disposing of property, entering into capital lease agreements, continuing existing memorandums of understanding for decentralized activities, and procurement flexibility. As required by the Act, the University's Board of Visitors passed a resolution committing to these goals in June 2005. In September 2008, the University's Board of Visitors approved management's request to move to level two autonomy under the Higher Education Restructuring Act in the areas of Procurement and Information Technology. The University received this delegated restructuring authority during 2009. The 2016 Appropriation Acts provided additional flexibility by allowing the University, along with George Mason University, to participate in a 5-year pilot program (referred to as "Tier 2.5"). This program allows the University greater financial autonomy over collection and disbursement processes, along with less oversight over capital projects. In June 2016, the University's Board of Visitors approved management's request to move to Tier 2.5 autonomy in the areas of Finance and Capital Projects.

In May 2018, Fitch Ratings Inc. assigned an Issuer Default Rating of AA- to the University. The University became the first comprehensive public university in Virginia to achieve an AA- bond rating. At this time, the University does not plan to use the rating for any specific debt issue. However, the University is in the process of applying for level three autonomy under the Higher Education Restructuring Act. If approved, level three would allow for the highest level of decentralization from the Commonwealth in financial and administrative operations.

As evidenced by the AA- bond rating, the University's overall financial position remains strong. During 2018, the initial recognition of the OPEB liability under GASB 75 resulted in a decrease in net position. However, notwithstanding that effect, the University generated an overall increase in net position during 2018, as it did in fiscal year 2017. These increases are indicators of the University's sound and prudent uses of financial resources. Management continues to maintain a close watch over resources and the U.S. economy as a whole to react to unknown internal and external issues and sustain the University's current sound financial position.

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FINANCIAL STATEMENTS

JAMES MADISON UNIVERSITY
STATEMENT OF NET POSITION
As of June 30, 2018 (with comparative information as of June 30, 2017)

	2018		2017	
	James Madison University	Component Unit	James Madison University	Component Unit
ASSETS				
Current assets:				
Cash and cash equivalents (Note 2)	\$ 180,717,246	\$ 4,624,767	\$ 188,434,045	\$ 3,855,387
Securities lending - Cash and cash equivalents (Note 2)	8,565,327	-	-	-
Short-term investments (Note 2)	2,324,756	-	2,185,217	-
Accounts receivable (Net of allowance for doubtful accounts of \$935,993 and \$771,300 for 2018 and 2017, respectively) (Note 3)	6,854,211	86,869	7,313,331	75,821
Contributions receivable (Net of allowance for doubtful contributions of \$60,799 and \$54,274 for 2018 and 2017, respectively) (Note 3)	-	2,854,932	-	2,659,405
Due from the Commonwealth (Note 4)	3,747,735	-	6,583,908	-
Prepaid expenses	10,127,042	31,024	11,678,610	43,152
Prepaid expenses to component unit	360,409	-	360,409	-
Inventory	1,165,906	-	873,654	-
Notes receivable (Net of allowance for doubtful accounts of \$55,047 and \$54,550 for 2018 and 2017, respectively)	333,962	-	379,849	-
Total current assets	214,196,594	7,597,592	217,809,023	6,633,765
Non-current assets:				
Restricted cash and cash equivalents (Note 2)	53,501,458	-	28,613,443	-
Endowment investments (Note 2)	-	71,679,895	-	64,355,685
Other long-term investments (Note 2)	718,073	57,303,562	1,665,250	54,102,297
Land held for future use	-	6,264,640	-	6,264,640
Contributions receivable (Net of allowance for doubtful contributions of \$196,419 and \$202,729 for 2018 and 2017 respectively) (Note 3)	-	9,568,236	-	9,933,756
Prepaid expenses	525,269	-	362,244	-
Notes receivable (Net of allowance for doubtful accounts of \$252,029 and \$248,507 for 2018 and 2017, respectively)	1,531,749	11,058,407	1,729,285	3,226,647
Capital assets, net: (Note 5)				
Non-depreciable	141,043,115	656,552	147,839,638	656,552
Depreciable	992,289,468	2,945,468	932,746,183	3,003,080
OPEB asset (Note 12)	4,668,000	-	-	-
Other assets	-	2,145	-	2,145
Total non-current assets	1,194,277,132	159,478,905	1,112,956,043	141,544,802
DEFERRED OUTFLOW OF RESOURCES				
Related to debt refundings (Note 9)	9,889,987	-	10,890,597	-
Related to pensions (Note 11)	24,157,554	-	34,516,381	-
Related to OPEB (Note 12)	6,645,281	-	-	-
Total deferred outflow of resources	40,692,822	-	45,406,978	-
Total assets and deferred outflow of resources	\$ 1,449,166,548	\$ 167,076,497	\$ 1,376,172,044	\$ 148,178,567

JAMES MADISON UNIVERSITY
STATEMENT OF NET POSITION
As of June 30, 2018 (with comparative information as of June 30, 2017)

	2018		2017	
	James Madison University	Component Unit	James Madison University	Component Unit
LIABILITIES				
Current liabilities:				
Accounts payable and accrued expenses (Note 6)	\$ 59,944,024	\$ 321,904	\$ 47,135,556	\$ 192,635
Unearned revenue	18,843,557	-	19,054,651	-
Unearned revenue from James Madison University	-	360,409	-	360,409
Obligations under securities lending	8,565,327	-	-	-
Deposits held in custody for others	7,488,802	-	7,826,137	-
Long-term liabilities - current portion (Note 7)	28,442,456	251,836	25,343,307	251,835
OPEB liability - current portion (Note 12)	1,176,770	-	-	-
Total current liabilities	124,460,936	934,149	99,359,651	804,879
Non-current liabilities:				
Long-term liabilities (Note 7)	366,006,707	13,095,064	334,898,377	5,519,561
Net pension liability (Note 11)	151,443,000	-	166,981,000	-
OPEB liability (Note 12)	82,735,923	-	-	-
Total non-current liabilities	600,185,630	13,095,064	501,879,377	5,519,561
DEFERRED INFLOW OF RESOURCES				
Related to debt refundings (Note 9)	62,329	-	66,510	-
Related to pensions (Note 11)	11,148,000	-	4,529,000	-
Related to OPEB (Note 12)	14,008,290	-	-	-
Total deferred inflow of resources	25,218,619	-	4,595,510	-
Total liabilities and deferred inflow of resources	749,865,185	14,029,213	605,834,538	6,324,440
NET POSITION				
Net investment in capital assets	812,095,087	1,930,909	773,660,854	1,831,855
Restricted for:				
Non-expendable:				
Scholarships and fellowships	-	48,237,237	-	44,756,841
Research and public service	-	940,853	-	857,254
Other	-	25,517,108	-	22,592,420
Expendable:				
Scholarships and fellowships	-	18,333,569	-	15,360,477
Research and public service	1,844,087	958,558	1,811,692	910,730
Debt service	211,206	-	218,467	-
Capital projects	7,798,034	10,657,702	4,475,269	12,404,366
Loans	235,658	-	294,461	-
Other	4,668,000	27,682,073	-	25,785,944
Unrestricted	(127,550,709)	18,789,275	(10,123,237)	17,354,240
Total net position	\$ 699,301,363	\$ 153,047,284	\$ 770,337,506	\$ 141,854,127

The accompanying Notes to Financial Statements are an integral part of this statement.

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JAMES MADISON UNIVERSITY
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
For the year ended June 30, 2018 (with comparative information for the year ended June 30, 2017)

	2018		2017	
	James Madison University	Component Unit	James Madison University*	Component Unit
Operating revenues:				
Student tuition and fees (Net of scholarship allowances of \$20,805,891 and \$19,038,129 for 2018 and 2017, respectively)	\$ 218,804,484	\$ -	\$ 207,013,768	\$ -
Gifts and contributions	-	11,611,726	-	12,289,043
Federal grants and contracts	11,797,865	-	12,818,803	-
State grants and contracts	8,859,162	-	8,514,500	-
Non-governmental grants and contracts	5,206,485	-	4,909,152	-
Auxiliary enterprises (Net of scholarship allowances of \$14,716,267 and \$13,620,070 for 2018 and 2017, respectively) (Note 13)	193,453,097	-	182,511,536	-
Sales and Services of Education and General Activities	2,505,150	-	2,051,558	-
Other operating revenues	2,478,204	751,950	1,848,324	863,342
Total operating revenues	443,104,447	12,363,676	419,667,641	13,152,385
Operating expenses (Note 14):				
Instruction	173,232,552	613,294	162,056,031	587,905
Research	2,103,062	18,376	2,731,239	11,586
Public service	15,608,490	99,749	15,632,592	153,325
Academic support	48,177,725	1,222,198	47,837,649	1,269,840
Student services	19,526,370	131,700	18,326,282	148,627
Institutional support	35,398,553	6,730,625	34,291,791	6,149,561
Operation and maintenance - plant	45,213,222	4,863,078	44,345,268	626,201
Depreciation	43,078,368	102,669	41,921,323	117,906
Student aid	10,480,413	3,638,174	9,479,895	3,510,104
Auxiliary activities (Note 13)	142,991,711	949,196	136,065,856	759,736
Total operating expenses	535,810,466	18,369,059	512,687,926	13,334,791
Operating loss	(92,706,019)	(6,005,383)	(93,020,285)	(182,406)
Non-operating revenues/(expenses):				
State appropriations (Note 15)	93,275,156	-	91,680,650	-
Grants and contracts (Note 1 P.)	13,988,221	-	12,489,535	-
Pension related contribution revenue/(expense)	(1,034,553)	-	2,552,171	-
Gifts	5,605	-	7,006	-
Investment income (Net of investment expense of \$72,572 and \$831 for the University and \$436,162 and \$403,766 for the Foundation for 2018 and 2017, respectively)	1,914,975	7,681,738	1,594,586	11,942,501
In-Kind support from James Madison University	-	3,961,032	-	3,702,567
Interest on capital asset - related debt	(9,084,431)	(368,905)	(7,962,653)	(131,573)
Gain(Loss) on disposal of plant assets	(3,783,238)	6,031	(1,142,270)	337,757
Payment to the Commonwealth	(3,098,291)	-	(2,929,583)	-
Net non-operating revenues/(expenses)	92,183,444	11,279,896	96,289,442	15,851,252
Income/(loss) before other revenues, expenses, gains or losses	(522,575)	5,274,513	3,269,157	15,668,846
Capital appropriations and contributions (Note 16)	7,334,102	-	14,425,600	-
Capital gifts	7,023,197	-	4,224,690	-
Additions to permanent endowments	-	5,918,644	-	5,504,907
Net other revenues	14,357,299	5,918,644	18,650,290	5,504,907
Increase in net position	13,834,724	11,193,157	21,919,447	21,173,753
Net position - beginning of year, as restated (Note 1 W.)	685,466,639	141,854,127	748,418,059	120,680,374
Net position - end of year	\$ 699,301,363	\$ 153,047,284	\$ 770,337,506	\$ 141,854,127

The accompanying Notes to Financial Statements are an integral part of this statement.

*Certain prior year amounts were restated to agree to current year classifications.

JAMES MADISON UNIVERSITY
STATEMENT OF CASH FLOWS

For the year ended June 30, 2018 (with comparative information for the year ended June 30, 2017)

	2018	2017
Cash flows from operating activities:		
Student tuition and fees	\$ 218,821,691	\$ 208,302,336
Grants and contracts	25,586,744	26,836,094
Auxiliary enterprises	193,306,120	183,194,764
Other receipts	4,950,761	4,067,977
Payments for compensation and benefits	(297,466,277)	(282,394,454)
Payments for services, supplies and utilities	(148,118,498)	(141,599,592)
Payments for scholarships and fellowships	(10,480,413)	(9,479,895)
Payments for non-capitalized plant improvements and equipment	(30,024,326)	(30,143,063)
Loans issued to students	(243,841)	(399,996)
Collections of loans from students	423,488	449,288
Net cash used by operating activities	(43,244,551)	(41,166,541)
Cash flows from noncapital financing activities:		
State appropriations	93,244,732	91,657,608
Nonoperating grants and contracts	13,573,351	12,069,873
Payment to the Commonwealth	(3,098,291)	(2,929,583)
Pension related contributions	(1,034,553)	(1,551,829)
Loans issued to students and employees	(8,514)	(11,122)
Collections of loans from students and employees	8,764	10,872
Gifts and grants for other than capital purposes	5,605	7,006
Federal direct lending program receipts	102,247,364	99,042,045
Federal direct lending program disbursements	(102,247,364)	(99,042,045)
Agency receipts	12,717,972	13,443,222
Agency payments	(12,436,461)	(13,265,388)
Net cash provided by noncapital financing activities	102,972,605	99,430,659
Cash flows from capital and related financing activities:		
Capital appropriations and contributions	7,761,401	33,797,794
Proceeds from capital debt	54,528,090	59,972,584
Proceeds from sale of capital assets	79,036	52,379
Capital gifts	5,250,000	544,112
Purchase of capital assets	(83,028,934)	(82,699,322)
Principal paid on capital debt, leases, and installments	(17,566,746)	(17,611,632)
Interest paid on capital debt, leases, and installments	(13,276,820)	(11,955,014)
Net cash used by capital and related financing activities	(46,253,973)	(17,899,099)
Cash flows from investing activities:		
Interest on investments	873,224	320,136
Interest on cash management pools	1,915,264	1,327,064
Proceeds from sale of investments	908,647	146,982
Purchase of investments	-	(1,406,101)
Net cash provided by investing activities	3,697,135	388,081
Net increase in cash	17,171,216	40,753,100
Cash and cash equivalents - beginning of the year	217,047,488	176,294,388
Cash and cash equivalents - end of the year	\$ 234,218,704	\$ 217,047,488

