Committee Minutes

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
Solitude Room, The Inn at Virginia Tech
November 5, 2018

Closed Session

Board Members Present: Greta Harris, Tish Long, Horacio Valeiras

VPI & SU Staff: Kay Heidbreder, Tim Sands, Savita Sharma, Dwight Shelton

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

* 2. **Ratification of Personnel Changes Report:** The Committees met in closed session to review and take action on the quarterly Personnel Changes Report. The report includes new faculty appointments and adjustments in salaries for select faculty through the quarter ending September 30, 2018.

   The Committee recommended the Personnel Changes Report to the full Board for approval.

Open Session

Board Members Present: Greta Harris, C.T. Hill, Tish Long, Robert Sebek – staff representative, Dennis Treacy, Horacio Valeiras, Preston White

VPI & SU Staff: Beth Armstrong, Callan Bartel, Bob Broyden, Allen Campbell, D'Elia Chandler, John Cusimano, Brian Daniels, John Dooley, Alisha Ebert, Luisa Havens, Angela Hayes, Kay Heidbreder, Mary Helmick, Jim Hillman, Tim Hodge, Elizabeth Hooper, Chris Kiwus, Theresa Mayer, Robin McCoy, Steven McKnight, Nancy Meacham, Scott Midkiff, Ken Miller, Terri Mitchell, Heidi Myers, Kim O'Rourke, Mark Owczarski, Charlie Phlegar, Dwayne Pinkney, Menah Pratt-Clarke, Scot Ransbottom, Lisa Royal, Charlie Ruble, Tim Sands, Savita Sharma, Dwight Shelton, Ken Smith, Brad Sumpter, Heather Wagoner, Aidan Williams, Sherwood Wilson, Chris Yianilos

1. **Motion to Reconvene in Open Session:** Motion to begin open session.

2. **Opening Remarks**

3. **Consent Agenda:** The Committee considered for approval and acceptance the items listed on the Consent Agenda.

   a. Approval of Items Discussed in Closed Session.

   b. Approval of Minutes of the August 27, 2018 Meeting.

   c. Annual Write-off of Delinquent Accounts: As of June 30, 2018, the amount of write-offs of delinquent accounts totaled $760,284 which represents 0.07 percent of the 2017 annual operating revenues of $1.03 billion. The current year write-off is consistent with the total write-off amounts in recent years.

* d. Approval of Pratt Fund Program and Expenditures Report: The Pratt Fund provides funding for programs in both the College of Engineering and Department of Animal Nutrition in the College of Agriculture and Life Sciences. For fiscal year 2017-18, the College of Engineering had total expenditures of $965,487 and the Animal Nutrition had total expenditures of $750,547.

   The Committee approved the items on the Consent Agenda and recommended the Pratt Fund Program and Expenditures Report to the full Board for approval.

4. **Annual Report on Research:** The Committee received an annual report on research. The presentation provided an in-depth review of research expenditures including a breakdown of extramural research expenditures from different perspectives. The presentation also provided trends in licensing revenue and expenditures and opportunities for Virginia Tech to achieve strategic research growth. The Committee recognized the Vice President for Innovation and Research for making progress on establishing the research team to improve the research infrastructure.

5. **Update on Advancement:** University Advancement provided a quarterly report on the university fundraising efforts. For the first four months of this fiscal year, New Gifts and Commitments were at $38.3 million, up by $17 million or 80 percent as the same time last year. At $24.3 million, cash is up by $4.5 million or 23 percent. The presentation provided an update on the upcoming campaign including the timeline, goals, and campaign leadership. The presentation also covered information on alumni participation, average gift size, total gifts, and lifetime giving by class year decade to demonstrate opportunities for future fundraising.

6. **Annual Report on Investments and Quasi-Endowments:** The Committee received a report on university investments and quasi-endowments, estimated payouts for fiscal year 2019, and planned use of such funds. Funds invested in the endowment pool managed by the Foundation consist of true endowments, quasi-endowments and nongeneral fund reserves and balances, and local funds of or held by the university.

