VIRGINIA TECH

ANNUAL FINANCIAL REPORT

2019-2020

Contents

Financial Highlights

For the years ended June 30, 2016—2020 *(all dollars are in millions; square feet in thousands)*

	2015-16	2016-17	2017-18	2018-19	2019-20
Revenues, Expenses, and Changes in Net Position					
Operating revenues	$ 1,020.6	$ 1,031.5	$ 1,099.9	$ 1,160.4	$ 1,188.8
Operating expenses	1,315.4	1,364.7	1,423.4	1,467.9	1,549.8
Operating loss (1)	(294.8)	(333.2)	(323.5)	(307.5)	(361.0)
Non-operating revenues and expenses (1)	318.0	355.2	363.5	360.0	382.4
Other revenues, expenses, gains or losses	98.4	42.0	51.8	78.0	101.1
Net increase in net position	$ 121.6	$ 64.0	$ 91.8	$ 130.5	$ 122.5
University Net Position					
Net investment in capital assets	$ 1,163.8	$ 1,201.3	$ 1,273.2	$ 1,326.1	$ 1,437.6
Restricted	$ 209.8	$ 224.5	$ 212.5	$ 214.9	$ 213.5
Unrestricted (2)	$ (35.3)	$ (23.5)	$ (226.4)	$ (150.7)	$ (135.6)
Assets and Facilities					
Total university assets	$ 2,503.3	$ 2,528.4	$ 2,632.9	$ 2,757.2	$ 2,889.4
Capital assets, net of accumulated depreciation	$ 1,666.9	$ 1,680.5	$ 1,731.9	$ 1,786.0	$ 1,936.1
Facilities—owned gross square feet	11,394	11,374	11,669	11,735	11,855
Facilities—leased square feet	1,922	1,993	2,067	2,204	2,273
Sponsored Programs					
Number of awards received	2,291	2,423	2,533	2,364	2,391
Value of awards received	$ 278.1	$ 304.3	$ 336.8	$ 323.7	$ 367.7
Research expenditures reported to NSF (3)	$ 521.8	$ 522.4	$ 531.6	$ 542.0	N/A
Virginia Tech Foundation					
Gifts and bequests received	$ 93.2	$ 145.1	$ 130.4	$ 137.0	$ 163.5
Expended in support of the university	$ 184.9	$ 164.6	$ 179.6	$ 170.0	$ 180.7
Total assets and managed funds	$ 1,510.6	$ 1,726.4	$ 1,891.0	$ 2,107.1	$ 2,266.0
Endowments (at market value)					
Owned by Virginia Tech Foundation (VTF)	$ 705.6	$ 795.7	$ 849.9	$ 970.1	$ 932.4
Owned by Virginia Tech	130.2	191.9	287.0	378.4	397.0
Managed by VTF under agency agreements	7.5	8.6	9.5	9.5	8.5
Total endowments supporting the university	$ 843.3	$ 996.2	$ 1,146.4	$ 1,358.0	$ 1,337.9
Student Financial Aid					
Number of students receiving selected types of financial aid					
Loans	12,282	12,430	12,947	13,075	13,267
Grants, scholarships, and waivers	18,409	18,746	19,493	19,484	20,548
Employment opportunities	10,934	11,201	11,193	12,717	12,430
Total amounts by major category					
Loans	$ 165.9	$ 171.4	$ 181.3	$ 191.9	$ 200.2
Grants, scholarships, and waivers	194.8	203.6	215.6	227.7	243.5
Employment opportunities	85.5	87.2	89.5	92.3	94.7
Total financial aid	$ 446.2	$ 462.2	$ 486.4	$ 511.9	$ 538.4

(1) The university will always be expected to show an operating loss since significant recurring revenues are shown as non-operating. Major revenue sources reported as non-operating include state appropriations, gifts, and investment income. These revenue sources are used for general operations in support of the learning, discovery, and engagement missions of the university.

(2) Unrestricted Net Position is negative due to the implementation of GASB 68 in 2014-2015 and GASB 75 in 2017-2018.

(3) Total research expenditures reported to the National Science Foundation for the current year were not available at publication date.

University Highlights

For the years ended June 30, 2014—2020

	2013-14	2014-15	2015-16	2016-17	2017-18[1]	2018-19[2]	2019-20
Student admissions							
Total applications received (including transfers)							
Undergraduate	21,738	23,504	25,095	27,890	30,299	35,002	34,769
Graduate	9,622	9,474	8,916	8,635	9,250	7,523	7,376
Offers, as a percentage of applications							
Undergraduate	69.6 %	70.2%	70.9%	68.7%	68.1%	63.6%	69.2%
Graduate	31.1%	29.4%	33.1%	31.8%	32.5%	43.5%	48.4%
New enrollment, as a percentage of offers							
Undergraduate	42.0%	39.1%	41.0%	36.2%	37.8%	32.9%	36.4%
Graduate	60.9%	60.3%	67.3%	68.9%	58.8%	49.3%	48.2%
Total student enrollment (head count)							
Enrollment by classification							
Undergraduate	24,034	24,247	25,384	25,791	27,193	27,811	29,300
Graduate and first professional	7,171	6,977	7,279	7,379	7,247	7,039	7,083
Enrollment by campus							
Blacksburg campus	29,071	29,173	30,598	31,090	32,304	32,704	34,131
National Capital Region	925	884	861	842	799	768	980
Other off-campus locations	1,209	1,167	1,204	1,238	1,337	1,378	1,272
Enrollment by residence							
Virginia	21,319	21,145	21,583	22,093	22,715	22,925	23,762
Other states	7,038	7,066	7,521	7,370	7,875	8,079	8,589
Other countries	2,848	3,013	3,559	3,707	3,850	3,846	4,032
Degrees Conferred							
Undergraduate (first majors)	5,722	5,890	5,940	5,952	6,111	6,835	6,832
Graduate and first professional	2,163	2,021	1,973	2,149	2,120	2,130	2,159
Faculty and staff[3]							
Full-time instructional faculty	1,427	1,443	1,479	1,520	1,554	1,948	2,050
Other faculty and research associates	2,263	2,418	2,505	2,554	2,711	2,783	2,914
P14 faculty/part-time faculty	238	218	236	220	230	231	228
Support staff	3,519	3,467	3,425	3,404	3,390	3,433	3,471
Total faculty and support staff	7,447	7,546	7,645	7,698	7,885	8,395	8,663
Percent of instructional faculty tenured	62%	61%	60%	57%	55%	54%	51%

(1) 2017 Admissions data updated to reflect changes in methodology.

(2) Virginia Tech Carilion School of Medicine included, beginning with 2018-19.

(3) 2018-19 Faculty and staff definitions updated to align with Integrated Postsecondary Education Data System (IPEDS) guidelines.

Message from the Senior Vice President and Chief Business Officer

Strong momentum and long-term planning allowed Virginia Tech to succeed in fiscal year 2020 despite unprecedented challenges. The university began the fiscal year welcoming a record cohort of 7,604 new freshmen, implementing a new strategic plan, "The Virginia Tech Difference - Advancing Beyond Boundaries", and beginning an administrative transformation and excellence initiative to deliver cost efficient and effective business services. Our momentum continued in the last quarter of the fiscal year, as the university quickly transitioned the spring semester to online instruction due to the COVID-19 global pandemic. These are a few examples of how Virginia Tech's strategic planning, financial stability, and astute financial management enable the university to deliver on its tripartite mission of discovery, learning, and engagement – no matter how trying or unusual the circumstances we face.

Dwayne L. Pinkney

Expanding on Beyond Boundaries, the implementation of the new strategic plan advances the university's vision for growing as a comprehensive global land-grant university and affirming and advancing the institution's overarching strategic priorities: advancing regional, national, and global impact; elevating the Ut Prosim (That I May Serve) difference; being a destination for talent; and ensuring institutional excellence. Below are a few successes from fiscal year 2020 that support these strategic priorities.

Successfully responding to the pandemic's financial and instructional impacts demonstrates how the university's strategic priorities align to address the challenges and opportunities evolving in higher education and the world. As the spring semester moved to online learning, the university implemented cost saving measures including a moratorium on all university-sponsored domestic and international travel, exercising restraint in making hiring and compensation actions, and curtailing discretionary spending to conserve resources for future operations. These actions resulted in savings that, when coupled with federal awards earmarked to navigate the impact of COVID-19, allowed the university to mitigate the loss of revenues from dorm and dining operations and increased costs for crucial health and safety precautions. Virginia Tech was awarded $19.4 million (with $17.8 million received in fiscal year 2020) from the federal Coronavirus Aid, Relief, & Economic Security (CARES) Act for Higher Education Emergency Relief Fund. The funds received were spent equally to provide students with emergency hardship support related to the disruption of on-campus operations ($8.9 million) and to cover institutional costs associated with refunding student housing and dining charges in the Spring 2020 semester ($8.9 million). The university also received $3.5 million in Coronavirus Relief Funding as federal pass-through funds from the Commonwealth of Virginia. These funds were primarily used to reimburse computer and peripheral equipment used in distance-learning and teleworking, personal protective equipment, and preparing the university facilities for social distancing requirements.

As the university transitioned to "essential operations" status, significantly reducing on-site operations in March, the COVID-19 Incident Management Team (IMT) was formed to make operational strategy recommendations to the university leadership team to protect public health on campus, with a goal of resuming in-person instruction and experiential learning opportunities for the fall semester. Key areas of focus developed by the IMT include enhancing cleaning protocols, designing surveillance systems to detect the emergence and spread of infection, creating required training courses to promote physical distancing and recommended hygiene, and developing and implementing communication strategies. Another significant accomplishment in combating the pandemic was made by the Fralin Biomedical Research Institute which created, designed, and implemented an in-house COVID-19 testing lab to perform testing for the Virginia Department of Health in service to the commonwealth and for university students, faculty, and staff. Personal protective equipment and related public health supplies were centrally procured and made available to departments and workplans were developed allowing the university to continue operations with the majority of employees working remotely. The executive leadership team's commitment to fund employees through the end of the spring semester provided economic stability in the region and preserved the workforce for the future. All of these actions, and many others, allowed the university to enter the summer semester with a full slate of online course offerings to meet the needs of a larger than normal student enrollment.

During the year, Virginia Tech began implementing its Administrative and Operations Transformation Initiative aimed at developing our capacity to deliver responsive, nimble, and cost-efficient administrative and business services. On the path to developing a procurement center of excellence, the Procurement team received the 2019 Governor's SWaM Innovator Award for their creation and implementation of a searchable online directory to identify small, women-owned, and minority-owned (SWaM) businesses. This tool allows departments to identify potential SWaM businesses and will help Virginia Tech achieve its related Advancing Beyond Boundaries strategic milestones. The university's Division of Human Resources launched a new recruiting and onboarding system offering a more user-friendly experience for applicants and hires. The university also began a journey to explore robotic process automation (RPA) to streamline manual processes previously not suitable for automation. RPA combined with processes using optical character recognition will allow for the continued shift of employees to higher value activities and the creation of greater efficiencies, with adoption set to increase across the university in fiscal years to come. Collectively, the university's drive for a nimbler, more responsive, and efficient administrative enterprise is already delivering success for Virginia Tech, and continued momentum will enable us to advance strategic university initiatives, better serve and engage the university community, and demonstrate overall institutional excellence.

We continued our regional impact and expanded our footprint across the Commonwealth of Virginia, creating additional opportunities for learning, research, and discovery. Virginia Tech's relationship with Carilion Clinic continues to create exciting synergies in service to the Roanoke region and beyond. A new research facility at the Fralin Biomedical Research Institute in Roanoke is scheduled to open in fall 2020 increasing capacity to house up to 25 new research teams specializing in cardiovascular research, obesity and metabolism, body-device interfaces, cancer, and more. This additional capacity further enhances the region's status as a burgeoning hub for interdisciplinary and translational bioscience research.

Exciting progress also continues on the development of the Virginia Tech Innovation Campus – a primary factor in Amazon's selection of Virginia as home to its second headquarters. Important milestones during fiscal year 2020 include the enrollment of the first cohort of 79 students in Master's programs including computer science and computer engineering fields of study. Construction on the campus's inaugural building is expected to begin in 2021 and open for students and faculty in the fall of 2024. Through the Tech Talent Investment Program, the university committed to help double the number of graduates in computer science and related fields, and the state promises to support the university's plan with up to $545 million in funding over the next 20 years. Additionally, the Commonwealth Cyber Initiative represents a major opportunity to position Virginia as a leader in the global cyber economy.

The university's strong financial position offers the flexibility and agility to pursue the university's strategic priorities. In fiscal year 2020, the university received $303.8 million in appropriations from the commonwealth for its academic division, cooperative extension and agricultural experiment station division, student financial aid assistance, research, and the Corps of Cadets program. The commonwealth supported 17 percent of the university's operations through appropriations.

At a time when national and state trends signal slight declines in university enrollments, we are proud to report the historic levels of student demand for the high-quality, dynamic learning experience Virginia Tech offers. In each of the last three enrollment cycles, the university has received over 30,000 applications. High demand has translated into consistent enrollment growth, with the university enrolling a record-high 36,383 students in fall 2019, confirming success in being a destination for talent.

In addition to expanding access to a Virginia Tech education, the university also took meaningful action toward ensuring the affordability of education. For fall 2019, the university implemented a tuition freeze for resident undergraduate students as part of the Virginia General Assembly's Resident Undergraduate Affordability Initiative. The additional $6.3 million in general fund support in 2019-20 through the program made the tuition freeze possible. This election to freeze tuition and participate in the Affordability Initiative demonstrates our commitment to students and to making a Virginia Tech education accessible for more Virginians. Virginia Tech also continues its signature financial aid program, Funds for the Future, which provides full protection from any future tuition and fee increase for returning students with a family income of up to $100,000. This program is an important component of the overall support for student grant aid and scholarships which totaled approximately $128.8 million.

Our robust research environment is positioned to grow in the coming years as the commonwealth continues to transition to an innovation-driven economy. For fiscal year 2019, Virginia Tech reported more than $542 million in research expenditures, an increase of 1.9 percent from the fiscal year 2018 total of $531.6 million (the most recent data available). Virginia Tech is ranked 48th among U.S. research universities according to the current annual National Science Foundation annual research expenditures report.

Momentum also continued in private philanthropy, an increasingly important funding source for student financial aid and scholarships, and for advancing critical strategic initiatives like the Innovation Campus in Northern Virginia and the Global Business and Analytics Complex in Blacksburg. Total new gifts and commitments for fiscal year 2020 was $185.4 million. The university also successfully launched a multi-year fundraising and engagement campaign, "Boundless Impact." The campaign has already generated tremendous energy and excitement, raising more than $657.2 million toward the $1.5 billion goal by 2027. "Boundless Impact" will be a critical bolster for the university's vision of educating and inspiring servant leaders and global problem solvers. For fiscal year 2020, the overall alumni philanthropic participation was 15 percent, a new record on a path toward the university's strategic milestone of achieving a 22 percent participation rate by 2022.

Continued investments into the university's physical infrastructure are paramount to fulfilling Virginia Tech's discovery, learning, and engagement mission. Virginia Tech is building on the exceptional work in campus sustainability that has taken place over the last decade with plans to progress the university's Climate Action Commitment beginning in fiscal year 2021. This bold commitment puts Virginia Tech on a path to achieve a carbon neutral campus with 100 percent renewable electricity and zero campus waste by 2030. The commitment also includes the steam plant converting to natural gas by 2025 and fully transitioning to renewable fuel after 2025. The university's portfolio of active capital projects during fiscal year 2020 included over $378 million of cumulative expenditures on 33 ongoing projects which have a combined total budget of $1.2 billion. Major capital projects under construction during the fiscal year included a new residence hall to house approximately 600 students and support creativity and innovation programs, expansion and renovations to a major engineering instruction and research building, completion of a Student-Athlete performance center, and upgrades to major heating and cooling utilities supporting the campus. Virginia Tech received $54 million of General Fund allocation for specialized research laboratory equipment and instruments, campus accessibility improvements, and critical deferred maintenance funding.

Virginia Tech reported a preliminary debt ratio of 3.51 percent for fiscal year 2020 with a long-term debt liability of $452.8 million. The university currently maintains credit ratings of Aa1 from Moody's and AA from Standard and Poor's. Virginia Tech's capital outlay planning and debt allocation planning ensure capacity will be available for future high priority projects and that the capital program remains in a strong position to achieve the university's long-term goals and aspirations.

Entering fiscal year 2021, the university's board of visitors' committed to maintaining tuition and education and general (E&G) fees for all students for the 2020-21 academic year at 2019-20 levels. There is still work to do in mitigating the challenges posed by COVID-19, including significant impacts on university auxiliary operations which are projected to have a $60 million revenue shortfall for fiscal year 2021 based on information available through September 2020. The university has taken actions to secure future financial stability through establishment of additional lines of credit, obtaining approval from the board of visitors to manage staffing commitments through furloughs or salary reductions, implementing a budget reduction, and restructuring outstanding debt. The university continues to exercise restraint in discretionary spending as well as hiring and compensation actions. Despite these unprecedented times and challenges, Virginia Tech stands at the cusp of a transformational period for the university, and fiscal year 2020 is emblematic of the resilient spirit, creative problem-solving, organizational agility, and talented and engaged workforce that will be required to navigate toward a bright "Advancing Beyond Boundaries" future. That bright future is only enabled through the strong foundation of our continued healthy financial position and performance, which is captured more in the following pages.

Management's Responsibility
for Financial Reporting and Internal Controls

The information in this Annual Financial Report, including the accompanying basic financial statements, notes, management's discussion and analysis, and other information is the responsibility of Virginia Tech executive management. Responsibility for the accuracy of the financial information and fairness of its presentation, including all disclosures, rests with the management of the university. Management believes the information is accurate in all material respects and fairly presents the university's revenues, expenses, and changes in net position as well as its overall financial condition. This report was prepared in accordance with generally accepted accounting principles for public colleges and universities in the United States of America as prescribed by the Governmental Accounting Standards Board. Management is responsible for the objectivity and integrity of all representations herein. The Annual Financial Report includes all disclosures necessary for the reader of this report to gain a broad understanding of the university's operations for the year ended June 30, 2020.

The administration is responsible for establishing and maintaining the university's system of internal controls. Key elements of the university's system of internal controls include: careful selection and training of administrative personnel; organizational structure that provides appropriate division of duties; thorough and continuous monitoring, control, and reporting of operating budgets versus actual operating results; well communicated written policies and procedures; annual self-assessments led by the Office of the University Controller; a growing management services segment; and an extensive internal audit function. Although there are inherent limitations to the effectiveness of any system of accounting controls, management believes that the university's system provides reasonable, but not absolute, assurances that assets are safeguarded from unauthorized use or disposition, and accounting records are sufficiently reliable to permit preparation of financial statements and appropriate accountability for assets and liabilities.

The Finance and Audit Committee of the Virginia Tech Board of Visitors reviews and monitors the university's financial reporting and accounting practices. The committee meets with external independent auditors annually to review the Annual Financial Report and results of audit examinations. The committee also meets with internal auditors and university financial officers at least quarterly. These meetings include a review of the scope, quality, and results of the internal audit program, and a review of issues related to internal controls and quality of financial reporting.

The Auditor of Public Accounts (APA), the office of the Commonwealth of Virginia's auditors, has examined these annual financial statements and the report thereon appears on the facing page. The APA examination includes a study and evaluation of the university's system of internal controls, financial systems, policies, and procedures, resulting in the issuance of a management letter describing various issues considered worthy of management's attention. The university has implemented policies and procedures for the adequate and timely resolution of such issues. No material weaknesses were found on internal control matters by the APA for the fiscal year ended June 30, 2020.

Dwayne L. Pinkney

Senior Vice President and Chief Business Officer

Commonwealth of Virginia

Auditor of Public Accounts

Martha S. Mavredes, CPA
Auditor of Public Accounts

P.O. Box 1295
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November 12, 2020

The Honorable Ralph S. Northam, Governor of Virginia

The Honorable Kenneth R. Plum, Chairman, Joint Legislative Audit and Review Commission

Board of Visitors, Virginia Polytechnic Institute and State 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 Virginia Polytechnic Institute and State University (Virginia Tech), a component unit of the Commonwealth of Virginia, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise Virginia Tech'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 Virginia Tech, which is discussed in Notes 1 and 25. Those financial statements were audited by another auditor whose report thereon has been furnished to us, and our opinion, insofar as it relates to the amounts included for the component unit of Virginia Tech, is based on the report of the other auditor.

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 Virginia Tech that were audited by another auditor upon whose report 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 presentation of the financial statements.

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

Opinion

In our opinion, based on our audit and the report of another auditor, 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 Virginia Polytechnic Institute and State University as of June 30, 2020, and the respective changes in financial position and cash flows, where applicable, thereof for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Change in Accounting Principle

As discussed in Note 1 of the accompanying financial statements, Virginia Tech implemented Governmental Accounting Standards Board Statement No. 84, Fiduciary Activities, related to accounting for funds held by Virginia Tech in a fiduciary capacity for the benefit of other organizations or individuals. As a result, the fiscal year 2019 financial statements have been restated to recognize as university revenue certain funds that do not meet the criteria to be recognized as custodial funds under the new standard. Our opinion is not modified with respect to this matter.

Other Matters

Prior-Year Summarized Comparative Information

We have previously audited Virginia Tech's 2019 financial statements, and we expressed an unmodified audit opinion on the respective financial statements in our report dated December 13, 2019. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2019, is consistent, in all material respects, with the audited financial statements from which it has been derived, except as otherwise noted in the financial statements.

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 7 through 15; the Schedules of Virginia Tech's Share of Net Pension Liability, the Schedules of Virginia Tech's Pension Contributions, and the Notes to the Required Supplementary Information for Pension Plans on pages 57 through 58; the Schedule of Virginia Tech's Share of OPEB Liability (Asset), the Schedule of Virginia Tech's Share of OPEB Contributions, and the Notes to the Required Supplementary Information for OPEB Plans for the Pre-Medicare Retiree Healthcare (PMRH), Health Insurance Credit (HIC), Group Life Insurance (GLI), Disability Insurance (VSDP), and Line of Duty (LODA) programs, as applicable, on pages 58 through 60. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Virginia Tech's basic financial statements. The supplementary information, such as the Virginia Tech Foundation, Inc. information, Consolidating Schedules, Affiliated Corporations Financial Highlights, and the other information such as the Financial Highlights and University Highlights are presented for the purpose of additional analysis and are not a required part of the basic financial statements.

The Virginia Tech Foundation, Inc. information, Consolidating Schedules, and Affiliated Corporations Financial Highlights are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Virginia Tech Foundation, Inc. information, Consolidating Schedules, and Affiliated Corporations Financial Highlights are fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

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

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated November 12, 2020, on our consideration of Virginia Tech'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 effectiveness of 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 Virginia Tech's internal control over financial reporting and compliance.

Martha S. Mavredes

AUDITOR OF PUBLIC ACCOUNTS

DBC/vks

Management's Discussion and Analysis
(Unaudited)

Virginia Polytechnic Institute and State University, popularly known as Virginia Tech, is a comprehensive, land-grant university located in Blacksburg, Virginia. The university offers 203 graduate, undergraduate, and professional degree programs through its nine academic colleges: Agriculture and Life Sciences, Architecture and Urban Studies, Engineering, Liberal Arts and Human Sciences, Natural Resources and Environment, Pamplin College of Business, Science, the Virginia-Maryland College of Veterinary Medicine, and the Virginia Tech Carilion School of Medicine.

Virginia Tech has evolved into a position of increasing national prominence since its founding in 1872, consistently ranking among the nation's top universities for undergraduate and graduate programs. The university's research program was ranked 48th among the top research institutions in the United States by the National Science Foundation in its latest survey measuring annual research expenditures.

The university is an agency of the Commonwealth of Virginia, and therefore included as a component unit in the Commonwealth of Virginia's *Comprehensive Annual Financial Report*. The 14 members of the Virginia Tech Board of Visitors govern university operations. Members of the board are appointed by the Governor of Virginia.

Overview

This unaudited 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 provide 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, 2020. Comparative numbers are included for the fiscal year ended June 30, 2019. 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. The university's management is responsible for all of the financial information presented, including this discussion and analysis.

The university's financial statements have been prepared in accordance with GASB Statement 35, *Basic Financial Statements—and Management's Discussion and Analysis—for Public Colleges and Universities*, as amended by GASB Statements 37, 38, 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. Combining schedules included in *Optional Supplementary Information* indicate how major fund groups were aggregated to arrive at the single column totals presented on the *Statement of Net Position* and the *Statement of Revenues, Expenses, and Changes in Net Position*.

Using criteria provided in GASB Statement 39, *Determining Whether Certain Organizations Are Component Units*, and GASB Statement 60, *The Financial Reporting Entity: Omnibus, amendments of GASB Statement 14*, the university's nine affiliated corporations were evaluated on the nature and significance of their relationship to the university. The Virginia Tech Foundation Inc. (VTF or 'the foundation') was determined to be a component unit and is presented in a separate column on the university's financial statements. VTF serves the university by generating significant funding from private sources and aggressively managing its assets to provide supplemental funding to the university. Virginia Tech Services (VTS) was included in previous years as a component unit, but due to changes in its operations it is immaterial and is no longer considered a component unit. The foundation is not part of this MD&A, but detail regarding its financial activities can be found in Note 25 of the *Notes to Financial Statements*. Transactions between the university and this component unit have not been eliminated in this year's financial statements.

The following GASB statements of standards became effective in fiscal year 2020: Statement 84, *Fiduciary Activities;* Statement 90, *Majority Equity Interests*; and Statement 92, *Omnibus 2020*. Although GASB extended the effective dates due to the impact of COVID-19 and related staffing limitations, the Commonwealth of Virginia chose to proceed with implementing these statements. GASB Statement 84 establishes criteria for identifying fiduciary activities and requires a statement of fiduciary net position and a statement of changes in fiduciary net position for activities that meet those criteria. After analyzing balances held within the custodial funds, it was determined that a portion of the funds were actually university source revenues and that they should be included with the unrestricted funds of the university. A beginning balance adjustment of $2.7 million was booked to reclassify the funds to the appropriate balance. The remaining custodial funds were determined to be either held for less than three months or were immaterial and therefore a fiduciary funds statement is not included as part of the university financial statements. GASB Statement 90 covers reporting of a government's majority equity interest in a legally separate organization. The university does not own any such interests and was not affected by the implementation of this statement.

Statement of Net Position

The *Statement of Net Position* (SNP) presents the assets, liabilities, and net position of the university as of the end of the fiscal year. The purpose of this statement is to present a snapshot of the university's financial position to readers of the financial statements.

The data presented aids readers in determining the assets available to continue operations of the university. It also allows readers to see what the university owes to vendors, investors, and lending institutions. Finally, the SNP provides a picture of the university's net position and the restrictions for expenditure of the components of net position. Sustained increase in net position over time is one indicator of the financial health of the organization.

The university's 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, amortization, 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 component of net position, expendable — The expendable category of the restricted component of net position includes resources the university is legally or contractually obligated to expend, with restrictions imposed by external third parties. This category partially consists of quasi-endowments totaling $48.7 million. The investment of quasi-endowments is managed by VTF.

Restricted component of net position, nonexpendable — The nonexpendable category of the restricted component of net position consists of endowment and similar type funds where donors or other outside sources have stipulated, 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 principal. The university's nonexpendable endowments of $12.6 million are included in its column on the SNP.

Unrestricted component of net position — The unrestricted component of net position represents resources used for transactions relating to academic departments and general operations of the university, and 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, research and outreach. These resources are derived from student tuition and fees, state appropriations, recoveries of facilities and administrative (indirect) costs, and sales and services of auxiliary enterprises and educational departments. The auxiliary enterprises are self-supporting entities that provide services for students, faculty and staff. Examples of the university's auxiliaries are intercollegiate athletics and student residential and dining programs.

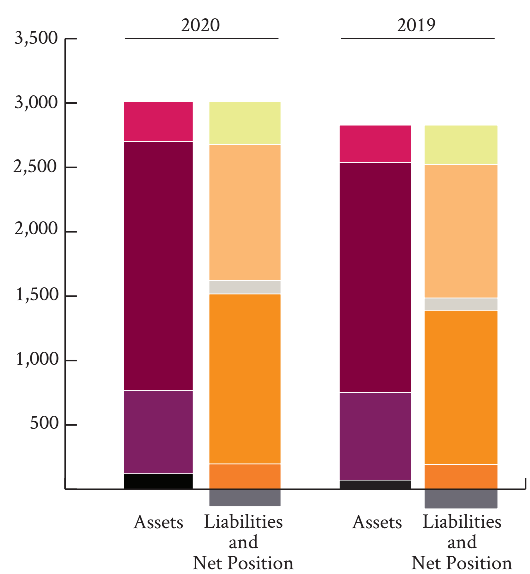
Total university assets increased by $132.2 million or 4.8% during fiscal year 2020, bringing the total to $2,889.4 million at year end. Current assets rose by $18.3 million. The growth is the result of an increase in the Due from the Commonwealth amount ($9.2 million) due to appropriations for the Commonwealth Cyber Initiative, and an increase in cash and cash equivalents of $10.7 million. Additionally, inventories and prepaid expenses experienced small increases of $1.5 million and $1.4 million, respectively. These increases were offset by a decrease of $4.2 million in accounts receivable. Noncurrent assets grew by $113.7 million. Capital assets, net, increased by $150.1 million reflecting the ongoing construction of university research and instructional facilities, and the capitalization of completed facilities discussed in detail in the following section, *Capital Asset and Debt Administration*. Long-term investments fell by $19.5 million mainly due to the COVID-19 pandemic and its effect on the market. This decrease was partially offset by an increase in short-term investments of $3.7million. Noncurrent cash and cash equivalents decreased by $21.7 million, reflecting the spend-down of bond proceeds for capital projects such as the Virginia Tech Carilion Health Sciences building in Roanoke.