JAMES MADISON UNIVERSITY
STATEMENT OF CASH FLOWS

For the year ended June 30, 2018 (with comparative information for the year ended June 30, 2017)

	2018	2017
RECONCILIATION OF NET OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES:		
Operating loss	\$ (92,706,019)	\$ (93,020,285)
Adjustments to reconcile net loss to net cash used by operating activities:		
Depreciation expense	43,078,368	41,921,323
Changes in assets, liabilities, deferred outflows, and deferred inflows:		
Receivables, net	(50,869)	(253,962)
Prepaid expenses	1,388,543	(1,227,092)
Inventory	(292,252)	26,569
Notes receivable, net	243,423	76,295
OPEB asset	(4,668,000)	-
Deferred outflows of resources - pension and OPEB	3,713,546	(12,682,259)
Accounts payable and accrued expenses	1,694,373	1,924,737
Unearned revenue	(211,094)	2,981,066
Net Pension liability	(15,538,000)	22,377,000
OPEB liability	(958,174)	-
Accrued compensated absences	445,979	773,542
Accrued retirement plan	173,709	2,049,986
Federal loan programs contributions refundable	(185,374)	(17,461)
Deferred inflows of resources - pension and OPEB	20,627,290	(6,096,000)
Net cash used by operating activities	<u>\$ (43,244,551)</u>	<u>\$ (41,166,541)</u>
NON-CASH INVESTING, NONCAPITAL FINANCING, AND CAPITAL AND RELATED FINANCING TRANSACTIONS:		
Gift of capital assets	\$ 1,216,032	\$ 3,606,757
Amortization of bond premium/discount and gain/loss on debt refinancing	\$ (2,495,805)	\$ (2,983,708)
Capitalization of interest revenue and expense, net	\$ (1,816,372)	\$ (1,093,815)
Change in fair value of investments recognized as a component of interest income	\$ 32,824	\$ 33,716
Loss on disposal of capital assets	\$ (3,862,274)	\$ (1,194,649)
Special revenue allocation related to pensions	\$ -	\$ 4,104,000

The accompanying Notes to Financial Statements are an integral part of this statement.

*Certain prior year amounts were restated to agree to current year classifications.

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NOTES TO FINANCIAL STATEMENTS

JAMES MADISON UNIVERSITY
NOTES TO FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2018

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Reporting Entity

The University is a comprehensive university that is part of the Commonwealth's statewide system of public higher education. The University's Board of Visitors, appointed by the Governor, is responsible for overseeing governance of the University. A separate report is prepared for the Commonwealth, which includes all agencies, higher education institutions, boards, commissions, and authorities over which the Commonwealth exercises or has the ability to exercise oversight authority. The University is a component unit of the Commonwealth and is included in the basic financial statements of the Commonwealth.

In accordance with Governmental Accounting Standards Board (GASB) Statement 61, *The Financial Reporting Entity: Omnibus—an amendment of GASB Statements No. 14 and No. 34*, the James Madison University Foundation, Inc. is included as a component unit of the University. The Foundation is a legally separate, tax-exempt organization formed to promote the achievements and further the aims and purposes of the University. The Foundation accomplishes its purposes through fundraising and funds management efforts that benefit the University and its programs. The 20-member board of the Foundation is self-perpetuating and consists of friends and supporters of the University. Although the University does not control the timing or amount of receipts from the Foundation, the majority of resources or income thereon that the Foundation holds and invests are restricted to the activities of the University by the donors. Because these restricted resources held by the Foundation can only be used by, or for the benefit of the University, the Foundation is considered a component unit of the University and is discretely presented in the financial statements.

During the year ended June 30, 2018, the Foundation distributed \$12,699,307 to the University for both restricted and unrestricted purposes. Separate financial statements for the Foundation can be obtained by writing the Chief Financial Officer, JMU Foundation, Inc., MSC 8501, Harrisonburg, Virginia 22807.

B. Financial Statement Presentation

The financial statements have been prepared in accordance with 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*.

GASB Statements 34 and 35 standards are designed to provide financial information that responds to the needs of three groups of primary users of general-purpose external financial reports: the citizenry, legislative and oversight bodies, and investors and creditors. Under this guidance, the University is required to include a management's discussion and analysis (MD&A), basic financial statements, and notes to the financial statements.

The following GASB statements of standards became effective in fiscal year 2018: Statement 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*; Statement 81, *Irrevocable Split-Interest Agreements*; Statement 85, *Omnibus 2017*; and Statement 86, *Certain Debt Extinguishment Issues*. Only Statement 75 had a significant effect upon the university's financial statements for the current year. Statement 75 requires government employers that participate in OPEB plans to recognize a net OPEB liability (unfunded accrued liability) or asset in their statement of net position. The university recognized its proportionate share of the Virginia Retirement System's net OPEB liability and the Virginia Department of Human Resource Management's OPEB liability. See footnote 12 for detailed information.

The Foundation is a private, non-profit organization that reports under Financial Accounting Standards Board (FASB) standards, including FASB Statement 117, *Financial Reporting for Not-for-Profit Organizations*. As such, certain revenue recognition criteria and presentation features are different from GASB revenue recognition and presentation features. No modifications have been made to the Foundation's financial information in the University's financial reporting entity for these differences.

C. Basis of Accounting

For financial reporting purposes, the University is considered a special-purpose government engaged only in business-type activities. Accordingly, the financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. All significant intra-agency transactions have been eliminated.

D. Cash Equivalents and Investments

In accordance with GASB Statement 9, *Reporting Cash Flows of Proprietary and Non-expendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting*, the University considers all highly liquid investments with an original maturity of 90 days or less to be cash equivalents.

In accordance with GASB Statement 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools* and GASB Statement 72, *Fair Value Measurement and Application*, purchased investments, interest-bearing temporary investments classified with cash, and investments received as gifts are recorded at fair value. All investment income, including changes in the fair value of investments (unrealized gains and losses), is reported as non-operating revenue in the Statement of Revenues, Expenses, and Changes in Net Position.

E. Accounts Receivable

Accounts receivable consists of tuition and fee charges to students, and amounts due for auxiliary enterprise services provided to students, faculty and staff. Accounts receivable also include amounts due from federal, state and local governments and nongovernmental sources, in connection with reimbursement of allowable expenses made pursuant to the university's grants and contracts. Accounts receivable are recorded net of allowance for doubtful accounts.

F. Prepaid Expenses

The University has recorded certain expenses for future fiscal years that were paid in advance as of June 30, 2018. Payments of expenses that extend beyond fiscal year 2019 are classified as a non-current asset. Prepaid expenses consist primarily of information technology maintenance contracts, property leases, and insurance.

G. Inventories

Inventories are valued at the lower of cost (generally determined on the first-in, first-out method) or market and consist primarily of expendable supplies held for consumption.

H. Capital Assets

Capital assets consisting of land, buildings, infrastructure, computer software and equipment are stated at cost at date of acquisition, or acquisition value at date of donation for gifts. Library materials are valued using published average prices for library acquisitions. The University capitalizes construction costs that have a value or cost in excess of \$200,000 at the date of acquisition. Renovation costs are capitalized when expenses total more than \$200,000, the asset value significantly increases, or the useful life is significantly extended. Routine repairs and maintenance are charged to operating expense.

Equipment is capitalized when the unit acquisition cost is \$5,000 or greater and the estimated useful life is more than two years. Computer software is capitalized when the unit acquisition or development costs are \$100,000 or greater and the estimated useful life is more than two years. Expenses related to construction are capitalized at actual cost as they are incurred (construction-in-progress).

Construction period interest cost in excess of earning associated with related debt proceeds is capitalized as a component of the final asset. The University incurred and capitalized net interest expense related to the construction of capital assets totaling \$1,816,372 for this fiscal year.

Collections of works of art and historical treasures are capitalized at cost or acquisition value at the date of donation. These collections are considered inexhaustible and therefore are not depreciated.

Depreciation is computed using the straight-line method over the estimated useful life of the asset and is not allocated to the functional expense categories. Useful lives by asset categories are listed below:

Buildings	25-50 years
Other improvements and infrastructure	20 years
Equipment	5-20 years
Computer software	5 years
Library material	5 years

I. Non-current Cash and Investments

Cash and investments that are externally restricted to make debt service payments, maintain sinking or reserve funds, or to purchase or construct capital and other non-current assets are classified as non-current assets in the Statement of Net Position. Assets that will be used to liquidate current liabilities, including capital project liabilities that are expected to be paid within one year, are classified as current assets.

J. Unearned Revenue

Unearned revenue represents revenues collected but not earned as of June 30. This consists primarily of revenue for student tuition and certain auxiliary activities accrued in advance of the semester, and advance payments on grants and contracts.

K. Deposits Held in Custody for Others

Deposits held in custody for others represents funds held by the university on behalf of others as a result of agency relationships with various groups and organizations.

L. Long-term Debt and Debt Issue Costs

Long-term debt on the Statement of Net Position is reported net of related discounts and premiums, which are amortized over the life of the debt. Debt issuance costs are expensed as non-operating expenses.

M. Accrued Compensated Absences

The amount of leave earned, but not taken by non-faculty salaried employees is recorded as a liability on the Statement of Net Position. The amount reflects, as of June 30, all unused vacation leave, sabbatical leave, and the amount payable upon termination under the Commonwealth's sick leave payout policy. The applicable share of employer-related taxes payable on the eventual termination payments is also included.

N. Pensions

The Virginia Retirement System (VRS) State Employee Retirement Plan and the Virginia Law Officers' 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. See Note 11 for more information about pension plans.

O. Other Post-Employment Benefits

VRS: 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.

VRS: 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.

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.

VRS: 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 each net OPEB liability (asset), deferred outflows of resources and deferred inflows of resources related to each OPEB, and each OPEB's related expense, information about the fiduciary net position of each Virginia Retirement System (VRS) program OPEB and the additions to/deductions from each 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.

Virginia DHRM: Pre-Medicare Retiree Healthcare Plan

Pre-Medicare Retiree Healthcare is a single-employer defined benefit OPEB plan that is treated like a cost-sharing plan for financial reporting purposes. This program was established by Title 2.2, Chapter 28 of the *Code of Virginia* for retirees who are not yet

eligible to participate in Medicare. It is the same health insurance program offered to active employees and managed by the Virginia Department of Human Resources Management. After retirement, Virginia Tech no longer subsidizes the retiree's premium; however, since both active employees and retirees are included in the same pool for purposes of determining health insurance rates, retiree rates are effectively lower than what might otherwise be available outside of this benefit.

P. Federal Financial Assistance Programs

The University participates in federally funded Pell Grants, Supplemental Educational Opportunity Grants, and federal work-study and Perkins loans programs. Federal programs are audited in accordance with Title 2, Part 200 of the U.S. Code of Federal Regulations, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*.

Q. Deferred Inflows and Outflows of Resources

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.

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.

R. Net Position

GASB Statement 63 requires that the Statement of Net Position report the difference between assets, deferred outflows, liabilities and deferred inflows as net position, not net assets or fund balances. Net position is classified as net investment in capital assets, restricted, and unrestricted. "Net investment in capital assets" consists of capital assets, net of accumulated depreciation and reduced by outstanding debt that is attributable to the acquisition, construction, or improvement of those assets. Net position is reported as restricted when constraints on the net asset/deferral use are either externally imposed by creditors, grantors, or contributors or imposed by law. Unrestricted net position consists of net assets/deferrals that do not meet the definitions above. When an expense is incurred that can be paid using either restricted or unrestricted resources, the University's policy is to use restricted resources first, then unrestricted resources as needed.

S. 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 non-governmental 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 Statement 9 and GASB Statement 34, such as state appropriations and investment and interest income. Federal Pell grant receipts are reported on the line item

“non-operating grants and contracts” on the Statement of Revenues, Expenses, and Changes in Net Position. Pell grants are considered as non-operating because the University’s administrative involvement with the grant requirements have the characteristics of a non-exchange transaction.

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

T. Scholarship Discounts and Allowances

Student tuition and fees revenues, certain auxiliary revenues, and student aid expenses, are reported net of scholarship discounts and allowances in the Statements of Revenue, Expenses, and Changes in Net Position. Scholarship discounts and allowances are the difference between the stated charge for goods and services provided by the University and the amount that is paid by students and/or third parties making payments on the student’s behalf. Scholarship discounts and allowances are reported using the alternative method as prescribed by the National Association of College and University Business Officers (NACUBO). The alternative method is a computation that calculates scholarship discounts and allowances on a University-wide basis, rather than on an individual student basis.