   As of June 30, 2018, the market value of university funds invested by the Foundation was $289.3 million. The payouts for fiscal year 2019 are approximately $10.2 million and are budgeted for scholarships, professorships, graduate student support, and support for Virginia Tech Carilion School of Medicine and auxiliary operations, etc.

7. **Annual Report on the University's Student Financial Aid Resources:** The Committee received a comprehensive report on the university's scholarship and financial aid program. In its Management Agreement with the Commonwealth, the university affirmed its commitment to increase the support for student financial aid. The university continues to work proactively to ensure access and affordability. The amount of total student financial aid awarded increased by $24.2 to a total of $486.4 million.

8. **Report on Efficiencies – Parent Portal:** The Committee received a report on the implementation of Hokie Wallet, the university's new Parent Portal. Hokie Wallet is a new and improved customer interface that provides an integrated web platform for the students and families to access the payment and deposit systems and conduct these activities in an efficient manner. The report also included information on additional technology enhancements under consideration to further improve customer service.

9. **Discussion on Resource Development:** The Committee briefly discussed the Virginia Business Higher Education Council's Economic Outcome Partnership Agreement intended to establish an agreement from which the state and university can pursue shared goals and accountability.

10. **Annual Report on University Debt Ratio and Debt Capacity:** The Committee received a report on the university's debt ratio and debt capacity. At the conclusion of fiscal year 2017-18, outstanding long-term debt of the university totaled $484 million with a debt ratio of 3.97 percent. The university is in full compliance with the internal debt ratio target of 5 percent and the Restructuring benchmark of 7 percent. The Committee affirmed its support for continuation of the 5 percent internal debt ratio target.

* 11. **Approval of Revisions to the 2018-2024 Six-Year Plan:** The Committee reviewed for approval the revisions to the 2018-2024 Six-Year Plan. The Higher Education Opportunity Act of 2011 established goals and objectives for higher education in Virginia, and outlined an annual planning process. This process requires submission of six-year academic, financial, and enrollment plans for the future three biennia. The focus of the plan, submitted each odd-year, is the first biennium of the planning period, and even-year submissions may revise these plans as necessary.

    The university developed the revised Six-Year Plan for submission to the state on October 1, 2018. This report provided an overview of the Six-Year Plan process, key assumptions, and substantive revisions to the original plan submitted last year.

    The Six-Year Plan submission begins a discussion with the commonwealth about the university's planned progress towards the goals of the Statewide Strategic Plan for Higher Education, and how the university can partner with the state to advance shared outcomes. This process is also an important step in positioning the university to seek state support during the Executive Budget development process each fall.

    The Committee recommended the Revisions to the 2018-2024 Six-Year Plan to the full Board for approval.

* 12. **Approval of Year-to-Date Financial Performance Report**: The Committee reviewed for approval the Year-to-Date Financial Performance Report for July 1, 2018 – September 30, 2018. For the first quarter, the annual tuition and fees budget was decreased $10.8 million. Though the university had the largest total undergraduate enrollment in Fall 2018, the tuition and revenue budget was decreased as the freshmen residency mix varied from the budget, continuing undergraduates fell below projections, and graduate enrollments fell below budget.

    Capital outlay expenditures for the quarter ending September 30, 2018 totaled $31 million.

    The Committee recommended the Year-to-Date Financial Performance Report to the full Board for approval.

13. **Other Business:** The Committee discussed other topics as needed.