Total university liabilities increased by $48.3 million or 3.6% during fiscal year 2020. The current liabilities category increased

Summary of Assets, Liabilities, and Net Position

Assets, Liabilities and Net Position
For the years ended June 30, 2020 and 2019
(all dollars in millions)

	2020	2019	Change Amount	Change Percent
Current assets	$ 307.7	$ 289.4	$ 18.3	6.3 %
Capital assets, net	1,936.1	1,786.0	150.1	8.4 %
Other assets	645.6	681.8	(36.2)	(5.3)%
Total assets	2,889.4	2,757.2	132.2	4.8 %
Deferred outflow of resources	120.0	71.1	48.9	68.8 %
Current liabilities	333.3	305.8	27.5	9.0 %
Noncurrent liabilities	1,057.9	1,037.1	20.8	2.0 %
Total liabilities	1,391.2	1,342.9	48.3	3.6 %
Deferred inflow of resources	104.2	95.2	9.0	9.5 %
Invested in capital assets, net	1,437.6	1,326.1	111.5	8.4 %
Restricted	211.9	214.9	(3.0)	(1.4)%
Unrestricted	(135.5)	(150.7)	15.2	10.1 %
Total net position	$ 1,514.0	$ 1,390.3	$ 123.7	8.9 %



$27.5 million and the noncurrent liabilities category increased by $20.8 million. The increase in current liabilities was due to a rise of $54.1 million in the line of credit which was used to temporarily fund capital projects as a replacement for the Commercial Paper which fell by $34.3 million. There was growth in accounts payable of $10.7 million and an increase of $7.2 million in unearned revenue. These increases were offset by a decrease of $5.1 million in the current portion of the accrued compensated absences, a decrease of $2.0 million in the current portion of long-term debt, as well as decreases in the current portion of the OPEB liability of $1.0 million and funds held in custody for others of $2.1 million. The increase in noncurrent liabilities is primarily due to increases in the pension liability ($56.5 million) and the accrued compensated absences of $7.8 million. Offsetting these growths were decreases in OPEB liability ($18.1 million), and long-term debt ($23.5 million), with only minor increases and decreases in the remaining categories.

The increase in total assets along with the increase in total liabilities is reflected in the year-over-year increase of the university's net position of $123.7 million (8.9%). The increase includes a beginning balance adjustment of $2.7 million related to the implementation of GASB Statement 84. Net position in the category of net investment in capital assets increased by $111.5 million, reflecting the university's continued investment in new facilities and equipment supporting the university's mission as well as the prudent management of fiscal resources.

Summary of Capital Project Funding

Funding for Authorized Current and Future Capital Projects
As of June 30, 2020
(all dollars in millions)

	State Funds(1)	Other Funds(2)	University Debt Issued Before June 30, 2020	University Debt To Be Issued After June 30, 2020	Total Funding	Cash Basis Project-To-Date Expenses
Current education and general	$ 182.7	$ 18.7	$ 57.6	$ -	$ 259.0	$ 157.4
Current auxiliary enterprise	-	50.3	-	89.6	139.9	70.4
Total current	182.7	69.0	57.6	89.6	398.9	227.8
Future education and general	266.3	148.8	-	31.4	446.5	15.5
Future auxiliary enterprise	-	22.6	-	165.0	187.6	9.5
Total future	266.3	171.4	-	196.4	634.1	25.0
Total authorized	$ 449.0	$ 240.4	$ 57.6	$ 286.0	$ 1,033.0	$ 252.8

(1) Includes the general fund, capital appropriations, and the general obligation bonds of the Commonwealth of Virginia
(2) Includes private gifts, auxiliary surpluses, student fees, and other customer revenues.

Capital Asset and Debt Administration

One of the critical factors in ensuring the quality of the university's academic, research, and residential life functions is the development and renewal of its capital assets. The university continues to maintain and upgrade current structures, as well as pursue opportunities for additional facilities. Investment in new structures and the upgrade of current structures serve to enrich high-quality instructional programs, residential lifestyles, and research activities.

Note 7 of the *Notes to Financial Statements* describes the university's significant investment in depreciable capital assets with gross additions of $187.4 million during fiscal year 2020. Major projects included the completion of the Virginia Tech Carilion Health Sciences and Technology campus expansion in Roanoke ($78.7 million); the renovation of eight undergraduate science labs in Derring and Hahn Halls ($7.8 million); and the construction of the university's ACC Network studio ($2.6 million). Ongoing investments in instructional, research, and computer equipment totaled $53.7 million. Depreciation and amortization expense related to capital assets was $109.2 million with net asset retirements of $2.2 million. The net increase in depreciable capital assets for this period was $76.0 million. The net increase in nondepreciable capital assets ($74.1 million) was primarily due to more construction-in-progress expenses during the current year for major building projects to be completed after fiscal year 2020. The major projects remaining in the construction-in-progress category include the construction of a residence hall in the Creativity and Innovation District ($53.8 million), an upgrade to the university's chilled water infrastructure ($26.3 million), the renovation and expansion of Holden Hall ($12.9 million), the renovation of Jamerson Athletic Center for a student athlete performance center ($12.8 million), construction of three new agricultural buildings at Kentland Farm ($10.0 million), and other ongoing capital improvements and renovations throughout the university ($79.2 million). In addition, $8.7 million was withheld as retainage payable on major projects under construction. This retainage amount will be moved to the building asset category once final payments are made to the construction contractors. Proceeds from the sale of commercial paper and the university's revolving lines of credit were used to provide temporary funding for some projects under construction. The majority of the temporary financing will be replaced with the issuance of long-term bonds and notes.

Noncurrent liabilities related to debt experienced a net decrease of $23.5 million during fiscal year 2020. The major cause of this decrease is a result of the reclassification of long-term debt from the noncurrent to current liabilities category ($32.1 million), offset by the issuance of long-term debt ($12.3 million). See Notes 12 and 13 of the *Notes to Financial Statements* for more details.

The educational and general (E&G) portion of the university's capital outlay program represents five projects currently under construction. These projects include a public-private partnership to expand the Virginia Tech Carilion Health Sciences and Technology campus in Roanoke ($91.7 million), the renovation and expansion of Holden Hall ($74.9 million), an upgrade to the university's chiller system ($43.0 million), construction of additional agricultural facilities at Kentland Farm ($12.5 million), and the installation of a gas-fired boiler at the university's central steam plant ($8.2 million). In addition to the capital projects underway, there were several new construction and renovation projects approved for instructional and research facilities. The new capital projects include the construction of an academic building for the Innovation Campus in Alexandria ($275.0 million), the construction of a data and decision sciences building ($79.0 million), the construction of the Corps Leadership and Military Science Building ($52.0 million), and the first of two phases to renew existing livestock and poultry facilities ($25.3 million). The Commonwealth of Virginia will provide partial funding for several of these E&G projects. In addition to funding received from the commonwealth, the projects may also be funded from a combination of private gifts, student fees, other customer revenues, and debt financing.

The auxiliary enterprises portion of the university's capital outlay program represents three projects currently under construction. These projects include the construction of a residence hall in the Creativity and Innovation District ($105.5 million), renovation of Jamerson Athletic Center for a student-athlete performance center ($20.4 million), and the renovation of a football weight room in the Merryman Center ($4.5 million). Future capital projects include construction, renovation, and/or replacement of four residence and dining halls, improvements to facilities housing student wellness services, and improvements to athletic facilities for the tennis program. Since auxiliaries are required to be self-supporting, no state general funds or capital appropriations are provided for these projects. These projects will be funded by a combination of private gifts, student fees, other customer revenues, and debt financing.

Virginia Tech had a total authorization of $1,033.1 million in capital building projects as of June 30, 2020, requiring approximately $286.0 million in additional debt financing. Capital projects in progress carried commitments to construction contractors, architects, and engineers totaling $140.4 million at June 30, 2020. These obligations are for future effort and as such have not been accrued as expenses or liabilities on the university's financial statements. The majority of the financial commitment is attributed to the renovation and expansion of Holden Hall ($51.3 million), construction of a residence hall in the Creativity and Innovation District ($37.6 million), the construction of an academic building for the Innovation Campus in Alexandria ($14.7 million), and an upgrade of the university's chiller system ($13.8 million). These commitments represent only a portion of the university's capital projects currently under construction or authorized by the commonwealth.

The university's bond ratings of Aa1 and AA from Moody's and Standard & Poor's, respectively, reflect strong student demand, balanced operating performance, and adequate reserves to address unforeseen expenses.

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,* found on page 17. The purpose of the statement is to present all revenues received and accrued, all expenses paid and accrued, and gains or losses from investments and capital assets.

Operating revenues are generally received through providing goods and services to the various customers and constituencies of the university. Operating expenses are expenditures made to acquire or produce the goods and services provided in return for the operating revenues, and to carry out the missions of the university. Salaries 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. Included in this category are state appropriations and gifts which supplement the payment of operating expenses of the university and support student scholarships. Therefore, the university, like most public institutions, expects to show an operating loss.

Operating Revenues

Total operating revenues increased by $28.4 million or 2.4% from the prior fiscal year. The growth in operating revenues came predominantly from student tuition and fees ($41.7 million). The increase in student tuition and fees was expected given the larger than anticipated freshman class. There was a decrease in auxiliary enterprise revenue of $10.3 million due to the campus shutting down and classes going on-line in March due to the COVID-19 pandemic. Sponsored grants and contracts increased by $0.9 million or 0.3%. Grants and contracts awarded by federal sponsors grew by $3.5 million and federal appropriations fell $0.4 million, while both state grants and contracts and local grants and contracts rose minimally, $1.7 million and $0.6 million respectively. Nongovernmental

Summary of Revenues, Expenses, and Changes in Net Position

Revenues, Expenses, and Changes in Net Position
For the years ended June 30, 2020 and 2019
(all dollars in millions)

	2020	2019	Change Amount	Change Percent
Operating revenues	$ 1,188.8	$ 1,160.4	$ 28.4	2.4 %
Operating expenses	1,549.7	1,467.9	81.8	5.6 %
Operating loss	(360.9)	(307.5)	(53.4)	17.4 %
Non-operating revenues and expenses	380.8	360.0	20.8	5.8 %
Income (loss) before other revenues, expenses, gains or losses	19.9	52.5	(32.6)	(62.1)%
Other revenues, expenses, gains or losses	101.1	78.0	23.1	29.6 %
Increase in net position	121.0	130.5	(9.5)	(7.3)%
Net position - beginning of year	1,393.0	1,259.8	133.2	10.6 %
Net position - end of year	$ 1,514.0	$ 1,390.3	$ 123.7	8.9 %

grants and contracts fell by $4.3 million, reflecting a decrease in commercial funding. Other operating revenue fell by $3.9 million due to a one-time insurance recovery included in the prior year total. Overall, the university's operating revenues increased to $1,188.8 million in fiscal year 2020, compared to $1,160.4 million in fiscal year 2019.

Non-operating and Other Revenues and Expenses

Non-operating revenue and expenses totaled $380.8 million, an increase of $20.8 million from the previous year's total. Revenue increases in this category resulted primarily from growth in state appropriations ($37.6 million), CARES Act stabilization revenue ($19.7 million) and gift funding transferred from the Virginia Tech Foundation ($4.8 million), with small increases in federal student financial aid ($0.6 million). Investment income decreased $40.0 million due to changing market conditions caused by the COVID-19 pandemic. Non-operating grants and contracts rose by $0.6 million and interest expense on debt related to capital assets grew by $1.6 million.

Total other revenue, expenses, gains, and losses grew by $23.1 million compared to the prior year. Capital grants and gifts increased $21.8 million. Additionally, there was a decline in the loss on disposal of capital assets.

Revenues from all sources (operating, non-operating, and other) for fiscal year 2020 totaled $1,670.7 million, increasing by $72.3 million from the prior year. Operating expenses (shown in the charts above and on the following page) totaled $1,549.7 million for fiscal year 2020, reflecting a year-over-year increase of $81.8 million. Total revenues less total operating expenses resulted in an increase to net position of $121.0 million.

Total Expenses

The university is committed to recruiting and retaining outstanding faculty and staff. The personnel compensation package is one way to successfully compete with peer institutions and nonacademic employers. The natural expense category, compensation and benefits, comprises $1,003.8 million or 64.8% of the university's total operating expenses. This category increased by $72.2 million

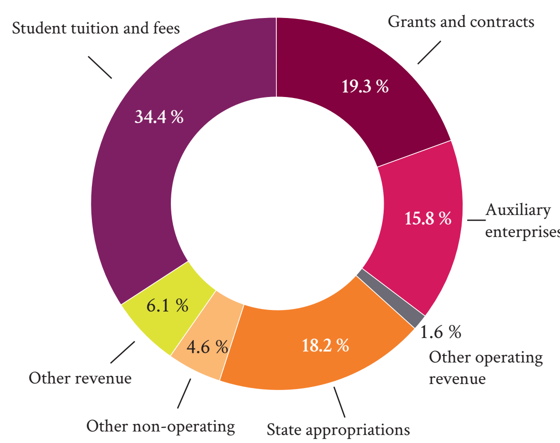
Summary of Revenues

Increase (Decrease) in Revenue
For the years ended June 30, 2020 and 2019
(all dollars in millions)

	2020	2019	Change Amount	Change Percent
Operating revenue				
Student tuition and fees, net	$ 575.9	$ 534.2	$ 41.7	7.8 %
Grants and contracts	322.3	321.4	0.9	0.3 %
Auxiliary enterprises	264.1	274.4	(10.3)	(3.8)%
Other operating revenue	26.5	30.4	(3.9)	(12.8)%
Total operating revenue	1,188.8	1,160.4	28.4	2.4 %
Non-operating revenue				
State appropriations	303.8	266.2	37.6	14.1 %
Other non-operating revenue*	77.0	93.8	(16.8)	(17.9)%
Total non-operating revenue	380.8	360.0	20.8	5.8 %
Other revenue				
Capital grants and gifts	101.0	79.2	21.8	27.5 %
Gain (loss) on disposal of capital assets	0.1	(1.2)	1.3	108.3 %
Total other revenue	101.1	78.0	23.1	29.6 %
Total revenue	$ 1,670.7	$ 1,598.4	$ 72.3	4.5 %

* Includes gifts, investment income, interest expense on debt related to capital assets, federal Pell grants, CARES Act stabilization revenue, and other non-operating revenue.

Total Revenue by Source
For the year ended June 30, 2020



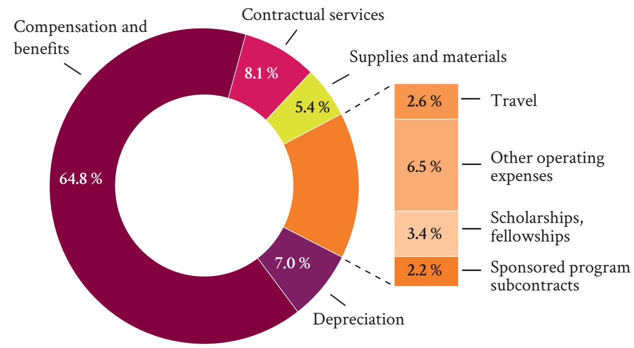
Summary of Expenses by Natural Classification

Increase (Decrease) in Expenses by Natural Classification
For the years ended June 30, 2020 and 2019
(all dollars in millions)

	2020	2019	Change Amount	Change Percent
Compensation and benefits	$ 1,003.8	$ 931.6	$ 72.2	7.8 %
Contractual services	125.5	118.9	6.6	5.6 %
Supplies and materials	84.1	97.5	(13.4)	(13.7)%
Travel	40.8	44.1	(3.3)	(7.5)%
Other operating expenses	100.0	96.1	3.9	4.1 %
Scholarships and fellowships*	52.0	40.7	11.3	27.8 %
Sponsored program subcontracts	34.3	30.8	3.5	11.4 %
Depreciation and amortization	109.2	108.2	1.0	0.9 %
Total operating expenses	$ 1,549.7	$ 1,467.9	$ 81.8	5.6 %

*Includes loan administrative fees and collection costs.

Total Expenses by Natural Classification
For the year ended June 30, 2020



(7.8%) over the previous year, with compensation growing by $45.7 million and benefits increasing by $26.5 million. Generally, changes to expenses in this category come from three sources: increases or reductions in the number of personnel, annual salary increases, and the general trends in the costs of fringe benefits. The benefits section is also affected by the changes in the actuarially calculated expenses for the OPEB and pension programs. Scholarships increased by $11.3 million largely due to funding from the CARES Act for the Higher Education Emergency Relief Fund being used to provide students with emergency hardship support related to the disruption of on-campus operations. Other categories saw decreases due to the pandemic with the university instituting a hiring freeze, and restricting travel and other spending.

Operating expenses for fiscal year 2020 totaled $1,549.7 million, up $81.8 million, or 5.6 %, from fiscal year 2019. The instruction category had the largest increase ($27.1 million). The majority of the increase was in the compensation and benefits category which reflects the university's commitment to maintaining a high quality faculty and staff. This increase also reflects the additional expenses required to quickly adjust all of the instructional programs to on-line classes. The research category experienced an increase of $12.3 million, reflecting the rise in grants and contracts coming into the university. Expenditures by the university's auxiliary enterprises also saw an increase ($8.3 million). Salaries, wages and fringe benefits account for the majority of the expense increase in auxiliary enterprises.

In the functional categories for support activities, there were moderate increases in both institutional support ($8.3 million) and academic support ($7.5 million). Compensation and benefits account for the majority of the increases in both of these areas. All areas saw additional costs required to maintain a safe working environment during the pandemic and providing resources for employees to work remotely.

In summary, the university's operating revenues grew by $73.9 million or 4.6% over the preceding year, while operating expenses increased by $81.8 million or 5.6%. This resulted in an operating loss for the current fiscal year of $360.9 million in comparison to the operating loss of $307.5 million generated during the previous year. The primary reason for the growth in the operating loss was the loss of revenues due to students vacating campus and additional

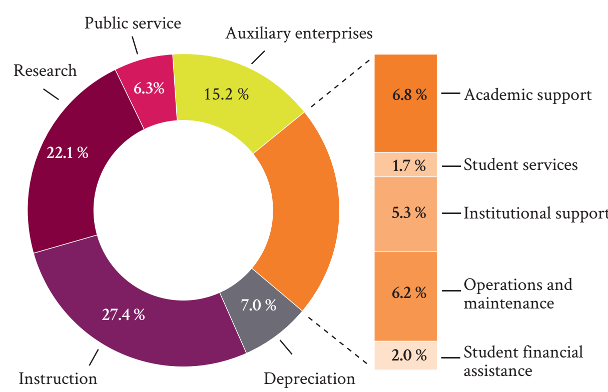
Summary of Expenses by Function

Increase (Decrease) in Expenses by Function
For the years ended June 30, 2020 and 2019
(all dollars in millions)

	2020	2019	Change Amount	Change Percent
Instruction	$ 426.0	$ 398.9	$ 27.1	6.8 %
Research	343.2	330.9	12.3	3.7 %
Public service	98.5	92.8	5.7	6.1 %
Auxiliary enterprises	236.2	227.9	8.3	3.6 %
Depreciation and amortization	109.2	108.2	1.0	0.9 %
Subtotal	1,213.1	1,158.7	54.4	4.7 %
Support, maintenance, and other expenses				
Academic support	106.4	98.9	7.5	7.6 %
Student services	26.0	24.5	1.5	6.1 %
Institutional support	81.7	73.4	8.3	11.3 %
Operations and maintenance of plant	91.9	91.8	0.1	0.1 %
Student financial assistance*	30.6	20.6	10.0	48.5 %
Total support, maintenance, and other	336.6	309.2	27.4	8.9 %
Total operating expenses	$ 1,549.7	$ 1,467.9	$ 81.8	5.6 %

*Includes loan administrative fees and collection costs.

Total Expenses by Function
For the year ended June 30, 2020



expenses due to the COVID-19 pandemic. State appropriations, CARES Act funding and other net non-operating revenues were used to meet operating expenses not offset by operating revenues.

Statement of Cash Flows

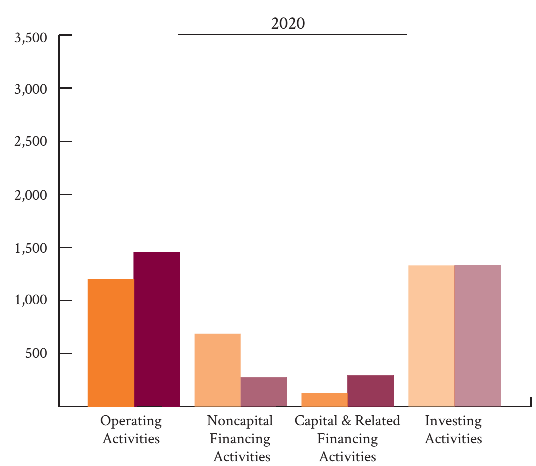
The *Statement of Cash Flows* presents detailed information about the cash activity of the university during the year. Cash flows from operating activities will always be different from the operating loss on the *Statement of Revenues, Expenses and Changes in Net Position* (SRECNP). This difference occurs because the SRECNP is prepared on the accrual basis of accounting and includes noncash items, such as depreciation expenses, whereas the *Statement of Cash Flows* presents cash inflows and outflows without regard to accrual items. The *Statement of Cash Flows* should help readers assess the ability of an institution to generate sufficient cash flows necessary to meet its obligations.

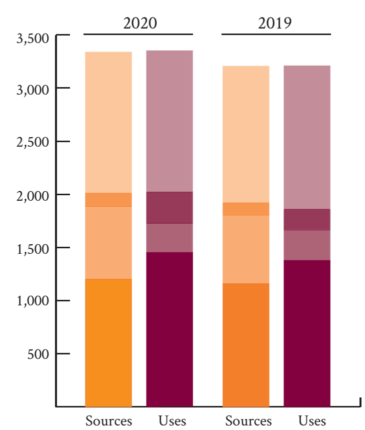
The statement is divided into five sections. The first section, Cash flows from operating activities, deals with operating cash flows and shows net cash used by operating activities of the university. The Cash flows from noncapital financing activities section reflects cash received and disbursed for purposes other than operating, investing and capital financing. GASB requires general appropriations from the commonwealth and noncapital gifts be shown as cash flows from noncapital financing activities. Cash flows from capital and related financing activities presents cash used for the acquisition and construction of capital and related items. Plant funds and related long-term debt activities (except depreciation and amortization), as well as gifts to endowments, are included in cash flows from capital financing activities. Cash flows from investing activities reflect the cash flows generated from investments which include purchases, proceeds, and interest. The last section reconciles the operating income or loss reflected on the *Statement of Revenues, Expenses, and Changes in Net Position* for fiscal year 2020 to net cash used by operating activities.

Net cash used by operating activities was $250.3 million, a $29.5 million increase from prior year. Total cash inflow for operating activities rose by $35.5 million with the largest inflow increase in student tuition and fees ($52.2 million) which was offset by a decrease in auxiliary enterprises ($13.9 million). Total cash outflows increased by $65.0 million with the major increases in operating activity uses of cash being compensation and benefits ($50.9 million) and operating expenses ($12.0 million). Operating activity uses of cash significantly exceeded operating activity sources of cash due to classification of state appropriations ($294.6 million) and gifts ($71.7 million) as noncapital financial activities.

Significant increases of cash outflows in the capital financing area were for the acquisition and construction of capital assets ($92.9 million) and for principal ($2.5 million) and interest ($0.4 million) on capital-related debt. This reflects the university's continued investment in buildings, equipment, and infrastructure of the campus.

Summary of Cash Flows





Summary of Cash Flows
For the years ended June 30, 2020 and 2019
(all dollars in millions)

	2020	2019	Change Amount	Change Percent
Net cash used by operating activities	$ (250.3)	$ (220.8)	$ (29.5)	13.4 %
Net cash provided by noncapital activities	409.0	362.4	46.6	12.9 %
Net cash used by capital and related financing activities	(166.6)	(80.9)	(85.7)	105.9 %
Net cash used by investing activities	(3.1)	(64.6)	61.5	(95.2)%
Net decrease in cash and cash equivalents	(11.0)	(3.9)	(7.1)	182.1 %
Cash and cash equivalents - beginning of year	211.7	215.6	(3.9)	(1.8)%
Cash and cash equivalents - end of year	$ 200.7	$ 211.7	$ (11.0)	(5.2)%

The graphs above demonstrate the relationship between sources and uses of cash. The graph on the left shows activity for fiscal year 2020 only, grouped by related sources and uses of cash, while the graph on the right displays that same activity for fiscal years 2020 and 2019 in a stacked format.

Economic Outlook

Fiscal year 2020 will long be remembered as a test of Virginia Tech's resiliency and ability to collectively respond to change. In the fall of 2019, the university was able to accommodate an influx of 7,604 new freshmen students, a cohort which exceeded the university's anticipated acceptance yield for the incoming freshman class. The university community also came together to begin implementation of a new strategic plan and an administrative transformation initiative, both designed to position Virginia Tech as a top 21st century global land-grant institution. No challenge, however, demonstrated the university's mettle more than the emergence of the COVID-19 pandemic in March 2020. The university adapted quickly, setting up a virtual learning environment, enhancing telework capability, and developing health and safety protocols to support the community. As the university prepares for the fall 2020 semester, Virginia Tech's financial stability and sound financial management are enabling the university to navigate the ongoing challenges posed by the COVID-19 pandemic and to deliver on its tripartite mission of education, research, and engagement.

The university's tradition of lean and agile management allowed leadership to quickly transition from a fall semester with capacity-testing enrollment levels to a spring semester where campus was largely vacated and instruction delivered virtually. Prioritizing health and safety, the university invested in personal protective equipment, sanitary and cleaning supplies, and supported an in-house COVID-19 testing and analysis lab designed by the Fralin Biomedical Research Institute. In response to these unbudgeted cost-drivers, the university undertook a series of pro-active steps to prepare for operations in a constrained resource environment including the implementation of a hiring freeze and the elimination of discretionary spending and travel. Internal budget savings and the support of federal Coronavirus Aid, Relief, & Economic Security (CARES) Act funding allowed the university to mitigate much of the 2019-20 impacts of the changing environment, positioning the university for the 2020-21 fiscal year. The university's Board of Visitors also maintained tuition for resident and nonresident undergraduate, graduate, and professional students for the 2020-21 academic year at 2019-20 levels.

Several positive trends will enable the university to persevere through the uncertainty created by the COVID-19 pandemic and emerge in a strong position. Demand for a Virginia Tech education continues to grow, providing a stable and growing source of revenue to support instructional activities and strategic initiatives. In each of the last three enrollment cycles, the university has received over 30,000 applications. High demand has translated into consistent growth in enrollment, with the university enrolling a record-high 36,383 students in fall 2019. Summer 2020 enrollment was 22 percent higher than summer 2019, even with the elimination of all study abroad programming. Student quality has also been consistently high, as measured by the SAT and GPA scores. Undergraduate enrollment is projected to grow steadily as the university continues to prioritize access and affordability, and build student financial aid programs that target under-served populations and support strategic enrollment management goals.

Sustained enrollment growth and competitive pricing have steadily increased the university's gross and net tuition and fee revenue. Expanded degree opportunities and diversity in course offerings allow the university to address changing market needs and support continued enrollment growth. The university's total cost of education compares favorably with both in-state and out-of-state peer groups. Growing robust student demand has enabled the university to lower its reliance on tuition increases, further enhancing its position in an increasingly competitive landscape of higher education.

The university has also continued to expand its footprint across the Commonwealth of Virginia, creating additional opportunities for learning, research, and discovery. A new research facility at the Fralin Biomedical Research Center at VTC in Roanoke is scheduled to open in fall 2020. This additional capacity will further enhance the region's status as a burgeoning hub for interdisciplinary and translational bio-science research. The university's new Tech Center Building One in Newport News opened in February 2020 for fall enrollment of students in the Professional Master of Business Administration program. Progress also continues on the development of the Virginia Tech Innovation Campus in Alexandria; a primary factor in Amazon's selection of Virginia as home to its second headquarters. Construction on the campus's inaugural building, Academic 1, is expected to begin in 2021 and open for students and faculty in the fall of 2024.

While investment in higher education by the Commonwealth of Virginia has been uneven over the past twenty years, state General Fund support the last several years has improved. In fiscal year 2020, the university received $288.4 million for its academic division, cooperative extension and agricultural experiment station division, student financial aid assistance, research, and Corps of Cadets program. The commonwealth currently supports 17 percent of the university's operations through general fund appropriations. In response to the COVID-19 pandemic, the commonwealth has paused new funding initiatives, but has so far avoided a state budget reduction for Virginia Tech.

As the Commonwealth of Virginia continues to transition to an innovation-driven economy, sustained growth in the university's robust research environment is likely to accelerate. The state's targeted investment in the Commonwealth Cyber Initiative will leverage existing university research capacity to build a statewide ecosystem for cutting-edge, cyber-related research. For fiscal year 2019, Virginia Tech reported over $542.0 million in research expenditures, an increase of $10.3 million or 1.9 percent over the fiscal year 2018 total of $531.6 million. The university ranks 48th among all research universities for fiscal year 2018, the most recent year available. The university anticipates reporting a further increase in research activity for 2020-21.

Momentum also continued in private philanthropy, an increasingly important funding source for student financial aid and scholarships, and for advancing critical strategic initiatives like the Innovation Campus in Northern Virginia and the Global Business and Analytics Complex in Blacksburg. In fiscal year 2020, the Virginia Tech Foundation recorded its highest ever levels of gifts and commitments, eclipsing the previous record set in fiscal year 2019. The successful launch of multi-year fundraising and engagement campaign, Boundless Impact, generated tremendous energy and excitement throughout the year despite the disruption created by the COVID-19 pandemic. The campaign which is expected to run through June 30, 2027 has a total fundraising goal of $1.5 billion and will bolster the university's mission to educate and inspire servant leaders and global problem solvers.

In fiscal year 2020, the university reinforced its commitment to cost-containment and innovative resource management with the development of the Administrative and Operations Transformation Initiative. While internal benchmarking over the last several years confirms that Virginia Tech is an administratively lean enterprise, the Initiative and resultant Administrative Transformation Roadmap has identified additional opportunities for automation, organizational restructuring, and efficient service delivery. Premised on the concept of continuous organizational and operational improvement, the Initiative will allow the university to absorb projected growth in enrollment and research capacity, and advance overall institutional excellence. Implementation of the Roadmap is on-going as the university continues to engage employees in the process and enhance programs, services, and operational models.