U. Commonwealth Equipment and Capital Project Reimbursement Programs

The Commonwealth has established several programs to provide state-supported institutions of higher education with bond proceeds for financing the acquisition and replacement of instructional and research equipment and facilities. During fiscal year 2018, funding has been provided to the University from two programs managed by the Virginia College Building Authority (VCBA): 21st Century and Equipment Trust Fund. The VCBA issues bonds and uses the proceeds to reimburse the University and other institutions of higher education for expenses incurred in the acquisition of equipment and facilities.

The Statement of Net Position line item “Due from the Commonwealth” includes pending reimbursements at year-end from these programs, as further described in Note 4. The Statement of Revenue, Expenses, and Changes in Net Position line item “Capital appropriations and contributions” includes reimbursements during the year for the acquisition of equipment and facilities under these programs, as further described in Note 16.

V. Comparative Data

The University presents its financial information on a comparative basis. The basic financial statements include certain prior year summarized information in total, but not at the level of detail required for a presentation in conformity with generally accepted accounting principles. Accordingly, the prior year information should be read in conjunction with the University’s financial statements for the year ended June 30, 2017, from which the summarized information was derived. It is also noted that as a result of the implementation of GASB 75, the University’s financial statements for the year ended June 30, 2018 are not comparative, due to unavailable other post-employment benefits adjustments for the June 30, 2017 financial statements.

W. Adjustment to Beginning Net Position

During fiscal year 2018, the University implemented GASB 75 *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The implementation required an adjustment to the July 1, 2017 net position balance, in order to record the Net OPEB Liability/Asset. Prior year balances were not restated for GASB Statement 75; only the beginning balances for fiscal year 2018 were adjusted. The adjustment was calculated as follows using audited information obtained from the Virginia Retirement System (VRS) and Virginia Department of Human Resource Management (DHRM):

Net Position, July 1, 2017	\$770,337,506
University portion of VRS & DHRM OPEB Liability as of June 30, 2016	(93,599,981)
University portion of VRS OPEB Asset as of June 30, 2016	3,681,000
University contributions made to VRS plans during fiscal year 2017	5,048,114
Adjusted Net Position, July 1, 2017	<u>\$ 685,466,639</u>

Additional information regarding the University's participation in VRS/DHRM other post-employment benefits plans can be found in Note 12 of the Notes to Financial Statements section.

2. CASH AND CASH EQUIVALENTS AND INVESTMENTS

The following information is provided with respect to the university's cash, cash equivalents and investments as of June 30, 2018. The following risk disclosures are required by GASB Statement 40, *Deposit and Investment Risk Disclosures*:

- Custodial Credit Risk – The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction a government will not be able to recover the value of investment or collateral securities at are in the possession of an outside party. The university had no category 3 deposits or investments for 2018.
- Credit Risk – The risk that an issuer or other counterparty to an investment will not fulfill its obligations. This statement requires the disclosure of the credit quality ratings on any investments subject to credit risk.
- Concentration of Credit Risk – The risk of loss attributed to the magnitude of a government's investment in a single issuer. This statement requires disclosure of investments with any one issuer with more than five percent of total investments. However, investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments are excluded from this requirement. The University places no limit on the amount that may be invested in any one issuer. The following issuers hold more than five percent of the University's investments as of June 30, 2018: Summit Bank (8.3%), MUFG Union Bank (6.9%), Goldman Sachs Bank (6.7%),

Discover Bank (6.6%), Ally Bank (5.8%), American Express Bank (5.7%), Morgan Stanley Bank (5.4%), Sallie Mae Bank (5.2%), and State Bank India NY (5.1%).

- Interest Rate Risk – The risk that interest rate changes will adversely affect the fair value of an investment. This statement requires disclosure of maturities for any investments subject to interest rate risk. The University does not have an interest rate risk policy.
- Foreign Currency Risk – The risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. The University had foreign deposits of \$3,381,741 in 2018, consisting of \$2,488,943 in Euros and \$892,798 in Great Britain Pounds Sterling. The University does not have a foreign currency risk policy.

A. Cash and Cash Equivalents

Pursuant to Section 2.2-1800, et seq., Code of Virginia, all state funds of the University are maintained by the Treasurer of Virginia, who is responsible for the collection, disbursement, custody, and investment of state funds. Except for cash held in foreign banks, cash deposits held by the University are maintained in accounts that are collateralized in accordance with the Virginia Security for Public Deposits Act, Section 2.2-4400, et seq., Code of Virginia. These amounts are insured in accordance with the banking regulations of the respective countries where the funds are maintained. In accordance with the GASB Statement 9's definition of cash and cash equivalents, cash represents cash with the Treasurer of Virginia, cash on hand, cash deposits, including certificates of deposits and temporary investments with original maturities of 90 days or less, and cash equivalents under the state non-arbitrage programs (SNAP).

SNAP offers a professionally-managed money market mutual fund, which provides a temporary pooled investment vehicle for proceeds pending expenditure, and with record keeping, depository and arbitrage rebate calculations. SNAP complies with all standards of GASB Statement 79. SNAP investments are reported using the net asset value per share, which is calculated on an amortized cost basis that provides an NAV per share that approximates fair value.

B. Investments

The Board of Visitors established the University's investment policy. Authorized investments are set forth in the Investment of Public Funds Act, Section 2.2-4500 through 2.2-4517, et seq., Code of Virginia. Investments fall into two groups: short-term and long-term. Short-term investments have an original maturity of over 90 days but less than or equal to one year. Long-term investments have an original maturity greater than one year.

GASB Statement 72, *Fair Value Measurement and Application* establishes general principles for measuring fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the "exit price") in an orderly transaction between market participants at the measurement date. A fair value hierarchy of inputs is used in measuring fair value and requires that the most observable inputs be used when available. Observable inputs are those that market participants would use in pricing an asset or liability

based on market data obtained from sources independent of the University. The fair value hierarchy is categorized into three levels based on the inputs as follows:

- Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities that University has the ability to access.
- Level 2 - Observable inputs other than quoted prices included in Level 1 that are not observable for the asset or liability either directly or indirectly. These inputs may include quoted prices for the identical instrument on an inactive market, and/or prices for similar instruments in inactive markets.
- Level 3 - Unobservable inputs for the asset or liability to the extent that relevant observable inputs are not available, representing the University's own assumptions about the assumptions that a market participant would use in valuing the asset or liability, and that would be based on the best information available.

For purposes of determining fair value of investments as of June 30, 2018, the University utilizes Level 1 and Level 2 inputs. Sources of these inputs may include observable price information, and/or quotations received from market makers, brokers, dealers and/or counterparties (when available and considered reliable) provided by independent pricing services or derived from market data.

Cash, cash equivalents, and investments consisted of the following at June 30, 2018:

GASB 72 Fair Value Measurement							
	Standard & Poor's Credit Quality Rating	Value	Less than 1 Year	1-5 Years	Not Applicable to Fair Value Measurement	Level 1	Level 2
Cash:							
Cash with the Treasurer of Virginia		\$ 154,250,202	\$ -	\$ -	\$ 154,250,202	\$ -	\$ -
Cash on hand and deposits with financial institutions		25,705,051	-	-	25,705,051	-	-
Total Cash		179,955,253	-	-	179,955,253	-	-
Cash Equivalents:							
Money market accounts with financial institutions:							
BB&T	N/A	1,305,600	1,305,600	-	1,305,600	-	-
Bank of the James	N/A	1,010,587	1,010,587	-	1,010,587	-	-
United Bank	N/A	512,152	512,152		512,152	-	-
Union Bank & Trust	N/A	2,530,905	2,530,905	-	2,530,905	-	-
Treasurer of Virginia (Securities Lending)	N/A	8,565,327	8,565,327		8,565,327		
Treasurer of Virginia (STIF)	N/A	66,542	66,542	-	66,542	-	-
Treasurer of Virginia (SNAP)	AAAm	48,837,666	48,837,666	-	48,837,666	-	-
Total Cash Equivalents		62,828,778	62,828,778	-	62,828,778	-	-
Total Cash and Cash Equivalents		242,784,031	62,828,778	-	242,784,031	-	-
Investments not with the Treasurer of Virginia:							
Certificates of Deposit - United Bank	N/A	53,139	-	53,139	53,139	-	-
Certificates of Deposit - Summit Bank	N/A	252,100	-	252,100	252,100	-	-
Wells Fargo Advisors Money Market	AAAm	428,684	428,684	-	428,684	-	-
Mutual Funds:							
Washington Mutual	N/A	456,275	456,275	-	-	456,275	-
Wells Fargo Advisors	AAAm	225,724	225,724	-	-	225,724	-
Income Fund of America	Various	63,671	63,671	-	-	63,671	-
Brokered Certificates of Deposit - Loomis	N/A	1,563,235	1,150,402	412,833	-	-	1,563,235
Total Investments		3,042,829	2,324,756	718,072	733,923	745,671	1,563,235
Total Cash, Cash Equivalents and Investments at Fair Value		\$ 245,826,860	\$ 65,153,535	\$ 718,072	\$ 243,517,954	\$ 745,671	\$ 1,563,235

C. James Madison University Foundation Cash and Investments

The following information is provided with respect to the Foundation's cash and cash equivalents and investments at June 30, 2018. The Foundation considers cash in demand deposit accounts and short-term certificates of deposit to be cash equivalents. The balances in these accounts are subject to electronic transfer for investment purposes and at times exceed federally insured limits. However, the Foundation does not believe it is subject to any significant credit risk as a result of these deposits.

Investments in equity securities with readily determinable fair values and all investments in debt securities are measured at fair value. Investment income or loss (including realized gains and losses on investments, interest, and dividends) is included in the change in unrestricted net position unless the income or loss is restricted by donor or law.

The Investment Committee of the Foundation's Board of Directors establishes the investment policies, objectives, and guidelines. The major portions of the investments are maintained in a portfolio managed by the Foundations' investment advisors. As prescribed by FASB ASC 820, investments are placed into one of three categories based on the inputs used in valuation techniques. As of June 30, 2018 the foundation held investments totaling \$37,861,972 and \$612,610 in category 1 and 2, respectively. Life insurance policies are not categorized as to credit risk. The Foundation's investments by type of security are as follows:

	Fair Value	Cost
Cash and cash equivalents	\$ 9,270,913	\$ 9,271,786
Certificate of deposit	2,223,029	2,205,834
US treasury securities	7,608,024	7,551,612
Common stock	246,917	144,002
Mutual funds	18,513,089	16,222,610
Alternative Investments	90,508,875	74,575,390
Life insurance policies	612,610	-
Total	<u>\$ 128,983,457</u>	<u>\$ 109,971,234</u>

D. Securities Lending Transactions

GASB Statement 28, *Accounting and Financial Reporting for Securities Lending Transactions*, establishes accounting and financial reporting standards for security lending transactions. In these transactions, governmental entities transfer securities to broker-dealers and other entities for collateral and simultaneously agree to return the collateral for the same securities in the future.

The investments under securities lending (reported as either "cash equivalents" or "short-term investments") and the securities lending transactions reported on the financial statements represent the University's allocated share of securities received for securities lending transactions held in the General Account of the Commonwealth. The Commonwealth's policy is to record unrealized gains and losses in the General Fund in the Commonwealth's basic financial statements. When gains and losses are realized, the actual gains and losses are recorded by the affected agencies. Information related to the credit risk of these investments and securities lending transactions held in the General Account is available on a statewide basis in the Commonwealth of Virginia's CAFR.

3. ACCOUNTS AND CONTRIBUTIONS RECEIVABLE

Accounts receivable consisted of the following at June 30, 2018:

Student tuition and fees	\$ 2,179,495
Auxiliary enterprises	1,575,361
Federal, state, and non-governmental grants and contracts	3,570,588
Other activities	464,760
Total	<u>7,790,204</u>
Less: allowance for doubtful accounts	935,993
Net accounts receivable	<u><u>\$ 6,854,211</u></u>

The Foundation's contributions receivable consisted of the following at June 30, 2018:

Due in less than one year	\$ 2,915,731
Due between one and five years	7,665,692
Due in more than five years	2,762,915
Total	<u>13,344,338</u>
Less: present value discount (1% - 6%)	663,952
Less: allowance for doubtful accounts	257,218
Net contributions receivable	<u><u>\$ 12,423,168</u></u>

4. DUE FROM THE COMMONWEALTH

Due from the Commonwealth consisted of the following at June 30, 2018:

Treasury programs reimbursement due:	
Equipment Trust Fund	\$ 2,309,646
21st Century	1,378,827
Appropriations available - Financial Aid	59,262
Total	<u><u>\$ 3,747,735</u></u>

5. CAPITAL ASSETS

A summary of changes in the various capital asset categories for the year ending June 30, 2018 is presented as follows:

	Beginning Balance	Additions	Reductions	Ending Balance
Non-depreciable capital assets:				
Land	\$ 86,343,568	\$ 525,671	\$ -	\$ 86,869,239
Inexhaustible artwork and historical treasures	2,381,848	12,000	6,500	2,387,348
Construction-in-progress	59,114,222	85,826,590	93,154,284	51,786,528
Total non-depreciable capital assets	147,839,638	86,364,261	93,160,784	141,043,115
Depreciable capital assets:				
Buildings	1,087,853,052	85,023,146	12,045,648	1,160,830,550
Infrastructure	94,439,105	6,306,714	56,040	100,689,779
Computer Software	12,506,357	133,385	-	12,639,742
Equipment	86,106,257	10,592,254	2,049,732	94,648,779
Other improvements	62,427,682	1,613,639	1,417,991	62,623,330
Library materials	56,535,296	2,888,383	819,688	58,603,991
Total depreciable capital assets	1,399,867,749	106,557,521	16,389,099	1,490,036,171
Less accumulated depreciation for:				
Buildings	289,716,947	26,576,683	8,487,318	307,806,312
Infrastructure	43,878,898	4,167,939	50,960	47,995,877
Computer Software	10,679,856	559,318	-	11,239,174
Equipment	50,247,398	6,034,025	1,960,948	54,320,475
Other Improvements	24,194,702	3,048,581	1,134,318	26,108,965
Library materials	48,403,765	2,691,822	819,687	50,275,900
Total accumulated depreciation	467,121,566	43,078,368	12,453,231	497,746,703
Depreciable capital assets, net	932,746,183	63,479,153	3,935,868	992,289,468
Total capital assets, net	\$ 1,080,585,821	\$ 149,843,414	\$ 97,096,652	\$ 1,133,332,583

The Foundation's net capital assets consist of \$3,501,429 in property and equipment, and \$100,591 in collections of historical artifacts for the year ending June 30, 2018.

6. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses consisted of the following at June 30, 2018:

Employee salaries, wages, and fringe benefits payable	\$ 35,899,229
Vendors and suppliers accounts payable	4,915,705
Capital projects accounts and retainage payable	15,593,900
Accrued interest payable on bond debt	3,535,190
Total accounts payable and accrued expenses	<u>\$ 59,944,024</u>

7. NON-CURRENT LIABILITIES

The University's non-current liabilities consist of long-term debt (further described in Note 8), accrued supplemental retirement plan (further described in Note 10), and other non-current liabilities. A summary of changes in non-current liabilities for the year ending June 30, 2018 is presented as follows:

	Beginning Balance	Additions	Reductions	Ending Balance	Current Portion	Non-current Portion
Long-term debt:						
Revenue bonds	\$ 168,840,000	\$ 50,460,000	\$ 10,320,000	\$ 208,980,000	\$ 12,415,000	\$ 196,565,000
General obligation bonds	137,731,812	-	7,246,747	130,485,065	7,445,589	123,039,476
Bond premium	37,899,736	4,372,146	3,492,233	38,779,649	3,480,386	35,299,263
Total long-term debt	344,471,548	54,832,146	21,058,980	378,244,714	23,340,975	354,903,739
Accrued retirement plan	6,827,444	2,790,843	2,617,134	7,001,153	57,099	6,944,054
Accrued compensated absences	6,684,533	7,279,753	6,833,774	7,130,512	5,044,382	2,086,129
Federal loan program contributions	2,258,159	-	185,374	2,072,785	-	2,072,785
Total long-term liabilities	\$ 360,241,684	\$ 64,902,742	\$ 30,695,262	\$ 394,449,164	\$ 28,442,456	\$ 366,006,707

8. LONG-TERM DEBT

The University has issued two categories of bonds pursuant to Section 9 of Article X of the Constitution of Virginia. Section 9(d) bonds are revenue bonds, which are limited obligations of the University payable exclusively from pledged general revenues and are not debt of the Commonwealth, legally, morally, or otherwise. Pledged General Fund revenues include General Fund appropriations, tuition and fees, auxiliary enterprise revenues, and other revenues not required by law to be used for another purpose. The University participates in the Public Higher Education Financing Program (Pooled Bond Program) created by the Virginia General Assembly in 1996. Through the Pooled Bond Program, the Virginia College Building Authority (VCBA) issues 9(d) bonds and uses the proceeds to purchase debt obligations (notes) of the University and various other institutions of higher education. The University's general revenue also secures these notes.

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.

Description	Interest Rates (%)	Fiscal Year Maturity	2018
Revenue bonds:			
Dormitory, Series 2007B	4.50	2019	\$ 1,060,000
Multipurpose Recreation Fields, Series 2009A	3.25 – 5.00	2021	675,000
Multipurpose Recreation Fields, Series 2015B	3.00 – 5.00	2029	3,845,000
Softball/Baseball Complex, Series 2009A	3.25 – 5.00	2021	650,000
Softball/Baseball Complex, Series 2015B	3.00 – 5.00	2029	3,655,000
Renov/Expand Athletics/Recreation 2009B	5.00	2020	2,505,000
Renov/Expand Athletics/Recreation 2016A	3.00 – 5.00	2030	17,075,000
Renov/Expand Athletics/Recreation 2010A	3.75 – 5.50	2031	7,055,000
Renov/Expand Bridgeforth Stadium 2009B	5.00	2020	3,930,000
Renov/Expand Bridgeforth Stadium 2016A	3.00 – 5.00	2030	26,755,000
Grace St. acquisition, Series 2010A	3.75 – 5.50	2031	6,360,000
RMH property acquisitions, Series 2010A	3.75 – 5.50	2031	5,660,000
Construct Student Health Ctr, 2012B	3.00 – 5.00	2033	8,860,000
Renovate West Wing RMH-Dining, 2012B	3.00 – 5.00	2033	4,470,000
Renov/Expand Recreation Center, 2014A	5.00	2035	43,605,000
Parking, Series 2014B	5.00	2024	3,705,000
Parking, Series 2016A	3.00	2027	1,705,000
Student Center 2014B	5.00	2020	1,360,000
Acq of Land, Athletics, Series 2014B	5.00	2024	1,300,000
Acq of Land, Athletics, Series 2016A	3.00	2027	790,000
Mason Street Parking Deck, Series 2015A	3.00 – 5.00	2036	7,255,000
Property acquisition, Series 2014B	4.00 – 5.00	2026	4,715,000
Property acquisition, Series 2016A	3.00 – 5.00	2028	1,530,000
New Student Housing 2017A	2.125 - 5.00	2038	50,460,000
Total revenue bonds			<u>\$208,980,000</u>
General obligation revenue bonds:			
Dormitory and dining hall:			
Series 2009C	4.00	2022	1,571,502
Series 2009D	5.00	2022	1,435,000
Series 2010A	2.75 – 4.40	2030	9,945,000
Series 2013B	4.00 – 5.00	2026	10,764,400
Series 2014A	3.00 – 5.00	2034	40,435,000
Series 2014B	5.00	2020	754,101
Series 2015B	4.00 – 5.00	2028	14,635,062
Series 2016A	3.00 – 5.00	2036	50,945,000
Total general obligation revenue bonds			<u>130,485,065</u>
Total bonds payable			<u><u>\$339,465,065</u></u>

Long-term debt as of June 30, 2018 matures as follows:

	Principal	Interest
2019	\$ 19,860,589	\$ 14,314,275
2020	19,686,381	13,374,559
2021	19,517,897	12,447,156
2022	20,007,837	11,490,631
2023	20,624,929	10,515,253
2024-2028	114,227,432	37,518,354
2029-2033	86,060,000	14,959,725
2034-2038	39,480,000	2,504,647
Total	<u>\$ 339,465,065</u>	<u>\$ 117,124,600</u>

The Foundation's long-term debt consists of the following:

- \$1,671,111 outstanding at June 30, 2018, in notes payables to Bank of America at a fixed interest rate of 4.85%, and maturing through fiscal year 2029. The note is secured by a deed of trust on real estate acquired with the proceeds of the note.
- \$11,021,856 outstanding at June 30, 2018, in notes payable to Union Bank, maturing through fiscal year 2032. The note is secured by a first priority security interest in \$3,000,000 of unrestricted cash or marketable securities/mutual funds margined at 70%, a first priority security interest in a specific deposit account maintained by the lender, and a first priority security interest in the assignment of certain agreements specific to the Shenandoah Valley Conference Center project. Principal on the note is paid annually beginning in fiscal year 2020 and is based on a 20-year amortization period. Interest is payable monthly and based on the following rates:

Period	Interest Rate
Current – 9/30/2019	LIBOR + 2% (4.00% as of 6/30/2018)
10/1/2019 – 9/30/2024	4% Fixed
10/1/2024 – 9/30/2029	5 year U.S. Treasury Security rate @ 10/1/24 + 2.75%, but not less than 4%
10/1/2029–12/31/2031	2 year U.S. Treasury Security rate @ 10/1/29 + 2.75%, but not less than 4%

9. DEBT DEFEASANCE

A. Deferral on Debt Defeasance

In accordance with GASB Statement 23, *Accounting and Financial Reporting for Refundings of Debt Reported by Proprietary Activities*, as amended by GASB Statement 65 *Items Previously Reported as Assets and Liabilities*, for current refundings and advance refundings resulting in defeasance of debt, the difference between the new and old debt (accounting gain or loss) is deferred and amortized as a component of interest expense. For each of the current or advance refundings noted below, the accounting gain or loss is amortized to interest expense over the life of the new debt. A summary of changes in deferred outflows

and deferred inflows as a result of debt refundings for the year ending June 30, 2018 is presented as follows:

	Beginning Balance	Additions	Reductions	Ending Balance
Deferred Outflows	10,890,597	-	1,000,610	9,889,987
Deferred Inflows	66,510	-	4,181	62,329

B. Long-term Debt Defeasance

In prior years, in accordance with GASB Statement 7, *Advance Refundings Resulting in the Defeasance of Debt*, the University excluded from its financial statements the assets in escrow and the Section 9(c) or 9(d) bonds payable that were defeased “in-substance.” As of June 30, 2018, \$51,305,000 of the bonds outstanding were considered defeased.

10. SUPPLEMENTAL RETIREMENT PLAN

Effective January 1, 1997, the University established a Supplemental Retirement Plan for tenured faculty members. The plan was designed to provide flexibility in the allocation of faculty positions. The plan is a qualified plan within the meaning of section 401(c) of the Internal Revenue Code of 1986 (the Code) and is a governmental plan within the meaning of section 414(d) of the Code. Since it is a governmental plan, the plan is not subject to the Employee Retirement Income Security Act of 1974 as amended. Since inception, 303 faculty members have elected to enroll in the plan. As of June 30, 2018, 84 participants remain, including 16 new participants who retired under this plan during fiscal year 2018. In order to satisfy IRS requirements, a trust fund has been established as means to make the payments to the plan participants. The University funded \$2,599,557 of the plan obligation in 2018. The plan payment schedule is as follows:

Year Ending June 30,	Supplemental Plan Obligations
2019	57,099
2020	2,501,398
2021	2,073,889
2022	1,502,547
2023	736,810
2024	129,410
Total	<u>\$ 7,001,153</u>

11. RETIREMENT PLANS

A. Virginia Retirement System (Defined Benefit Retirement Plans)

All full-time, salaried permanent employees of state agencies are automatically covered by the VRS State Employee Retirement Plan or the VaLORS Retirement Plan upon employment, unless they are eligible and choose to enroll in the optional retirement program described in section B of Note 11. These plans are single-employer plans treated as cost-sharing plans for financial reporting purposes. The plans are administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. 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>About Plan 1 Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013.</p>	<p>About Plan 2 Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, creditable service and average final compensation at retirement using a formula. Employees are eligible for 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>About the Hybrid Retirement Plan The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan. Most members hired on or after January 1, 2014 are in this plan, as well as Plan 1 and Plan 2 members who were eligible and opted into the plan during a special election window. (see "Eligible Members")</p> <ul style="list-style-type: none"> • The defined benefit is based on a member's age, creditable service and average final compensation

		<p>at retirement using a formula.</p> <ul style="list-style-type: none"> • 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>Eligible Members Employees are in Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013.</p> <p>Hybrid Opt-In Election VRS non-hazardous duty covered Plan 1 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.</p> <p>The Hybrid Retirement Plan's effective date for eligible Plan</p>	<p>Eligible Members 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>Hybrid Opt-In Election Eligible Plan 2 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014.</p> <p>The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014.</p>	<p>Eligible Members Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes:</p> <ul style="list-style-type: none"> • State employees* • 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>*Non-Eligible Members Some employees are not eligible to participate in the Hybrid Retirement Plan. They include:</p>

<p>1 members who opted in was July 1, 2014.</p> <p>If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.</p> <p>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>If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.</p> <p>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>	<ul style="list-style-type: none"> • Members of the Virginia Law Officers' Retirement System (VaLORS) <p>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>Retirement Contributions 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>Retirement Contributions State employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction.</p>	<p>Retirement Contributions A member's retirement benefit is funded through mandatory and voluntary contributions made by the member and the employer to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.</p>

<p>Creditable Service Creditable service includes active service. Members earn creditable service for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional creditable service the member was granted. A member's total creditable service is one of the factors used to determine 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>Creditable Service Same as Plan 1.</p>	<p>Creditable Service <u>Defined Benefit Component:</u> 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.</p> <p><u>Defined Contributions Component:</u> Under the defined contribution component, creditable service is used to determine vesting for the employer contribution portion of the plan.</p>
<p>Vesting Vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members become vested when they have at least five years (60 months) of creditable service.</p>	<p>Vesting Same as Plan 1.</p>	<p>Vesting <u>Defined Benefit Component:</u> Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under</p>