Joint Open Session with the Building and Grounds Committee

Board Members Present: Greta Harris, C.T. Hill, Tish Long, Robert Mills, Dennis Treacy, Horacio Valeiras, Preston White

VPI & SU Staff: Mac Babb, Callan Bartel, Bob Broyden, Allen Campbell, D'Elia Chandler, John Cusimano, Gregory Daniel, Brian Daniels, John Dooley, Elaine Gall, Kevin Foust, Mary Helmick, Jim Hillman, Tim Hodge, Elizabeth Hooper, Chris Kiwus, Robert Mann, Theresa Mayer, Robin McCoy, Nancy Meacham, Scott Midkiff, Ken Miller, Terri Mitchell, Liza Morris, Mike Mulhare, Mark Owczarski, Charlie Phlegar, Scot Ransbottom, Lisa Royal, Charlie Ruble, Tim Sands, Savita Sharma, Dwight Shelton, Frank Shushok, Kayla Smith, Ken Smith, Brad Sumpter, Aidan Williams, Sherwood Wilson, Chris Wise

* 1. **Approval of Resolution to Adjust the Capital Lease for the Applied Projects Building:** The Committees reviewed for approval a resolution to adjust a capital lease for the Applied Projects Building.

The Board of Visitors approved a capital lease project for the Applied Projects Building with an $8.4 million total cost at its September 11, 2017 meeting. The university has been leasing space from a vendor for its applied projects research activity, and this project provides a permanent location to grow the program.

Since the capital lease approval in September 2017, circumstances and opportunities have emerged requiring a supplement to the original authorization. Pricing for the 45,000 gross square feet building package exceeds the budget by $790,000, the program is requesting $354,000 of new infrastructure to support an unexpected opportunity for specialized instruments, and the program is also requesting the financing package be expanded to spread $600,000 of furnishings costs over time. Thus, the adjustments increase the total required budget to $10.144 million from $8.4 million, a $1.744 million increase. The university and Vice President for Research and Innovation have worked together and developed a funding plan to support the incremental annual lease for the $1.744 million of new costs.

This request was for a $1.744 million supplement to adjust the total authorization for the Applied Projects Building and its capital lease to $10.144 million.

The Committees recommended the Resolution to Adjust the Capital Lease for the Applied Projects Building to the full Board for approval.

* 2. **Approval of Resolution to Adjust the Student Wellness Improvements Project Authorization:** The Committees reviewed for approval a resolution to adjust the Student Wellness Improvements Project authorization.

In November 2017, the Board of Visitors approved a $63 million capital project authorization to complete renovation and refurbishment to modernize War Memorial Hall, construct an addition to War Memorial Hall, and to renovate McComas Hall. Cost estimates obtained in April 2018 during schematic design reveal that the full cost for this program is $9 million over the authorized project budget, due to excessive costs for the demolition and construction related to the addition to War Memorial Hall.

The university established a team from Student Affairs, the Provost Office, the Office of University Planning, Capital Construction and Renovations, and Finance to work with the Architecture and Engineering firm to develop a solution to achieve the intent of the originally authorized project for a cost that does not exceed the originally authorized $63 million. The proposed solution envisions removal of the addition to the War Memorial Hall from the project, use of existing space in War Memorial Hall, shifting the Cook Counseling Center to a new facility adjacent to campus, and renovations to the area vacated by counseling services in McComas Hall.

Under this plan, the renovations to both War Memorial Hall and McComas Hall will be accommodated within the existing capital project authorization at a reduced budget of $58 million and the space associated with the Cook Counseling Center will be housed with a $5 million capital lease with the Foundation. Thus, the total project costs for the entire program remains at the originally authorized amount of $63 million.

This request was to adjust the capital project budget to $58 million to renovate War Memorial Hall and McComas Hall and to authorize a $5 million capital lease for the Cook Counseling program.

The Committees recommended the Resolution to Adjust the Student Wellness Improvements Project Authorization to the full Board for approval.

***** 3. **Approval of Resolution for a Capital Project for the Creativity and Innovation District Residence Hall**: The Committees reviewed for approval a resolution for a capital project for the Creativity and Innovation District Residence Hall.

The Creativity and Innovation District is a central component identified in the Campus Master Plan. A key element of this district is a new living/learning community that incorporates studios, metal and wood workshops, creative technologies, and shared learning spaces. Planning work on this project has progressed through bridging documents under an existing capital project authorization. The project scope includes construction of a 203,000 square feet three-winged, interconnected 596 bed residential life facility that includes academic, social, research, and collaboration space. Members of the living/learning residence hall will include students with an interest in interdisciplinary creation and entrepreneurship as well as 176 student athletes.