To manage its exposure to risk, the university's investment policy, established by the board of visitors and monitored by the board's Finance and Resource Management Committee, requires that its public funds be invested in accordance with the *Investment of Public Funds Act* (Section 2.2-4500 through 2.2-4516, et seq., *Code of Virginia*). The university has limited its investment in securities outside the scope of the *Investment in Public Funds Act* to restricted gift funds, local funds, and nongeneral fund reserves and balances designated by management as quasi-endowments. These funds are invested in the Virginia Tech Foundation's consolidated endowment fund and managed in accordance with the provisions of the *Uniform Prudent Management of Institutional Funds Act* (Section 64.2-1100, et seq., *Code of Virginia*). At the end of the fiscal year, the value of the university's quasi-endowments invested in the foundation totaled $401.0 million, an increase of $19.6 million over the preceding year.

Executive management believes that the university will maintain its solid financial foundation and is positioned to continue to advance excellence in teaching, research, and public service. Management's policies of cost containment and investing in strategic initiatives will ensure the university is prepared to manage the changing environment of higher education while continuing to advance the university's strategic plan. The financial position of the university is strong as evidenced by its diversified portfolio of research funding, National Science Foundation research ranking, strong student demand from increasingly talented students, auxiliary enterprises with high customer satisfaction, record philanthropy, growing contributions to endowments, increased assets, and quality debt ratings from Moody's (Aa1) and Standard and Poor's (AA). These debt ratings allow the university to obtain funding for capital projects with advantageous terms.

Throughout this challenging year, the community that is Virginia Tech has shown that its resiliency, innovative management, generous private philanthropy, and solid financial foundation have enabled the university to persevere through the uncertainty and economic challenge posed by a global pandemic. Management continues to maintain a close watch over university resources to ensure the ability to continue to strategically respond to unknown internal and external issues and sustain its current high quality educational programs and favorable financial position. With its thriving and engaged community of students, faculty, and staff, Virginia Tech's future remains bright.

Statement of Net Position

As of June 30, 2020, with comparative financial information as of June 30, 2019
(all dollars in thousands)

	2020		2019	
	Virginia Tech	Virginia Tech Foundation	Virginia Tech	Virginia Tech Foundation
Assets				
Current assets				
Cash and cash equivalents (Note 4)	$ 187,802	$ 27,056	$ 177,096	$ 15,050
Short-term investments (Note 4, 25)	-	52,234	-	14,482
Accounts and contributions receivable, net (Notes 1,5,25)	64,165	57,685	68,381	60,167
Notes receivable, net (Note 1, 6)	1,266	689	1,538	665
Due from Commonwealth of Virginia (Note 10)	24,686	-	15,390	-
Inventories	13,446	295	11,984	343
Prepaid expenses	16,378	1,179	14,997	1,601
Other assets	-	4,766	3	2,227
Total current assets	307,743	143,904	289,389	94,535
Noncurrent assets				
Cash and cash equivalents (Note 4)	12,885	148,196	34,618	78,985
Short-term investments (Note 4)	3,732	-	-	-
Due from Commonwealth of Virginia (Note 10)	10,325	-	6,174	-
Accounts and contributions receivable, net (Notes 1,5,25)	12,535	101,319	12,233	98,212
Notes receivable, net (Note 1, 6)	12,812	23,155	14,794	21,831
Net investments in direct financing leases	-	71,461	-	77,533
Irrevocable trusts held by others, net	-	5,183	-	7,652
Long-term investments (Notes 4, 25)	585,657	1,427,016	605,134	1,444,294
Depreciable capital assets, net (Notes 7, 25)	1,678,324	202,536	1,602,330	194,420
Nondepreciable capital assets (Notes 7, 25)	257,772	135,883	183,716	84,337
Intangible assets, net	-	2,400	-	634
Other assets	7,571	4,785	8,835	4,702
Total noncurrent assets	2,581,613	2,121,934	2,467,834	2,012,600
Total assets	2,889,356	2,265,838	2,757,223	2,107,135
Deferred outflows of resources				
Deferred loss on long-term debt defeasance (Note 14)	6,784	-	7,768	-
Deferred outflow for VRS pension (Note 18)	79,017	-	39,583	-
Deferred outflow for other postemployment benefits (Note 20)	34,256	-	23,747	-
Total deferred outflows	120,057	-	71,098	-
Liabilities				
Current liabilities				
Accounts payable and accrued liabilities (Note 8)	156,573	9,465	145,906	8,618
Accrued compensated absences (Notes 1, 15)	23,074	453	28,202	525
Unearned revenue (Notes 1, 9)	53,673	9,074	46,398	6,461
Funds held in custody for others	11,307	-	13,420	-
Commercial paper (Note 11)	-	-	34,275	-
Long-term debt payable (Notes 12, 13, 25)	32,095	20,334	34,086	22,557
Other postemployment benefits liabilities (Notes 15, 20)	2,544	-	3,551	-
Other liabilities (Note 12)	54,064	1,698	-	1,637
Total current liabilities	333,330	41,024	305,838	39,798
Noncurrent liabilities				
Accrued compensated absences (Notes 1, 15)	27,178	280	19,372	151
Federal student loan program contributions refundable (Note 15)	10,712	-	13,013	-
Unearned revenue	-	1,042	-	439
Long-term debt payable (Notes 12, 13, 25)	420,709	324,390	444,174	205,864
Liabilities under trust agreements	-	22,504	-	23,938
Agency deposits held in trust (Note 25)	-	459,300	-	446,093
Pension liability (Notes 15, 18)	410,451	-	353,955	-
Other postemployment benefits liabilities (Notes 15, 20)	185,500	-	203,567	-
Other liabilities	3,396	8,862	2,945	9,523
Total noncurrent liabilities	1,057,946	816,378	1,037,026	686,008
Total liabilities	1,391,276	857,402	1,342,864	725,806
Deferred inflows of resources				
Deferred gain on long-term debt defeasance (Note 14)	824	-	852	-
Deferred inflow for VRS pension (Note 18)	25,795	-	35,419	-
Deferred inflow for other postemployment benefits (Note 20)	77,557	-	58,933	-
Total deferred inflows	104,176	-	95,204	-
Net position				
Investment in capital assets	1,437,622	181,739	1,326,057	141,027
Restricted, nonexpendable	12,562	679,148	14,034	638,881
Restricted, expendable				
Scholarships, research, instruction, and other	123,019	428,341	118,997	487,414
Capital projects	2,928	-	6,159	-
Debt service and auxiliary operations	73,396	-	75,703	-
Unrestricted	(135,566)	119,208	(150,697)	114,007
Total net position	$ 1,513,961	$ 1,408,436	$ 1,390,253	$ 1,381,329

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

Statement of Revenues, Expenses, and Changes in Net Position

For the year ended June 30, 2020 with comparative financial information for the year ended June 30, 2019

(all dollars in thousands)

	2020		2019	
	Virginia Tech	Virginia Tech Foundation	Virginia Tech	Virginia Tech Foundation
Operating revenues				
Student tuition and fees, net (Note 1)	$ 575,869	$ -	$ 534,212	$ -
Gifts and contributions	-	110,345	-	54,070
Federal appropriations	14,460	-	14,919	-
Federal grants and contracts	224,960	-	221,460	-
State grants and contracts	14,848	-	13,108	-
Local grants and contracts (Note 3)	14,284	-	13,737	-
Nongovernmental grants and contracts	53,808	-	58,149	-
Sales and services of educational activities	20,081	-	20,109	-
Auxiliary enterprise revenue, net (Note 1)	264,083	19,249	274,355	24,436
Other operating revenues	6,440	62,242	10,394	57,433
Total operating revenues	1,188,833	191,836	1,160,443	135,939
Operating expenses				
Instruction	426,003	51	398,907	403
Research	343,206	7,044	330,947	7,964
Public service	98,496	5,641	92,826	5,325
Academic support	106,423	24,834	98,926	26,989
Student services	25,994	-	24,456	-
Institutional support	81,715	41,943	73,437	41,314
Operation and maintenance of plant	91,945	14,265	91,764	13,918
Student financial assistance	30,643	33,627	19,366	29,426
Auxiliary enterprises	236,151	14,261	227,918	16,470
Depreciation and amortization (Note 7)	109,175	11,360	108,190	10,968
Other operating expenses	-	17,683	1,200	9,028
Total operating expenses (Note 24)	1,549,751	170,709	1,467,937	161,805
Operating income (loss)	(360,918)	21,127	(307,494)	(25,866)
Non-operating revenues (expenses)				
State appropriations (Note 23)	303,808	-	266,163	-
Gifts	71,641	-	66,860	-
CARES Act stabilization revenue (Note 30)	19,670	-	-	-
Non-operating grants and contracts	1,162	-	550	-
Federal student financial aid (Pell)	20,233	-	19,635	-
Investment income, net	(19,518)	13,098	20,458	18,743
Net gain (loss) on investments	-	(47,794)	-	19,518
Interest expense on debt related to capital assets	(16,687)	(9,964)	(15,102)	(8,236)
Other non-operating revenue	447	-	1,450	-
Net non-operating revenues (expenses)	380,756	(44,660)	360,014	30,025
Income before other revenues, expenses, gains, or losses	19,838	(23,533)	52,520	4,159
Change in valuation of split interest agreements	-	754	-	1,062
Capital grants and gifts (Note 10)	101,030	13,770	79,212	12,329
Gain (loss) on disposal of capital assets	114	(86)	(1,236)	(36)
Additions to permanent endowments	-	39,357	-	70,589
Loss on extinguishment of debt	-	(2,125)	-	-
Other revenues (expenses)	-	(1,030)	-	(416)
Total other revenues, expenses, gains, and losses	101,144	50,640	77,976	83,528
Increase in net position	120,982	27,107	130,496	87,687
Net position—beginning of year (Note 1)	1,392,979	1,381,329	1,259,757	1,293,642
Net position—end of year	$ 1,513,961	$ 1,408,436	$ 1,390,253	$ 1,381,329

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

Statement of Cash Flows

For the Year Ended June 30, 2020, with comparative financial information as of June 30, 2019
(all dollars in thousands)

		2020		2019 *(restated)*
Cash flows from operating activities				
Tuition and fees	$	583,411	$	531,224
Federal appropriations		20,824		14,834
Grants and contracts		312,359		307,769
Sales and services of education departments		20,081		20,109
Auxiliary enterprise charges		254,892		268,799
Other operating receipts		6,440		10,844
Payments for operating expenses		(417,138)		(405,143)
Payments to employees and fringe benefits		(1,001,383)		(950,477)
Payments for scholarships and fellowships		(30,314)		(19,084)
Loans issued to students		(3,270)		(2,447)
Collection of loans to students		3,223		4,994
Direct lending receipts		146,803		143,901
Direct lending disbursements		(146,803)		(143,829)
Scholarship, student, and other custodial receipts		128,360		138,423
Scholarship, student, and other custodial disbursements		(127,747)		(140,691)
Net cash used by operating activities		(250,262)		(220,774)
Cash flows from noncapital financing activities				
State appropriations		294,616		265,790
Non-operating grants & contracts		1,162		550
Federal student financial aid (Pell)		20,233		19,635
Gifts for other than capital purposes		71,709		66,756
Other non-operating receipts		21,290		9,650
Net cash provided by noncapital financing activities		409,010		362,381
Cash flows from capital financing activities				
Gifts for capital assets		95,438		79,728
Proceeds from issuance capital debt		8,777		16,705
Proceeds from the sale of capital assets		2,403		839
Acquisition and construction of capital assets		(239,101)		(146,179)
Proceeds from short-term financing		19,789		19,075
Principal paid on capital-related debt		(34,104)		(31,647)
Interest paid on capital-related debt		(19,809)		(19,437)
Net cash used by capital financing activities		(166,607)		(80,916)
Cash flows from investing activities				
Proceeds from sales and maturities of investments		1,320,952		1,275,323
Interest on investments		5,632		10,458
Purchases of investments		(1,329,752)		(1,350,367)
Net cash used by investing activities		(3,168)		(64,586)
Net decrease in cash and cash equivalents		(11,027)		(3,895)
Cash and cash equivalents - beginning of year		211,714		215,609
Cash and cash equivalents - end of year	$	200,687	$	211,714

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

Statement of Cash Flows, continued

For the Year Ended June 30, 2020, with comparative financial information as of June 30, 2019
(all dollars in thousands)

Reconciliation of Net Operating Expenses to Net Cash Used by Operating Activities	2020	2019 *(restated)*
Operating loss	$ (360,918)	$ (307,494)
Adjustments to reconcile net gain/(loss) to net cash used by operating activities		
Depreciation expense	109,175	108,190
Changes in assets, deferred outflows, liabilities and deferred inflows		
Receivables, net	3,519	(4,307)
Inventories	(1,462)	(1,661)
Prepaid and other asset items	(1,262)	1,414
OPEB asset	1,145	(793)
Notes receivable, net	2,254	3,688
Deferred outflow for VRS pension	(39,434)	6,018
Deferred outflow for other postemployment benefits	(10,509)	(8,124)
Accounts payable and other liabilities	(7,951)	2,979
Accrued payroll	2,114	3,567
Compensated absences	2,678	2,166
Unearned revenue	5,655	(2,558)
Pension liability	56,496	(32,208)
Other postemployment benefits liability	(19,074)	(19,625)
Federal loan contributions refundable	(2,301)	59
Deferred inflow for VRS pension	(9,624)	5,953
Deferred inflow for other postemployment benefits	18,624	24,158
Scholarship, student, and other miscellaneous custodial accounts, net	613	(2,196)
Total adjustments	110,656	86,720
Net cash used by operating activities	$ (250,262)	$ (220,774)

Noncash investing, capital, and financing activities		
Change in accounts receivable related to non-operating income	$ (259)	(10,651)
Capital assets acquired through in-kind donations as a component of capital gifts and grants income	$ 1,118	3,321
Change in fair value of investments recognized as a component of investment income	$ (34,059)	(263)
Change in value of interest payable affecting interest paid	$ (222)	(163)
Capital assets acquired through the assumption of a liability	$ 3,542	12,974
Change in interest receivable affecting interest income	$ (546)	296
Loss on disposal of capital assets	$ 114	(1,236)
Capitalization of interest revenue and expense (net)	$ (116)	(613)
Amortization of bond premium/discount and gain/loss on debt refunding	$ (2,720)	(3,179)

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

Notes to Financial Statements

Contents

1. Summary of Significant Accounting Policies

Reporting Entity

Virginia Polytechnic Institute and State University is a public land-grant university serving the Commonwealth of Virginia, the nation and the world community. The discovery and dissemination of new knowledge are central to its mission. Through its focus on teaching and learning, research and discovery, and outreach and engagement, the university creates, conveys and applies knowledge to expand personal growth and opportunity, advance social and community development, foster economic competitiveness and improve the quality of life.

The university includes all funds and entities over which the university exercises or can exercise oversight authority for financial reporting purposes.

Under Governmental Accounting Standards Board (GASB) Statement 39, the Virginia Tech Foundation Inc. (VTF) is included as component unit of the university. As of fiscal year 2020, Virginia Tech Services Inc. (VTS) is no longer a component unit of the university.

A separate report is prepared for the Commonwealth of Virginia that includes all agencies, boards, commissions and authorities over which the commonwealth exercises or can exercise oversight authority. The university is a component unit of the Commonwealth of Virginia and is included in the basic financial statements of the commonwealth.

Virginia Tech Foundation Inc.

The foundation is a legally separate, tax-exempt organization established in 1948 to receive, manage and disburse private gifts in support of Virginia Tech programs. A 35-member board of directors governs the foundation. The foundation's bylaws provide that the rector of the board of visitors, the president of the alumni association, the president of the athletic fund and the president of the university shall serve as ex-officio members of the VTF board. The remainder of the board consists of alumni and friends of the university who actively provide private support for university programs. Directors are elected by a vote of the membership of the foundation. Membership is obtained by making gifts at or above a specified level to the foundation.

The foundation serves the university by generating significant funding from private sources and aggressively managing its assets to provide funding that supplements state appropriations. It provides additional operating support to colleges and departments, helps fund major building projects, and provides seed capital for new university initiatives. Although the university does not control the timing or amount of receipts from the foundation, the majority of resources or income which the foundation holds and invests, is 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. It is discretely presented in the financial statements. The administrative offices of Virginia Tech Foundation Inc. are located at University Gateway Center, 902 Prices Fork Road, Blacksburg, Virginia 24061.

During this fiscal year, the foundation distributed $95,335,000 to the university for both restricted and unrestricted purposes.

Virginia Tech Services Inc.

Virginia Tech Services Inc. is a separate nonprofit corporation that oversees retail and vending contract performance for services that benefit the students, faculty, staff and alumni of Virginia Tech. VTS transfers any surplus funds to the university or the foundation for allocation and use by the university as the president of the university and board of visitors deem appropriate. After VTS operations transitioned from retail operations to contract management with the signing of the Follett agreement described in the fiscal year 2019 financial statements, a review of the relationship with VTS concluded that the change eliminated the requirement to report VTS as a component unit.

Financial Statement Presentation
GASB Statement 35, *Basic Financial Statements—and Management's Discussion and Analysis—for Public Colleges and Universities,* issued November 1999, establishes accounting and financial reporting standards for public colleges and universities within the financial reporting guidelines of GASB Statement 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments.* The 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. The university is required under this guidance to include *Management's Discussion and Analysis*, and basic financial statements, including notes, in its financial statement presentation.

In fiscal year 2020, GASB Statement 84, *Fiduciary Activities* and GASB Statement 90, *Majority Equity Interests* were scheduled to become effective. Although GASB delayed the implementation of these two statements for one year due to the effects of the pandemic, the Commonwealth of Virginia chose to go forth with the implementation in the current year. GASB Statement 84 establishes criteria for identifying fiduciary activities, and requires a statement of fiduciary net position and a statement of changes in fiduciary net position for activities that meet those criteria. After analyzing balances held within the custodial funds, it was determined that a portion of the funds were actually university source revenues and that they should be included with the unrestricted funds of the university. A beginning balance adjustment of $2,726,000 was booked to reclass the funds to the appropriate balance. The remaining custodial funds were determined to be either held for less than three months or immaterial, and therefore a fiduciary funds statement is not included as part of the university financial statements. GASB Statement 90 covers reporting of a government's majority equity interest in a legally separate organization. The university does not own any such interests and was not affected by the implementation of this statement.

Basis of Accounting
For financial reporting purposes, the university is considered a special-purpose government engaged only in business-type activities. Accordingly, the university's financial statements are presented 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 an obligation has been incurred. All significant intra-agency transactions have been eliminated.

Cash Equivalents
For purposes of the statements of net position and cash flows, the university considers all highly liquid investments with an original maturity of 90 days or less to be cash equivalents.

Short-term Investments
Short-term investments include securities with an original maturity over 90 days but less than or equal to one year at the time of purchase.

Investments
GASB Statement 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*, as modified by GASB Statement 59, and GASB Statement 72, *Fair Value Measurement and Application*, require that purchased investments, interest-bearing temporary investments classified with cash, and investments received as gifts be recorded at fair value (see Note 4). Changes in unrealized gain or loss on the carrying value of the investments are reported as a part of investment income in the *Statement of Revenues, Expenses, and Changes in Net Position.*

Accounts Receivable
Accounts receivable consist of tuition and fee charges to students and auxiliary enterprise services provided to students, faculty, and staff. Accounts receivable also include amounts due from federal, state, and local governments, as well as nongovernmental sources, in connection with reimbursement of allowable expenses made according to the university's grants and contracts. Accounts receivable are recorded net of allowance for doubtful accounts. See Note 5 for a detailed list of accounts receivable amounts by major categories.

Notes Receivable
Notes receivable consist of amounts due from the Federal Perkins Loan Program, the Health Professional Student Loan Program, other student loans, and loans to affiliated organizations. See Note 6 for a list of notes receivable amounts by major categories.

Inventories
Inventories are stated at the lower of cost or market (primarily first-in, first-out method) and consist mainly of expendable supplies for operations of auxiliary enterprises and fuel for the physical plant.

Prepaid Expenses
Prepaid expenses are expenses for future fiscal years that were paid in advance of June 30, 2020. Payments of expenses that extend beyond fiscal year 2021 are classified as noncurrent assets. Prepaid expenses consist primarily of library serial subscriptions, information technology contracts, property leases, and insurance.

Noncurrent Cash and Investments
Noncurrent cash and investments are reported as restricted because restrictions change the nature or normal understanding of the availability of the asset. These cash and investments include those restricted for the acquisition or construction of capital assets, those legally segregated for the payment of principal and interest as required by debt covenants, unspent debt proceeds, and other restricted investments, to make debt service payments or purchase other noncurrent assets.

Capital Assets
Capital assets consisting of land, buildings, infrastructure, and equipment are stated at appraised historical cost or actual cost where determinable. Construction in progress, equipment in process, and software in development are capitalized at actual cost as expenses are incurred. Library materials are valued using published average prices for library acquisitions, and livestock is stated at estimated market value. All gifts of capital assets are recorded at acquisition value as of the date of donation.

Equipment is capitalized when the unit acquisition cost is $2,000 or greater and the estimated useful life is one year or more. Software is capitalized when the sum of the acquisition and development costs exceed $100,000. Renovation costs are capitalized when expenses total more than $100,000, the asset value significantly increases, or the useful life is significantly extended. Routine repairs and maintenance are charged to operating expense in the year the expense is incurred.

Depreciation is computed using the straight-line method over the useful life of the assets. The useful life is 40 to 60 years for buildings, 10 to 50 years for infrastructure and land improvements, 10 years for library books, and 3 to 30 years for fixed and movable equipment. Livestock is not depreciated, as it tends to appreciate over the university's normal holding period.

Special collections are not capitalized due to the collections being: (1) held for public exhibition, education, or research in the furtherance of public service rather than financial gain; (2) protected, kept unencumbered, cared for, and preserved; and (3) subject to university policy requiring the proceeds from the sales of collection items to be used to acquire other items for collections.

Interest Capitalization
Interest expense incurred during the construction of capital assets is capitalized, if material, net of interest income earned on resources set aside for this purpose. The university incurred and capitalized net interest expense related to the construction of capital assets totaling $115,000 for this fiscal year.

Pensions
The Virginia Retirement System (VRS) State Employees Retirement Plan and the Virginia Law Officers' Retirement System (VaLORS) Retirement Plan are single-employer pension plans that are treated like cost-sharing plans. For the purpose 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 VRS plan and the VaLORS plan, and the additions to/deductions from the VRS plan's and the VaLORS plan's net fiduciary position have been determined on the same basis as VRS reported them. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable according to the benefit terms. Investments are reported at fair value.

Other Postemployment Benefits
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 determining health insurance rates, retiree rates are effectively lower than what might otherwise be available outside of this benefit.

Group Life Insurance — The Virginia Retirement System (VRS) Group Life Insurance (GLI) program is a multiple-employer, cost-sharing plan. It provides coverage to state employees, teachers, and employees of participating political subdivisions. The GLI program was established under §51.1-500 et seq. of the *Code of Virginia*, as amended, which provides the authority under which benefit terms are established or may be amended. The GLI program is a defined benefit plan that provides a group life insurance benefit for employees of participating employers.

State Employee Health Insurance Credit Program — The Virginia Retirement System (VRS) State Employee Health Insurance Credit (HIC) program is a single-employer plan that is presented as a multiple-employer, cost-sharing plan. The HIC program was established under §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 HIC program is a defined benefit plan that provides credit toward the cost of health insurance coverage for retired state employees.

Line of Duty Act Program — The Virginia Retirement System (VRS) Line of Duty Act (LODA) program is a multiple-employer, cost-sharing plan. The LODA program was established under §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 LODA 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 public safety officers. In addition, health insurance benefits are provided to eligible survivors and family members.

VRS Disability Insurance Program — The Virginia Retirement System (VRS) Disability Insurance Program (Virginia Sickness and Disability Program, VSDP) is a single-employer plan that is presented as a multiple-employer, cost-sharing plan. The Disability Insurance Program was established under §51.1-1100 et seq. of the *Code of Virginia*, as amended, and which provides the authority under which benefit terms are established or may be amended. The Disability Insurance Program is a managed care program that provides sick, family and personal leave, and short-term and long-term disability benefits for state police officers, state employees, and VaLORS employees.

For measuring the net liability of these OPEB programs, their expenses and deferred outflows/inflows of resources, information about their fiduciary net positions, and additions to/deductions from their net fiduciary positions have been determined on the same basis as reported by VRS. In addition, benefit payments for these programs are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Accrued Compensated Absences
Certain salaried employees' attendance and leave regulations make provisions for the granting of a specified number of days of leave with pay each year. The amount reflects all unused vacation leave, sabbatical leave, and the amount payable upon termination under the Commonwealth of Virginia's sick leave payout policy. The applicable share of employer-related taxes payable on the eventual termination payments is also included. The university's liability and expense for the amount of leave earned by employees, but not taken, as of June 30, 2020, is recorded in the *Statement of Net Position* and is included in the various functional categories of operating expenses in the *Statement of Revenues, Expenses, and Changes in Net Position.*

Unearned Revenues
Unearned revenue represents revenue collected but not earned as of June 30, 2020, primarily composed of revenue for grants and contracts, prepaid athletic ticket sales, and prepaid student tuition and fees. Summer Session I tuition and fees received during the fiscal year are considered earned at the end of the refund period, approximately June 15th of each year. Tuition and fees received before year-end for Summer Session II are unearned and recognized as revenue in the next fiscal year. In fiscal year 2020, a third summer session was added to the university's schedule. The third summer session is twelve weeks long and spans across fiscal years 2020 and 2021. The tuition and fees received for Summer Session III are considered half earned by June 30th, and half unearned and recognized as revenue in the next fiscal year. See Note 9 for a detailed list of unearned revenue amounts.

Funds Held in Custody for Others
Funds held in custody for others represents funds held by the university on behalf of others as a result of relationships with various groups and organizations.

Noncurrent Liabilities
Noncurrent liabilities include: (1) the principal amounts of revenue bonds payable, notes payable, and capital lease obligations with maturities greater than one year, (2) pension plan liabilities, (3) OPEB liabilities and (4) estimated amounts for accrued compensated absences and other liabilities that will not be paid within the next fiscal year.

Deferred Outflows of Resources
Deferred outflows of resources are defined as the consumption of net assets applicable to a future reporting period. The deferred outflows of resources have a positive effect on net position, similar to assets.

Deferred Inflows of Resources
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.

Net Position
The university's 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. To the extent debt has been incurred but not yet expended for capital assets, such amounts are not included as a component of net investment in capital assets.

Restricted component of net position, expendable — The expendable category of the restricted component of net position includes resources for which the university is legally or contractually obligated to spend in accordance with restrictions imposed by external third parties.

Restricted component of net position, nonexpendable — The nonexpendable category of the restricted component of net position is comprised of endowment and similar type funds where donors or other external sources have stipulated, as a condition of the gift instrument, that the principal is to be maintained inviolate and in perpetuity, and invested to produce present and future income to be expended or added to principal.

Unrestricted component of net position — Unrestricted net position represents resources derived from student tuition and fees, state appropriations, recoveries of facilities and administrative (indirect) costs, and sales and services of educational departments and auxiliary enterprises. These resources are used for transactions relating to educational departments and general operations of the university, and may be used at the discretion of the university's board of visitors to meet current expenses for any lawful purpose.

When an expense is incurred that can be paid using either restricted or unrestricted resources, the university's policy is to apply the expense towards restricted resources before unrestricted resources.

Income Taxes

The university is considered an integral part of the Commonwealth of Virginia and, as such, is excluded from federal income taxes.

Classifications of Revenues and Expenses

The university has classified its revenues as either operating or non-operating revenues according to the following criteria:

Operating revenues — Operating revenues include activities that have the characteristics of exchange transactions, such as (1) student tuition and fees, net of scholarship allowance; (2) sales and services of auxiliary enterprises, net of scholarship allowance; (3) most federal, state, local, and nongovernmental grants and contracts and federal appropriations; and (4) interest on institutional student loans.

Non-operating revenues — Non-operating revenues are revenues received for which goods and services are not provided. State appropriations, gifts and other revenue sources that are defined as non-operating revenues by GASB Statement 9, *Reporting Cash Flows of Proprietary and Nonexpendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting*, and GASB Statement 34, *Basic Financial Statements-and Management's Discussion and Analysis—for State and Local Governments* are included in this category.

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

Scholarship Allowance

Student tuition and fees, certain auxiliary revenues, and student financial assistance expenses are reported net of scholarship allowance in the *Statement of Revenues, Expenses, and Changes in Net Position*. Scholarship allowance is the difference between the stated charge for goods and services provided by the university and the amount paid by students and third parties making payments on the students' behalf. For the fiscal year ended June 30, 2020, the scholarship allowance for student tuition and fee revenue and auxiliary enterprise revenue totaled $125,936,000 and $26,083,000, respectively. Scholarship allowance to students is reported using the alternative method as prescribed by the National Association of College and University Business Officers (NACUBO). The alternative method is an algorithm that computes scholarship allowance on a university-wide basis rather than on an individual student basis.

Beginning Balance Adjustment

The university's beginning net position, as of July 1, 2019 has been adjusted. The adjustment is due to the implementation of GASB Statement 84, *Fiduciary Activities*. Prior year balances were not restated; only the beginning balances for fiscal year 2020 were adjusted. The adjustment is as follows *(all dollars in thousands)*:

Net position, July 1, 2019	$ 1,390,253
Custodial funds reclassified to Unrestricted	2,726
Adjusted net position, July 1, 2019	$ 1,392,979

Comparative Data

The university presents its financial information on a comparative basis. The basic financial statements include certain prior-year summarized comparative 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, 2019, from which the summarized information was derived.

2. Related Parties

In addition to the component unit discussed in Note 1, Virginia Tech also has related parties that were not considered significant. These financial statements do not include the assets, liabilities, and net position of the related parties that support university programs. The related parties of the university are: Virginia Tech Services Inc., Virginia Tech Alumni Association, Virginia Tech Athletic Fund Inc., Virginia Tech Intellectual Properties Inc., Virginia Tech Corps of Cadets Alumni Inc., Virginia Tech Applied Research Corporation (VTARC), Virginia Tech Innovations Corporation, Virginia Tech India Research and Education Forum (VTIREF), and any of the subsidiaries of these corporations.