<p>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.</p> <p>Members are always 100% vested in the contributions that they make.</p>		<p>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.</p> <p><u>Defined Contributions Component:</u></p> <p>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.</p> <p>Members are always 100% vested in the contributions that they make.</p> <p>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.</p> <ul style="list-style-type: none"> • 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
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		<p>and may withdraw 100% of employer contributions.</p> <p>Distribution is not required by law until age 70½.</p>
<p>Calculating the Benefit The Basic Benefit is calculated based on a formula using the member's average final compensation, a retirement multiplier and total service credit at retirement. It is one of the benefit payout options available to a member at retirement.</p> <p>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>Calculating the Benefit See definition under Plan 1.</p>	<p>Calculating the Benefit <u>Defined Benefit Component:</u> See definition under Plan 1</p> <p><u>Defined Contribution Component:</u> 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>Average Final Compensation A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.</p>	<p>Average Final Compensation A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.</p>	<p>Average Final Compensation Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.</p>
<p>Service Retirement Multiplier VRS: 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%.</p>	<p>Service Retirement Multiplier VRS: Same as Plan 1 for service earned, purchased or granted prior to January 1, 2013. For non-hazardous duty members the retirement multiplier is 1.65% for creditable service earned, purchased or granted on or after January 1, 2013.</p>	<p>Service Retirement Multiplier <u>Defined Benefit Component:</u> VRS: The retirement multiplier for the defined benefit component is 1.00%.</p> <p>For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the</p>

<p>VaLORS: The retirement multiplier for VaLORS employees is 1.70% or 2.00%.</p>	<p>VaLORS: The retirement multiplier for VaLORS employees is 2.00%.</p>	<p>applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.</p> <p>VaLORS: Not applicable.</p> <p><u>Defined Contribution Component:</u> Not applicable.</p>
<p>Normal Retirement Age VRS: Age 65.</p> <p>VaLORS: Age 60.</p>	<p>Normal Retirement Age VRS: Normal Social Security retirement age.</p> <p>VaLORS: Same as Plan 1.</p>	<p>Normal Retirement Age <u>Defined Benefit Component:</u> VRS: Same as Plan 2.</p> <p>VaLORS: Not applicable.</p> <p><u>Defined Contribution Component:</u> Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>
<p>Earliest Unreduced Retirement Eligibility VRS: Age 65 with at least five years (60 months) of creditable service or at age 50 with at least 30 years of creditable service.</p> <p>VaLORS: Age 60 with at least five years of creditable service or age 50 with at least 25 years of creditable service.</p>	<p>Earliest Unreduced Retirement Eligibility VRS: Normal Social Security retirement age with at least five years (60 months) of creditable service or when their age and service equal 90.</p> <p>VaLORS: Same as Plan 1.</p>	<p>Earliest Unreduced Retirement Eligibility <u>Defined Benefit Component:</u> 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.</p> <p>VaLORS: Not applicable.</p> <p><u>Defined Contribution Component:</u></p>

		Members are eligible to receive distributions upon leaving employment, subject to restrictions.
<p>Earliest Reduced Retirement Eligibility VRS: Age 55 with at least five years (60 months) of creditable service or age 50 with at least 10 years of creditable service.</p> <p>VaLORS: 50 with at least five years of creditable service.</p>	<p>Earliest Reduced Retirement Eligibility VRS: Age 60 with at least five years (60 months) of creditable service.</p> <p>VaLORS: Same as Plan 1.</p>	<p>Earliest Reduced Retirement Eligibility Defined Benefit Component: VRS: Age Members may retire with a reduced benefit as early as age 60 with at least five years (60 months) of creditable service.</p> <p>VaLORS: Not applicable.</p> <p>Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.</p>
<p>Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%.</p> <p>Eligibility: For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service, the COLA will go into effect on July 1 after one full</p>	<p>Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 2% increase in the CPI-U and half of any additional increase (up to 2%), for a maximum COLA of 3%.</p> <p>Eligibility: Same as Plan 1</p>	<p>Cost-of-Living Adjustment (COLA) in Retirement Defined Benefit Component: Same as Plan 2.</p> <p>Defined Contribution Component: Not applicable.</p> <p>Eligibility: Same as Plan 1 and Plan 2.</p>

<p>calendar year from the retirement date.</p> <p>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.</p> <p><u>Exceptions to COLA Effective Dates:</u></p> <p>The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:</p> <ul style="list-style-type: none"> • 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 	<p><u>Exceptions to COLA Effective Dates:</u></p> <p>Same as Plan 1</p>	<p><u>Exceptions to COLA Effective Dates:</u></p> <p>Same as Plan 1 and Plan 2.</p>
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<p>death-in-service benefit. The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.</p>		
<p>Disability Coverage 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.</p> <p>Most state employees are covered under the Virginia Sickness and Disability Program (VSDP), and are not eligible for disability retirement.</p> <p>VSDP members are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.</p>	<p>Disability Coverage 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.</p> <p>Most state employees are covered under the Virginia Sickness and Disability Program (VSDP), and are not eligible for disability retirement.</p> <p>VSDP members are subject to a one-year waiting period before becoming eligible for non-work related disability benefits.</p>	<p>Disability Coverage 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.</p> <p>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>Purchase of Prior Service Members may be eligible to purchase service from previous public employment, active duty military service, an eligible period of leave or VRS refunded service as creditable service in their plan. Prior creditable service counts toward vesting,</p>	<p>Purchase of Prior Service Same as Plan 1.</p>	<p>Purchase of Prior Service Defined Benefit Component: Same as Plan 1, with the following exceptions:</p> <ul style="list-style-type: none"> • Hybrid Retirement Plan members are ineligible for ported service. • The cost for purchasing refunded service is the

eligibility for retirement and the health insurance credit. Only active members are eligible to purchase prior service. When buying service, members must purchase their most recent period of service first. Members also may be eligible to purchase periods of leave without pay.		<p>higher of 4% of creditable compensation or average final compensation.</p> <ul style="list-style-type: none"> • Plan members have one year from their date of hire or return from leave to purchase all but refunded prior service at approximate normal cost./ After that on-year period, the rate for most categories of service will change to actuarial cost. <p><u>Defined Contribution Component:</u> Not applicable.</p>
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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 state agencies 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 state employees were required to pay the 5.00% member contribution and the employer was required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution. Each state agency'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 \$14,037,842 and \$13,466,814 for the years ended June 30, 2018 and June 30, 2017, respectively. Contributions from the University to the VaLORS Retirement Plan were \$319,712 and \$296,567 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 \$148,674,000 for its proportionate share of the VRS State Employee Retirement Plan Net Pension Liability and a liability of \$2,769,000 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 2.55% as compared to 2.49% at June 30, 2016. At June 30, 2017, the University's proportion of the VaLORS Retirement Plan was .42% as compared to .40% at June 30, 2016.

For the year ended June 30, 2018, the University recognized pension expense of \$15,706,000 for the VRS State Employee Retirement Plan and \$301,000 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 employer contributions and the proportionate share of employer contributions.

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

	State employee plan		VaLORs plan	
	Deferred outflows of resources	Deferred inflows of resources	Deferred outflows of resources	Deferred inflows of resources
Net difference between projected and actual earnings on pension plan investments	\$ -	\$ 6,351,000	\$ -	\$ 77,000
Differences between expected and actual experience	315,000	4,502,000	8,000	7,000
Changes in proportion and differences between employer contributions and proportionate share of contributions	7,898,000	-	135,000	31,000
Change in assumptions	1,444,000	-	-	180,000
Employer contributions subsequent to the measurement date	14,037,842	-	319,712	-
Total deferred outflows/inflows related to pensions	<u>\$ 23,694,842</u>	<u>\$ 10,853,000</u>	<u>\$ 462,712</u>	<u>\$ 295,000</u>

\$14,357,554 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 year ended 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 as follows:

Year Ending June 30,	State employee plan	VaLORs plan
2019	\$ (1,061,000)	\$ (84,000)
2020	3,225,000	(14,000)
2021	912,000	(2,000)
2022	(4,272,000)	(52,000)
2023	-	-
Total	<u>\$ (1,196,000)</u>	<u>\$ (152,000)</u>

Actuarial Assumptions (State Employee Plan)

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 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 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
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	Increase rate from 14% to 25%

Actuarial Assumptions (VaLORS Plan)

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
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	Decrease 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 Plan	VaLORs Plan
Total Pension Liability	\$ 23,617,412	\$ 2,002,184
Plan Fiduciary Net Position	17,789,888	1,345,887
Employer' 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%

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
U.S. 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 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 and VaLORS Retirement Plan net pension liabilities 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:

	<u>1.00 % Decrease (6.00%)</u>	<u>Current Discount Rate (7.00%)</u>	<u>1.00 % Increase (8.00%)</u>
The University's proportionate share of the VRS State Employee Retirement Plan Net Pension	219,612,000	148,674,000	89,102,000
The University's proportionate share of the VaLORS Retirement Plan Net Pension Liability	3,864,000	2,769,000	1,865,000

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 Accrued Expenses at June 30, 2018 are payables of \$1,403,143 and \$19,812 for the outstanding amount of contributions to the VRS State Employee Retirement Plan and the VaLORS Retirement Plan, respectively.

B. Optional Retirement Plans

Full-time faculty and certain administrative staff participate in defined contribution plans as authorized by the Code of Virginia, offered by TIAA/CREF Insurance Companies and Fidelity Investments Tax-Exempt Services. These plans are fixed-contribution programs where the retirement benefits received are based upon employer and employee contributions, plus interest and dividends. Employees hired prior to July 1, 2010 (Plan 1) have an employer required contribution rate of 10.4 percent. Employees hired on or after July 1, 2010 (Plan 2) have an employer required contribution rate of 8.5 percent and an employee required contribution rate of 5 percent.

Individual contracts issued under the plan provide for full and immediate vesting of both the University's and the employee's contributions. Total pension costs under this plan were approximately \$7,228,963 for the year ended June 30, 2018. Contributions to the optional retirement plan were calculated using the base salary amount of approximately \$73,781,025 for fiscal year 2018.

Included in Accounts Payable and Accrued Expenses at June 30, 2018 are payables of \$1,091,991 for the outstanding amount of contributions to the Optional Retirement Plans.

C. Deferred Compensation Plan

Employees of the University are employees of the Commonwealth. State employees may participate in the Commonwealth's Deferred Compensation Plan. Participating employees can contribute to the plan each pay period with the Commonwealth matching up to \$20 per pay period. The dollar amount match can change depending on the funding available in the Commonwealth's budget. The Deferred Compensation Plan is a qualified defined contribution plan under Section 401(a) of the Internal Revenue Code. The University's expense for contributions under the Deferred Compensation Plan, which is an amount assessed by the Commonwealth, was approximately \$901,111 for the fiscal year 2018.

12. OTHER POSTEMPLOYMENT BENEFITS

Note: the information presented applies to all programs, unless a specific program is referenced.

Group Life Insurance: Plan Description

All full-time, salaried permanent employees of the state agencies, 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 OPEB plans, for public employer groups in the Commonwealth of Virginia.

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:

GROUP LIFE INSURANCE PROGRAM PLAN PROVISIONS
<p>Eligible Employees</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"> • City of Richmond • City of Portsmouth • City of Roanoke • City of Norfolk • Roanoke City Schools Board

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>Benefit Amounts</p> <p>The benefits payable under the Group Life Insurance Program have several components.</p> <ul style="list-style-type: none"> • <u>Natural Death Benefit</u> – The natural death benefit is equal to the employee’s covered compensation rounded to the next highest thousand and then doubled. • <u>Accidental Death Benefit</u> – The accidental death benefit is double the natural death benefit. • <u>Other Benefit Provisions</u> – 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"> ○ Accidental dismemberment benefit ○ Safety belt benefit ○ Repatriation benefit ○ Felonious assault benefit ○ Accelerated death benefit option
<p>Reduction in benefit Amounts</p> <p>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.</p>
<p>Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)</p> <p>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.</p>

Health Insurance Credit: Plan Description

All full-time, salaried permanent employees of state agencies 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. 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>Eligible Employees</p> <p>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"> • Full-time and part-time permanent salaried state employees covered under VRS, SPORS, VaLORS and JRS.
<p>Benefit Amounts</p> <p>The State Employee Retiree Health Insurance Credit Program provides the following benefits for eligible employees:</p> <ul style="list-style-type: none"> • <u>At Retirement</u> – For State employees who retire, the monthly benefit is \$4.00 per year of service per month with no cap on the benefit amount. • <u>Disability Retirement</u> – 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. <p>For State police officers employees 990028 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>Health Insurance Credit Program Notes:</p> <ul style="list-style-type: none"> • The monthly Health Insurance Credit benefit cannot exceed the individual premium amount. • 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.

VRS Disability Insurance: 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 OBEB plans, for public employer groups in the Commonwealth of Virginia.