The total project costs, inclusive of design, construction, equipment, and administration, are $105.5 million. The university has developed a funding plan that calls for the use of debt which will be serviced by Residential Programs auxiliary revenue, Athletics revenue, and an internal lease of academic program space by E&G programs. The project is ready to transition into procurement of a Design-Build team in November 2018, with occupancy expected summer of 2021.

This request was for a $105.5 million project authorization for a Design-Build delivery of the Creativity and Innovation District Residence Hall project.

The Committees recommended the Resolution for a Capital Project for the Creativity and Innovation District Residence Hall to the full Board for approval.

***** 4. **Approval of Resolution for a Capital Lease to Replace the Turbo Research Laboratory:** The Committees reviewed for approval a resolution for a capital lease to replace the Turbo Research Laboratory.

The Turbomachinery and Propulsion Research Laboratory (Turbo Lab) resides within the Department of Mechanical Engineering in the College of Engineering. The current Turbo Lab is approximately 5,000 gross square feet and located at 1603 Research Center Drive at the Virginia Tech Airport. The program supports the university and its missions by investigating advanced concepts and methods for propulsion applications through research and collaboration with the turbomachinery community and educating students in propulsion-related technologies and research methods.

The existing Turbo Lab building will be demolished as part of the airport runway improvement project. The most effective and economical solution to replace the lab is the construction of an addition to the existing Advanced Propulsion and Power Laboratory (APPL) facility in the Corporate Research Center (CRC). The planned replacement facility includes 7,500 gross square feet with a control room, office space, and engine test cells. The university has worked with the CRC and has determined that the facility can be completed for total project costs not to exceed $2 million.

The implementation plan calls for the Virginia Tech Foundation to deliver a building addition in the CRC with financing from the Foundation. The university will enter a long-term lease with the Foundation for the entire facility at a rate sufficient to retire the debt and financing costs and cover normal operating expenses.

This request was for authorization to move forward with a capital lease for the Turbo Laboratory Building.

The Committees recommended the Resolution for a Capital Lease to Replace the Turbo Research Laboratory to the full Board for approval.

There being no further business, the meeting adjourned at 11:25 a.m.

*** Requires full Board approval.**

Accounts Receivable and the Write-off of Delinquent Accounts
For the Fiscal Year Ended June 30, 2018

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

September 14, 2018

Overview

Current accounts receivable are generated by several components as part of the annual operating activities of the university. Student accounts receivable and the receivables generated through the sponsored research program represent the largest components of the total receivables. Current and noncurrent notes receivable are comprised of both federal and institutional student loans administered by the university. To properly account for and control these assets, the university uses a combination of centralized and decentralized systems.

The Bursar's Office is responsible for the centralized accounts receivable system operation and monitoring the activities of the decentralized operations through reviews of reports and discussions with personnel who have been delegated the responsibility for billing and collecting accounts. The Bursar's Office is also responsible for managing the collection process for all delinquent accounts.

The Controller's Office consolidates information from the receivable systems on a quarterly basis and reports to senior management and the State Comptroller. The quarterly report uses a combination of narratives, tables, and graphs to report receivables, analyze trends, and identify areas where emphasis or action is needed. The Controller's Office is responsible for the implementation of corrective action to ensure that receivables are properly managed.

Composition and Aging of the Receivables

Accounts receivable: Attachment A provides the composition of the current gross receivables at June 30, 2018, with comparative data for the previous year. Attachment B provides a graph for the aging analysis of the gross receivables at June 30, 2018, with comparative data for the previous three years. In addition, the total current receivables write-offs for these four years are overlaid on this graph to demonstrate the small proportion of write-offs to total receivables.

Notes receivable – from students: Federal and Institutional Loans (issued by Virginia Tech from gifts and donated funds designated to be used for loans) to students require the execution of a promissory note. These loans receivable are repaid over 10 or more years after a student's last enrollment at the university and the amount due in the next 12 months is classified as a current notes receivable for the university's financial statements.