The organizations are related to the university by affiliation agreements. These agreements require an annual audit to be performed by independent auditors. Affiliated organizations that hold no financial assets and certify all financial activities or transactions through the Virginia Tech Foundation Inc. may be exempt from the independent audit requirement. Exemption requirements are met by Virginia Tech Alumni Association, Virginia Tech Athletic Fund Inc., and Virginia Tech Corp of Cadets Alumni Inc. They are therefore not required to have an annual audit. Virginia Tech Services Inc., Virginia Tech Intellectual Properties Inc., Virginia Tech Applied Research Corporation, Virginia Tech Innovations Corporation, and Virginia Tech India Research and Education Forum (VTIREF) are required to have an annual audit. Auditors have examined the financial records of these organizations and a copy of their audit reports have or will be provided to the university.

3. Local Government Support

The university, through the operation of its Cooperative Extension Service, maintains offices in numerous cities and counties throughout the Commonwealth of Virginia. Personnel assigned to these locations receive a portion of their compensation from local governments. Also included in the expenses of these extension offices are unit support services, which include such items as rent, telephone, supplies, equipment, and extension program expenses. The estimated amount contributed by the various local governments totaled $11,655,000 in fiscal year 2020, and has been included in revenues and expenses of the accompanying financial statements. The university received other local government support of $2,629,000 in fiscal year 2020.

4. Cash, Cash Equivalents, and Investments

The following information is provided with respect to the university's cash, cash equivalents and investments as of June 30, 2020. The following risk disclosures are required by GASB Statement 40, *Deposit and Investment Risk Disclosures*:

Custodial credit risk (Category 3 deposits and investments) - 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 that are in the possession of an outside party. The university had no category 3 deposits or investments for 2020.

Credit risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. GASB Statement 40 requires the disclosure of the credit quality rating 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 is referred to as concentration of credit risk. GASB Statement 40 requires disclosure of any issuer with which more than five percent of total investments are held. More than five percent of the university's investments are in the Federal Home Loan Banks (FHLB). These comprise 12.42% of the university's total investments. 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.

Additionally, the university's investment policy requires that each individual portfolio within the primary liquidity or extended duration allocations be diversified so that not more than three percent of the value of the respective portfolios will be invested in the securities or individual trusts of any single issuer. The limitation shall not apply to securities of the U.S. Government, an agency thereof, U.S. Government sponsored enterprises, securities fully insured or fully guaranteed by the U.S. Government, or money market funds.

Interest rate risk – This is the risk that interest rate changes will adversely affect the fair value of an investment. GASB Statement 40 requires disclosure of maturities for any investments subject to interest rate risk. The university uses a duration methodology to measure the maturities of its investment portfolios. The university's *Statement of Policy Governing the Investment of University Funds* established two major allocations, Primary Liquidity and Extended Duration, managed by external investment firms. Asset allocations to Primary Liquidity are targeted at 45% of total investments with a target duration of approximately 55 days. The Extended Duration allocation may be structured into three sub-portfolios; a Short Duration Portfolio, an Intermediate Duration Portfolio and a Long Duration Portfolio.

Foreign currency risk – This risk refers to the possibility that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The university had no foreign investments or deposits for fiscal year 2020.

Cash and Cash Equivalents

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*. Cash and cash equivalents represent cash with the treasurer, cash on hand, certificates of deposit and temporary investments with original maturities of 90 days or less, and cash equivalents with the Virginia State Non-Arbitrage Program (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. Cash and cash equivalents reporting requirements are defined by GASB Statement 9, *Reporting Cash Flows of Proprietary and Nonexpendable Trust Funds and Governmental Entities that Use Proprietary Fund Accounting*.

Investments

A categorization of university investments follows. 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.

Summary of investments
As of June 30, 2020
(all dollars in thousands)

	Current Assets	Noncurrent Assets	Total
Cash and cash equivalents	$ 187,802	$ 12,885	$ 200,687
Short-term investments	-	3,732	3,732
Long-term investments	-	585,657	585,657
Cash and investments	$ 187,802	$ 602,274	790,076
Less cash			11,626
Total investments			$ 778,450

The investment policy of the university is established by the board of visitors and monitored by the board's Finance and Resource Management Committee. Authorized investments are set forth in the *Investment of Public Funds Act* (Section 2.2-4500 through 2.2-4516, et seq., *Code of Virginia*). Authorized investments include: U.S. Treasury and agency securities, corporate debt securities, asset-backed securities, mortgage-backed securities, AAA rated obligations of foreign governments, bankers acceptances and bank notes, negotiable certificates of deposit, repurchase agreements, commercial paper, and money market funds.

All gifts, local funds, and nongeneral fund reserves and balances the university determines appropriate and permitted by law may be invested in the VTF Consolidated Endowment Program. These funds are governed by the foundation's investment and spending policies, and managed in accordance with the provisions of the *Virginia Uniform Prudent Management of Institutional Funds Act.*

Investments Measured at Fair Value including categorization of credit quality and interest rate risk
Investments held on June 30, 2020 *(all dollars in thousands)*

	Credit Rating	Less than 1 Year	1-5 Years	6/30/2020	Fair Value Measurement * Level 1	Level 2
Investments by fair value level						
U.S. Treasury and Agency securities [1]	N/A	$ 4,136	$ 24,553	$ 28,689	$ 28,689	$ -
Debt securities						
Corporate bonds & notes	A1	305	9,596	9,901	-	9,901
Corporate bonds & notes	A2	2,456	13,818	16,274	-	16,274
Corporate bonds & notes	A3	7,320	15,082	22,402	-	22,402
Corporate bonds & notes	Aa1	-	970	970	-	970
Corporate bonds & notes	Aa2	1,974	2,688	4,662	-	4,662
Corporate bonds & notes	Aa3	1,001	2,537	3,538	-	3,538
Commercial paper	P-1	3,450	-	3,450	-	3,450
Repurchase agreements	N/A	15,815	-	15,815	-	15,815
Asset backed securities	A2	-	1,249	1,249	-	1,249
Asset backed securities	Aaa	11,271	25,789	37,060	-	37,060
Asset backed securities [2]	AAA	7,835	10,548	18,383	-	18,383
Federal agency securities						
Unsecured bonds and notes	Aaa	123,966	11,151	135,117	-	135,117
Mortgage backed securities	Aaa	6,333	19,524	25,857	-	25,857
Mortgage backed securities [2]	AAA	-	1,380	1,380	-	1,380
Money market & mutual funds [2]	AAAm	3,775	-	3,775	3,775	-
Total investments by fair value level		189,637	138,885	328,522	$ 32,464	$ 296,058
Investments measured at net asset value (NAV)						
Deposits with VTF		4,795	-	4,795		
Dairymen's Equity w/o specific maturity		-	-	63		
Investments w/o specific maturities, held with VTF		-	-	397,017		
Total investments measured at NAV		4,795	-	401,875		
Investments not measured at fair value						
Money market fund	Aaa-mf	43,841	-	43,841		
SNAP [2]	AAAm	4,212	-	4,212		
Total investments not measured at fair value		48,053	-	48,053		
Total investments		$ 242,485	$ 138,885	$ 778,450		

* Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices.

(1) Credit quality ratings are not required for U.S. Government securities that are explicitly guaranteed by the U.S. Government.
(2) Rating provided by Standard & Poor's Financial Services. All other ratings provided by Moody's Investor Service.

5. Accounts Receivable

Accounts receivable as of June 30, 2020
(all dollars in thousands)

Current receivables		
Grants and contracts	$	47,673
Student tuition and fees		4,548
Accrued investment interest		807
Federal appropriations		371
Auxiliary enterprises and other operating activities		12,545
Total current receivables before allowance		65,944
Less allowance for doubtful accounts		1,779
Net current accounts receivable		64,165
Noncurrent receivables		
Capital gifts, grants, and other receivables		12,083
Accrued investment interest		169
Build America Bond interest receivable		283
Total noncurrent receivables		12,535
Total receivables	$	76,700

6. Notes Receivable

Notes receivable as of June 30, 2020
(all dollars in thousands)

Current notes receivable		
Federal Perkins students loan program	$	962
Brookings student loan programs		158
VTT LLC operating & equipment loan		139
Other short-term loans		58
Total current notes receivable		1,317
Less allowance for doubtful accounts		51
Net current notes receivable		1,266
Noncurrent notes receivable		
Federal Perkins students loan program		8,520
VTT LLC operating & equipment loan		3,507
Brookings student loan programs		1,371
Health Professional student loan program		597
Other short-term loans		58
Total noncurrent notes receivable		14,053
Less allowance for doubtful accounts		1,241
Net noncurrent notes receivable		12,812
Total notes receivable	$	14,078

7. Capital Assets

A summary of changes to capital assets for the year ending June 30, 2020
(*all dollars in thousands*)

Depreciable capital assets	Beginning Balance	Additions	Retirements	Ending Balance
Buildings	$ 1,917,160	$ 121,065	$ 1,896	$ 2,036,329
Buildings - capital leases	108,382	3,542	-	111,924
Moveable equipment	587,317	53,728	18,668	622,377
Capitalized software and other intangible assets	28,332	747	148	28,931
Fixed equipment	145,033	5,734	164	150,603
Infrastructure	127,407	1,512	-	128,919
Infrastructure - capital leases	2,483	-	-	2,483
Library books	77,331	1,041	334	78,038
Total depreciable capital assets, at cost	2,993,445	187,369	21,210	3,159,604
Less accumulated depreciation and amortization				
Buildings	626,536	49,689	805	675,420
Buildings - capital leases	43,946	5,161	-	49,107
Moveable equipment	441,125	42,257	17,596	465,786
Capitalized software and other intangible assets	25,195	1,300	149	26,346
Fixed equipment	80,187	6,387	127	86,447
Infrastructure	102,790	2,488	-	105,278
Infrastructure - capital leases	620	310	-	930
Library books	70,716	1,583	333	71,966
Total accumulated depreciation and amortization	1,391,115	109,175	19,010	1,481,280
Total depreciable capital assets, net of accumulated depreciation and amortization	1,602,330	78,194	2,200	1,678,324
Non-depreciable capital assets				
Land	46,822	830	-	47,652
Livestock	321	-	98	223
Construction in progress	125,021	182,850	112,891	194,980
Equipment in process	10,764	13,680	9,699	14,745
Software in development	788	7	623	172
Total non-depreciable capital assets	183,716	197,367	123,311	257,772
Total capital assets, net of accumulated deprecation and amortization	$ 1,786,046	$ 275,561	$ 125,511	$ 1,936,096

8. Accounts Payable and Accrued Liabilities

Accounts payable and accrued liabilities at June 30, 2020
(all dollars in thousands)

Accounts payable	$	32,522
Accounts payable, capital projects		29,571
Accrued salaries and wages payable		85,767
Retainage payable		8,713
Total current accounts payable and accrued liabilities	$	156,573

Retainage payable represents funds held by the university as retainage on various construction contracts for work performed. Funds retained will be remitted as agreed upon satisfactory completion of the projects.

9. Unearned Revenue

Unearned revenue consists of the following at June 30, 2020
(all dollars in thousands)

Grants and contracts	$	23,756
Prepaid tuition and fees		12,084
Prepaid athletic tickets		8,395
Dining services meal plans		5,381
Other auxiliary enterprises		4,057
Total unearned revenue	$	53,673

10. Commonwealth Capital Reimbursement Programs and Capital Gifts

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 2020, funding has been provided to the university from three programs (21st Century program, Central Maintenance Reserve program and the Equipment Trust Fund program) managed by the Virginia College Building Authority (VCBA). 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 university also receives capital funding for equipment and facilities from private gifts, grants, and contracts.

The *Statement of Revenues, Expenses, and Changes in Net Position* includes the amounts listed below for the year ended June 30, 2020, in "Capital Grants and Gifts" line item for equipment and facilities. Part of the funding for these programs is a receivable from the commonwealth at June 30, 2020 as shown in the subsequent paragraph *(all dollars in thousands)*:

VCBA 21st Century program	$ 50,639
Private gifts	16,588
VCBA Central Maintenance Reserve program	16,112
VCBA Equipment Trust Fund program	15,676
Grants and contracts	2,015
	$ 101,030

The line items, "Due from the Commonwealth of Virginia", on the *Statement of Net Position* for the year ended June 30, 2020, include pending reimbursements from the following programs *(all dollars in thousands)*:

	Current	Noncurrent
VCBA Equipment Trust Fund program	$ 15,121	$ -
VCBA 21st Century program	-	10,325
	$ 15,121	$ 10,325

11. Short-term Debt

On March 31, 2008, the Virginia Tech Board of Visitors approved the short-term financing of capital projects with commercial paper issued through the Virginia Municipal League/Virginia Association of Counties (VML/VACo) commercial paper program. This tax-exempt commercial paper financing program gives the university access to a revolving facility to finance or refinance up to $50 million for capital projects under construction that have been previously approved for debt financing by either the board of visitors or the General Assembly of the Commonwealth of Virginia. In fiscal year 2020, the total amount authorized increased to $120 million in February and was subsequently reduced to $0 in April after a total pay down. Virginia Tech was reauthorized for $96.5 million in July 2020.

At June 30, 2020, the amount outstanding was $0. The average days-to-maturity was 27 days with a weighted average effective interest rate of 1.97%.

12. Summary of Long-term Indebtedness

Bonds Payable

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 which are not legal or moral debts of the Commonwealth of Virginia. Pledged general revenues include general fund appropriations, student tuition and fees, facilities and administrative (indirect) cost recoveries, auxiliary enterprise revenues, and other revenues not required by law to be used for another purpose. The university has issued section 9(d) bonds directly through underwriters and also 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 issues section 9(d) bonds with the proceeds used to purchase debt obligations (notes) of the university and other institutions of higher education. The notes are secured by pledged general revenues of the university.

Section 9(c) bonds are general obligation revenue bonds issued by the Commonwealth of Virginia on behalf of the university and secured by the net revenues of the completed project and the full faith, credit, and taxing power of the Commonwealth of Virginia.

Bond covenants related to some of these bonds, both 9(c) and 9(d), require the use of established groups of funds called systems. The Virginia Tech Foundation Inc. and the investment firms of Standish Mellon and Merganser hold these funds in trust for managing the net revenues and debt service of certain university auxiliaries. The revenue bonds issued by the Dormitory and Dining Hall System, the Athletic Facilities System, the University Services System (includes Career and Professional Development, Center for the Arts, Health Services, Recreational Sports, Student Engagement and Campus Life, Student Organizations, and Rescue Squad), and the Utility System (includes Virginia Tech Electric Service) are secured by a pledge of each system's net revenues generated from student or customer fees, and are further secured by the pledged general revenues of the university.

Notes Payable

Notes payable are debt obligations between the Virginia College Building Authority (VCBA) and the university. VCBA issues bonds through the Pooled Bond Program and uses the proceeds to purchase debt obligations (notes) of the university. The notes are secured by the pledged general revenues of the university.

Capital Leases

Capital leases represent the university's obligation primarily to the Virginia Tech Foundation Inc. for lease agreements related primarily to facilities. The leased facilities include the Student Services building, the Public Safety building, the Hunter Andrews Information Systems building addition, the Integrated Life Sciences building (ILSB) which includes a separate lease for a vivarium located in the ILSB, the North End Center building and parking garage, the Prince Street building in Alexandria, Virginia, the Kentland Dairy complex, the Applied Projects Building, the VTTI Intern Hub, and the Kmart and Ardmore properties. The assets under capital leases are recorded at the net present value of the minimum lease payments during the lease term.

Revolving Lines of Credit

The university has revolving lines of credit with The First Bank and Trust Company; Truist Bank, formerly Branch Banking and Trust Company; and Wells Fargo Bank, N.A. with maximum principal amounts totaling $190,000,000. As of June 30, 2020, the amounts below were outstanding on these revolving lines of credit *(all dollars in thousands)*. This balance was repaid in July 2020 when the university rejoined the commercial paper program.

	Maximum Principal Amount	Amount Due at 06/30/2020
The First Bank and Trust Company	$ 30,000	$ -
Truist Bank (formerly Branch Banking & Trust)	85,000	54,064
Wells Fargo Bank, N.A.	75,000	-
	$ 190,000	$ 54,064

Long-term Debt Payable Activity
As of June 30, 2020
(all dollars in thousands)

	Beginning Balance	Additions	Retirements	Ending Balance	Current Portion
Bonds payable					
Section 9(c) general obligation revenue bonds	$ 114,859	$ 1,081	$ 10,320	$ 105,620	$ 8,422
Section 9(d) revenue bonds	55,466	-	3,262	52,204	2,440
Notes payable	231,099	8,777	20,735	219,141	16,465
Capital lease obligations	76,836	3,542	4,539	75,839	4,768
Total long-term debt payable	$ 478,260	13,400	38,856	$ 452,804	$ 32,095
Current year debt defeasance		(1,081)	(1,169)		
Total additions/retirements, net of current year defeasance		$ 12,319	$ 37,687		

Future Principal Commitments
For fiscal years subsequent to 2020
(all dollars in thousands)

	Section 9(c) Bonds	Section 9(d) Bonds	Notes Payable	Capital Lease Obligations	Total Long-term Debt Payable
2021	$ 8,422	$ 2,440	$ 16,465	$ 4,768	$ 32,095
2022	8,779	2,560	17,110	3,969	32,418
2023	9,173	2,650	17,075	3,977	32,875
2024	9,554	2,760	16,120	4,181	32,615
2025	9,599	3,145	16,495	4,385	33,624
2026 - 2030	42,968	16,285	73,780	22,438	155,471
2031 - 2035	7,520	19,625	31,095	21,762	80,002
2036 - 2040	-	-	15,430	10,359	25,789
Unamortized premiums (discounts)	9,605	2,739	15,571	-	27,915
Total future principal requirements	$ 105,620	$ 52,204	$ 219,141	$ 75,839	$ 452,804

Future Interest Commitments
For fiscal years subsequent to 2020
(all dollars in thousands)

	Section 9(c) Bonds	Section 9(d) Bonds	Notes Payable	Capital Lease Obligations	Total Long-term Debt Payable
2021	$ 4,080	$ 1,890	$ 8,047	$ 3,567	$ 17,584
2022	3,705	1,772	7,241	3,301	16,019
2023	3,318	1,674	6,425	3,122	14,539
2024	2,905	1,570	5,673	2,930	13,078
2025	2,469	1,437	5,051	2,737	11,694
2026 - 2030	5,970	5,327	16,264	10,406	37,967
2031 - 2035	533	2,240	5,732	5,775	14,280
2036 - 2040	-	-	922	1,255	2,177
Total future interest requirements	$ 22,980	$ 15,910	$ 55,355	$ 33,093	$ 127,338

Future Principal Commitments by System
For fiscal years subsequent to 2020
(all dollars in thousands)

	Section 9(c) Bonds	Section 9(d) Bonds	Notes Payable	Capital Lease Obligations	Total Long-term Debt Payable
Athletic system					
Principal	$ -	$ 510	$ 34,390	$ -	$ 34,900
Unamortized premiums (discounts)	-	(3)	4,031	-	4,028
Total for athletic system	-	507	38,421	-	38,928
Dormitory and dining hall system					
Principal	76,576	42,680	18,625	-	137,881
Unamortized premiums (discounts)	7,564	2,591	1,439	-	11,594
Total for dormitory and dining hall system	84,140	45,271	20,064	-	149,475
Electric service utility system					
Principal	-	3,610	850	-	4,460
Unamortized premiums (discounts)	-	115	35	-	150
Total for utility system	-	3,725	885	-	4,610
University services system					
Principal	-	2,665	42,830	-	45,495
Unamortized premiums (discounts)	-	36	2,765	-	2,801
Total for university services system	-	2,701	45,595	-	48,296
All systems					
Principal	76,576	49,465	96,695	-	222,736
Unamortized premiums (discounts)	7,564	2,739	8,270	-	18,573
Total for all systems	84,140	52,204	104,965	-	241,309
Other nonsystem debt					
Principal	19,439	-	106,875	75,839	202,153
Unamortized premiums (discounts)	2,041	-	7,301	-	9,342
Total for other nonsystem debt	21,480	-	114,176	75,839	211,495
Total future principal requirements	$ 105,620	$ 52,204	$ 219,141	$ 75,839	$ 452,804

13. Detail of Long-term Indebtedness

As of June 30, 2020
(all dollars in thousands)

	Interest Rates	Maturity	Principal Payable	Unamortized Premium (Discount)	Ending Balance
Bonds Payable					
Revenue bonds - Section 9(d)					
Athletic system					
Series 2015B, issued $510	2.50% - 3.50%	2035	$ 510	$ (3)	$ 507
Dormitory and dining hall system					
Series 2015A, issued $51,425	2.00% - 5.00%	2035	42,680	2,591	45,271
Electric service utility system					
Series 2015D, issued $4,390	2.75% - 4.00%	2035	3,610	115	3,725
University services system					
Recreational Sports auxiliary					
Series 2015C, issued $3,280	2.00% - 4.00%	2035	2,665	36	2,701
Total revenue bonds			$ 49,465	$ 2,739	$ 52,204
General obligation revenue bonds - Section 9(c)					
Dormitory and dining hall system					
Series 2019B, issued $895 - refunding series 2009D	5.00%	2022	$ 605	$ 42	$ 647
Series 2012A, issued $942 - partial refunding series 2004A	5.00%	2024	704	79	783
Series 2013B, issued $3,576 - partial refunding series 2007A	4.00% - 5.00%	2027	2,896	330	3,226
Series 2013B, issued $7,842 - partial refunding series 2007A	4.00% - 5.00%	2027	6,357	725	7,082
Series 2015B, issued $10,671 - partial refunding series 2008B	4.00% - 5.00%	2028	8,934	1,412	10,346
Series 2016B, issued $2,310 - partial refunding series 2009B	2.00% - 5.00%	2029	2,125	318	2,443
Series 2016B, issued $24,200 - partial refunding series 2009B	2.00% - 5.00%	2029	22,270	3,332	25,602
Series 2010A, issued $34,650	3.00% - 5.00%	2030	20,165	328	20,493
Series 2011A, issued $18,860	4.34%	2031	12,520	998	13,518
Total dormitory and dining hall system			76,576	7,564	84,140
Other nonsystem general obligation revenue bonds					
Parking facilities					
Series 2019B, issued $115 - refunding series 2009D	5.00%	2022	75	5	80
Series 2013B, issued $218 - partial refunding series 2006B	4.00% - 5.00%	2026	184	17	201
Series 2015B, issued $921 - partial refunding series 2008B	4.00% - 5.00%	2028	770	122	892
Series 2010A, issued $745	2.00% - 5.00%	2030	425	7	432
Series 2016B, issued $18,890 - partial refunding series 2009B	2.00% - 5.00%	2034	17,985	1,890	19,875
Total other nonsystem general obligation revenue bonds			19,439	2,041	21,480
Total general obligation revenue bonds			96,015	9,605	105,620
Total bonds payable			$ 145,480	$ 12,344	$ 157,824
Notes Payable					
Athletic system					
Series 2010B, issued $11,540 - partial refunding series 2001A	4.00% - 5.00%	2027	$ 7,625	$ 437	$ 8,062
Series 2012B, issued $32,365 - refunding series 2004D revenue bond	3.00% - 5.00%	2029	21,380	2,801	24,181
Series 2016A, issued $5,385 - partial refunding series 2009B	3.00% - 5.00%	2030	5,385	793	6,178
Total athletic system			34,390	4,031	38,421
Dormitory and dining hall system					
Series 2012A, issued $1,350 - partial refunding series 2005	5.00%	2025	900	108	1,008
Series 2014B, issued $340 - partial refunding series 2005	3.00% - 5.00%	2026	205	20	225
Series 2010A, issued $9,650	3.75% - 5.50%	2031	6,360	241	6,601
Series 2018A, issued $11,505	4.00% - 5.00%	2039	11,160	1,070	12,230
Total dormitory and dining hall system			18,625	1,439	20,064
Electric service utility system					
Series 2010B, issued $345 - partial refunding series 2000A	5.00% - 5.75%	2021	215	4	219
Series 2010B, issued $770 - partial refunding series 2002A	5.25%	2023	635	31	666
Total electric service utility system			850	35	885
University services system					
Career Services auxiliary					
Series 2010B, issued $1,190 - partial refunding series 2002A	5.25%	2023	975	48	1,023
Center for the Arts auxiliary					
Series 2010A, issued $19,445	3.75% - 5.60%	2036	14,695	404	15,099
Series 2011A, issued $19,375	3.00% - 5.00%	2037	15,630	640	16,270
Health Services auxiliary					
Series 2009A, issued $1,475	2.75% - 5.00%	2021	5	-	5
Series 20015B, issued $800 - partial refunding series 2009A	3.00% - 5.00%	2029	800	93	893
Series 2016A, issued $2,780 - partial refunding series 2009B	3.00% - 5.00%	2030	2,780	410	3,190
Series 2016A, issued $7,945 - partial refunding series 2009B	3.00% - 5.00%	2030	7,945	1,170	9,115
Total university services system			42,830	2,765	45,595
Other nonsystem notes payable					
Boiler pollution controls					
Series 2014B, issued $720 - partial refunding series 2006A	3.00% - 5.00%	2024	435	53	488
Series 2016A, issued $375 - partial refunding series 2006A	3.00%	2027	375	26	401
Campus heating plant					
Series 2014B, issued $1,790 - partial refunding series 2007A	3.00% - 5.00%	2026	1,410	171	1,581
Series 2016A, issued $575 - partial refunding series 2007A	3.00% - 5.00%	2028	575	79	654
Series 2016A, issued $3,625 - partial refunding series 2009B	3.00% - 5.00%	2030	3,625	533	4,158

Chiller plant					
Series 2011A, issued $7,515	3.00% - 5.00%	2032	5,445	349	5,794
Infectious waste facility					
Series 2010B, issued $190 - partial refunding series 2000A	5.00% - 5.75%	2021	120	2	122
Goodwin Hall					
Series 2011A, issued $12,695	3.00% - 5.00%	2032	9,205	590	9,795
Holden Hall					
Series 2019A, issued $7,920	2.25% - 5.00%	2040	7,920	816	8,736
Holtzman Alumni Center and Skelton Conference Center					
Series 2010B, issued $3,215 - partial refunding series 2003A	4.38% - 5.00%	2021	865	61	926
Series 2012A, issued $12,320 - partial refunding series 2003A	4.75%	2031	10,115	681	10,796
ICTAS II					
Series 2016A, issued $8,345 - partial refunding series 2009B	3.00% - 5.00%	2030	8,345	1,228	9,573
Kelly Hall					
Series 2014B, issued $6,040 - partial refunding series 2006A	3.00% - 5.00%	2024	3,700	445	4,145
Series 2016A, issued $3,180 - partial refunding series 2006A	3.00%	2027	3,180	220	3,400
Life Sciences I Facility					
Series 2012A, issued $3,985 - partial refunding series 2005	5.00%	2025	2,665	318	2,983
Series 2014B, issued $1,005 - partial refunding series 2005	3.00% - 5.00%	2026	615	59	674
Steger Hall					
Series 2010B, issued $10,155 - partial refunding series 2002A	4.00% - 5.25%	2028	9,405	280	9,685
Surge space building					
Series 2014B, issued $2,730 - partial refunding series 2006A	3.00% - 5.00%	2022	1,175	115	1,290
Unified Communications					
Series 2015A, issued $6,160	5.00%	2023	2,905	310	3,215
Veterinary medicine instruction addition					
Series 2012B, issued $9,820	3.00% - 5.00%	2033	7,305	741	8,046
Virginia Tech Carilion biosciences addition					
Series 2017A and 2017B, issued $24,630	2.75% - 3.30%	2038	23,655	177	23,832
Series 2018B, issued $3,965	3.12% - 5.00%	2039	3,835	47	3,882
Total other nonsystem notes payable			106,875	7,301	114,176
Total notes payable			$ 203,570	$ 15,571	$ 219,141

Capital leases payable

North End Center building and parking garage	$ 34,499	$ -	$ 34,499
Kentland Farm dairy complex	11,970	-	11,970
Applied Projects building	9,865	-	9,865
Integrated Life Sciences (ILSB) building and vivarium	9,856	-	9,856
Kmart and Ardmore properties	3,514	-	3,514
Student Services building, Public Safety building, Hunter Andrews addition, Prince Street building, and VTTI Intern Hub	6,135	-	6,135
Total capital leases payable	$ 75,839	$ -	$ 75,839

14. Long-term Debt Defeasance

Current Year

During fiscal year 2020 the Commonwealth of Virginia, on behalf of the university, issued $1,076,000 of 9(c) general obligation revenue bonds to refund $1,169,000 of 9(c) general obligation revenue bonds. The resulting net gain of $93,000 will be amortized over the life of the new debt. For financial reporting purposes, these bonds are considered an in-substance defeasance and have therefore been removed from the long-term debt payable line item of the *Statement of Net Position*. The assets in escrow have similarly been excluded. The details of each refunded debt issue are presented below.

Long-term Debt Defeasance
Debt issues refunded as of June 30, 2020
(all dollars in thousands)

	Debt Refunded	Refunding Debt Issued	Accounting Gain (Loss)	Present Value Rate	Reduction in Debt Service	Reduction in Debt Service Discounted at Present Value
Section 9(c) general obligation revenue bonds						
Series 2009D, issued $1,891	$ 945	$ 895	$ 50	1.07%	$ 65	$ 63
Series 2009D, issued $190	120	115	5	1.07%	7	7
Premiums (discounts)	104	71	33			
Other accounting activity related to debt refunding	-	(5)	5			
Total general obligation revenue bonds	$ 1,169	1,076	$ 93		$ 72	$ 70
Debt issuance costs		5				
Total refunding debt issued		$ 1,081				

Previous Years

In previous fiscal 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 debt payable that were defeased in-substance. For the year ended June 30, 2020, bonds and notes payable considered defeased in previous years totaled $28,185,000.

Debt Defeasance – Gains (Losses)

GASB Statement 65, *Items Previously Reported as Assets and Liabilities,* reclassifies gains and losses on defeased debt to deferred outflows of resources or deferred inflows of resources. The tables below provide detail on the unamortized gains and losses included in the deferred outflows of resources and deferred inflows of resources by bond category for defeased outstanding debt from prior years.