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

DISABILITY INSURANCE PROGRAM (VSDP) PLAN PROVISIONS
<p>Eligible Employees</p> <p>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"> • 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). • 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. • 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.
<p>Benefit Amounts</p> <p>The Virginia Sickness and Disability Program (VSDP) provides the following benefits for eligible employees:</p> <ul style="list-style-type: none"> • <u>Leave</u> – Sick, family and personal leave. Eligible leave benefits are paid by the employer. • <u>Short-Term Disability</u> – 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. • <u>Long-Term Disability</u> – 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. • <u>Income Replacement Adjustment</u> – The program provides for an income replacement adjustment to 80% for catastrophic conditions. • <u>VSDP Long-Term Care Plan</u> – The program also includes a self-funded long-term care plan that assists with the cost of covered long-term care services.
<p>Disability Insurance Program (VSDP) Plan Notes:</p> <ul style="list-style-type: none"> • Employees hired or rehired on or after July 1, 2009, must satisfy eligibility periods before becoming eligible for non-work-related short-term disability benefits and certain income-replacement levels.

- A state employee who is approved for VSDP benefits on or after the date that is five years prior to his or her normal retirement date is eligible for up five years of VSDP benefits.
- Employees on work-related short-term disability receiving only a workers' compensation payment may be eligible to purchase service credit for this period if retirement contributions are not being withheld from the workers' compensation payment. The rate will be based on 5.00% of the employee's compensation.

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%.

Line of Duty Act: 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. 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:

LINE OF DUTY ACT PROGRAM (LODA) PLAN PROVISIONS	
Eligible Employees	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).

Benefit Amounts

The Line of Duty Act Program (LODA) provides death and health insurance benefits for eligible individuals:

- **Death** – 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:
 - \$100,000 when a death occurs as the direct or proximate result of performing duty as of January 1, 2006, or after.
 - \$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.
 - 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.
- **Health Insurance** – 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 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.

Virginia DHRM: Pre-Medicare Retiree Healthcare: 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. 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.

Contributions – VRS:

The contribution requirements for each program are governed by the respective *Code of Virginia* sections, as follows:

- Group Life Insurance Program: §51.1-506 and §51.1-508, as amended
- Health Insurance Credit Program: §51.1-1400(D), as amended
- VRS Disability Insurance Program: §51.1-1140, as amended
- Line of Duty Act Program: §9.1-400.1, as amended

These requirements may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly.

The total rate information for each program was as follows:

	Required Rate Contribution (based on actuarial valuation as of June 30, 2015)	Allocation	Rate Expectation
Group Life Ins.	1.31% of covered employee compensation	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.	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.
Health Ins. Credit	1.18% of covered employee compensation for employees in the program	N/A	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.
VRS Disability Ins.	0.66% of covered employee compensation	N/A	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.
Line of Duty Act	\$567.37 per covered full-time-equivalent employee	N/A	This rate 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 each program by James Madison University for the years ended June 30, 2018 and June 30, 2017 are as follows:

Program:	June 30, 2018	June 30, 2017
Group Life Ins.	\$ 963,513	\$ 907,909
Health Ins. Credit	\$ 2,164,740	\$ 2,033,614
VRS Disability Ins.	\$ 597,171	\$ 562,916
Line of Duty Act	\$ 17,588	\$ 17,021

OPEB Liabilities/Assets, OPEB Expenses, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Each Program

At June 30, 2018, James Madison University reported the following liabilities (assets) for its proportionate share of each program's Net OPEB Liability (Asset). The Net OPEB Liability (Asset) was measured as of June 30, 2017 and the total OPEB liability (asset) used to calculate the Net OPEB Liability (Asset) was determined by an actuarial valuation as of that date.

Program:	Liability (Asset) at June 30, 2018
Group Life Ins.	\$ 14,370,000
Health Ins. Credit	\$ 24,753,000
VRS Disability Ins.	\$ (4,668,000)
Line of Duty Act	\$ 415,000
DHRM Pre-Medicare Retirees*	\$ 44,374,693

**At June 30, 2018, the University's reported DHRM liability is its proportionate share of the collective total Pre-Medicare Retiree Healthcare OPEB liability of \$1.3 billion.*

The University's proportion of each VRS Net OPEB Liability (Asset) was based on the University's actuarially determined employer contributions (pay-as-you-go, for LODA) to each program for the year ended June 30, 2017 relative to the total of the actuarially determined employer contributions (pay-as-you-go, for LODA) for all participating employers.

The University's proportion of the DHRM Pre-Medicare Retiree Healthcare OPEB liability was based on its healthcare premium contributions as a percentage of the total employer's healthcare premium contributions for all participating employers.

At June 30, 2017 and 2016, respectively, James Madison University's proportions were:

Program:	June 30, 2017	June 30, 2016
Group Life Ins.	0.95484%	0.94372%
Health Ins. Credit	2.71863%	2.68832%
VRS Disability Ins.	2.27373%	2.20477%
Line of Duty Act	0.15782%	0.16485%
DHRM Pre-Medicare Retirees	3.41632%	3.31564%

For the year ended June 30, 2018, James Madison University recognized OPEB expenses as shown in the following table. Since there was a change in proportionate share between measurement dates, a portion of each OPEB expense was related to deferred amounts from changes in proportion.

Program:	June 30, 2018
Group Life Ins.	\$ 194,000
Health Ins. Credit	\$ 2,196,000
VRS Disability Ins.	\$ 377,000
Line of Duty Act	\$ 34,000
DHRM Pre-Medicare Retirees	\$ 3,785,855
Total OPEB Expense:	\$ 6,586,855

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

Group Life Ins.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 319,000
Net difference between projected and actual earnings on OPEB program investments	\$ -	\$ 540,000
Change in assumptions	\$ -	\$ 740,000
Changes in proportion	\$ 161,000	\$ -
Employer contributions subsequent to the measurement date	\$ 963,513	\$ -
Total	<u>\$ 1,124,513</u>	<u>\$ 1,599,000</u>

Health Ins. Credit

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ -
Net difference between projected and actual earnings on OPEB program investments	\$ -	\$ 61,000
Change in assumptions	\$ -	\$ 279,000
Changes in proportion	\$ 233,000	\$ -
Employer contributions subsequent to the measurement date	\$ 2,164,740	\$ -
Total	<u>\$ 2,397,740</u>	<u>\$ 340,000</u>

VRS Disability Ins.		Deferred Outflows of Resources	Deferred Inflows of Resources
	Differences between expected and actual experience	\$ -	\$ -
	Net difference between projected and actual earnings on OPEB program investments	\$ -	\$ 366,000
	Change in assumptions	\$ -	\$ 350,000
	Changes in proportion	\$ -	\$ 99,000
	Employer contributions subsequent to the measurement date	\$ 597,171	\$ -
	Total	\$ 597,171	\$ 815,000

Line of Duty Act		Deferred Outflows of Resources	Deferred Inflows of Resources
	Differences between expected and actual experience	\$ -	\$ -
	Net difference between projected and actual earnings on OPEB program investments	\$ -	\$ 1,000
	Change in assumptions	\$ -	\$ 43,000
	Changes in proportion	\$ -	\$ 18,000
	Employer contributions subsequent to the measurement date	\$ 17,588	\$ -
	Total	\$ 17,588	\$ 62,000

DHRM Pre-Medicare Retirees

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 1,784,814.00
Net difference between projected and actual earnings on OPEB program investments	\$ -	\$ -
Change in assumptions	\$ -	\$ 9,407,476.00
Changes in proportion	\$ 1,331,499.00	\$ -
Employer contributions subsequent to the measurement date	1,176,770	-
Total	<u>\$ 2,508,269</u>	<u>\$ 11,192,290</u>

Amounts reported as deferred outflows of resources related to each OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the related Net OPEB Liability in the Fiscal Year ending June 30, 2019. Those amounts are as follows:

Program:	2018 Contrib. Deferred Outflows
Group Life Ins.	\$ 963,513
Health Ins. Credit	\$ 2,164,740
VRS Disability Ins.	\$ 597,171
Line of Duty Act	\$ 17,588
DHRM Pre-Medicare Retirees	\$ 1,176,770
Total:	\$ 4,919,782

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to each OPEB will be recognized in the related OPEB expense in future reporting periods as follows:

Year ended June 30	Group Life Ins.	Health Ins. Credit	VRS		DHRM Pre- Medicare Retirees
			Disability Ins.	Line of Duty Act	
FY 2019	\$ (300,000)	\$ (23,000)	\$ (154,000)	\$ (7,000)	\$ (1,815,983)
FY 2020	(300,000)	(24,000)	(154,000)	\$ (7,000)	(1,815,983)
FY 2021	(300,000)	(24,000)	(154,000)	\$ (7,000)	(1,815,983)
FY 2022	(300,000)	(24,000)	(154,000)	\$ (7,000)	(1,815,983)
FY 2023	(164,000)	(9,000)	(62,000)	(7,000)	(1,815,983)
Thereafter	(74,000)	(3,000)	(137,000)	(27,000)	(780,876)

Actuarial Assumptions – VRS:

The total OPEB liabilities (assets) were 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	3.5 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 employees (LODA)	3.5 percent – 4.75 percent
Locality – General employees	3.5 percent – 5.35 percent
Locality – Hazardous Duty employees	3.5 percent – 4.75 percent

Medical cost trend rates assumption (LODA only) –

Under age 65	7.75 percent – 5.00 percent
Ages 65 and older	5.75 percent – 5.00 percent

Investment rate of return

7.0 Percent* (LODA only: 3.56 Percent**),
net of OPEB 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.

** 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 (all VRS OPEB programs)

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 – Teachers (GLI only)

Pre-Retirement:

RP-2014 White Collar Employee Rates to age 80, White Collar Healthy Annuitant Rates at ages 81 and older projected with scale BB to 2020.

Post-Retirement:

RP-2014 White Collar Employee Rates to age 49, White Collar Health Annuitant Rates at ages 50 and older projected with scale BB to 2020; males 1% increase compounded from ages 70 to 90; females set back 3 years with 1.5% increase compounded from ages 65 to 70 and 2.0% increase compounded from ages 75 to 90.

Post-Disablement:

RP-2014 Disability Mortality Rates projected with Scale BB to 2020; 115% of rates for males and females.

The actuarial assumptions used in the June 30, 2016 valuation were based on the results of an actuarial experience study for the four-year 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

Mortality rates – SPORS Employees (all VRS OPEB programs)

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
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 85%

Mortality rates – VaLORS Employees (all VRS OPEB programs)

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%

Mortality rates – JRS Employees (GLI, HIC only)

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 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% compounding increase from ages 70 to 85.

Post-Disablement:

RP-2014 Disability Mortality Rates 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 four-year 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	Decreased rates at first retirement eligibility
Withdrawal Rates	No change
Disability Rates	Removed disability rates
Salary Scale	No change

Mortality rates – Largest Ten Locality Employers - General Employees (GLI only)

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.

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 3 years; females 1.0% increase compounded from ages 70 to 90.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% 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 retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 20%

Mortality rates – Largest and Non-Largest Ten Locality Employers With Public Safety Employees (LODA only)

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	Largest 10 employers: Lowered retirement rates at older ages Non-Largest 10 employers: Increased age 50 rates and lowered rates at older ages.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Largest 10 employers: Increased disability rates Non-Largest 10 employers: Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 70%

Mortality rates – Non-Largest Ten Locality Employers - General Employees (GLI only)

Pre-Retirement:

RP-2014 Employee Rates to age 80, Healthy Annuitant Rates to 81 and older projected with Scale BB to 2020; males 95% of rates; females 105% of rates.

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 3 years; females 1.0% increase compounded from ages 70 to 90.

Post-Disablement:

RP-2014 Disability Life Mortality Table projected with scale BB to 2020; males set forward 2 years, 110% of rates; females 125% 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 retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%

Mortality rates – Largest Ten Locality Employers – Hazardous Duty Employees (GLI only)

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 retirement rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Increased disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 70%

Mortality rates – Non-Largest Ten Locality Employers – Hazardous Duty Employees (GLI only)

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	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%

Actuarial Assumptions – DHRM:

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%.

VRS - Changes to the LODA Program Associated with HB 1345 (2016) and HB 2243 (2017)

The following changes were made to the LODA Program as a result of legislation in 2016 and 2017, but were specifically not considered in the June 30, 2016 actuarial valuation results which were rolled forward to the measurement date of June 30, 2017. There was no current actuarial experience on which to base the adjustments and the combined impact of the changes was not considered to be material to the final results. These changes will be factored into future actuarial valuations for the LODA Program.

- The discontinuance of spouse health care coverage, if a covered spouse divorces a disabled employee or a covered surviving spouse remarries.
- The potential for VRS's periodic review of the disability status of a disabled employee.
- For those beneficiaries who become eligible for health care benefits as the result of a disability occurring after June 30, 2017, the suspension of health care benefits in years when VRS certifies current income exceeds salary at the time of the disability, indexed for inflation.
- The extension of health care benefits for dependent children to age 26.
- The expansion of the definition of presumption of death or disability to include infectious diseases.