Attachment A also provides the composition of the total gross federal and institutional student loan receivables at June 30, 2018, with comparative data for the previous year.

Federal loans receivable will continue to decrease in future years with the wind down of the Perkins loan program required by the federal government.

Collection Efforts and Write-offs

Because of the nature of the accounts receivables, their impact on the university's operating budget, and the university's aggressive policy for collecting delinquent accounts, the annual write-off of uncollectible accounts is relatively small. The average annual write-off for accounts receivable for the past three years is $546,586. **The fiscal year 2018 write-off total of $760,284 represents only 0.07 percent (less than one tenth of one percent) of the annual operating revenues[1] per the audited financial statements for fiscal year 2017**.

Various techniques are used for collecting delinquent accounts receivables depending on the customer and type of account. For example, students must pay past due amounts before they are allowed to enroll for the next school term. Other delinquent accounts are placed with commercial collection agencies and the State Attorney General's Office for collection. The State Comptroller provides guidance on collection policies and procedures, and the university generally complies with the State Comptroller's recommendations, except where improved practices have been implemented under the Restructuring Act.

Accounts Receivable Written Off at June 30, 2018

As authorized by a resolution passed by the Board of Visitors on August 13, 1976, the Vice President for Finance and Chief Financial Officer and the Assistant Vice President for Finance and University Controller periodically review the university's accounts and notes receivable to determine those delinquent accounts that are deemed uncollectible. Subsequently, the accounts are written off the university's records in accordance with generally accepted accounting practices. However, such accounts are not discharged or forgiven (with limited exceptions such as bankruptcies, death, etc.), and the university continues to track these accounts and sometimes collects portions of these accounts after being written off.

Normally, accounts are written off at the close of the fiscal year. For the fiscal year ended June 30, 2018, the accounts receivable written off totaled $760,284. The increase in write-offs of $433,631 over the prior year is primarily due to an increase of $254,158 in Student Accounts write-offs. There were several contributing factors for the increase in write offs including financial aid cancelations, payment plan defaults, and failure of two large international sponsors to honor their commitment to pay for their students. . Additional contributors to the total increase were $64,201 in write- offs for two for Sponsored Programs accounts due to bankruptcies and one exceptionally large account for Equine Medical Center totaling $56,955. See Attachment C for a summary of the accounts receivables written off at June 30, 2018, with comparative data for the two previous fiscal years.

[1] Operating revenues for FY17 of $1,031,510,000 was used for this calculation.

For each accounts receivable written off, appropriate collections procedures were utilized. Further collection efforts were not justified for various reasons such as bankruptcies, inability to locate the debtor, and cost versus benefit for small receivable amounts.

As shown in Attachment D, the $760,284 write-off total consists of 1,080 customers with an average account value of $705. In fact, of the total number of accounts written off, 55.4 percent (598) were valued at less than $100, and this low dollar accounts represent only 3.3 percent of the total dollar value of the write-offs.

<u>Notes Receivable – From Students Written Off at June 30, 2018</u>

The total notes receivable written off at the close of fiscal year 2018 included $6,863 of the institutional student loan portfolio. Institutional student loans are subject to the same collection techniques as other university receivables. For each loan written off, appropriate collection procedures were utilized. The notes receivable write-off consists of four loans, past due 900 or more days, with an average loan balance of $1,716. Institutional student loans are most often awarded to students with financial need who have exhausted other avenues of financial aid. Since these are long-term loan programs issued to borrowers with limited resources, the university generally has allowed more time before deeming the loan uncollectible and subsequently writing these amounts off.

Federal notes receivable are issued from funds received from the federal Departments of Education and Health and Human Services over many previous years for the Perkins and Health Professions Student Loan programs, and from required matching contributions from the university. Again, the same collection procedures are followed for these loans. When loans are deemed uncollectible, federal regulations allow the Perkins loans to be assigned and returned to the Department of Education for additional collection efforts and final resolution.