Deferred Outflows for Debt Defeasance
As of June 30, 2020
(all dollars in thousands)

	Beginning Balance	Additions	Retirements	Ending Balance
Bonds payable				
Section 9(c) general obligation revenue bonds	$ (2,366)	$ -	$ 277	$ (2,089)
Section 9(d) revenue bonds	(28)	-	28	-
Notes payable	(5,374)	-	679	(4,695)
Total deferred outflows for debt defeasance	$ (7,768)	$ -	$ 984	$ (6,784)

Deferred Inflows for Debt Defeasance
As of June 30, 2020
(all dollars in thousands)

	Beginning Balance	Additions	Retirements	Ending Balance
Bonds payable				
Section 9(c) general obligation revenue bonds	$ 118	$ 93	$ (51)	$ 160
Notes payable	734	-	(70)	664
Total deferred inflows for debt defeasance	$ 852	$ 93	$ (121)	$ 824

15. Change in Other Liabilities

A summary of the changes in other liabilities for the year ended June 30, 2020
(all dollars in thousands)

	Beginning Balance	Additions	Reductions	Ending Balance	Current Portion
Accrued compensated absences	$ 47,574	$ 38,280	$ 35,602	$ 50,252	$ 23,074
Federal student loan program contribution refundable	13,013	227	2,528	10,712	-
Net pension liability	353,955	56,496	-	410,451	-
Other postemployment benefits	207,118	7,457	26,531	188,044	2,544
Total other liabilities	$ 621,660	$ 102,460	$ 64,661	$ 659,459	$ 25,618

16. Lease Commitments

The university has entered into numerous agreements to lease land, buildings, and equipment. With some of these agreements, the university is committed under various operating leases for equipment and space. In general, the leases are for three- to ten-year terms with renewal options. The university expects similar leases to replace these leases during the normal course of business. The total lease expense was approximately $32,902,000 for the year ended June 30, 2020. This amount includes approximately $20,880,000 in lease payments to the Virginia Tech Foundation Inc. for office and laboratory space. In addition, the total lease expense includes approximately $2,078,000 of short-term equipment rentals that can be terminated at any time.

A summary of future minimum lease payments under operating leases as of June 30, 2020, follows *(all dollars in thousands)*:

2021	$ 22,478
2022	18,747
2023	14,787
2024	10,857
2025	3,468
2026 – 2030	10,090
2031 – 2035	2,978
2036 – 2040	2,507
2041 – 2045	2,303
2046 – 2050	2,313
2051 – 2055	2,318
2056 – 2060	1,986
2061 – 2063	891
Total	$ 95,723

17. Capital Improvement Commitments

The amounts listed in the following tables represent the value of obligations remaining on capital improvement project contracts. These obligations are for future effort and as such have not been accrued as expenses or liabilities on the university's financial statements. Outstanding contractual commitments for capital improvement projects at June 30, 2020 are listed below.

Capital Commitments by Project
(all dollars in thousands)

Holden hall renovation	$ 51,323
Creativity and innovation district	37,660
Innovation campus – academic building	14,675
Chiller plant phase II	13,765
Student athlete performance center	5,749
Other projects	17,180
Total	$ 140,352

Capital Commitments by Funding Source
(all dollars in thousands)

VCBA 21st Century bonds to be paid by the commonwealth	$ 71,460
Bonds and notes payable to be paid by the university	52,527
University cost recoveries	4,836
Auxiliary enterprise funds	3,041
Other funding sources	8,488
Total	$ 140,352

18. Pension Plan

Plan Descriptions

All full-time, salaried, permanent employees of state agencies are automatically covered by the VRS State Employee Retirement Plan (SERP) or the Virginia Law Officer's Retirement System (VaLORS) retirement plans upon employment, unless they are eligible faculty and choose to enroll in the optional retirement program described in Note 19. These plans are single employer plans treated as cost-sharing plans for financial reporting purposes. They are administered by the Virginia Retirement System (VRS, or 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 different eligibility criteria. The specific information for each plan and the eligibility for covered groups within each plan are described below:

Retirement Plan Provisions by Plan Structure

Plan 1
Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, service credit, and average final compensation at retirement using a formula.

Plan 2
Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, service credit, and average final compensation at retirement using a formula.

Hybrid Retirement Plan
The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan.

- The defined benefit component is based on a member's age, service credit, and average final compensation at retirement using a formula.
- The benefit from the defined contribution component of the plan depends on the member and employer contributions made to the plan and the investment performance of those contributions.
- In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.

Eligible Members

Eligible Members – Plan 1
Employees are in Plan 1 if their membership date is before July 1, 2010, they were vested as of January 1, 2013, and they have not taken a refund. VRS

Plan 1 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014. The Hybrid Retirement Plan's effective date for eligible Plan 1 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.

Eligible Members – Plan 2

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. VRS Plan 2 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014. The Hybrid Retirement Plan's effective date for eligible Plan 2 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan.

Eligible Members – Hybrid Plan

Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes:

- 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.

*Some state employees are not eligible to participate in the Hybrid Retirement Plan. They include members of the Virginia Law Officers' Retirement System (VaLORS), and employees eligible for an optional retirement plan (ORP) who have prior service under Plan 1 or Plan 2. These employees must select Plan 1 or Plan 2 (as applicable) or the ORP plan.

Retirement Contributions

Retirement Contributions - Plan 1

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 pretax 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.

Retirement Contributions - Plan 2

Same as Plan 1.

Retirement Contributions - Hybrid Plan

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.

Service Credit

Service Credit - Plan 1

Service credit includes active service. Members earn service credit for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional service credit the member was granted. A member's total service credit 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.

Service Credit - Plan 2

Same as Plan 1.

Service Credit - Hybrid Plan

- Defined Benefit Component: Under the defined benefit component of the plan, service credit includes active service. Members earn service credit for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional service credit the member was granted. A member's total service credit 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.
- Defined Contributions Component: Under the defined contribution component, service credit is used to determine vesting for the employer contribution portion of the plan.

Vesting

Vesting - Plan 1

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 service credit. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for their plan. Members also must be vested to receive a full refund of their member contribution account balance if they leave employment and request a refund. Members are always 100% vested in the contributions that they make.

Vesting - Plan 2

Same as Plan 1.

Vesting - Hybrid Plan

- Defined Benefit Component: Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years (60 months) of service credit. Plan 1 or Plan 2 members with at least five years (60 months) of service credit who opted into the Hybrid Retirement Plan remain vested in the defined benefit component.
- Defined Contributions Component: Defined contribution vesting refers to the minimum length of service a member needs to be eligible to withdraw

the employer contributions from the defined contribution component of the plan. Members are always 100% vested in the contributions that they make. Upon retirement or leaving covered employment, a member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the plan, based on service.

- After two years, a member is 50% vested and may withdraw 50% of employer contributions.
- After three years, a member is 75% vested and may withdraw 75% of employer contributions.
- After four or more years, a member is 100% vested and may withdraw 100% of employer contributions.

Distribution is not required, except as governed by law.

Calculating the Benefit

Calculating the Benefit - Plan 1

The basic benefit is determined using the average final compensation, service credit and plan multiplier. An early retirement reduction factor is applied to this amount if the member is retiring with a reduced benefit. In cases where the member has elected an optional form of retirement payment, an option factor specific to the option chosen is then applied.

Calculating the Benefit - Plan 2

See definition under Plan 1.

Calculating the Benefit - Hybrid Plan

- Defined Benefit Component: See definition under Plan 1.
- Defined Contribution Component: The benefit is based on contributions made by the member and any matching contributions made by the employer, plus net investment earnings on those contributions.

Average Final Compensation

Average Final Compensation - Plan 1

A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.

Average Final Compensation - Plan 2

A member's average final compensation is the average of their 60 consecutive months of highest compensation as a covered employee.

Average Final Compensation - Hybrid Plan

Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.

Service Retirement Multiplier

Service Retirement Multiplier - Plan 1

For SERP, 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%. For VaLORS, the retirement multiplier for VaLORS employees is 1.70% or 2.00%.

Service Retirement Multiplier - Plan 2

For SERP, 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 service credit earned, purchased, or granted on or after January 1, 2013. For VaLORS, the retirement multiplier for VaLORS employees is 2.00%.

Service Retirement Multiplier - Hybrid Plan

- Defined Benefit Component: SERP - The retirement multiplier for the defined benefit component is 1.00%. For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans. VaLORS - Not applicable.
- Defined Contribution Component: Not applicable.

Normal Retirement Age

Normal Retirement Age - Plan 1

For SERP, age 65. For VaLORS, age 60.

Normal Retirement Age - Plan 2

For SERP, normal Social Security retirement age. For VaLORS, same as Plan 1.

Normal Retirement Age - Hybrid Plan

- Defined Benefit Component: SERP - Same as Plan 2; VaLORS - Not applicable.
- Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.

Earliest Unreduced Retirement Eligibility

Earliest Unreduced Retirement Eligibility - Plan 1

For SERP, age 65 with at least five years (60 months) of service credit or at age 50 with at least 30 years of service credit. For VaLORS, age 60 with at least five years of service credit or age 50 with at least 25 years of service credit.

Earliest Unreduced Retirement Eligibility - Plan 2

For SERP, normal Social Security retirement age with at least five years (60 months) of service credit or when their age and service equal 90. For VaLORS, same as Plan 1.

Earliest Unreduced Retirement Eligibility - Hybrid Plan

- Defined Benefit Component: SERP - Normal Social Security retirement age and have at least five years (60 months) of service credit or when their age and service equal 90; VaLORS - Not applicable.
- Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.

Earliest Reduced Retirement Eligibility

Earliest Reduced Retirement Eligibility - Plan 1

For SERP, age 55 with at least five years (60 months) of service credit or age 50 with at least 10 years of service credit. For VaLORS, age 50 with at least five years of service credit.

Earliest Reduced Retirement Eligibility - Plan 2

For SERP, age 60 with at least five years (60 months) of service credit. For VaLORS, same as Plan 1.

Earliest Reduced Retirement Eligibility - Hybrid Plan

- Defined Benefit Component: SERP - Age 60 with at least five years (60 months) of service credit. For VaLORS - Not applicable.
- Defined Contribution Component: Members are eligible to receive distributions upon leaving employment, subject to restrictions.

Cost-of-Living Adjustment (COLA) in Retirement

Cost-of-Living Adjustment (COLA) in Retirement - Plan 1

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%.

Eligibility:
For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of service credit, the COLA will go into effect on July 1 after one full calendar year from the retirement date.

For members who retire with a reduced benefit and who have less than 20 years of service credit, the COLA will go into effect on July 1 after one calendar year following the unreduced retirement eligibility date.

Exceptions to COLA Effective Dates:
The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances:

- The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013.
- The member retires on disability.
- The member retires directly from short-term or long-term disability.
- The member is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act or the Transitional Benefits Program.
- The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit.

The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.

Cost-of-Living Adjustment (COLA) in Retirement - Plan 2

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%. Eligibility rules and exceptions are the same as Plan 1.

Cost-of-Living Adjustment (COLA) in Retirement - Hybrid Plan

- Defined Benefit Component: The COLA is the same as Plan 2. The eligibility rules and exceptions are the same as Plan 1 and Plan 2.
- Defined Contribution Component: Not applicable.

Disability Coverage

Disability Coverage - Plan 1

Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.7% on all service, regardless of when it was earned, purchased or granted. Most state employees are covered under the Virginia Sickness and Disability Program (VSDP), and are not eligible for disability retirement. VSDP members are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.

Disability Coverage - Plan 2

Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.65% on all service, regardless of when it was earned, purchased or granted. Most state employees are covered under the Virginia Sickness and Disability Program (VSDP), and are not eligible for disability retirement. VSDP members are subject to a one-year waiting period before becoming eligible for non-work related disability benefits.

Disability Coverage - Hybrid Plan

State employees (including Plan 1 and Plan 2 opt-ins) participating in the Hybrid Retirement Plan are covered under the Virginia Sickness and Disability Program (VSDP), and are not eligible for disability retirement. Hybrid members (including Plan 1 and Plan 2 opt-ins) covered under VSDP are subject to a one-year waiting period before becoming eligible for non-work-related disability benefits.

Purchase of Prior Service

Purchase of Prior Service - Plan 1

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 service credit counts toward vesting, eligibility for retirement, and the health insurance credit. Only active members are eligible to purchase prior service. Members also may be eligible to purchase periods of leave without pay.

Purchase of Prior Service - Plan 2
Same as Plan 1.

Purchase of Prior Service - Hybrid Plan

- Defined Benefit Component: Same as Plan 1, with the exception that Hybrid Retirement Plan members are ineligible for ported service.
- Defined Contribution Component: Not applicable.

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. Each state agency's contractually required contribution rate for the year ended June 30, 2020 was 13.52% of covered employee compensation for employees in the VRS State Employee Retirement Plan. For employees in the VaLORS Retirement Plan, the contribution rate was 21.61% of covered employee compensation. These rates were based on an actuarially determined rates from an actuarial valuation as of June 30, 2017. 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 Virginia Tech to the VRS State Employee Retirement Plan were $37,758,000 and $36,003,000 for the years ended June 30, 2020 and June 30, 2019, respectively. Contributions from Virginia Tech to the VaLORS Retirement Plan were $503,000 and $496,000 for the years ended June 30, 2020 and June 30, 2019, respectively.

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

At June 30, 2020, Virginia Tech reported a liability of $405,894,000 for its proportionate share of the VRS State Employee Retirement Plan Net Pension Liability and a liability of $4,557,000 for its proportionate share of the VaLORS Retirement Plan Net Pension Liability. The Net Pension Liability was measured as of June 30, 2019 and the total pension liability used to calculate the Net Pension Liability was determined by an actuarial valuation performed as of June 30, 2018, and rolled forward to the measurement date of June 30, 2019. Virginia Tech's proportion of the Net Pension Liability was based on Virginia Tech's actuarially determined employer contributions to the pension plan for the year ended June 30, 2019, relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2019, Virginia Tech's proportion of the VRS State Employee Retirement Plan was 6.423% as compared to 6.462% at June 30, 2018. At June 30, 2019, the Virginia Tech's proportion of the VaLORS Retirement Plan was 0.657% as compared to 0.665% at June 30, 2018.

For the year ended June 30, 2020, Virginia Tech recognized pension expense of $44,303,000 for the VRS State Employee Retirement Plan and $432,000 for the VaLORS Retirement Plan. Since there was a change in proportionate share between June 30, 2018 and June 30, 2019, 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, 2020, Virginia Tech reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources *(all dollars in thousands)*:

	SERP		VaLORS	
	Deferred Outflows	Deferred Inflows	Deferred Outflows	Deferred Inflows
Differences between expected and actual experience	$ 8,458	$ 10,919	$ 46	$ 52
Net difference between projected and actual earnings on pension plan investments	-	10,148	-	72
Change in assumptions	31,994	-	258	7
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	4,550	-	47
Employer contributions subsequent to the measurement date	37,758		503	
Total	$ 78,210	$ 25,617	$ 807	$ 178

A total of $38,261,000 ($37,758,000 for SERP and $503,000 for VaLORS) reported as deferred outflows of resources related to pensions resulting from Virginia Tech's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows *(all dollars in thousands)*:

Year ended June 30,	SERP	VaLORS
2021	$ 6,793	$ 86
2022	$ (1,970)	$ 33
2023	$ 9,207	$ -
2024	$ 805	$ 7
2025	$ -	$ -

Actuarial Assumptions

VRS State Employee Retirement Plan (SERP)
The total pension liability for the VRS State Employee Retirement Plan was based on an actuarial valuation as of June 30, 2018, 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, 2019.

Inflation	2.50%
Salary increases, including inflation	3.50% – 5.35%
Investment rate of return	6.75%, net of pension plan investment expenses, including inflation*

Mortality rates (SERP)

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on the VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates	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%
Discount Rate	Decrease rate from 7.00% to 6.75%

VaLORS Retirement Plan

The total pension liability for the VaLORS Retirement Plan was based on an actuarial valuation as of June 30, 2018, 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, 2019.

Inflation	2.50%
Salary increases, including inflation	3.50% – 4.75%
Investment rate of return	6.75%, net of pension plan investment expenses, including inflation*

Mortality rates (VaLORS)

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 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, 2018, valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates	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%
Discount Rate	Decrease rate from 7.00% to 6.75%

* 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 6.75%. However, since the difference was minimal, and a more conservative 6.75% 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 6.75% to simplify preparation of pension liabilities.

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 67, less that system's fiduciary net position. As of June 30, 2019, NPL amounts for the VRS State Employee Retirement Plan and the VaLORS Retirement Plan are as follows *(all dollars in thousands)*:

	SERP	VaLORS
Total Pension Liability	$ 25,409,842	$ 2,190,025
Plan Fiduciary Net Position	19,090,110	1,495,990
Employers' Net Pension Liability (Asset)	$ 6,319,732	$ 694,035
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	75.13%	68.31%

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 67 in the System's notes to the financial statements and required supplementary information.

Long-Term Expected Rate of Return

The long-term expected rate of return on pension System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	34.00%	5.61%	1.91%
Fixed Income	15.00%	0.88%	0.13%
Credit Strategies	14.00%	5.13%	0.72%
Real Assets	14.00%	5.27%	0.74%
Private Equity	14.00%	8.77%	1.23%
MAPS - Multi-Asset Public Strategies	6.00%	3.52%	0.21%
PIP - Private Investment Partnership	3.00%	6.29%	0.19%
Total	100.00%		5.13%
Inflation			2.50%
Expected arithmetic nominal return*			7.63%

* The above allocation provides a one-year return of 7.63%. 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 7.11%, including expected inflation of 2.50%. The VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation.

Discount Rate

The discount rate used to measure the total pension liability was 6.75%. 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 Virginia Tech 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 which was 100% of the actuarially determined contribution rate. From July 1, 2019, on, all agencies are assumed to continue 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 Virginia Tech's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents Virginia Tech's proportionate share of the VRS State Employee Retirement Plan (SERP) and the VaLORS Retirement Plan net pension liability using the discount rate of 6.75%, as well as what Virginia Tech's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate *(all dollars in thousands)*:

	1.00% Decrease (5.75%)	Current Discount Rate (6.75%)	1.00% Increase (7.75%)
Virginia Tech's proportionate share of the VRS SERP net pension liability	$ 596,254	$ 405,894	$ 245,869
Virginia Tech's proportionate share of the VaLORS net pension liability	$ 6,399	$ 4,557	$ 3,034

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 2019 *Comprehensive Annual Financial Report* (CAFR). A copy of the 2019 VRS CAFR may be downloaded from the VRS website at ***https://www.varetire.org/pdf/publications/2019-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

The amount of payables outstanding to the VRS State Employee Retirement Plan (SERP) and the VaLORS Retirement Plan at June 30, 2020, was approximately $2.1 million for legally required contributions into the plans.

19. Defined Contribution Plans

Optional Retirement Plan

Full-time faculty and certain administrative staff may participate in optional retirement plans as authorized by the *Code of Virginia* rather than the VRS retirement plan. These optional retirement plans are defined contribution plans offered through Teachers Insurance and Annuity Association – College Retirement Equities Fund (TIAA-CREF), and Fidelity Investments Tax-Exempt Services Company. There are two defined contribution plans. Plan 1 is for employees hired prior to July 1, 2010, and retirement benefits received are based upon the employer's 10.4 percent, plus net investment gains or losses. Plan 2 is for employees hired on or after July 1, 2010, and retirement benefits received are based upon the employer's 8.5 percent contribution and the employee's 5.0 percent contribution plus net investment gains or losses. Individual contracts issued under the plan provide for full and immediate vesting of both the university's and the employees' contributions. Total pension costs under this plan were approximately $31,843,000 for year ended June 30, 2020. Contributions to the optional retirement plan were calculated using the base salary amount of approximately $373,952,000 for this fiscal year.

Deferred Compensation Plan

Employees of the university are employees of the Commonwealth of Virginia. 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 expense for matching contributions to this plan, which is an amount assessed by the commonwealth, was approximately $2,459,000 for the fiscal year 2020.

Federal Pension Plans

Certain Cooperative Extension Service (CES) professional employees are participants in either the Federal Employee Retirement System (FERS) or the Federal Civil Service Retirement System (CSRS). The FERS and CSRS are defined benefit plans in which benefits are based upon the highest base pay over any three consecutive years and the years of creditable service. The costs under these plans were approximately $81,000 for the year ended June 30, 2020. Contributions to the FERS and CSRS were calculated using the base salary amount of approximately $674,000 for the fiscal year 2020.

In addition, the university contributed $25,000 in employer contributions to the Thrift Savings Plan for the year ended June 30, 2020. The Thrift Savings Plan is a defined contribution plan in which the university matches employee contributions within certain limitations.

20. Other Postemployment Benefits

The university participates in postemployment benefit programs that are sponsored by the commonwealth and administered by the Virginia Retirement System (VRS, or the System) or the Department of Human Resource Management. These programs include the Pre-Medicare Retiree Healthcare program, Virginia Sickness and Disability program, Group Life Insurance program, Retiree Health Insurance Credit program, and Line of Duty Act program. The specific information for each of these Other Postemployment Benefit (OPEB) programs is described below.

Plan Descriptions

Pre-Medicare Retiree Healthcare (PMRH) program - All full-time and part-time permanent salaried Virginia Tech 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 eligible to participate in the commonwealth's healthcare program upon employment. Retirees who are not yet eligible for Medicare health benefits may continue to participate in this program by meeting certain eligibility requirements.

Virginia Sickness and Disability (VSDP) program - All full-time and part-time permanent salaried Virginia Tech 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 VSDP upon employment. The VSDP program also covers Virginia Tech employees hired before January 1, 1999 who elected to transfer to VSDP rather than retain their eligibility to be considered for disability retirement.

Group Life Insurance (GLI) program - All full-time, salaried, permanent employees of Virginia Tech are automatically covered by the GLI program upon employment. (NOTE: 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 Virginia Tech directly for the premiums. Virginia Tech deducts these premiums from members' paychecks and pays the premiums to the insurer. Since this is a separate and fully insured program, it is not included as part of the GLI program postemployment benefit.)

Retiree Health Insurance Credit (HIC) program - All full-time, salaried, permanent employees of Virginia Tech are automatically covered by the HIC program. Members earn one month of service credit toward the benefit for each month they are employed and for which Virginia Tech 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.

Line of Duty Act (LODA) program - 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 LODA program. As required by statute, the VRS is responsible for managing the assets of the program. The Virginia Tech contributions are determined by the VRS actuary using anticipated program costs and the number of covered individuals associated with all participating employers.

Plan Provisions

PMRH program
Eligible employees

For a VRS retiree to participate in the Pre-Medicare Retiree Healthcare (PMRH) program, the participant must:

- be a retiring state employee who is eligible for a monthly retirement benefit from the VRS, and
- be receiving (not deferring) the benefit immediately upon retirement*, and
- have his or her last employer before retirement be the Commonwealth of Virginia, and
- be eligible for coverage (even if not enrolled) 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.

(* A retirement contribution or leave without pay status for retirement was reported in the month immediately prior to retirement date. Some faculty members may also be eligible if they are paid on an alternate pay cycle but maintain eligibility for active coverage until their retirement date.)

For an Optional Retirement Plan (ORP) retiree to participate in the PMRH program, the participant must:

- be a terminating state employee who is eligible for a benefit from one of the qualified ORP vendors, and
- have his or her last employer before termination be the Commonwealth of Virginia, and
- be eligible for coverage (even if not enrolled) in the State Employee Health Benefits Program at the time of termination, and
- meet the age and service requirements for an immediate retirement benefit under the VRS plan that would have been applicable had ORP coverage not been selected, and
- enroll in the State Retiree Health Benefits Program no later than 31 days from the date that coverage (or eligibility for coverage) was lost due to termination of employment.

(This applies to ORP terminations effective January 1, 2017, or later. For those who terminated employment prior to January 1, eligibility should be determined based on the policy in place at the time of their termination.)

There are no assets accumulated in a trust to pay benefits for this program.

VSDP program
Eligible employees

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.

Eligible employees are enrolled automatically upon employment. They include:

- Full-time and part-time permanent salaried Virginia Tech 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.
- Virginia Tech faculty members who elect the VRS defined benefit plan.

Benefit Amounts

The Virginia Sickness and Disability Program (VSDP) provides the following benefits for eligible retirees:

- Long-Term Disability – 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 Care Plan – The program also includes a self-funded long-term care plan that assists with the cost of covered long-term care services.

Cost-of-Living Adjustment (COLA)

During periods an employee receives long-term disability benefits, the LTD benefit may be increased annually by an amount recommended by the actuary and approved by the board.

- Plan 1 employees vested as of 1/1/2013 – 100% of the VRS Plan 1 COLA (The first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%).
- Plan 1 employee non-vested as of 1/1/2013, Plan 2 and Hybrid Plan employees – 100% of the VRS Plan 2 and Hybrid COLA (The first 2% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 2%) up to a maximum COLA of 3%).

For participating full-time employees taking service retirement, the creditable compensation may be increased annually by an amount recommended by the actuary and approved by the board, from the date of the commencement of the disability to the date of retirement.

- 100% of the increase in the pay over the previous plan year for continuing VSDP members in the State, SPORS and VaLORS Plans, with a maximum COLA of 4.00%

For participating full-time employees receiving supplemental (work-related) disability benefits, the creditable compensation may be increased annually by an amount recommended by the actuary and approved by the Board, from the date of the commencement of the disability to the date of retirement.

- 100% of the increase in the pay over the previous plan year for continuing VSDP members in the State, SPORS and VaLORS Plans, with a maximum COLA of 4.00%

GLI program

Eligible employees

The GLI program was established July 1, 1960, for state employees, teachers, and employees of political subdivisions that elect the program. Basic group life insurance coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest.

Benefit amounts

The benefits payable under the GLI program have several components:

- Natural Death Benefit – The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.
- Accidental Death Benefit – The accidental death benefit is double the natural death benefit.
- Other Benefit Provisions – In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include: accidental dismemberment benefit, safety belt benefit, repatriation benefit, felonious assault benefit, and accelerated death benefit option.

Reduction in benefit amounts

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

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

For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the GLI program. The minimum benefit was set at $8,000 by statute. The amount increases annually based on the VRS Plan 2 cost-of-living adjustment and was increased to $8,463 effective June 30, 2020.

Retiree HIC program

Eligible Employees

The HIC program was established January 1, 1990 for retired state employees covered under VRS, SPORS, VaLORS and the Judicial Retirement System (JRS) who retire with at least 15 years of service credit. Eligible employees are enrolled automatically upon employment. They include full-time and part-time permanent salaried state employees covered under VRS, SPORS, VaLORS and JRS.

Benefit amounts

The HIC program provides the following benefits for eligible employees:

- At Retirement – For employees who retire with at least 15 years of service credit, the monthly benefit is $4.00 per year of service per month with no cap on the benefit amount.
- Disability Retirement – For 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. For state police officers with a non-work-related disability who retire on disability or go on long-term disability under VSDP, the monthly benefit is $120.00 or $4.00 per year of service, whichever is higher. For state police officers with a work-related disability, there is no benefit provided under the HIC program if the premiums are being paid under the Virginia Line of Duty Act (LODA). However, they may receive the credit for premiums paid for other qualified health plans.

HIC program notes

The monthly HIC 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 HIC as a retiree.

LODA program

Eligible Employees

The eligible employees of the LODA program 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 benefits – 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 benefits – The Line of Duty Act program provides health insurance benefits. Prior to July 1, 2017, these benefits were managed though the various employee plans and maintained the benefits that existed prior to the employee's death or disability. These premiums were reimbursed to the employer by the LODA program. Beginning July 1, 2017, the health insurance benefits are managed 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.

Contributions

PMRH program

Virginia Tech 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, Virginia Tech effectively subsidizes the costs of the participating retirees' healthcare through payment of Virginia Tech's portion of the premiums for active employees. Benefit payments are recognized when due and payable in accordance with the benefit terms. PMRH 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 Virginia Department of Human Resource Management.

VSDP program

The contribution requirements for the VSDP are governed by §51.1-1140 of the *Code of Virginia*, as amended, but may be impacted as a result of funding provided to state agencies by the Virginia General Assembly. Each employer's contractually required employer contribution rate for VSDP for the year ended June 30, 2020 was 0.62% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate was expected to finance the costs of benefits payable during the year, with an adjustment to amortize the accrued OPEB assets. Contributions to the VSDP from Virginia Tech were $959,000 and $950,000 for the years ended June 30, 2020 and June 30, 2019, respectively.

GLI program

The contribution requirements for the GLI program are governed by §51.1-506 and §51.1-508 of the *Code of Virginia*, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the GLI program was 1.31% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.79% (1.31% X 60%) and the employer component was 0.52% (1.31% X 40%). Employers may elect to pay all or part of the employee contribution, however the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2020 was 0.52% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. 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. Contributions to the GLI program from Virginia Tech were $3,053,000 and $3,039,000 for the years ended June 30, 2020 and June 30, 2019, respectively.

Retiree HIC program

The contribution requirement for active employees is governed by §51.1-1400(D) of the *Code of Virginia*, as amended, but may be impacted as a result of funding provided to state agencies by the Virginia General Assembly. Each state agency's contractually required employer contribution rate for the year ended June 30, 2020 was 1.17% of covered employee compensation for employees in the Retiree HIC program. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017. The actuarially determined rate was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions from Virginia Tech to the Retiree HIC program were $6,868,000 and $6,836,000 for the years ended June 30, 2019 and June 30, 2018, respectively.

LODA program

The contribution requirements for the LODA program are governed by §9.1-400.1 of the *Code of Virginia*, as amended, but may be impacted as a result of funding provided to state agencies by the Virginia General Assembly. Each employer's contractually required employer contribution rate for the LODA program for the year ended June 30, 2020 was $705.77 per covered full-time-equivalent employee. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017 and represents the pay-as-you-go funding rate and not the full actuarial cost of the benefits under the program. The actuarially determined pay-as-you-go rate was expected to finance the costs and related expenses of benefits payable during the year. Contributions to the LODA program from Virginia Tech were $34,000 and $32,000 for the years ended June 30, 2020 and June 30, 2019, respectively.