Net OPEB Liability (Asset)

The net OPEB liability (NOL) or asset (NOA) represents each program's total OPEB liability (asset) determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of June 30, 2017, NOL (NOA) amounts for each program (except DHRM) are as follows (amounts expressed in thousands):

	Group Life Ins.	Health Ins. Credit	VRS Disability Ins.	Line of Duty Act
Total OPEB Liability	\$ 2,942,426.00	\$ 990,028.00	\$ 237,013.00	\$ 266,252.00
Plan Fiduciary Net Position	1,437,586.00	79,516.00	442,334.00	3,461.00
Employer's Net OPEB Liability (Asset)	<u>\$ 1,504,840.00</u>	<u>\$ 910,512.00</u>	<u>\$ (205,321.00)</u>	<u>\$ 262,791.00</u>
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	48.86%	8.03%	186.63%	1.30%

Each total OPEB liability (asset) is calculated by the System's actuary, and each plan's fiduciary net position is reported in the System's financial statements. Each net OPEB liability (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. The DHRM Pre-Medicare Retiree's Program is not included in the analysis above, as it does not accumulate assets in a trust and therefore does not report a fiduciary net position.

Long-Term Expected Rate of Return

All VRS Programs Except LODA:

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 the 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%.

Line of Duty Act:

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, it is not able to use the VRS Pooled Investments 7.00% assumption. Instead, 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 index rate based on the Bond Buyer General Obligation 20-year Municipal Bond Index published monthly by the Board of Governors of the federal Reserve System as of the measurement date of June 30, 2017.

Discount Rate

All VRS Programs Except LODA:

The discount rate used to measure each OPEB liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that member/employer contributions will be made per the VRS guidance/statutes and 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 each 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, each OPEB's fiduciary net position was projected to be available to make all projected future benefit payments of eligible (and/or active/inactive) employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine each total OPEB liability.

Line of Duty Act:

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.

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

The following presents the employer's proportionate share of each VRS net OPEB liability using the discount rate of 7.00% (LODA: 3.56%), and the DHRM net OPEB liability at 3.58%, as well as what the employer's proportionate share of each net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%, 2.56%, 2.58%) or one percentage point higher (8.00%, 4.56%, 4.58%) than the current rate:

	1.00% Decrease ▼ (6.00%)	Current Discount Rate (7.00%)	1.00% Increase ▼ (8.00%)
Employer's proportionate share of the Group Life Insurance Program Net OPEB Liability	\$ 18,586,000	\$ 14,370,000	\$ 10,952,000
Employer's proportionate share of the Health Ins. Credit Program Net OPEB Liability	27,370,000	24,753,000	22,502,000
Employer's proportionate share of the VRS Disability Ins. Program Net OPEB Liability (Asset)	(4,443,000)	(4,668,000)	(5,058,000)

	1.00% Decrease ▼ (2.56%)	Current Discount Rate (3.56%)	1.00% Increase ▼ (4.56%)
Employer's proportionate share of the Line of Duty Act Program Net OPEB Liability	\$ 471,000	\$ 415,000	\$ 369,000

	1.00% Decrease ▼ (2.58%)	Current Discount Rate (3.58%)	1.00% Increase ▼ (4.58%)
Employer's proportionate share of the Pre-Medicare Retirees Net OPEB Liability	\$ 47,535,425	\$ 44,374,693	\$ 41,346,373

Sensitivity of the Covered Employer's Proportionate Share of the Net LODA and DHRM OPEB Liabilities 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:

	1.00% Decrease (6.75% decreasing to 4.00%)	Health Care Trend Rates (7.75% decreasing to 5.00%)	1.00% Increase (8.75% decreasing to 6.00%)
Covered employer's proportionate share of the total LODA			
Net OPEB Liability	\$ 352,000	\$ 415,000	\$ 493,000

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 4.0%) or one percentage point higher (9.62% decreasing to 6.0%) than the current rate:

	1.00% Decrease (7.62% decreasing to 4.00%)	Health Care Trend Rates (8.62% decreasing to 5.00%)	1.00% Increase (9.62% decreasing to 6.00%)
Employer's proportionate share of the total DHRM			
Net OPEB Liability	\$ 39,482,224	\$ 44,374,693	\$ 50,110,149

OPEB Programs Fiduciary Net Position - VRS

Detailed information about each VRS 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 OPEB Plans

Included in Accounts Payable and Accrued Expenses at June 30, 2018 are payables related to the outstanding amount of contributions to the VRS OPEBs as follows: Group Life Insurance \$115,820; Health Insurance Credit \$258,930; Sickness and Disability Plan \$56,145. The Line of Duty Act does not have a related payable, as it is a one-time annual payment. Additionally, a payable related to the DHRM Pre-Medicare Retirees Plan cannot be reported separately from the remainder of the health insurance payable, as the applicable individual rate for this OPEB is not readily determinable.

13. AUXILIARY ACTIVITIES

Auxiliary operating revenues and expenses consisted of the following for the year ended June 30, 2018. The University used auxiliary revenues and cash reserves to pay debt service and capitalized improvements of \$29,435,299 and \$35,347,878. Those amounts are not included in the auxiliary operating expenses below.

Revenues:

Room contracts, net of scholarship allowances of \$3,065,318	\$ 31,708,263
Food service contracts, net of scholarship allowances of \$4,016,117	41,777,814
Comprehensive fee, net of scholarship allowances of \$7,634,832	79,393,706
Food service commissions	15,819,422
Parking fees and fines	4,284,410
Other student fees and sales and services	20,469,482
Total auxiliary enterprises revenues	<u>\$ 193,453,097</u>

Expenses:

Residential facilities	\$ 22,169,396
Dining operations	51,903,327
Athletics	33,656,573
Parking services	3,160,652
Health services	5,140,055
Student unions	5,786,336
Student recreation	7,781,066
Other auxiliary activities	13,394,306
Total auxiliary activities expenses	<u>\$ 142,991,711</u>

14. EXPENSES BY NATURAL CLASSIFICATIONS

The following table shows a classification of expenses for the year ended June 30, 2018, both by function as listed in the Statement of Revenues, Expenses, and Changes in Net Position and by natural classification, which is the basis for amounts shown in the Statement of Cash Flows.

	Compensation and Benefits	Services, Supplies and Utilities	Scholarships and Fellowships	Non-capitalized equipment, property and plant improvements	Depreciation	Total
Instruction	\$ 155,121,553	\$ 13,358,046	\$ -	\$ 4,752,953	\$ -	\$ 173,232,552
Research	1,191,743	835,007	-	76,312	-	2,103,062
Public service	10,853,004	4,485,796	-	269,690	-	15,608,490
Academic support	32,462,094	5,099,153	-	10,616,478	-	48,177,725
Student services	15,774,760	3,293,509	-	458,101	-	19,526,370
Institutional support	24,397,546	9,209,377	-	1,791,630	-	35,398,553
Operation and maintenance- plant	19,510,668	16,253,232	-	9,449,322	-	45,213,222
Depreciation	-	-	-	-	43,078,368	43,078,368
Student aid	-	-	10,480,413	-	-	10,480,413
Auxiliary activities	45,762,421	94,991,506	-	2,237,784	-	142,991,711
Total	<u>\$ 305,073,789</u>	<u>\$ 147,525,626</u>	<u>\$ 10,480,413</u>	<u>\$ 29,652,270</u>	<u>\$ 43,078,368</u>	<u>\$ 535,810,466</u>

15. STATE APPROPRIATIONS

The University receives state appropriations from the General Fund of the Commonwealth. The Appropriation Act specifies that such unexpended appropriations that remain on the last day of the current year, ending June 30, 2018, shall be re-appropriated for expenditure in the first month of the next year, beginning on July 1, 2018, except as may be specifically provided otherwise by the General Assembly. The Governor may, at his discretion, unallot funds from the re-appropriated balances that relate to unexpended appropriations.

During the year ending June 30, 2018 the following adjustments were made to the University's original appropriations:

Original legislative appropriation:	
Educational and general programs	\$ 79,795,009
Student financial assistance	8,736,385
Supplemental adjustments:	
Central Fund appropriation transfers:	
Cost of salary increases	2,200,437
Health insurance premium	2,182,123
Changes in contribution rates for retirement and benefits	(88,901)
Other financial aid transfers	392,810
Other	63,401
Reversion to the General Fund of the Commonwealth	(6,108)
Adjusted appropriation	<u>\$ 93,275,156</u>

16. CAPITAL APPROPRIATIONS AND CONTRIBUTIONS

Following are the capital appropriations and contributions recognized by the University from the Commonwealth for the year ending June 30, 2018.

Treasury reimbursement programs:	
VCBA 21st Century	\$ 5,024,456
VCBA Equipment Trust Fund	2,309,646
Total capital appropriations and contributions	<u>\$ 7,334,102</u>

17. COMMITMENTS

At June 30, 2018, the University was a party to construction and other contracts totaling approximately \$370,754,089 of which \$111,085,044 has been incurred.

Under a contract between the Board of Visitors of the University and the City of Harrisonburg dated April 12, 1995, the University is committed to city services for steam and chilled water purchases and waste disposal. The city will bill the University for annual debt service for a new resource recovery facility and cost of delivered quantities of steam and chilled water. The contract will expire April 12, 2036. During the year ended June 30, 2018, such purchases totaled \$4,813.

In July 2015, the University entered into a lease agreement with the City of Harrisonburg, which suspends the University's commitment to purchase steam, chilled water, and waste disposal services from the City as discussed above. During the lease term, the University assumes responsibility for operation and maintenance of the Resource Recovery Facility (RRF), and the City commits to decommissioning and closing Waste-to-Energy operations. At the conclusion of the lease term, the University will purchase the facility and lease a portion back to the city for use as a transfer facility. During the 2015 legislative session, the general assembly appropriated \$2.8 million in general funds and \$2.2 in auxiliary reserve funds for the University's purchase of the facility. In July 2016, RRF operations fully transitioned from the city to the University, and in May 2017 the University acquired the facility for \$4.3 million.

In December 2014, the University entered into a Memorandum of Understanding with the City of Harrisonburg, the Industrial Development Authority of the City of Harrisonburg, dpM Partners, LLC (the developer) and the James Madison University Foundation, to address the development, ownership, financing and operation of a 230-room hotel and conference center. As a part of this agreement, the University is leasing land located between Martin Luther King, Jr. Way and East Grace Street to the developer for an annual nominal rent payment for 50 years. The hotel and conference center opened in May 2018. The developer owns and operates the hotel and conference center. 300 of 1,021 spaces in the nearby Mason Street Parking Deck are available for the hotel.

The University is committed under various operating leases for equipment and space. In general, the equipment leases are for two-year term and the space leases are for three- to four-year terms with appropriate renewal options for each type of lease. In most cases, the University expects that in the normal course of business, these leases will be replaced by similar leases. Rental expense was approximately \$5,456,694 for the year ended June 30, 2018.

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

Year Ending June 30,	Operating Lease Obligation
2019	3,909,036
2020	1,530,469
2021	954,096
2022	811,767
2023	346,961
Total	<u>\$ 7,552,329</u>

18. GRANTS AND CONTRACTS CONTINGENCIES

The University has received federal grants for specific purposes that are subject to review and audit by the grantor agencies. Claims against these resources are generally conditional upon compliance with the terms and conditions of grant agreements and applicable federal regulations, including the expenditure of resources for allowable purposes. Any disallowance resulting from a federal audit may become a liability of the University.

In addition, the University is required to comply with the various federal regulations issued by the Office of Management and Budget. Failure to comply with certain system requirements of these regulations may result in questions concerning the allowance of related direct and indirect charges pursuant to such agreements. As of June 30, 2018, the University estimates that no material liabilities will result from such audits or questions.

19. RISK MANAGEMENT AND EMPLOYEE HEALTH CARE PLANS

The University is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; non-performance of duty; injuries to employees; and natural disasters. The University participates in insurance plans maintained by the Commonwealth. 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, and air and watercraft plans. The University pays premiums to each of these Departments for its insurance coverage. Information relating to the Commonwealth's insurance plans is available at the statewide level in the CAFR.

20. FEDERAL DIRECT LENDING PROGRAM

The University participates in the Federal Direct Lending Program. Under this program, the University receives funds from the U.S. Department of Education for Stafford and Plus Parent Loan Programs and disburses these funds to eligible students. The funds can be applied to outstanding student account balances or refunded directly to the student.

These loan programs are treated as student payments with the University acting as a fiduciary agent for the student. Therefore, the receipt of the funds from the federal government is not reflected on the Statement of Revenues, Expenses and Changes in Net Position. The activity is included in the noncapital financing section of the Statement of Cash Flows. For the fiscal year ended June 30, 2018, cash provided and used by the program totaled \$102,274,364.

21. SUBSEQUENT EVENTS

In April 2018, the University's Board of Visitors approved the sale of property located on S. Main St. in Harrisonburg to the City of Harrisonburg for a purchase price of \$5 million. In July 2018, the Harrisonburg City Council also approved the purchase, to take place in August 2018. The sale officially closed on August 22, 2018.

Prior to June 30, the University submitted bond applications to the Virginia Department of Treasury to participate in the 2018A 9(c) General Obligation Bond Series. The bonds sold in August 2018, and the University's portion included principal amounts of \$16,785,000 and \$24,515,000 at interest rates between 3.00 – 5.00%. The University will use the proceeds to complete construction of the West Campus Dining Hall and for replacement of Phillips Dining Hall. The final payments on these bonds are projected to be in June of 2038.