State Management Standards

The university's Management Agreement under the Restructured Higher Education Financial and Administrative Operations Act includes several financial and administrative performance standards. The university must achieve compliance with all of these performance standards to retain the financial benefits provided under the Management Agreement. There are two management standards related to accounts receivable and both are calculated annually and reported to the state biennially. The two standards are:

a. A four quarter average past due rate of 10 percent or less on receivables 121 days or more past due as a percentage of all current receivables.

b. An average past due rate of 10 percent or less on Federal student loans.

The university is currently in compliance with both standards. As of June 30, 2018, the average past due rate on current receivables 121 days or more past due is 1.17 percent for the applicable four quarters and the Federal Perkins Student Loan default rate is 1.86 percent.

Composition of Gross Accounts and Notes Receivable
As of June 30, 2017 and 2018
(Dollars in Thousands)

	June 30, 2018			June 30, 2017		
		Receivable Balance	Percent		Receivable Balance	Percent
Accounts Receivable:						
Student Accounts	$	2,396	2.8%	$	2,567	4.4%
Sponsored Programs		49,324	57.7%		40,830	69.2%
Electric Service		880	1.0%		993	1.7%
Parking Service		92	0.1%		106	0.2%
Telecommunications (CNS)		18	0.0%		61	0.1%
CPE and IVTSCC [1]		452	0.6%		524	0.9%
Veterinary Medicine		436	0.5%		426	0.7%
Equine Medical Center		334	0.4%		286	0.5%
Short Term Loans/Notes		12	0.0%		18	0.0%
Other Receivables [2]		31,493	36.9%		13,165	22.4%
Total Accounts Receivables	**$**	**85,437**	**100.0%**	**$**	**58,976**	**100.0%**
Notes Receivable						
Federal Loans - Perkins & HPSL [3]	$	14,557	88.1%	$	14,620	88.0%
Institutional Loans		1,965	11.9%		1,986	12.0%
Total Notes Receivable	**$**	**16,522**	100.0%	**$**	**16,606**	100.0%

[1] Continuing and Professional Education / Inn at Virginia Tech & Skelton Conference Center