Liabilities, Expenses, and Deferred Inflows/Outflows of Resources

At June 30, 2020, Virginia Tech reported the following net liabilities (assets) for its proportionate share of these programs:

PMRH	$	59,214,000
VSDP	$	(7,438,000)
GLI	$	48,635,000
HIC	$	79,327,000
LODA	$	868,000

These liabilities were measured as of June 30, 2019 and the total OPEB liability used to calculate each net liability was determined by an actuarial valuation as of that date. Virginia Tech's proportion of the PMRH OPEB liability was based on its healthcare premium contributions as a percentage of the total employer's healthcare premium contributions for all participating employers. For VSDP, GLI, HIC and LODA programs, Virginia Tech's proportionate share of each liability was based on Tech's actuarially determined employer contributions to each plan for the year ended June 30, 2019 relative to the total of the actuarially determined employer contributions for all participating employers.

At June 30, 2019, Tech's proportionate share was:

PMRH	8.72% as compared to 8.53% at June 30, 2018.
VSDP	3.79% as compared to 3.81% at June 30, 2018.
GLI	2.99% as compared to 2.95% at June 30, 2018.
HIC	8.59% as compared to 8.32% at June 30, 2018.
LODA	.242% as compared to .234% at June 30, 2018.

For the year ended June 30, 2020, Virginia Tech recognized the following expenses for these programs:

PMRH	$	5,343,000
VSDP	$	617,000
GLI	$	1,463,000
HIC	$	7,527,000
LODA	$	72,000

Since there was a change in proportionate share between measurement dates, a portion of these expenses was related to deferred amounts from changes in proportion.

At June 30, 2020, Virginia Tech reported deferred outflows/inflows of resources related to these programs from the following sources *(all dollars in thousands)*:

Program	Source	Deferred Outflow	Deferred Inflow
PMRH	Difference between expected and actual experience	$ -	$ 30,046
	Change in assumptions	-	41,024
	Changes in proportion	6,252	671
	Amounts associated with transactions subsequent to measurement date	2,521	
	Total	$ 8,773	$ 71,741
VSDP	Difference between expected and actual experience	$ 952	$ 299
	Net difference between projected and actual earnings on investments	-	287
	Change in assumptions	135	424
	Changes in proportion	58	21
	VT contributions subsequent to measurement date	968	-
	Total	$ 2,113	$ 1,031
GLI	Difference between expected and actual experience	$ 3,235	$ 631
	Net difference between projected and actual earnings on investments	-	999
	Change in assumptions	3,071	1,467
	Changes in proportion	1,549	14
	VT contributions subsequent to measurement date	3,231	
	Total	$ 11,086	$ 3,111
HIC	Difference between expected and actual experience	$ 43	$ 964
	Net difference between projected and actual earnings on investments	-	31
	Change in assumptions	1633	543
	Changes in proportion	3,102	19
	VT contributions subsequent to measurement date	7,262	
	Total	$ 12,041	$ 1,557
LODA	Difference between expected and actual experience	$ 126	$ -
	Net difference between projected and actual earnings on investments	-	2
	Change in assumptions	41	75
	Changes in proportion	45	41
	VT contributions subsequent to measurement date	31	
	Total	$ 243	$ 118

The following amounts reported as deferred outflows of resources related to each program, resulting from Virginia Tech's contributions subsequent to the measurement date, will be recognized as a reduction of each program's net liability (asset) in the fiscal year ending June 30, 2021 *(all dollars in thousands)*:

PMRH	$	2,521
VSDP	$	968
GLI	$	3,231
HIC	$	7,262
LODA	$	31

Other amounts reported as deferred outflows/inflows of resources related to the OPEB programs will be recognized in each program's expense in future reporting periods as follows *(all dollars in thousands)*:

Year ended June 30:	PMRH	VSDP	GLI	HIC	LODA
2021	$ (15,259)	$ (99)	$ 511	$ 596	$ 11
2022	$ (15,258)	$ (99)	$ 511	$ 596	$ 11
2023	$ (15,258)	$ 53	$ 934	$ 644	$ 12
2024	$ (12,398)	$ 65	$ 1,299	$ 735	$ 12
2025	$ (6,048)	$ 70	$ 1,177	$ 579	$ 12
Thereafter	$ (1,266)	$ 124	$ 312	$ 71	$ 37

Actuarial Assumptions (PMRH)

The total Pre-Medicare Retiree Healthcare OPEB liability was based on an actuarial valuation with a valuation date of June 30, 2019. 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 7.00 percent for medical and pharmacy and 4.00 percent for dental. The ultimate trend rates used were 4.50 percent for medical and pharmacy and 4.00 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, 2019 (one year prior to the end of the fiscal year)
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level dollar, Closed
Effective Amortization Period	6.25 years
Discount Rate	3.51%
Projected Salary Increases	4.0%
Medical Trend Under 65	
Medical and Rx:	7.00% to 4.50%,
Dental:	4.00%, before reflecting excise tax
Year of Ultimate Trend	2029

Mortality Rates

Pre-Retirement:	RP-2014 Employee Rates;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, and females set back 1 year
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, 2019.

Changes of Assumptions

The following actuarial assumptions were updated since the June 30, 2018 valuation based on the recent experience study are as follows:

- Spousal coverage – reduced rate from 35% to 25%
- Retiree participation – reduced rate from 60% to 50%

Spousal coverage and retiree participation were both reduced based on a blend of recent experience and the prior year assumptions. The mortality assumption was modified slightly to reflect modified pre-retirement Mortality base rates to exclude age over 65 instead of apply mortality improvement projection scale BB. The excise tax was modified to reflect updated projection of the tax thresholds. Trend rates were updated based on economic conditions as of June 30, 2019. Additionally, the discount rate was decreased from 3.87% to 3.51% based on the Bond Buyers GO 20 Municipal Bond Index.

Actuarial Assumptions (VSDP, GLI, HIC, LODA)

VSDP, GLI, HIC programs

The total liability for these programs was based on an actuarial valuation as of June 30, 2018, 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, 2019.

Inflation	2.5 percent
Salary increases, including inflation –	
General state employees	3.5 percent – 5.35 percent
Teachers	3.5 percent - 5.95 percent
SPORS employees	3.5 percent – 4.75 percent
VaLORS employees	3.5 percent – 4.75 percent
JRS employees	4.5 percent
Locality – General employees	3.5 percent – 5.35 percent
Locality – Hazardous Duty employees	3.5 percent – 4.75 percent
Investment rate of return	6.75 percent, net of OPEB plan investment expenses, including inflation*

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75%. However, since the difference was minimal, a more conservative 6.75% investment return assumption has been used.

LODA program

The total liability for these programs was based on an actuarial valuation as of June 30, 2018, 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, 2019.

Inflation	2.5 percent
Salary increases, including inflation	
General state employees	N/A
SPORS employees	N/A
VaLORS employees	N/A
Locality employees	N/A
Medical cost trend rates assumption	
Under age 65	7.25 percent – 4.75 percent
Ages 65 and older	5.50 percent – 4.75 percent
Year of ultimate trend rate	
Post-65	Fiscal year ended 2023
Pre-65	Fiscal year ended 2028
Investment rate of return	3.50 percent, including inflation*

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 3.50%. However, since the difference was minimal, a more conservative 3.50% investment return assumption has been used. Since LODA is funded on a current-disbursement basis, the assumed annual rate of return of 3.50% was used since it approximates the risk-free rate of return.

Mortality rates – General State Employees (VSDP, GLI, HIC, LODA)

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%
Discount Rate	Decrease rate from 7.00% to 6.75% (N/A for LODA)

Mortality rates – Teachers (GLI)

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, 2018 valuation were based on the results of an actuarial experience study for the four-year period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Discount Rate	Decrease rate from 7.00% to 6.75%

Mortality rates – SPORS Employees (VSDP, GLI, HIC, LODA)

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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 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%
Discount Rate	Decreased rate from 7.00% to 6.75% (N/A for LODA)

Mortality rates – VaLORS Employees (VSDP, LGI, HIC, LODA)

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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 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%
Discount Rate	Decreased rate from 7.00% to 6.75% (N/A for LODA)

Mortality rates – JRS Employees (GLI, HIC)

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, 2018 valuation were based on the results of an actuarial experience study for the four-year period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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	Decreased rates at first retirement eligibility
Withdrawal Rates	No change
Disability Rates	Removed disability rates
Salary Scale	No change
Discount Rate	Decrease rate from 7.00% to 6.75%

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

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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 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%
Discount Rate	Decreased rate from 7.00% to 6.75%

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

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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 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%
Discount Rate	Decreased rate from 7.00% to 6.75%

Mortality rates – Largest Ten Locality Employers with Public Safety Employees (GLI, LODA)

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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 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%
Discount Rate	Decreased rate from 7.00% to 6.75% (N/A for LODA)

Mortality rates – Non-Largest Ten Locality Employers with Public Safety Employees (GLI, LODA)

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, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. 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	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%
Discount Rate	Decreased rate from 7.00% to 6.75% (N/A for LODA)

Net OPEB Liability

The net OPEB liability (NOL) for VSDP, GLI, HIC and LODA represents each program's total OPEB liability determined in accordance with GASB Statement 74, less the associated fiduciary net position. As of June 30, 2019, NOL amounts for each program are as follows (amounts expressed in thousands):

	VSDP	GLI	HIC	LODA
Total OPEB Liability	$ 292,046	$ 3,390,238	$ 1,032,094	$ 361,626
Plan Fiduciary Net Position	488,241	1,762,972	109,023	2,839
Employers' Net OPEB Liability (Asset)	$ (196,195)	$ 1,627,266	$ 923,071	$ 358,787
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	167.18%	52.00%	10.56%	0.79%

The total OPEB liability is calculated by the VRS actuary, and each plan's fiduciary net position is reported in the VRS financial statements. The net OPEB liability is disclosed in accordance with the requirements of GASB Statement 74 in the VRS notes to the financial statements and required supplementary information.

Long-Term Expected Rate of Return

VSDP, GLI, HIC programs

The long-term expected rate of return on the VRS 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 VRS 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	Weighted Average Arithmetic Long-term Expected Rate of Return	Long-term Expected Rate of Return
Public Equity	34.00%	5.61%	1.91%
Fixed Income	15.00%	0.88%	0.13%
Credit Strategies	14.00%	5.13%	0.72%
Real Assets	14.00%	5.27%	0.74%
Private Equity	14.00%	8.77%	1.23%
MAPS - Multi-Asset Public Strategies	6.00%	3.52%	0.21%
PIP - Private Investment Partnership	3.00%	6.29%	0.19%
Total	100.00%		5.13%
Inflation			2.50%
Expected arithmetic nominal return*			7.63%

* The above allocation provides a one-year return of 7.63%. 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 7.11%, including expected inflation of 2.50%. The VRS Board elected a long-term rate of 6.75%, which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation.

LODA program

The long-term expected rate of return on LODA OPEB Program's investments was set at 3.50% for this valuation. Since LODA is funded on a current-disbursement basis, it is not able to use the VRS Pooled Investments 6.75% assumptions. Instead, the assumed annual rate of return of 3.50% was used since it approximates the risk-free rate of return. This Single Equivalent Interest Rate (SEIR) is the applicable municipal bond index rate based on the Bond Buyer General Obligation 20-year Municipal Bond Index as of the measurement date of June 30, 2019.

Discount Rate

PMRH program

The discount rate was decreased from 3.87% to 3.51% based on the Bond Buyers GO 20 Municipal Bond Index as of the measurement date of June 30, 2017. Spousal coverage was reduced from 35% to 25% based on a blend of recent spousal coverage election rates and the prior year assumption.

VSDP, GLI, HIC programs

The discount rate used to measure the total OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS statutes/guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2019, the rate contributed by Virginia Tech for each of these programs will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly, which was 100% of the actuarially determined contribution rate. From July 1, 2019 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the OPEB fiduciary net position for these programs was projected to be available to make all projected future benefit payments of eligible employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total OPEB liability for each of these programs.

LODA program

The discount rate used to measure the total OPEB liability was 3.50%. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made per the VRS Statutes and they will be made in accordance with the VRS funding policy at rates equal to the actuarially determined contribution rates adopted by the VRS Board of Trustees. Through the fiscal year ending June 30, 2019, the rate contributed by Virginia Tech 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 Virginia Tech's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate

The following presents Virginia Tech's proportionate share of the net OPEB liability for PMRH using the discount rate of 3.51%; VSDP, GLI, and HIC using the discount rate of 6.75%; and LODA using the discount rate of 3.50%. As well, Virginia Tech's proportionate share of the net OPEB liability (asset) is presented as it would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

Virginia Tech's Proportionate Share of Net OPEB Liability (Asset)

	1.00% Decrease	Current Discount Rate	1.00% Increase
	2.51%	3.51%	4.51%
PMRH	$ 63,338	$ 59,214	$ 55,346
	5.75%	6.75%	7.75%
VSDP	$ (6,753)	$ (7,438)	$ (8,044)
GLI	$ 63,893	$ 48,635	$ 36,261
HIC	$ 87,920	$ 79,327	$ 71,942
	2.50%	3.50%	4.50%
LODA	$ 1,007	$ 868	$ 758

Sensitivity of Virginia Tech's Proportionate Share of the Net PMRH OPEB and LODA OPEB Liabilities to Changes in the Health Care Trend Rate

Because the Pre-Medicare Retiree Healthcare and Line of Duty Act programs contain provisions for the payment of health insurance premiums, the liabilities are also impacted by the health care trend rates. The following presents Virginia Tech's proportionate share of the net OPEB liability for these programs using health care trend rate of 7.00% decreasing to 4.50% for PMRH and 7.75% decreasing to 4.75% for LODA. As well, Virginia Tech's proportionate share of the net OPEB liability is presented as it would be if it were calculated using a health care trend rate that is one percentage point lower or one percentage point higher than the current rate:

Virginia Tech's Proportionate Share of Net OPEB Liability

	1.00% Decrease	Current Health Care Trend Rate	1.00% Increase
PMRH	6.00% decreasing to 3.50%	7.00% decreasing to 4.50%	8.00% decreasing to 5.50%
	$ 52,880	$ 59,214	$ 66,709
LODA	6.75% decreasing to 3.75%	7.75% decreasing to 4.75%	8.75% decreasing to 5.75%
	$ 734	$ 868	$ 1,037

Fiduciary Net Position

Detailed information about Fiduciary Net Position for each of these programs is available in the separately issued VRS 2019 *Comprehensive Annual Financial Report* (CAFR). A copy of the 2019 VRS CAFR may be downloaded from the VRS website at ***http://www.varetire.org/Pdf/Publications/2019-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 VSDP, GLI, and HIC OPEB programs

The amount payable outstanding at June 30, 2020 to each of these OPEB programs was as follows:

VSDP	$ 5,000
GLI	$ 191,000
HIC	$ 427,000

21. Grants, Contracts, and Other 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 outlay 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 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, 2020, the university estimates that no material liabilities will result from such audits or questions.

22. 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 Parent PLUS Loan Programs and disburses these funds to eligible students. The funds can be applied to outstanding student tuition and fee charges or refunded directly to the student.

These loan proceeds 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 in the federal government grants and contracts total 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, 2020, cash provided by the program totaled $146,803,000 and cash used by the program totaled $146,803,000.

23. Appropriations

The Appropriation Act specifies that unexpended general fund appropriations remaining on the last day of the current year, ending on June 30, 2020, shall be reappropriated for expenditure in the first month of the next year, beginning on July 1, 2020, except as may be specifically provided otherwise by the Virginia General Assembly. The governor may, at his discretion, unallot funds from the reappropriated balances that relate to unexpended appropriations for payments to individuals, aid to localities, or any pass-through grants.

Adjustments made to the university's original appropriation during this fiscal year are as follows *(all dollars in thousands)*:

Original legislative appropriation	
(Per Chapter 806)	
Education and general programs	$ 240,431
Student financial assistance	22,986
Commonwealth Cyber Initiative	12,500
Commonwealth Research Initiative	5,389
Unique military activities	2,757
VA Research Investment Fund	1,294
Total appropriation	285,357
Adjustments	
Education and general programs	12,080
Tech talent investment program	7,319
Commonwealth Research Initiative and Federal Action Contingency Trust	336
Student financial assistance	177
Commonwealth Cyber Initiative	(1,461)
Total adjustments	18,451
Adjusted appropriation	$ 303,808

Appropriations Receivable of $8,274,500 for the Commonwealth Cyber Initiative; and $761,000 for Brain Cancer Treatment, $323,000 for Auto Systems Research, and $206,000 for Machine Learning Cyber Awareness Defense from the Virginia Research Investment Fund is included in the Current portion of the Due from the Commonwealth on the Financial Statements.

24. Expenses by Natural Classification within Functional Classification

The university's operating expenses by functional classification for the year ended June 30, 2020 *(all dollars in thousands)*

	Compensation and Benefits	Contractual Services	Travel	Supplies and Materials	Other Operating Expenses	Sponsored Program Subcontracts	Scholarships and Fellowships	Total
Instruction	$ 386,360	$ 15,464	$ 9,378	$ 9,258	$ 4,016	$ 151	$ 1,376	$ 426,003
Research	227,486	27,894	11,684	20,422	5,986	32,329	17,405	343,206
Public service	66,835	18,208	5,799	2,876	2,942	1,430	406	98,496
Academic support	76,476	15,729	1,465	7,630	4,813	-	310	106,423
Student services	19,311	2,817	1,336	1,714	309	359	148	25,994
Institutional support	74,852	2,621	1,346	147	1,969	30	750	81,715
Operations and maintenance	33,318	15,095	198	5,963	37,344	-	27	91,945
Student financial assistance*	329	18	52	1	99	-	30,144	30,643
Auxiliary enterprises	118,829	27,619	9,530	36,113	42,551	24	1,485	236,151
Subtotal before other costs	$ 1,003,796	$ 125,465	$ 40,788	$ 84,124	$ 100,029	$ 34,323	$ 52,051	1,440,576
Depreciation and amortization								109,175
Total operating expenses								$ 1,549,751

**Includes loan administrative fees and collection costs.*

25. COMPONENT UNIT

The component unit statements on the following pages, and subsequent notes, comply with the Governmental Accounting Standards Board (GASB) presentation format. Virginia Tech Foundation Inc. follows the Financial Accounting Standards Board (FASB) presentation format in their audited financial statements. Consequently, reclassifications have been made to convert their statements to the GASB format.

Virginia Tech Foundation Statement of Net Position

As of June 30, 2020

(all dollars in thousands)

ASSETS	
Current Assets	
Cash and cash equivalents	$ 27,056
Short-term investments	52,234
Accounts and contributions receivable, net	57,685
Notes receivable, net	689
Inventories	295
Prepaid expenses	1,179
Other assets	4,766
Total current assets	143,904
Noncurrent assets	
Cash and cash equivalents	148,196
Accounts and contributions receivable, net	101,319
Notes and deeds of trust receivable, net	23,155
Net investments in direct financing leases	71,461
Irrevocable trusts held by others, net	5,183
Long-term investments	1,427,016
Depreciable capital assets, net	202,536
Nondepreciable capital assets	135,883
Intangible assets, net	2,400
Other assets	4,785
Total noncurrent assets	2,121,934
Total assets	2,265,838
LIABILITIES	
Current liabilities	
Accounts payable and accrued liabilities	9,465
Accrued compensated absences	453
Deferred revenue	9,074
Long-term debt payable	20,334
Other liabilities	1,698
Total current liabilities	41,024
Noncurrent liabilities	
Accrued compensated absences	280
Deferred revenue	1,042
Long-term debt payable	324,390
Liabilities under trust agreements	22,504
Agency deposits held in trust	459,300
Other liabilities	8,862
Total noncurrent liabilities	816,378
Total liabilities	857,402
NET POSITION	
Invested in capital assets, net of related debt	181,739
Restricted, nonexpendable	679,148
Restricted, expendable	
Scholarships, research, instruction, and other	428,341
Unrestricted	119,208
Total net position	$ 1,408,436

Virginia Tech Foundation Statement of Revenues, Expenses, and Changes in Net Position
For the year ended June 30, 2020
(all dollars in thousands)

OPERATING REVENUES		
Gifts and contributions	$	110,345
Auxiliary enterprise revenue		
Hotel Roanoke		17,892
River Course		1,357
Other revenues		
Rental income		41,726
Other		20,516
Total operating revenues		191,836
OPERATING EXPENSES		
Instruction		51
Research		7,044
Public service		5,641
Academic support		24,834
Institutional support		
Other university programs		17,475
Fund-raising		14,217
Management and general		10,251
Operation and maintenance of plant		
Operation and maintenance of plant		6,571
Research cost centers		7,694
Student financial assistance		33,627
Auxiliary enterprises		
Hotel Roanoke		12,264
River Course		1,997
Depreciation expense		11,360
Other expenses		17,683
Total operating expenses		170,709
OPERATING INCOME		21,127
NON-OPERATING REVENUES (EXPENSES)		
Investment income, net		13,098
Net gains (losses) on investments		(47,794)
Interest expense on debt related to capital assets		(9,964)
Net non-operating revenues		(44,660)
INCOME (LOSS) BEFORE OTHER REVENUES, EXPENSES, GAINS, OR LOSSES		(23,533)
Change in valuation of split interest agreements		754
Capital grants and gifts		13,770
Gain (loss) on disposal of capital assets		(86)
Additions to permanent endowments		39,357
Loss on extinguishment of debt		(2,125)
Other revenues (expenses)		(1,030)
Total other revenues, expenses, gains, or losses		50,640
Increase in net position		27,107
Net position - beginning of year		1,381,329
Net position - end of year	$	1,408,436

Contributions Receivable – Virginia Tech Foundation Inc.

The following summarizes unconditional promises to give at June 30, 2020 *(all dollars in thousands)*:

Receivable in less than one year	$	51,977
Receivable in one to five years		57,804
Receivable in more than five years		58,077
Total contributions receivable, gross		167,858
Discount to reduce estimated future cash flows to fair value and allowance for uncollectible contributions receivable		(16,494)
Contributions receivable, measured at fair value	$	151,364

The discount rates ranged from 0.30% to 2.20% at June 30, 2020 and as of that date the foundation is unaware of any conditional promises to give.

Investments – Virginia Tech Foundation Inc.

The overall investment objective of the foundation is to invest its operating funds in a prudent manner that will achieve a long-term rate of return sufficient to fund a portion of its annual operating activities, and to invest its endowed funds in a manner that maintains the purchasing power of the endowment. The foundation diversifies its investments among various asset classes incorporating multiple strategies and managers. Major investment decisions, such as asset allocation and spending, are authorized by the Board's Investment Committee, which oversees the foundation's investment program in accordance with established guidelines.

In addition to traditional equity and fixed-income securities, the foundation may also hold shares or units in traditional institutional funds, as well as in alternative investment funds involving hedged strategies, private equity and real asset strategies. Hedged strategies involve funds whose managers have the authority to invest in various asset classes at their discretion, including the ability to invest long and short. Funds with hedged strategies generally hold securities or other financial instruments for which a ready market exists and may include stocks, bonds, put or call options, swaps, currency hedges and other instruments, and are valued accordingly. Private equity funds primarily employ buyout and venture capital strategies. Real asset funds generally hold interests in public real estate investment trusts (REITS), public natural resource equities, private commercial real estate, and private natural resources such as power plants and oil and gas companies. Private equity and real asset strategies therefore often require the estimation of fair values by the fund managers in the absence of readily determinable market values. Because of the inherent uncertainties of valuation, these estimated fair values may differ significantly from values that would have been used had a ready market existed, and the differences could be material. Such valuations are determined by fund managers and generally consider variables such as operating results, comparable public earnings multiples, projected cash flows, recent sales prices, and other pertinent information, and may reflect discounts for the illiquid nature of certain investments held. Moreover, the fair values of the foundation's interests in shares or units of these funds, because of liquidity and capital commitment terms that vary depending on the specific fund or partnership agreement, may differ from the fair value of the funds' underlying net assets.

The following tabulation summarizes changes in relationships between cost and fair value of investments *(all dollars in thousands)*:

	Fair Value	Cost	Net Gains
June 30, 2020	$ 1,479,250	$ 1,399,232	$ 80,018
June 30, 2019	1,458,776	1,291,097	167,679

Unrealized net loss for the year, including net loss on agency deposits held in trust of $33,750	(87,661)
Realized net gain for the year, including net loss on agency deposits held in trust of $1,411	4,619
Total net loss for the year, including net loss on agency deposits held in trust of $35,161	$ (83,042)

As of June 30, 2020, long-term investments include investment assets held in internally managed trust funds with a carrying value totaling $47,784.

The foundation is required by Maryland state law to maintain segregated assets for all annuities issued in an amount at least equal to the sum of its outstanding deferred giving arrangements liability discounted to present value. As of June 30, 2020, the foundation had recorded annuity obligations of $6,239. As of June 30, 2020, the foundation had separately invested cash reserves of $12,406 and had met its minimum reserve requirement under Maryland state law.

Fair Value Hierarchy – Virginia Tech Foundation Inc.

ASC Topic 820 established a three-tier fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and lowest priority to unobservable inputs (Level 3).

The three levels of the fair value hierarchy are as follows:

Level 1 – Inputs that use quoted prices (unadjusted) in active markets for identical assets or liabilities that the foundation has the ability to access.

Level 2 – Inputs that include quoted prices for similar assets and liabilities in active markets and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument. Fair values for these instruments are estimated using pricing models, quoted prices of securities with similar characteristics, or discounted cash flows.

The fair values of the foundation's corporate debt securities and state, county and municipal securities are obtained from a third-party pricing service provider. The fair values provided by the pricing service provider are estimated using pricing models, where the inputs to those models are based on observable market inputs including credit spreads and broker-dealer quotes, among other inputs. The foundation classifies the prices obtained from the pricing services within Level 2 of the fair value hierarchy because the underlying inputs are directly observable from active markets. However, the pricing models used do entail a certain amount of subjectivity and therefore differing judgments in how the underlying inputs are modeled could result in different estimates of fair value.

Level 3 – Inputs that are unobservable inputs for the asset or liability, which are typically based on an entity's own assumptions, as there is little, if any, related market activity.

In instances where the determination of fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy within which the entire fair value measurement falls is based on the lowest level input that is significant to the fair value measurement in its entirety.

The assets that are measured at fair value on a recurring basis at June 30, 2020 are presented in the first table on the next page.

The second table on the next page summarizes the foundation's investments in entities that calculate net asset value as a practical expedient to estimate fair value.

Notes to Component Unit Statements, continued

Assets Measured at Fair Value - Virginia Tech Foundation Inc.
At June 30, 2020
(all dollars in thousands)

	Total	Level 1	Level 2	Level 3	NAV*
		Fair value measurements at reporting date using			
Contributions receivable	$ 151,364	$ -	$ -	$ 151,364	$ -
Short-term investments					
Corporate debt securities	23,869	23,869	-	-	-
U.S. government treasuries	20,220	20,220	-	-	-
U.S. government agencies	8,145	8,145	-	-	-
Total short-term investments	52,234	52,234	-	-	-
Long-term investments					
Cash and cash equivalents	88,842	57,421	31,421	-	-
U.S. government treasuries	29,454	29,454	-	-	-
U.S. government agencies	13,024	13,024	-	-	-
State, county, and municipal securities	99	-	99	-	-
Equity securities	122,280	122,280	-	-	-
Hedge funds	253,490	5,640	-	-	247,850
Private real assets	67,429	-	-	-	67,429
Private credit	172,335	-	3	-	172,332
Private equity	144,429	-	-	-	144,429
Private equity alternative investments	262,784	-	-	-	262,784
Corporate bonds	18,930	18,930	-	-	-
Corporate debt securities	124,566	84,772	38,083	1,711	-
Mortgage receivable	4,605	10	4,595	-	-
Foreign securities	85,395	73,436	-	-	11,959
Real estate	39,354	-	-	39,354	-
Total long-term investments	1,427,016	404,967	74,201	41,065	906,783
Irrevocable trusts held by others	5,183	-	-	5,183	-
Total	$ 1,635,797	$ 457,201	$ 74,201	$ 197,612	$ 906,783

* Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the consolidated financial statements.

Assets Measured using NAV Estimate - Virginia Tech Foundation Inc.
At June 30, 2020
(all dollars in thousands)

	Fair Value	Uncalled Commitments	Remaining Life	Redemption Frequency	Trade to Settlement Terms	Redemption Notice Period
Public equity funds (1)	$ 128,429	$ -	N/A	≤ Quarterly	5-15 days	30-90 days
Public equity funds (2)	146,311	12,200	N/A	> Quarterly	5-15 days	30-180 days
Hedge funds (3)	34,450	-	N/A	≤ Quarterly	5-15 days	30-90 days
Hedge funds (3)	213,400	-	N/A	> Quarterly	5-15 days	30-90 days
Private credit funds (4)	172,335	44,812	1-10 years	N/A	N/A	N/A
Private equity funds (5)	144,429	59,546	1-10 years	N/A	N/A	N/A
Private real assets funds (6)	67,429	48,853	1-10 years	N/A	N/A	N/A
	$ 906,783	$ 165,411				

(1) The amount represents funds that invest in publicly traded equity securities and can be liquidated at the end of each quarter or more frequently. There are currently no restrictions on redemption of these investments. The managers directly invest primarily in long equity securities and, at times, opportunistically invest in short equity securities. Management seeks to achieve a return in excess of an appropriate equity benchmark such as the MSCI ACWI.

(2) The amount represents funds that invest in publicly traded equity securities and can be liquidated at times longer than quarter-end. The longest time to liquidation is 42 months. There are currently no restrictions on redemption of these investments. The managers directly invest primarily in long equity securities and, at times, opportunistically invest in short equity securities. Management seeks to achieve a return in excess of an appropriate equity benchmark such as the MSCI ACWI.

(3) The amount represents investments in funds that invest in hedge fund strategies such as long/short, event-driven and global macro. Management of the funds seeks to achieve an annualized return that is at least 7% in excess of the 91-day U.S. Treasury Bill rate. The funds invest both long and short equity and fixed income securities and there is no restriction on the types of securities and financial instruments they are allowed to invest in.