In August 2018 the University applied for bond financing with the Virginia College Building Authority (VCBA) to participate in the Educational Facilities Revenue Bonds Series 2018A, issued by the VCBA under its Pooled Bond Program. The requested principal amounts of these bonds are \$73,000,000 to construct a new Convocation Center, \$15,000,000 to construct a new East Campus parking deck, and \$7,000,000 to construct a new West Campus parking deck. The VCBA bond sale is scheduled to occur in November 2018.

REQUIRED SUPPLEMENTAL INFORMATION

JAMES MADISON UNIVERSITY
SCHEDULE OF EMPLOYER'S SHARE OF THE NET PENSION LIABILITY

VRS STATE EMPLOYEE RETIREMENT PLAN

	2018	2017	2016	2015
Employer's Proportion of the Net Pension Liability (Asset)	2.55125%	2.48665%	2.38118%	2.23926%
Employer's Proportionate Share of the Net Pension Liability (Asset)	\$ 148,674,000	\$ 163,889,000	\$ 145,789,000	\$ 125,362,000
Employer's Covered Payroll	\$ 100,984,332	\$ 96,387,707	\$ 90,050,760	\$ 85,089,890
Employer's Proportionate Share of the Net Pension Liability (Asset) as a Percentage of its Covered Payroll	147.22%	170.03%	161.90%	147.33%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	75.33%	71.29%	72.81%	74.28%

VALORS RETIREMENT PLAN

	2018	2017	2016	2015
Employer's Proportion of the Net Pension Liability (Asset)	0.42201%	0.39940%	0.41071%	0.38856%
Employer's Proportionate Share of the Net Pension Liability (Asset)	\$ 2,769,000	\$ 3,092,000	\$ 2,919,000	\$ 2,620,000
Employer's Covered Payroll	\$ 1,408,518	\$ 1,378,784	\$ 1,377,116	\$ 1,333,379
Employer's Proportionate Share of the Net Pension Liability (Asset) as a Percentage of its Covered Payroll	196.59%	224.26%	211.96%	196.49%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	67.22%	61.01%	62.64%	63.05%

Schedule is intended to show information for 10 years. Since 2018 is the fourth year for this presentation, only three additional years of data are available. However, additional years will be included as they become available.

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

JAMES MADISON UNIVERSITY
SCHEDULE OF EMPLOYER CONTRIBUTIONS

VRS STATE EMPLOYEE RETIREMENT PLAN

	2018	2017	2016	2015
Contractually required contribution	\$ 14,037,842	\$ 13,466,814	\$ 13,331,290	\$ 10,894,300
Contributions in relation to the contractually required contribution	14,037,842	13,466,814	13,331,290	10,894,300
Contribution deficiency (excess)	-	-	-	-
Employer's covered payroll	106,622,132	100,984,332	96,387,707	90,050,760
Contributions as a percentage of covered payroll	13.17%	13.34%	13.83%	12.10%

VALORS RETIREMENT PLAN

	2018	2017	2016	2015
Contractually required contribution	\$ 319,712	\$ 296,567	\$ 253,832	\$ 243,989
Contributions in relation to the contractually required contribution	319,712	296,567	253,832	243,989
Contribution deficiency (excess)	-	-	-	-
Employer's covered payroll	1,511,584	1,408,518	1,378,784	1,377,116
Contributions as a percentage of covered payroll	21.15%	21.06%	18.41%	17.72%

Schedule is intended to show information for 10 years. Since 2018 is the fourth year for this presentation, only three additional years of data are available. However, additional years will be included as they become available.

JAMES MADISON UNIVERSITY
SCHEDULE OF EMPLOYER'S SHARE OF VRS AND DHRM POST-EMPLOYMENT BENEFIT PLANS OTHER THAN PENSIONS

OTHER POST EMPLOYMENT BENEFITS - VRS GROUP LIFE INSURANCE

	<u>2018</u>
Employer's Proportion of the Net OPEB Liability (Asset)	0.95484%
Employer's Proportionate Share of the Net OPEB Liability (Asset)	\$ 14,370,000
Employer's Covered Payroll	\$ 170,718,914
Employer's Proportionate Share of the Net OPEB Liability (Asset) as a Percentage of its Covered Payroll	8.42%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	48.86%

OTHER POST EMPLOYMENT BENEFITS - VRS HEALTH INSURANCE CREDIT PLAN

	<u>2018</u>
Employer's Proportion of the Net OPEB Liability (Asset)	2.71863%
Employer's Proportionate Share of the Net OPEB Liability (Asset)	\$ 24,753,000
Employer's Covered Payroll	\$ 170,718,914
Employer's Proportionate Share of the Net OPEB Liability (Asset) as a Percentage of its Covered Payroll	14.50%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	8.03%

OTHER POST EMPLOYMENT BENEFITS - VRS SICKNESS AND DISABILITY PLAN

	<u>2018</u>
Employer's Proportion of the Net OPEB Liability (Asset)	2.27373%
Employer's Proportionate Share of the Net OPEB Liability (Asset)	\$ (4,668,000)
Employer's Covered Payroll	\$ 82,713,915

JAMES MADISON UNIVERSITY
SCHEDULE OF EMPLOYER'S SHARE OF VRS AND DHRM POST-EMPLOYMENT BENEFIT PLANS OTHER THAN PENSIONS

Employer's Proportionate Share of the Net OPEB Liability (Asset) as a Percentage of its Covered Payroll	-5.64%
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Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	186.63%
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OTHER POST EMPLOYMENT BENEFITS - VRS LINE OF DUTY ACT

	2018
Employer's Proportion of the Net OPEB Liability (Asset)	0.15782%
Employer's Proportionate Share of the Net OPEB Liability (Asset)	\$ 415,000
Employer's Covered-Employee Payroll	\$ 1,600,113
Employer's Proportionate Share of the Net OPEB Liability (Asset) as a Percentage of its Covered-Employee Payroll	25.94%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	1.30%

OTHER POST EMPLOYMENT BENEFITS - DHRM PRE-MEDICARE RETIREES PROGRAM

	2018
Employer's Proportion of the Collective Total OPEB Liability (Asset)	3.41632%
Employer's Proportionate Share of the Collective Total OPEB Liability (Asset)	\$ 44,374,693
Employer's Covered-Employee Payroll	\$ 161,869,196
Employer's Proportionate Share of the Collective Total OPEB Liability (Asset) as a Percentage of its Covered Payroll	27.41%

Schedule is intended to show information for 10 years. Since 2018 is the first year for this presentation, no additional years of data are available. However, additional years will be included as they become available.

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

JAMES MADISON UNIVERSITY
SCHEDULE OF EMPLOYER CONTRIBUTIONS - OPEBS

VRS OTHER POST EMPLOYMENT BENEFITS:

<i>GROUP LIFE INSURANCE</i>	2018
Contractually required contribution	\$ 963,513
Contributions in relation to the contractually required contribution	963,513
Contribution deficiency (excess)	-
Employer's covered payroll	179,323,377
Contributions as a percentage of covered payroll	0.54%

<i>HEALTH INSURANCE CREDIT</i>	2018
Contractually required contribution	\$ 2,164,740
Contributions in relation to the contractually required contribution	2,164,740
Contribution deficiency (excess)	-
Employer's covered payroll	179,323,377
Contributions as a percentage of covered payroll	1.21%

<i>VRS SICKNESS AND DISABILITY PROGRAM</i>	2018
Contractually required contribution	\$ 597,171
Contributions in relation to the contractually required contribution	597,171
Contribution deficiency (excess)	-
Employer's covered payroll	88,019,605
Contributions as a percentage of covered payroll	0.68%

<i>LINE OF DUTY ACT</i>	2018
Contractually required contribution	\$ 17,588
Contributions in relation to the contractually required contribution	17,588
Contribution deficiency (excess)	-
Employer's covered-employee payroll	1,538,722
Contributions as a percentage of covered-employee payroll	1.14%

Schedule is intended to show information for 10 years. Since 2018 is the first year for this presentation, only one year of data is available. However, additional years will be included as they become available.

JAMES MADISON UNIVERSITY

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

FOR THE YEAR ENDED JUNE 30, 2018

1. PENSION:

CHANGES OF BENEFIT TERMS

There have been no significant 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 was a 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 VRS - State Employee Retirement Plan and VaLORS Plan effective June 30, 2016 based on the most recent experience study of the System for the four-year period ending June 30, 2016:

VRS SERP Changes

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
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	Increase rate from 14% to 25%

VRS VaLORS Changes

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
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	Decrease rate from 50% to 35%

2. OTHER POST-EMPLOYMENT BENEFITS (OPEBS)

VIRGINIA RETIREMENT SYSTEM

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

General State Employees (all VRS OPEB programs)

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%

Teachers (GLI only)

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

SPORS Employees (GLI, HIC, VSDP only)

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
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 85%

VaLORS Employees (all VRS OPEB programs)

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%

JRS Employees (GLI and HIC only)

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Decreased rates at first retirement eligibility
Withdrawal Rates	No change
Disability Rates	Removed disability rates
Salary Scale	No change

Largest Ten Locality Employers - General Employees (GLI only)

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 20%

Largest and Non-Largest Ten Locality Employers With Public Safety Employees (LODA only)

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Largest 10 employers: Lowered retirement rates at older ages Non-Largest 10 employers: Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Largest 10 employers: Increased disability rates Non-Largest 10 employers: Adjusted rates to better match experience
Salary Scale	No change

Line of Duty Disability	Largest 10 employers: Increased rate from 60% to 70% Non-Largest 10 employers: Decreased rate from 60% to 45%
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Non-Largest Ten Locality Employers - General Employees (GLI only)

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages and extended final retirement age from 70 to 75.
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Lowered disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 14 to 15%

Largest Ten Locality Employers – Hazardous Duty Employees (GLI only)

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Lowered retirement rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Increased disability rates
Salary Scale	No change
Line of Duty Disability	Increased rate from 60% to 70%

Non-Largest Ten Locality Employers – Hazardous Duty Employees (GLI only)

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Updated to a more current mortality table – RP-2014 projected to 2020
Retirement Rates	Increased age 50 rates and lowered rates at older ages
Withdrawal Rates	Adjusted termination rates to better fit experience at each age and service year
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Decreased rate from 60% to 45%

VIRGINIA DEPARTMENT OF HUMAN RESOURCE MANAGEMENT (DHRM)

There are no assets accumulated in a trust to pay related benefits.

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

Changes of assumptions – The following 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 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%.

INDEPENDENT AUDITOR'S REPORT ON FINANCIAL STATEMENTS



Martha S. Mavredes, CPA
Auditor of Public Accounts

Commonwealth of Virginia

Auditor of Public Accounts

P.O. Box 1295
Richmond, Virginia 23218

April 19, 2019

The Honorable Ralph S. Northam
Governor of Virginia

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

Board of Visitors
James Madison University

INDEPENDENT AUDITOR'S REPORT

Report on Financial Statements

We have audited the accompanying financial statements of the business-type activities and discretely presented component unit of James Madison 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 discretely presented component unit of the University, which is discussed in Note 1.A. 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 unit 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 unit 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 discretely presented component unit 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 Notes 1.B. and 1.W. of the accompanying financial statements, the University implemented Governmental Accounting Standards Board (GASB) Statement No. 75, related to accounting and financial reporting for post-employment benefits other than pensions. Our opinion is unmodified with respect to this matter.

Other Matters

Prior-Year Summarized Comparative Information

We have previously audited the University's fiscal year 2017 financial statements, and we expressed an unmodified audit opinion on the respective financial statements of the University in our report dated April 19, 2018. In our opinion, while the summarized comparative information presented herein as of and for the year ended June 30, 2017, is consistent, in all material respects, with the audited financial statements from which it has been derived, it does not include the necessary adjustments for the 2017 financial statements to be comparative with the 2018 financial statements as described in Note 1.V.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the following be presented to supplement the basic financial statements: Management's Discussion and Analysis on pages 1 through 11; the Schedule of Employer's Share of Net Pension Liability, the Schedule of Employer Contributions, and the Notes to the Required Supplementary Information on pages 88, 89, and 93; the Schedule of Employer's Share of Net OPEB Liability, the Schedule of Employer Contributions, and the Notes to the Required Supplementary Information for the Health Insurance Credit, Group Life Insurance, Disability Insurance and Line of Duty programs on pages 90 through 92 and 94 through 97; the Schedule of Employer's Share of Total OPEB Liability and the Notes to the Required Supplementary Information for the Pre-Medicare Retiree Healthcare program on pages 90 through 91 and 96 through 97. 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 April 19, 2019, on our consideration of James Madison 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.

A handwritten signature in black ink, reading "Nathan S. Mansueti". The signature is written in a cursive, flowing style.

AUDITOR OF PUBLIC ACCOUNTS

AVC/vks

JAMES MADISON UNIVERSITY

BOARD OF VISITORS
As of June 30, 2018

Mrs. Vanessa Evans-Grevious, Rector

Warren Coleman
Vice Rector

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William Bolling	Lara Major
Jeffrey Grass	Edward Rice
Matthew Gray-Keeling	John Rothenberger
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