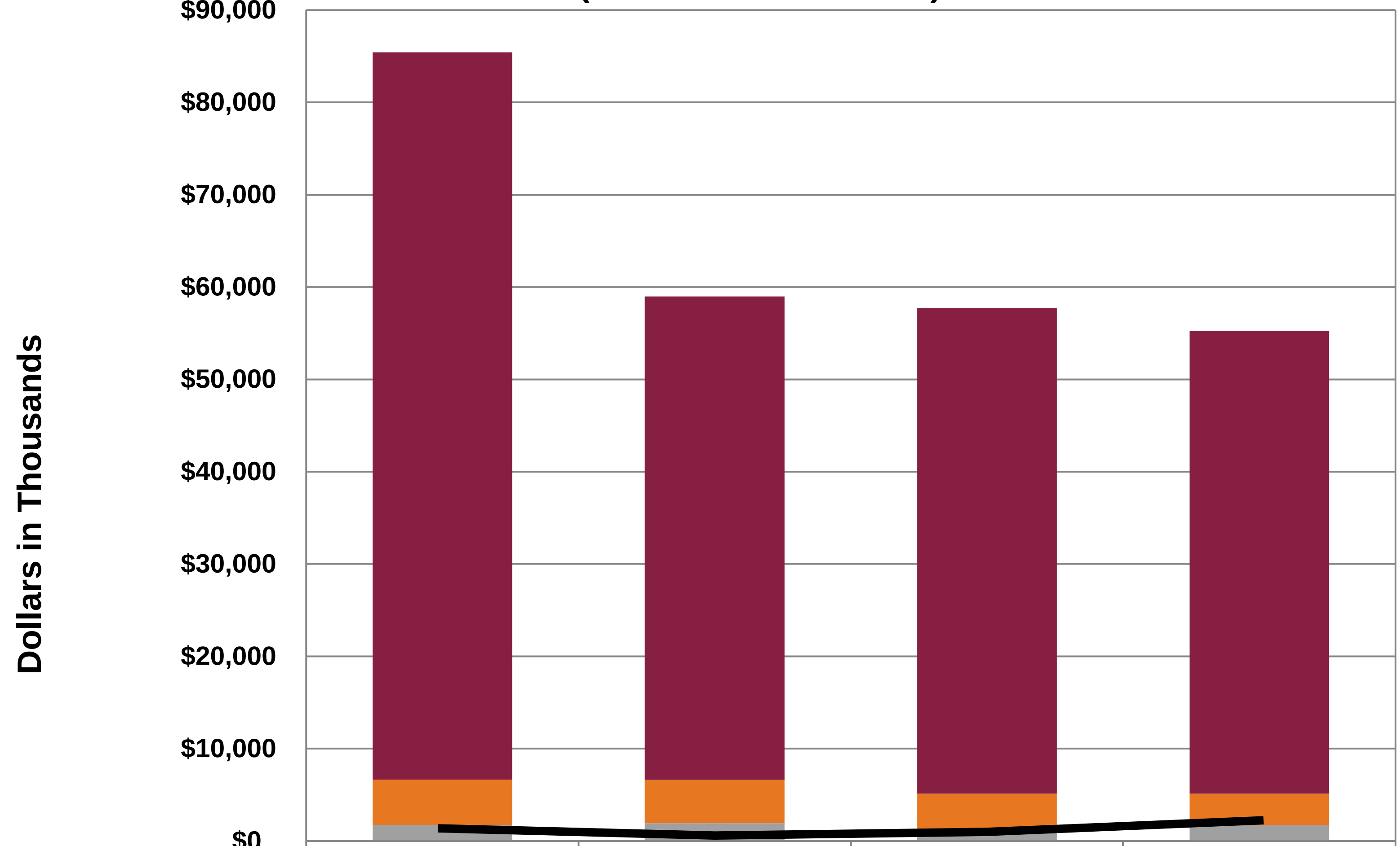
[2] One-time receivables are included in Other Receivables category

$10,900 Carilion commitment toward the construction of second Virginia Tech Carilion Research Institute Building

$10,400 Legal settlement

[3] Health Professions Student Loan

Aging of Current Gross Accounts Receivable
From June 30, 2015 to June 30, 2018
(Dollars in Thousands)



	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Receivables Not Past Due	**$78,797**	**$52,353**	**$52,618**	**$50,117**
1 - 120 Days Past Due	**$4,897**	**$4,694**	**$3,968**	**$3,424**
121 to Over 1 Year Past Due	**$1,743**	**$1,929**	**$1,152**	**$1,715**
Total Gross Receivables	**$85,437**	**$58,976**	**$57,738**	**$55,256**
Write-Offs	**$760**	**$327**	**$553**	**$1,235**

Current Accounts Receivable Write-Offs for June 30, 2018 with Comparison to 2017 and 2016

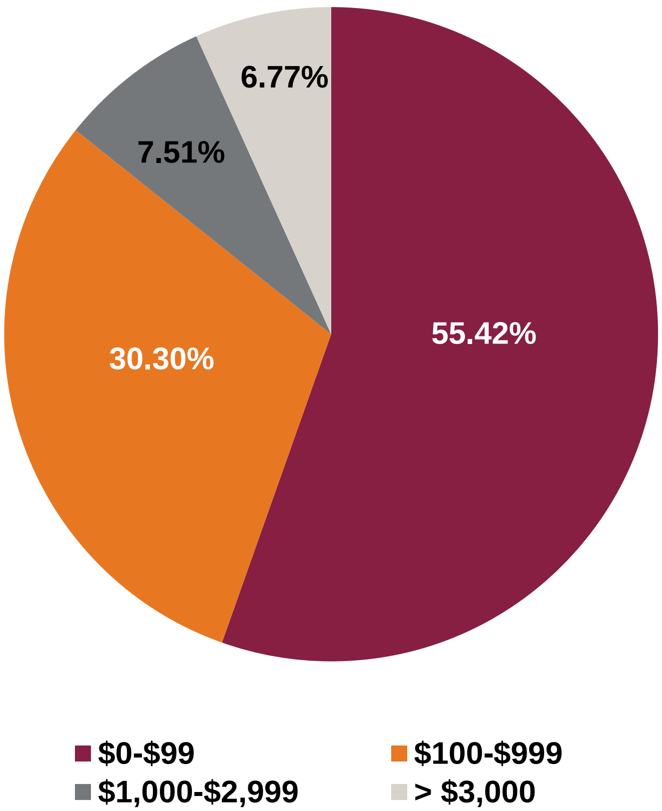
(In whole dollars)