(4) The amount represents investments in funds that invest in credit related securities and have a liquidity structure similar to private equity. These investments can never be redeemed from the funds, and it is estimated that the underlying assets of the fund will be liquidated over the next one to 10 years.

(5) The amount represents investments in funds that invest in private equity in buyouts and venture capital, both domestically and internationally. The allocation to buyouts is 95% and to venture capital 5%. Uncalled commitments are approximately $54,354 to buyouts and $5,192 to venture capital. These investments can never be redeemed from the funds and it is estimated that the underlying assets of the fund will be liquidated over the next one to 10 years.

(6) The amount represents investments in funds that invest in private real assets in real estate and natural resources, primarily domestically. The allocation to real estate is 43% and to natural resources 57%. Uncalled commitments are approximately $32,090 to real estate and $16,763 to natural resources. These investments can never be redeemed from the funds, and it is estimated that the underlying assets of the fund will be liquidated over the next one to 10 years.

Notes to Component Unit Statements, continued

Land, Buildings, and Equipment - Virginia Tech Foundation Inc.

A summary of land, buildings, and equipment at cost, less accumulated depreciation for the year ending June 30, 2020 is presented as follows *(all dollars in thousands)*:

Depreciable capital assets		
Buildings	$	281,808
Equipment and other		40,407
Land improvements		25,921
Total depreciable capital assets, at cost		348,136
Less accumulated depreciation		(145,600)
Total depreciable capital assets, net of accumulated depreciation		202,536
Nondepreciable capital assets		
Land		115,874
Vintage and other collection items		6,431
Livestock		1,195
Construction in progress		12,383
Total nondepreciable capital assets		135,883
Total capital assets, net of accumulated depreciation	$	338,419

As of June 30, 2020, outstanding contractual commitments for projects under construction approximated $6,072.

Long-Term Debt Payable - Virginia Tech Foundation Inc.

Notes payable

The following is a summary of outstanding notes payable at June 30, 2020 *(all dollars in thousands)*:

Unsecured revolving line of credit note payable with total availability of $100,000 due August 1, 2021, plus variable interest at one-month LIBOR plus 0.4% (0.571% as of June 30, 2020)	$	4,728
Unsecured note payable issued April 15, 2020 under the Paycheck Protection Program (PPP) bearing interest at 1% with principal and interest payments deferred for the first six months after the loan is disbursed. Loan proceeds may only be used for payroll costs, interest on covered mortgage obligations, covered rent obligations, and covered utility payments incurred during the period of March 1 to December 31, 2020. The foundation intends to use the entire loan for qualifying expenses. Under the terms of the PPP certain amounts may be forgiven if proceeds are used for qualifying expenses as described in the Coronavirus Aid, Relief, and Economic Security (CARES) Act.		84
Unsecured note payable issued April 15, 2020 under the PPP bearing interest at 1% with principal and interest payments deferred for the first six months after the loan is disbursed. Loan proceeds may only be used for payroll costs, interest on covered mortgage obligations, covered rent obligations, and covered utility payments incurred during the period of March 1to December 31, 2020. The foundation intends to use the entire loan for qualifying expenses. Under the terms of the PPP certain amounts may be forgiven if proceeds are used for qualifying expenses as described in the CARES Act.		1,920
Unsecured note payable upon the sale of the hotel and repayment of all debt of the hotel and the Hotel Roanoke Foundation (HRF)		1,775
Total notes payable	$	8,507

The aggregate annual maturities of notes payable for each of the five years and thereafter subsequent to June 30, 2020, are *(all dollars in thousands)*:

2021	$	887
2022		5,845
Upon the sale of the Hotel and repayment of all debt of the hotel and HRF		1,775
Total notes payable	$	8,507

During 2003, the foundation used proceeds from borrowings on notes payable totaling $13,800 to provide a loan to an unrelated party through a promissory note receivable. The unrelated party used the proceeds to purchase the University Mall building located in Blacksburg, Virginia. The promissory note receivable, which requires interest payments only until maturity, earns interest at a fixed rate of 6.18% through June 30, 2013 and 6.96% thereafter through June 30, 2023, the maturity date. The promissory note receivable is secured by a first deed of trust in the real property of the University Mall, as well as the assignment of leases and rents, and security agreements.

Bonds payable

The foundation is obligated under the Economic Development Authority of Montgomery County, Virginia Revenue and Refunding Bonds (Series 2011A) and Taxable Revenue and Refunding Bonds (Series 2011B) dated November 17, 2011. Proceeds were used to refinance all or a portion of the outstanding Series 2000, Series 2005, Series 2009A, and Series 2009B bonds and two notes payable, retire certain interest rate swaps, and finance the construction of several commercial facilities and other facilities to be used in support of the University. The original Series 2011A and Series 2011B bonds, which bear a weighted average fixed interest rate of 3.69% and 4.03%, respectively, have annual serial and sinking fund maturities beginning June 1, 2012 and concluding June 1, 2039 in varying amounts ranging from $1,505 to $5,200. The Series 2017A and Series 2017B bonds, as further described below, refunded portions of the Series 2011A bonds. The Series 2019A and Series 2019B, as further described below, refunded portions of the Series 2011B bonds. The unrefunded portion of the Series 2011A and 2011B bonds currently have a final maturities of 2036 and 2022, respectively.

The foundation is obligated under the Economic Development Authority of Montgomery County, Virginia Tax-Exempt Revenue and Refunding Bonds (Series 2012A) and Taxable Revenue and Refunding Bonds (Series 2012B) dated December 1, 2012. Proceeds were used to refinance a portion of the outstanding Series 2009B bonds and to finance the construction of several facilities to be used in support of the university. During 2014, an additional $1,817 was borrowed on the Series 2012B bonds to finance the construction of a facility to be used in support of the university. The Series 2012A bonds, which bear a fixed interest rate of 1.99%, have monthly payments of principal and interest beginning February 1, 2013 and concluding June 1, 2022. The Series 2012B bonds bore a variable interest rate of LIBOR plus 125 basis points (1.44% at June 30, 2013), until the final advance date of October 1, 2013 and thereafter bear a fixed interest rate of 3.05%, have monthly interest commencing on February 1, 2013, and have monthly payments of principal and interest beginning November 1, 2013 and concluding on January 1, 2033. The Series 2012B bonds are subject to mandatory tender on December 27, 2022 at the bondholder's option.

The foundation is obligated under the Economic Development Authority of Montgomery County, Virginia Revenue and Refunding Bonds (Series 2013A) and Taxable Revenue and Refunding Bonds (Series 2013B) dated October 30, 2013. Proceeds were used to finance the construction of several commercial facilities and several facilities to be used in support of the university. The bonds, which bear a weighted average fixed interest rate of 3.95% and 3.87%, respectively, have annual serial and sinking fund maturities beginning June 1, 2014 and concluding June 1, 2038 in varying amounts ranging from $280 to $4,010. At June 30, 2020, unspent bond proceeds of $308 were included in restricted cash and cash equivalents.

The foundation is obligated under the Economic Development Authority of Montgomery County, Virginia Revenue and Refunding Bonds (Series 2017A) and Taxable Revenue and Refunding Bonds (Series 2017B) dated May 17, 2017. Proceeds were used to refinance all or a portion of the outstanding Series 2009A, Series 2010A, Series 2010B, and Series 2011A bonds, refinance a VTREF note payable,and renovate a facility used in support of the university. The Series 2017A and 2017B bonds, which bear a weighted average fixed interest rate of 2.93% and 3.43%, respectively, have annual serial and sinking fund maturities beginning June 1, 2018 and concluding June 1, 2039 in varying amounts ranging from $580 to $4,670.

The foundation is obligated under the Economic Development Authority of Montgomery County, Virginia Revenue and Refunding Bonds (Series 2017C) dated May 17, 2017. Proceeds were used to refinance all of the outstanding Series 2005 bonds and the remaining portion of the Series 2009A bonds. The Series 2017C bonds, which bear a variable interest rate calculated as 65% of one-month LIBOR plus 0.407%, have annual serial maturities beginning June 1, 2018 and concluding June 1, 2027 in varying amounts ranging from $1,340 to $3,380.

The foundation is obligated under a Promissory Note with Union Bank and Trust (Series 2017D) dated December 19, 2017. Proceeds were used to finance the construction of several facilities to be used in support of the university. The Promissory Note, which bears a fixed interest rate of 3.7%, has annual serial maturities beginning October 1, 2019 and concluding October 1, 2037 in varying amounts ranging from $115 to $825. At June 30, 2020, unspent bond proceeds of $5 were included in restricted cash and cash equivalents.

Notes to Component Unit Statements, continued

During the year ended June 30, 2017, the foundation used the proceeds from the Series 2017 bond issuances to refinance all of its Industrial Development Authority of Montgomery County, Virginia Variable Rate Revenue Bonds Series 2005 and Industrial Development Authority of Montgomery County, Virginia Revenue Bonds Series 2009A bonds in the amounts of $12,065 and $16,495, respectively. The foundation also partially refunded $44,190 of its Series 2010A, $5,620 of its Series 2010B, and $14,515 of its Series 2011A bonds as well. The foundation defeased or partially refunded these bonds payable by placing the proceeds of new bonds in an irrevocable trust to provide for future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased or partially refunded bonds are not reflected in the foundation's component unit statements.

The foundation is obligated under the Economic Development Authority of Montgomery County, Virginia Revenue Bonds (Series 2019A) and Taxable Revenue and Refunding Bonds (Series 2019B) dated November 5, 2019. Proceeds will be used to finance costs related to the acquisition, construction, and equipping of certain facilities, funding capitalized interest, refinancing all or a portion of the outstanding Series 2010B and Series 2011B bonds, and paying certain costs of issuance. The Series 2019A and 2019B bonds, which bear a weighted average fixed interest rate of 2.54% and 3.06%, respectively, have annual serial and sinking fund maturities beginning June 1, 2020 and concluding June 1, 2044 in varying amounts ranging from $60 to $7,615. At June 30, 2020 unspent bond proceeds of $65,874 and $38,522 are included in restricted cash and cash equivalents and short-term investments, respectively.

The foundation refunded the remaining $4,355 of its Series 2010B and partially refunded $27,515 of its Series 2011B bonds. The foundation defeased or partially refunded these bonds payable by placing the proceeds of new bonds in an irrevocable trust to provide for future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased or partially refunded bonds are not reflected in the foundation's component unit statements. In connection with these bond transactions, the foundation recorded a loss of $2,125 on early extinguishment of debt for the year ended June 30, 2020.

Principal amounts outstanding for these bonds as of June 30, 2020, are as follows *(all dollars in thousands)*:

Bond Series		
Series 2011A	$	29,795
Series 2011B		4,625
Series 2012A		605
Series 2012B		5,019
Series 2013A		14,055
Series 2013B		13,860
Series 2017A		36,565
Series 2017B		40,435
Series 2017C		14,445
Series 2017D		11,115
Series 2019A		52,960
Series 2019B		103,215
Premium on Series 2011A		477
Premium on Series 2013A		480
Premium on Series 2017A		2,368
Premium on Series 2019A		9,397
Discount on Series 2019B		(685)
Unamortized bond issuance cost		(2,514)
Total bonds payable	$	336,217

The aggregate annual maturities of bonds payable for each of the five years and thereafter subsequent to June 30, 2020, are as follows *(all dollars in thousands)*:

2021	$	19,667
2022		21,844
2023		20,111
2024		19,254
2025		18,925
2026-2030		94,800
2031-2035		79,645
2036-2040		58,035
2041-2044		6,450
Total	$	338,731

Total interest expense incurred in the aggregate related to notes payable and bonds payable in 2020 totaled $7,288.

Interest Rate Swaps

Effective September 1, 2005, the foundation entered into an interest rate swap agreement (Swap 1) with a lending institution. This agreement was based on the principal balances of the Series 2001A and Series 2002A bond issues, which were refinanced by the Series 2005 bonds and more recently by the Series 2017C bonds. The foundation participates as a fixed rate payer with a fixed rate of 3.265% for a 17-year term ending June 1, 2022. The lending institution participates as a floating rate payer with a floating interest rate, which is calculated based on the weighted average of 70% of USD-LIBOR-BBA of 0.12843% at June 30, 2020.

Effective September 1, 2006, the foundation entered into an interest rate swap agreement (Swap 2) with a lending institution. This agreement was based on the principal balances of the Series 2005 bond issue, which were refinanced by the Series 2017C bonds. The foundation participates as a fixed rate payer with a fixed rate of 3.21300% ending June 1, 2025. The lending institution participates as a floating rate payer with a floating interest rate, which is calculated based on the weighted average of 70% of USD-LIBOR-BBA of 0.12922% at June 30, 2020.

Effective March 14, 2007, the foundation entered into an interest rate swap agreement (Swap 3) with a lending institution. This agreement was based on the principal balances of the Series 2007 bond issue, which were refinanced by the Series 2009 bonds and more recently by the 2017C bonds. The foundation participates as a fixed rate payer with a fixed rate of 3.737% ending June 1, 2027. The lending institution participates as a floating rate payer with a floating interest rate, which is calculated based on the weighted average of SIFMA Municipal Swap Index, of 0.11933% at June 30, 2020.

The following table summarizes the fair values of the foundation's interest rate swaps at June 30 and changes in the fair values of those swaps during the year ended June 30, 2020 *(all dollars in thousands)*:

	Fair Values		Change in Fair Values	
Swap 1	$	53	$	41
Swap 2		413		(49)
Swap 3		1,219		(107)
Total	$	1,685	$	(115)

Agency Deposits Held in Trust - Virginia Tech Foundation Inc.

Under an agreement between the university and the foundation, the foundation serves as agent in connection with the investment, management, and administration of the Pratt Estate Funds. Under a similar agreement, the foundation also serves as agent for the investment and management of other university non-general funds to assist the university in its goal of achieving enhanced earnings. In addition, the foundation serves as agent and maintains investments for the Virginia Tech Alumni Association Inc., Virginia Tech Services Inc., and certain other associations.

A summary of agency deposits held in trust for the year ending June 30, 2020 is presented as follows *(all dollars in thousands)*:

University—Pratt Estate	$	41,411
University—Other		360,248
Virginia Tech Alumni Association, Inc.		4,353
Virginia Tech Services, Inc.		5,181
Other		48,107
Total agency deposits held in trust	$	459,300

26. Joint Ventures

The Hotel Roanoke Conference Center Commission was created by a joint resolution of the university and the City of Roanoke. The purpose of the commission is to establish and operate a publicly owned conference center in Roanoke adjacent to the renovated Hotel Roanoke. The powers of the commission are vested in commissioners. Each participating governing body appoints three commissioners for a total of six commissioners. The commission has the authority to issue debt, and such debt is the responsibility of the commission. The intention of the commission is to be self-supporting through its user fees. The university and the City of Roanoke equally share in any operating deficit or additional funding needed for capital expenditures. The university made contributions of $80,000 using private funds to the commission for the fiscal year ended June 30, 2020. The administrative offices for the Hotel Roanoke Conference Center Commission are located at 106 Shenandoah Avenue, Roanoke, Virginia, 24016.

27. Jointly Governed Organizations

NRV Regional Water Authority

Created by a concurrent resolution of the university, the towns of Blacksburg and Christiansburg and joined by the county of Montgomery in fiscal year 2013, the authority operates and maintains the water supply system for the university and the other participating governing bodies. A six-member board governs the authority with one member appointed by each governing body and two at-large members appointed by the joint resolution of each of the governing bodies. The authority's indebtedness is not an obligation of the university and is payable solely from the revenues of the authority. The university paid $1,677,000 to the authority for the purchase of water for the fiscal year ended June 30, 2020.

Blacksburg-VPI Sanitation Authority

Created by a concurrent resolution of the university and the town of Blacksburg, the authority operates and maintains the wastewater treatment system for the participating governing bodies. Each participating governing body appoints one member of the five-member board of directors. Three at-large members are appointed by the joint resolution of each of the governing bodies. The authority's indebtedness is not an obligation of the university and is payable solely from the revenues of the authority. The university paid $1,133,000 to the authority for the purchase of sewer services for the fiscal year ended June 30, 2020.

Montgomery Regional Solid Waste Authority

Created by a joint resolution of the university, the towns of Blacksburg and Christiansburg, and the county of Montgomery, the authority represents its members in solid waste and recycling issues as well as operating a recycling facility. The authority is governed by its board which is comprised of representatives from each of the four jurisdictions served. Each governing body provides collection of solid waste and recyclables from within its jurisdiction and delivers the collected materials to the authority for disposal of the waste, and the processing and marketing of the recyclables. All indebtedness is the obligation of the authority and payable from its revenues. The university paid $193,000 to the authority for tipping fees for the fiscal year ended June 30, 2020.

Virginia Tech/Montgomery Regional Airport Authority

Created by a joint resolution of the university, the towns of Blacksburg and Christiansburg, and the county of Montgomery, this authority serves to develop a regional airport based on the mission of servicing corporate executive markets and other general aviation markets; obtaining grants, loans and other funding for airport improvements and other activities; and in promoting and assisting in regional economic development. The authority is governed by its board, which consists of five members. Each participating governing body appoints one member of the board, and jointly all governing bodies appoint the fifth member. All indebtedness is the obligation of the authority and payable from its revenues. The university's funding commitment for fiscal year 2020 was $50,000, all of which Virginia Tech paid to the authority.

New River Valley Emergency Communications Regional Authority

Created by a joint resolution of the university, towns of Blacksburg and Christiansburg, and the county of Montgomery, this authority provides 911 dispatch and emergency communication services to the people of each jurisdiction and campus. The authority is governed by its board, which consists of five members. Each participating governing body appoints one member of the board, and jointly all governing bodies appoint the fifth member. The university paid $837,000 to the authority for the fiscal year ended June 30, 2020.

28. 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; nonperformance of duty; injuries to employees; and natural disasters. The university participates in insurance plans maintained by the Commonwealth of Virginia. The state employee health care and worker's compensation plans are administered by the Department of Human Resource Management and the risk management insurance plans are administered by the Department of Treasury, Division of Risk Management. Risk management insurance includes property, general liability, medical malpractice, faithful performance of duty bond, automobile, boiler and machinery, and air and watercraft plans. The university pays premiums to the Commonwealth of Virginia for the aforementioned insurance coverage. In addition, the university contracts with private insurers to provide additional fidelity bonding coverage, automobile physical damage coverage, and overseas liability coverage. Information relating to the commonwealth's insurance plans is available in the Commonwealth of Virginia's *Comprehensive Annual Financial Report.*

29. Pending Litigation

The university has been named as a defendant in a number of lawsuits. The final outcome of the lawsuits cannot be determined at this time. However, management is of the opinion that any ultimate liability to which the university may be exposed will not have a material effect upon the university's financial position.

30. CARES Act and Coronavirus Relief Funding

During the fiscal year, the university was impacted by the COVID-19 pandemic and was awarded $17.8 million from the CARES Act for the Higher Education Emergency Relief Fund (HEERF). The funds were spent equally to provide students with emergency hardship support related to the disruption of on-campus operations ($8.9 million) and to cover institutional costs associated with refunding student housing and dining charges in the spring 2020 semester ($8.9 million). The university's total refunds for housing and dining charges were in excess of the awarded HEERF amount.

The university was also awarded $3.5 million in Coronavirus Relief Funding (CRF) as federal pass-through funds from the Commonwealth of Virginia during the fiscal year. The funds have primarily been used to reimburse computer and peripheral equipment used in distance-learning and teleworking, personal protective equipment, and preparing university facilities for social distancing requirements. As of June 30, 2020, the university had spent $1.8 million towards these purposes.

31. Subsequent Events

In November 2020, the Commonwealth of Virginia, on behalf of the university, issued $84,305,000 of general obligation revenue bonds for the construction of the Creativity and Innovation District Living Learning Community in the dorm and dining hall system (Series 2020A).

In November 2020, the Commonwealth of Virginia, on behalf of the university, issued $13,070,000 of general obligation revenue bonds (Series 2020B) to refund $12,520,000 of general obligation revenue bonds (Series 2011A) in the dorm and dining hall system.

Required Supplementary Information

Required Supplementary Information for Pension Plans

Schedule of Virginia Tech's Share of Net Pension Liability (SERP)*
For the years ended June 30, 2020-2015
(all dollars in thousands)

	Proportion of net pension liability	Proportionate share of net pension liability	Employer's covered payroll	Proportionate share of net pension liability as a percentage of employer's covered payroll	Plan fiduciary net position as a percentage of total pension liability
2020	6.42%	$ 405,894	$ 270,954	149.80%	75.13%
2019	6.46%	$ 349,811	$ 270,309	129.41%	77.39%
2018	6.55%	$ 381,766	$ 262,376	145.50%	75.33%
2017	6.58%	$ 433,375	$ 263,416	164.52%	71.29%
2016	6.52%	$ 398,980	$ 246,888	161.60%	72.81%
2015	6.30%	$ 352,916	$ 243,099	145.17%	74.28%

Schedule of Virginia Tech's Share of Net Pension Liability (VaLORS)*
For the years ended June 30, 2020-2015
(all dollars in thousands)

	Proportion of net pension liability	Proportionate share of net pension liability	Employer's covered payroll	Proportionate share of net pension liability as a percentage of employer's covered payroll	Plan fiduciary net position as a percentage of total pension liability
2020	0.66%	$ 4,557	$ 2,293	198.74%	68.31%
2019	0.66%	$ 4,144	$ 2,294	180.65%	69.56%
2018	0.67%	$ 4,397	$ 2,315	189.94%	67.22%
2017	0.67%	$ 5,201	$ 2,328	223.41%	61.01%
2016	0.66%	$ 4,716	$ 2,247	209.88%	62.64%
2015	0.70%	$ 4,706	$ 2,461	191.22%	63.05%

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

Schedule of Virginia Tech's Pension Contributions (SERP)
For the years ended June 30, 2020 - 2015
(all dollars in thousands)

	Contractually required contribution	Contributions in relation to contractually required contribution	Contribution deficiency (excess)	Employer's covered payroll	Contributions as a percentage of employer's covered payroll
2020	$ 37,758	$ 37,758	$ -	$ 283,418	13.32%
2019	$ 36,003	$ 36,003	$ -	$ 270,954	13.29%
2018	$ 36,466	$ 36,466	$ -	$ 270,309	13.49%
2017	$ 35,348	$ 35,348	$ -	$ 262,376	13.47%
2016	$ 36,931	$ 36,931	$ -	$ 263,416	14.00%
2015	$ 30,392	$ 30,392	$ -	$ 246,488	12.30%

Schedule of Virginia Tech's Pension Contributions (VaLORS)
For the years ended June 30, 2020 - 2015
(all dollars in thousands)

	Contractually required contribution	Contributions in relation to contractually required contribution	Contribution deficiency (excess)	Employer's covered payroll	Contributions as a percentage of employer's covered payroll
2020	$ 503	$ 503	$ -	$ 2,367	21.25%
2019	$ 496	$ 496	$ -	$ 2,293	21.63%
2018	$ 483	$ 483	$ -	$ 2,294	21.05%
2017	$ 487	$ 487	$ -	$ 2,315	21.04%
2016	$ 439	$ 439	$ -	$ 2,328	18.86%
2015	$ 397	$ 397	$ -	$ 2,247	17.67%

All schedules above are intended to show information for 10 years. Since 2015 was the first year for this presentation, only six years are available. Additional years will be included as they become available.

Notes to Required Supplementary Information for Pension Plans

There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation. The actuarial assumptions used in the June 30, 2018, valuation were based on the results of an actuarial experience study for the period from July 1, 2012, through June 30, 2016, except for the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

VRS – State Employee Retirement Plans (SERP)

Mortality Rates	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	Increased rate from 14% to 25%
Discount Rate	Decrease rate from 7.00% to 6.75%

VaLORS Retirement Plan

Mortality Rates	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%
Discount Rate	Decrease rate from 7.00% to 6.75%

Required Supplementary Information for Other Postemployment Benefit Plans

Schedule of Virginia Tech's Share of OPEB Liability (Asset)
For the years ended June 30, 2020-2018
(all dollars in thousands)

	Year*	PMRH	VSDP	GLI	HIC	LODA
Employer's proportion of the collective total OPEB liability (asset)	2020	8.72%	3.79%	2.99%	8.59%	0.24%
	2019	8.53%	3.81%	2.95%	8.32%	0.23%
	2018	8.34%	3.79%	2.87%	8.19%	0.25%
Employer's proportionate share of the collective total OPEB liability (asset)	2020	$ 59,214	$ (7,438)	$ 48,635	$ 79,327	$ 868
	2019	$ 85,746	$ (8,583)	$ 44,770	$ 75,868	$ 735
	2018	$ 108,278	$ (7,790)	$ 43,235	$ 74,567	$ 663
Employer's covered payroll (where applicable)	2020		$ 153,447	$ 585,890	$ 585,614	
	2019		$ 147,739	$ 553,929	$ 558,853	
	2018		$ 142,553	$ 526,681	$ 531,560	
Proportionate share of the collective total OPEB liability (asset) as a percentage of employer's covered payroll	2020		4.85%	8.30%	13.55%	
	2019		5.81%	8.08%	13.58%	
	2018		5.46%	8.02%	14.03%	
Covered-employee payroll (where applicable)	2020	$ 601,489				N/A**
	2019	$ 575,313				N/A**
	2018	$ 548,609				N/A**
Proportionate share of the collective total OPEB liability (asset) as a percentage of covered-employee payroll	2020	18.82%				N/A**
	2019	14.90%				N/A**
	2018	19.74%				N/A**
Plan Fiduciary Net Position as a percentage of the total OPEB liability (asset)	2020	N/A	167.18%	52.00%	10.56%	0.79%
	2019	N/A	194.74%	51.22%	9.51%	0.60%
	2018	N/A	186.63%	48.86%	8.03%	1.30%

**The amounts presented have a measurement date of the previous fiscal year end.*
***The contributions for the Line of Duty Act Program (LODA) are based on the number of participants in the program using a per capita-based contribution versus a payroll-based contribution.*

This schedule is intended to show information for 10 years. Since 2018 is the first year for this presentation, only three years are available. Additional years will be included as they become available.

Schedule of Virginia Tech's Share of OPEB Contributions
For the years ended June 30, 2020-2018
(all dollars in thousands)

	Year	VSDP	GLI	HIC	LODA
Contractually required contribution	2020	$ 968	$ 3,231	$ 7,262	$ 31
	2019	$ 950	$ 3,039	$ 6,836	$ 32
	2018	$ 977	$ 2,880	$ 6,653	$ 25
Contributions in relation to contractually required contribution	2020	$ 968	$ 3,231	$ 7,262	$ 31
	2019	$ 950	$ 3,039	$ 6,836	$ 32
	2018	$ 977	$ 2,880	$ 6,653	$ 25
Contribution deficiency (excess)	2020	$ -	$ -	$ -	$ -
	2019	$ -	$ -	$ -	$ -
	2018	$ -	$ -	$ -	$ -
Employer's covered payroll (where applicable)	2020	$ 161,260	$ 622,611	$ 621,914	
	2019	$ 153,447	$ 585,890	$ 585,614	
	2018	$ 147,739	$ 553,929	$ 558,853	
Contributions as a percentage of employer's covered payroll	2020	0.58%	0.52%	1.10%	
	2019	0.63%	0.52%	1.17%	
	2018	0.66%	0.52%	1.19%	
Covered-employee payroll (where applicable)	2020				N/A*
	2019				N/A*
	2018				N/A*
Contributions as a percentage of covered-employee payroll	2020				N/A*
	2019				N/A*
	2018				N/A*

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

This schedule is intended to show information for 10 years. Since 2018 is the first year for this presentation, only three years are available. Additional years will be included as they become available.

Notes to Required Supplementary Information for OPEB Plans

PMRH program

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, 2018 valuation based on recent experience:

- Spousal Coverage – reduced the rate from 35% to 25%
- Retiree Participation – reduced the rate from 60% to 50%

Spousal coverage and retiree participation were both reduced based on a blend of recent experience and the prior year assumptions. The mortality assumption was modified slightly to reflect modified pre-retirement mortality base rates to exclude age over 65 instead of apply mortality improvement projection scale BB. The excise tax was modified to reflect updated projection of the tax thresholds. Trend rates were updated based on economic conditions as of June 30, 2019. Additionally, the discount rate was decreased from 3.87% to 3.51% based on the Bond Buyers GO 20 Municipal Bond Index.

GLI, HIC, LODA, and VSDP programs

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 actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016 except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

General State Employees (GLI, HIC, LODA, VSDP)

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
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Line of Duty Disability	Increased rate from 14% to 25%
Discount Rate	Decreased rate from 7.00% to 6.75% (N/A for LODA)

Teachers (GLI)

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
Disability Rates	Adjusted rates to better match experience
Salary Scale	No change
Discount Rate	Decreased rate from 7.00% to 6.75%

SPORS Employees (GLI, HIC, LODA, VSDP)

Mortality Rates	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%
Discount Rate	Decreased rate from 7.00% to 6.75% (N/A for LODA)

VaLORS Employees (GLI, HIC, LODA, VSDP)

Mortality Rates	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	Increased rate from 50% to 35%
Discount Rate	Decreased rate from 7.00% to 6.75% (N/A for LODA)

JRS (GLI, HIC)

Mortality Rates	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
Discount Rate	Decreased rate from 7.00% to 6.75%

Largest Ten Locality Employers – General Employees (GLI)

Mortality Rates	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%
Discount Rate	Decreased rate from 7.00% to 6.75%

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

Mortality Rates	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%
Discount Rate	Decreased rate from 7.00% to 6.75%

Largest Ten Locality Employers – Hazardous Duty Employees (GLI)

Mortality Rates	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%
Discount Rate	Decreased rate from 7.00% to 6.75%

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

Mortality Rates	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 60% to 45%
Discount Rate	Decreased rate from 7.00% to 6.75%

Largest Ten Locality Employers with Public Safety Employees (LODA)

Mortality Rates	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 with Public Safety Employees (LODA)

Mortality Rates	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 60% to 45%

Optional Supplementary Information

Virginia Tech Foundation Inc.

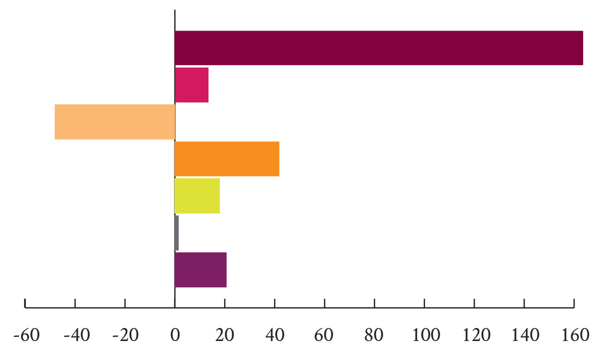
The purpose of Virginia Tech Foundation Inc. is to receive, invest, and manage private funds given for the support of programs at Virginia Tech and to foster and promote the growth, progress, and general welfare of the university.

During the current fiscal year, the foundation recognized $163.5 million in contributions for support of the university. Investment income of $13.1 million, along with net loss on investments of $48.0 million, resulted in a $34.9 million net loss on investment activity. Property rental, hotel operating, and golf course income totaled $61.0 million. Other income accounted for $20.6 million.

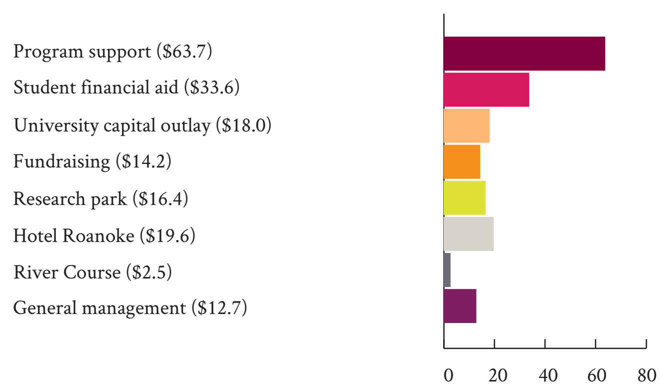
Total income of $210.2 million was offset by $180.7 million in expenses that supported the university and its programs. Direct support to various university programs aggregated $115.3 million, which included $33.6 million in scholarship support to students and faculty, and $18.0 million towards university capital projects. Additional expenses such as fund-raising, management and general, research park, hotel operating, golf course, and other costs totaled $65.4 million. Total net position increased by $27.1 million over the previous year.

The adjacent graphs are categorized as presented in the audited financial statements for the foundation that follows the Financial Accounting Standards Board (FASB) presentation requirements.

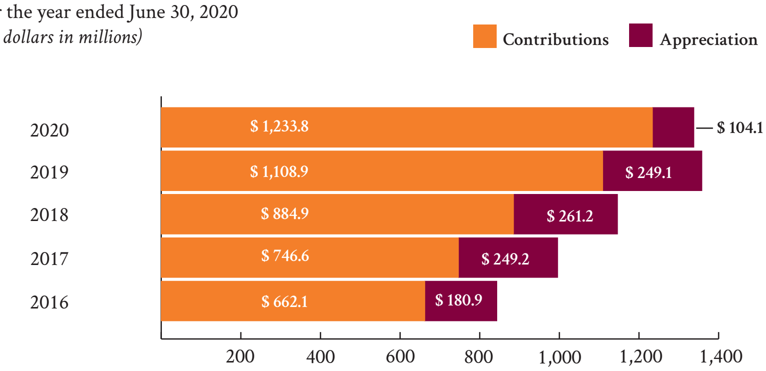
Virginia Tech Foundation Revenues and Investment Gains
For the year ended June 30, 2020
(all dollars in millions)



Virginia Tech Foundation Expenses
For the year ended June 30, 2020
(all dollars in millions)



Virginia Tech Foundation Endowment Market Value*
For the year ended June 30, 2020
(all dollars in millions)



**Market value of endowment funds includes agency deposits held in trust of $459.3 million.*
(Source: Virginia Tech Investment Managers, unaudited)

Consolidating Schedule of Net Position

As of June 30, 2020
(all dollars in thousands)

	Current Funds Unrestricted	Current Funds Restricted	Loan Funds	Endowment & Similar Funds	Plant Funds	Agency Funds	Total
Assets							
Current assets							
Cash and cash equivalents (Note 4)	$ 127,480	$ 45,668	$ 3,348	$ -	$ -	$ 11,306	$ 187,802
Short-term investments (Notes 4, 25)	-	-	-	-	-	-	-
Accounts and contributions receivable, net (Notes 1, 5, 25)	16,730	47,435	-	-	-	-	64,165
Notes receivable, net (Note 1, 6)	139	-	1,127	-	-	-	1,266
Due from Commonwealth of Virginia (Note 10)	15,121	9,565	-	-	-	-	24,686
Inventories	13,446	-	-	-	-	-	13,446
Prepaid expenses	16,299	79	-	-	-	-	16,378
Other current assets	-	-	-	-	-	-	-
Due to (from) other funds	(52,258)	8,043	-	(542)	44,757	-	-
Total current assets	136,957	110,790	4,475	(542)	44,757	11,306	307,743
Noncurrent assets							
Cash and cash equivalents (Note 4)	6	-	-	27	12,852	-	12,885
Short-term investments (Notes 4)	-	-	-	329	3,403	-	3,732
Due from Commonwealth of Virginia (Note 10)	-	-	-	-	10,325	-	10,325
Accounts and contributions receivable, net (Notes 1, 5, 25)	-	-	-	-	12,535	-	12,535
Notes receivable, net (Note 1, 6)	3,507	-	9,305	-	-	-	12,812
Long-term investments (Notes 4, 25)	490,509	-	-	62,190	32,958	-	585,657
Depreciable capital assets, net (Notes 7, 25)	-	-	-	-	1,678,324	-	1,678,324
Nondepreciable capital assets (Notes 7, 25)	-	-	-	-	257,772	-	257,772
Other assets	133	7,438	-	-	-	-	7,571
Total noncurrent assets	494,155	7,438	9,305	62,546	2,008,169	-	2,581,613
Total assets	631,112	118,228	13,780	62,004	2,052,926	11,306	2,889,356
Deferred Outflows of Resources							
Deferred loss on long-term debt defeasance (Note 14)	-	-	-	-	6,784	-	6,784
Deferred outflow for VRS pension (Note 18)	75,370	3,647	-	-	-	-	79,017
Deferred outflow for other postemployment benefits (Note 20)	30,421	3,835	-	-	-	-	34,256
Total deferred outflows	105,791	7,482	-	-	6,784	-	120,057
Liabilities							
Current liabilities							
Accounts payable and accrued liabilities (Note 8)	98,885	19,403	-	-	38,285	-	156,573
Accrued compensated absences (Notes 1, 15)	19,374	3,700	-	-	-	-	23,074
Unearned revenue (Notes 1, 9)	27,863	25,810	-	-	-	-	53,673
Funds held in custody for others	1	-	-	-	-	11,306	11,307
Commercial paper (Note 11)	-	-	-	-	-	-	-
Long-term debt payable (Notes 12, 13, 25)	-	-	-	-	32,095	-	32,095
Other postemployment benefits liabilities (Note 20)	2,214	330	-	-	-	-	2,544
Other liabilities (Note 12)	213	-	-	-	53,851	-	54,064
Total current liabilities	148,550	49,243	-	-	124,231	11,306	333,330
Noncurrent liabilities							
Accrued compensated absences (Notes 1, 15)	22,836	4,342	-	-	-	-	27,178
Federal student loan program contributions refundable (Note 15)	-	-	10,712	-	-	-	10,712
Unearned revenue	-	-	-	-	-	-	-
Long-term debt payable (Notes 12, 13, 25)	-	-	-	-	420,709	-	420,709
Pension liability (Note 18)	410,091	360	-	-	-	-	410,451
Other postemployment benefits liabilities (Note 20)	185,275	225	-	-	-	-	185,500
Other liabilities	3,396	-	-	-	-	-	3,396
Total noncurrent liabilities	621,598	4,927	10,712	-	420,709	-	1,057,946
Total liabilities	770,148	54,170	10,712	-	544,940	11,306	1,391,276
Deferred Inflows of Resources							
Deferred gain on long-term debt defeasance (Note 14)	-	-	-	-	824	-	824
Deferred inflow for VRS pension (Note 18)	25,795	-	-	-	-	-	25,795
Deferred inflow for other postemployment benefits (Note 20)	76,526	1,031	-	-	-	-	77,557
Total deferred outflows	102,321	1,031	-	-	824	-	104,176
Net Position							
Net investment in capital assets	-	-	-	-	1,437,622	-	1,437,622
Restricted, nonexpendable	-	-	-	12,562	-	-	12,562
Restricted, expendable							
Scholarships, research, instruction, and other	-	70,509	3,068	49,442	-	-	123,019
Capital projects	-	-	-	-	2,928	-	2,928
Debt service and auxiliary operations	-	-	-	-	73,396	-	73,396
Unrestricted	(135,566)	-	-	-	-	-	(135,566)
Total net position	$ (135,566)	$ 70,509	$ 3,068	$ 62,004	$ 1,513,946	$ -	$ 1,513,961

Consolidating Schedule of Revenues, Expenses, and Changes in Net Position

As of June 30, 2020
(all dollars in thousands)

	Current Funds Unrestricted	Current Funds Restricted	Loan Funds	Endowment & Similar Funds	Plant Funds	Total
Operating Revenues						
Student tuition and fees	$ 573,972	$ 1,897	$ -	$ -	$ -	$ 575,869
Federal appropriations	-	14,460	-	-	-	14,460
Federal grants and contracts	54,186	170,133	-	-	641	224,960
State grants and contracts	1,047	13,801	-	-	-	14,848
Local grants and contracts	383	13,901	-	-	-	14,284
Nongovernmental grants and contracts	13,931	39,877	-	-	-	53,808
Sales and services of educational departments	20,048	33	-	-	-	20,081
Auxiliary enterprise revenue	264,086	(3)	-	-	-	264,083
Other operating revenues	3,593	2,804	60	-	(17)	6,440
Total operating revenues	931,246	256,903	60	-	624	1,188,833
Operating Expenses						
Instruction	418,508	7,495	-	-	-	426,003
Research	125,850	217,356	-	-	-	343,206
Public service	55,542	42,954	-	-	-	98,496
Academic support	103,464	2,959	-	-	-	106,423
Student services	25,093	1,063	(162)	-	-	25,994
Institutional support	72,500	9,215	-	-	-	81,715
Operation and maintenance of plant	81,444	(76)	-	-	10,577	91,945
Student financial assistance	8,455	22,188	-	-	-	30,643
Auxiliary enterprises	236,268	(117)	-	-	-	236,151
Depreciation and amortization	-	-	-	-	109,175	109,175
Other operating expenses	-	-	-	-	-	-
Total operating expenses	1,127,124	303,037	(162)	-	119,752	1,549,751
Operating Income (Loss)	(195,878)	(46,134)	222	-	(119,128)	(360,918)
Non-Operating Revenues (Expenses)						
State appropriations	259,830	43,978	-	-	-	303,808
Gifts	17,821	53,820	-	-	-	71,641
CARES Act stabilization revenue	-	19,670	-	-	-	19,670
Non-operating grants and contracts	-	1,162	-	-	-	1,162
Federal student financial aid (Pell)	-	20,233	-	-	-	20,233
Investment income, net of investment expense	(7,209)	(826)	-	(4,150)	(7,333)	(19,518)
Interest expense on debt related to capital assets	(205)	-	-	-	(16,482)	(16,687)
Other additions	(57,890)	(7,067)	-	-	65,404	447
Net non-operating revenues (expenses)	212,347	130,970	-	(4,150)	41,589	380,756
Income (Loss) before Other Revenues, Expenses, Gains, or Losses	16,469	84,836	222	(4,150)	(77,539)	19,838
Capital grants and gifts	15,671	2,015	-	-	83,344	101,030
Loss on disposal of capital assets	-	-	-	-	114	114
Total other revenues, expenses, gains, losses	15,671	2,015	-	-	83,458	101,144
Increase in Net Position	32,140	86,851	222	(4,150)	5,919	120,982
Mandatory transfers	(54,444)	(686)	-	-	55,130	-
Nonmandatory transfers	6,646	(134)	(559)	(3,285)	(2,668)	-
Equipment and library book transfers	(42,095)	(5,551)	-	-	47,646	-
Scholarship allowance transfer	70,158	(70,158)	-	-	-	-
Total transfers	(19,735)	(76,529)	(559)	(3,285)	100,108	-
Increase in Net Position after transfers	12,405	10,322	(337)	(7,435)	106,027	120,982
Net position - beginning of year (restated)	(147,971)	60,187	3,405	69,439	1,407,919	1,392,979
Net position - end of year	$ (135,566)	$ 70,509	$ 3,068	$ 62,004	$ 1,513,946	$ 1,513,961

Affiliated Corporations Financial Highlights

For the years ended June 30, 2020-2016

(all dollars in thousands)

	2020	2019[1]	2018	2017	2016
Assets					
Virginia Tech Foundation Inc.	$ 2,265,838	$ 2,107,138	$ 1,891,019	$ 1,723,910	$ 1,510,647
Virginia Tech Innovation Corporation	9,488	10,798	11,646	11,956	12,645
Virginia Tech Services Inc.	7,311	6,803	8,762	10,595	11,334
Virginia Tech Applied Research Corporation	4,219	4,885	4,414	3,696	3,357
Virginia Tech Intellectual Properties Inc.	1,735	1,201	1,063	933	1,405
Total Assets	$ 2,288,591	$ 2,130,825	$ 1,916,904	$ 1,751,090	$ 1,539,388
Revenues					
Virginia Tech Foundation Inc.	$ 210,179	$ 257,082	$ 266,582	$ 318,291	$ 172,130
Virginia Tech Innovation Corporation	4,921	7,015	5,564	5,401	4,348
Virginia Tech Services Inc.	4,172	18,872	22,160	22,187	24,398
Virginia Tech Applied Research Corporation	11,233	11,431	12,038	9,233	6,284
Virginia Tech Intellectual Properties Inc.	2,052	2,193	1,932	2,016	2,366
Total Revenues	$ 232,557	$ 296,593	$ 308,276	$ 357,128	$ 209,526
Expenses					
Virginia Tech Foundation Inc.	$ 180,673	$ 170,041	$ 179,567	$ 164,310	$ 184,904
Virginia Tech Innovation Corporation	6,612	6,655	5,600	4,993	4,321
Virginia Tech Services Inc.	3,438	18,957	22,133	22,480	24,383
Virginia Tech Applied Research Corporation	11,415	10,715	10,985	8,640	7,919
Virginia Tech Intellectual Properties Inc.	2,016	2,155	1,727	2,235	2,389
Total Expenses	$ 204,154	$ 208,523	$ 220,012	$ 202,658	$ 223,916

(1) *Virginia Tech Services Inc. restated.*


Virginia Tech
1 8 7 2

AUDIT SUMMARY

We have audited the basic financial statements of the Virginia Polytechnic Institute and State University (Virginia Tech) as of and for the year ended June 30, 2020, and issued our report thereon, dated November 12, 2020. Our report, included in Virginia Tech's Financial Report, is available at the Auditor of Public Accounts' website at www.apa.virginia.gov and at Virginia Tech's website at www.vt.edu. Our audit found:

- the financial statements are presented fairly, in all material respects;
- internal control findings requiring management's attention; however, we do not consider them to be material weaknesses; and
- instances of noncompliance or other matters required to be reported under Government Auditing Standards.

Our audit also included testing over the major federal programs of the Research and Development Programs Cluster and Education Stabilization Fund for the Commonwealth's Single Audit as described in the U.S. Office of Management and Budget Compliance Supplement; and found internal control findings requiring management's attention and instances of noncompliance in relation to this testing. In addition, we audited the follow up on the finding from fiscal year 2018 entitled "Improve Reporting to the National Student Loan Data System" and found an internal control finding requiring management's attention and an instance of noncompliance in relation to this testing.

INTERNAL CONTROL AND COMPLIANCE FINDINGS AND RECOMMENDATIONS

Report Student Status Enrollment Changes Timely to National Student Loan Data System
Type: Internal Control and Compliance
Severity: Significant Deficiency
Repeat: Yes (first issued in fiscal year 2018)
Prior Title: Improve Reporting to National Student Loan Data System

Virginia Tech personnel did not report timely enrollment data to the National Student Loan Data System (NSLDS). Virginia Tech personnel did not certify timely five of 23 students that had graduated from Virginia Tech during fall 2019 at the campus and/or program levels. The underlying cause of the noncompliance is related to a need to compile a "Graduation (G)" only file and ongoing discussions/testing that occurred between Virginia Tech and the third party servicer used to transmit batches to NSLDS through spring 2020. By the time Virginia Tech personnel identified and transmitted the student concerns to NSLDS, they were past the required reporting timeframe.

In accordance with Code of Federal Regulations 34 C.F.R. § 685.309 and further outlined in the NSLDS Enrollment Reporting Guide, enrollment changes must be reported to NSLDS within 30 days when attendance changes, unless a roster file will be submitted within 60 days. The accuracy of Title IV enrollment data depends heavily on information reported by institutions. By not submitting timely and accurate data to NSLDS, Virginia Tech can affect the reliance placed on the data by the Department of Education for monitoring purposes and other higher education institutions when making aid decisions. Noncompliance may also have implications on an institution's participation in Title IV programs.

Management should collaborate with the third-party servicer to implement corrective action to prevent future noncompliance.

Strengthen the Schedule of Expenditures of Federal Awards Review Process
Type: Internal Control and Compliance
Severity: Significant Deficiency
Repeat: No

Virginia Tech Financial Reporting personnel did not properly prepare a Schedule of Expenditures of Federal Awards (SEFA) supporting schedule that details the amounts Virginia Tech disbursed to subrecipients. The schedule was overstated by $14,081,593. The error resulted from inaccurate coding in the query Financial Reporting used to create the schedule.

In accordance with § 200.510(b) (Schedule of expenditures of Federal awards) of the Uniform Guidance, "the auditee must prepare a schedule of expenditures of Federal awards for the period covered by the auditee's financial statements which must include the total Federal awards expended as determined in accordance with § 200.502." The Department of Accounts' (Accounts) Comptroller's Directive 2-20 provides specific directions for compiling the SEFA and supporting schedules, including the "total amount provided to subrecipients from each Federal program," to support its preparation of the Commonwealth's SEFA and related disclosures. Providing inaccurate schedules to Accounts could result in misstatement of the Commonwealth's SEFA and related disclosures. Financial Reporting should strengthen its current SEFA review process to include review of the query output and schedule preparation for reasonableness and accuracy.

Improve Timeliness of Grant Closeout
Type: Internal Control and Compliance
Severity: Significant Deficiency
Repeat: No

Virginia Tech academic department and Office of Sponsored Programs personnel did not close out grants in accordance with the Federal Uniform Guidance. The cause of the noncompliance was due to the departments not liquidating financial obligations timely, which results in the Office of Sponsored Programs not closing the grants timely and, in some cases, Office of Sponsored Programs not submitting financial reports timely. Based on analysis of Virginia Tech's research and development grants, we found 69 grants with expenses that occurred after the period of performance and close out period. We sampled and tested ten of those grants from which we identified the following deficiencies:

- for one grant, the academic department did not resolve a travel encumbrance timely thus delaying close-out by 38 days. The final report was submitted to the Federal sponsor 244 days after the Federal deadline;
- for one grant, the academic department did not resolve a travel encumbrance timely resulting in the labor redistribution and corresponding indirect cost charges being posted outside of the period of performance. The sponsor was final billed timely; however, the final report was submitted 24 days late. The Post-Award Administrator revised a previously submitted Federal financial report and returned the remaining balance to the Federal sponsor, this revision delayed the issuance of a revised financial report by 118 days and
- for one grant, the Post-Award Administrator did not complete the final Federal report timely resulting in a submission that was 100 days late.

In accordance with § 200.343(a)(b) (Closeout) of the Uniform Guidance and C.F.R. § 32.71 (Closeout Procedures), "the non-Federal entity must submit, no later than 90 days after the end of the period of performance, all financial, performance and other reports as required by the terms and conditions of the Federal award. Unless the Federal awarding agency or pass-through entity authorizes an extension, a non-Federal entity must liquidate all obligations incurred under the Federal award not later than 90 days after the end date of the period of performance as specified in the terms and conditions of the Federal award."

The Office of Sponsored Programs should reinforce closeout procedures with academic departments to ensure that financial obligations are liquidated timely to allow the Post-Award Administrators sufficient time to comply with the Uniform Guidance. When required, the Office of Sponsored Programs should ensure that final reports are submitted timely to the Federal sponsor.

Commonwealth of Virginia

Auditor of Public Accounts

Martha S. Mavredes, CPA
Auditor of Public Accounts

P.O. Box 1295
Richmond, Virginia 23218

November 12, 2020

The Honorable Ralph S. Northam, Governor of Virginia

The Honorable Kenneth R. Plum, Chairman, Joint Legislative Audit and Review Commission

Board of Visitors, Virginia Polytechnic Institute and State University

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States, the financial statements of the business-type activities and discretely presented component unit of the **Virginia Polytechnic Institute and State University** as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise Virginia Tech's basic financial statements and have issued our report thereon dated November 12, 2020. Our report includes a reference to another auditor. We did not consider internal controls over financial reporting or test compliance with certain provisions of laws, regulations, contracts, and grant agreements for the financial statements of the component unit of Virginia Tech, which was audited by another auditor in accordance with auditing standards generally accepted in the United States of America, but not in accordance with Government Auditing Standards.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Virginia Tech's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Virginia Tech's internal control. Accordingly, we do not express an opinion on the effectiveness of Virginia Tech's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify certain deficiencies in internal control entitled "Report Student Status Enrollment Changes Timely to National Student Loan Data System," "Strengthen the Schedule of Expenditures of Federal Awards Review Process," and "Improve Timeliness of Grant Closeout," which are described in the section titled "Internal Control and Compliance Findings and Recommendations" that we consider to be significant deficiencies.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether Virginia Tech's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and, accordingly, we do not express such an opinion. The results of our tests disclosed instances of noncompliance or other matters that are required to be reported under Government Auditing Standards and which are described in the section titled "Internal Control and Compliance Findings and Recommendations," in the findings entitled "Report Student Status Enrollment Changes Timely to National Student Loan Data System," "Strengthen the Schedule of Expenditures of Federal Awards Review Process," and "Improve Timeliness of Grant Closeout."

The University's Response to Findings

We discussed this report with management at an exit conference held on November 3, 2020. Virginia Tech's response to the findings identified in our audit is described in the accompanying section titled "University Response." Virginia Tech's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Status of Prior Findings

Virginia Tech has not taken adequate corrective action with respect to the previously reported finding "Improve Reporting to the National Student Loan Data System." Accordingly, we included the finding "Report Student Status Enrollment Changes Timely to National Student Loan Data System" in the section entitled "Internal Control and Compliance Findings and Recommendations."

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Martha S. Mavredes
AUDITOR OF PUBLIC ACCOUNTS

DBC/vks

VIRGINIA TECH

University Controller (MC 0312)
Virginia Tech
North End Center, Suite 3300
300 Turner Street NW
Blacksburg, Virginia 24061
P: (540) 231-6418 F: (540) 231-7221
www.controller.vt.edu

November 20, 2020

Martha Mavredes, CPA
Auditor of Public Accounts
P. O. Box 1295
Richmond, Virginia 23218

Dear Ms. Mavredes:

We have reviewed the audit findings and recommendations resulting from the fiscal year 2020 audit by the Auditor of Public Accounts (APA) and Virginia Tech concurs with the audit findings. The following contains the APA's findings and management's response to the findings.

Findings of the APA:

Report Student Status Enrollment Changes Timely to National Student Loan Data System

Virginia Tech personnel did not report timely enrollment data to the National Student Loan Data System (NSLDS). Virginia Tech personnel did not certify timely five of twenty-three students that had graduated from Virginia Tech during fall 2019 at the campus and/or program levels. The underlying cause of the noncompliance is related to a need to compile a "Graduation (G)" only file and ongoing discussions/testing that occurred between Virginia Tech and the third-party servicer used to transmit batches to NSLDS through spring 2020. By the time Virginia Tech personnel identified and transmitted the student concerns to NSLDS, they were past the required reporting timeframe.

In accordance with Code of Federal Regulations 34 CFR 685.309 and further outlined in the Enrollment Guide, enrollment changes must be reported to NSLDS within 30 days when attendance changes, unless a roster file will be submitted within 60 days. The accuracy of Title IV enrollment data depends heavily on information reported by institutions. By not submitting timely and accurate data to NSLDS, Virginia Tech can affect the reliance placed on the data by the Department of Education for monitoring purposes and other higher education institutions when making aid decisions. Noncompliance may also have implications on an institution's participation in Title IV programs.

Management should collaborate with the third-party servicer to implement corrective action to prevent future noncompliance.

University Response:

Virginia Tech will implement a post-submission audit of a representative sample to confirm accuracy in program and campus level reporting to NSLDS for graduate status. Based on the results, Management will continue to collaborate with the vendor to identify and implement corrective actions. Given that this issue has impacted a number of institutions who partner with the same vendor, Virginia Tech will also seek to utilize professional organizational membership influence at the third-party servicer to facilitate improvement in NSLDS reporting for known issues.

Responsible Person: Rick Sparks, Associate Vice Provost & University Registrar

Completion Date: April 30, 2022

Strengthen the Schedule of Expenditures of Federal Awards Review Process

Virginia Tech Financial Reporting personnel did not properly prepare a Schedule of Expenditures of Federal Awards (SEFA) supporting schedule that details the amounts Virginia Tech disbursed to subrecipients. The schedule was overstated by $14,081,593. The error resulted from inaccurate coding in the query Financial Reporting used to create the schedule.

In accordance with §200.510(b) (Schedule of expenditures of Federal awards) of the Uniform Guidance, "the auditee must prepare a schedule of expenditures of Federal awards for the period covered by the auditee's financial statements which must include the total Federal awards expended as determined in accordance with §200.502." The Department of Accounts' Comptroller's Directive 2-20 provides specific directions for compiling the SEFA and supporting schedules, including the "total amount provided to subrecipients from each Federal program," to support its preparation of the Commonwealth's SEFA and related disclosures. Providing inaccurate schedules to Accounts could result in misstatement of the Commonwealth's SEFA and related disclosures. Financial Reporting should strengthen its current SEFA review process to include review of the query output and schedule preparation for reasonableness and accuracy.

University Response:

We concur that Virginia Tech Financial Reporting should strengthen its current SEFA review process to include review of the query output and schedule preparation for reasonableness and accuracy. Although the error occurred due to a unique set of circumstances, we are moving forward with the following actions to strengthen controls and accuracy of future schedules.

- Update the SEFA SAS query to create the data subset for subcontracts at the beginning of the program prior to any coding that sets expenditure amounts for funds received from other state agencies. (Completed October 26, 2020).

- Prepare a review check list that must be completed prior to the submission of the SEFA to the Department of Accounts. (Completed November 19, 2020).

Responsible Person: Melinda West, Interim AVP for Finance & University Controller

Completion Date: Corrective actions taken.

Improve Timeliness of Grant Closeout

Virginia Tech academic department and Office of Sponsored Programs personnel did not close out grants in accordance with the Federal Uniform Guidance. The cause of the noncompliance was due to the departments not liquidating financial obligations timely which results in the Office of Sponsored Programs not closing the grants timely and, in some cases, Office of Sponsored Programs not submitting financial reports timely. Based on analysis of Virginia Tech's research and development grants, we found 69 grants with expenses that occurred after the period of performance and close out period. We sampled and tested ten of those grants from which we identified the following deficiencies:

- For one grant, the academic department did not resolve a travel encumbrance timely thus delaying close-out by 38 days. The final report was submitted to the Federal sponsor 244 days after the Federal deadline;

- For one grant, the academic department did not resolve a travel encumbrance timely resulting in the labor redistribution and corresponding indirect cost charges being posted outside of the period of performance. The sponsor was final billed timely; however, the final report was submitted 24 days late. The Post-Award Administrator revised a previously submitted Federal financial report and returned the remaining balance to the Federal sponsor, this correction delayed the issuance of revised financial report by 118 days and

- For one grant, the Post-Award Administrator did not complete the final Federal report timely, 100 days late.

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In accordance with §200.343(a)(b) (Closeout) of the Uniform Guidance and CFR §32.71 (Closeout Procedures), "the non-Federal entity must submit, no later than 90 days after the end of the period of performance, all financial, performance and other reports as required by the terms and conditions of the Federal award. Unless the Federal awarding agency or pass-through entity authorizes an extension, a non-Federal entity must liquidate all obligations incurred under the Federal award not later than 90 days after the end date of the period of performance as specified in the terms and conditions of the Federal award."

The Office of Sponsored Programs should reinforce closeout procedures with academic departments to ensure that financial obligations are liquidated timely to allow the Post-Award Administrators sufficient time to comply with the Uniform Guidance. When required, the Office of Sponsored Programs should ensure that final reports are submitted timely to the Federal sponsor.

University Response:

The Office of Sponsored Programs (OSP) will revise the Sponsored Projects Closeout Procedure 30005 to ensure that financial obligations are liquidated timely by the academic departments and institutes to allow the Post-Award Associates sufficient time to comply with the Uniform Guidance closeout requirements. OSP will also revise the University's Cost Transfer policy 3255 to reinforce timely processing of labor and non-labor transfers by the departments. OSP will furthermore socialize the open encumbrances query already available in MicroStrategy to ensure timely liquidation of available sponsored funds. OSP will also provide training on policy and procedure revision along with the reminders of encumbrance reports.

Responsible Person: Trudy Riley, AVP for Research Innovation Sponsored Programs

Completion Date: June 30, 2021

Sincerely,

Melinda West
Interim AVP for Finance & University Controller

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(as of June 30, 2020)

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University Treasurer and Associate Vice President for Finance for the VT Foundation

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Prepared by the Office of the University Controller, Virginia Tech, Blacksburg, VA 24061.

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This report and reports from prior years are available at

www.controller.vt.edu/resources/financialreporting.html.

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and Office of the University Controller.

For more information, contact the Financial Reporting department at 540.231.6418.

VIRGINIA TECH

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