Accounts Receivable	**June 30, 2018**	**June 30, 2017**	**June 30, 2016**	**Three Year Average**
Student Accounts	$ 388,787	$ 134,629	$ 178,943	$ 234,120
Sponsored Programs	64,201	-	138,611	67,604
Electric Service	12,553	10,889	16,726	13,389
Parking Services	19,007	20,198	16,616	18,607
Telecommunications (CNS)	-	-	74	25
CPE and IVTSCC [1]	13,312	-	939	4,750
Veterinary Medicine	93,765	71,397	126,105	97,089
Equine Medical Center	78,880	21,925	31,866	44,224
Short Term Loans/Notes	-	5,999	2,229	2,743
Other Receivables	89,779	61,616	40,711	64,036
Total Write-Offs	**$ 760,284**	**$ 326,653**	**$ 552,820**	**$ 546,586**

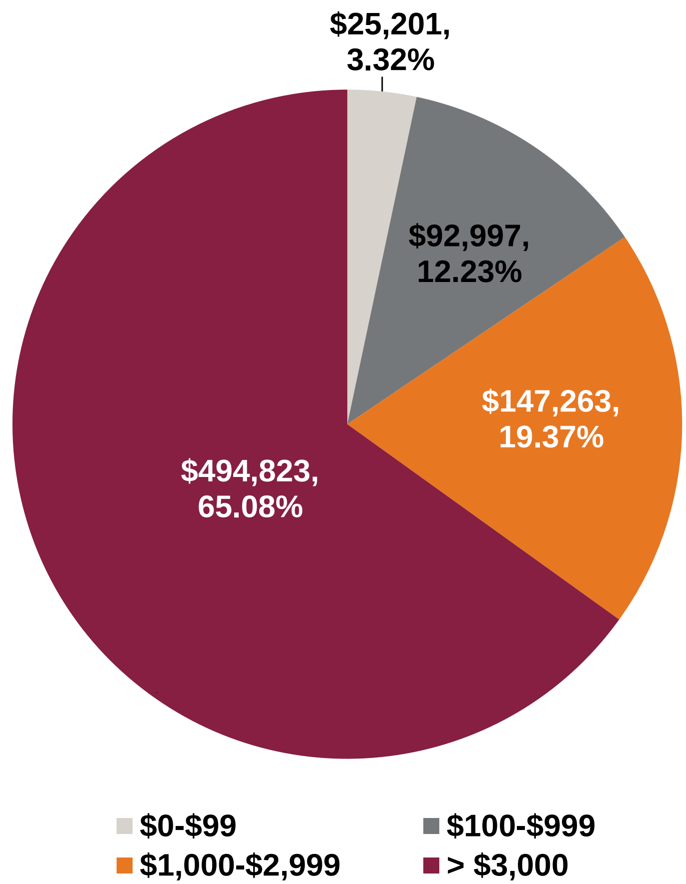
[1] Continuing and Professional Education / Inn at Virginia Tech & Skelton Conference Center

Stratification of Write-Offs for Fiscal Year 2018

Total Number of Accounts = 1,080



Total Dollar Value = $760,284
Average Dollar Value = $705



Attachment F

VIRGINIA TECH

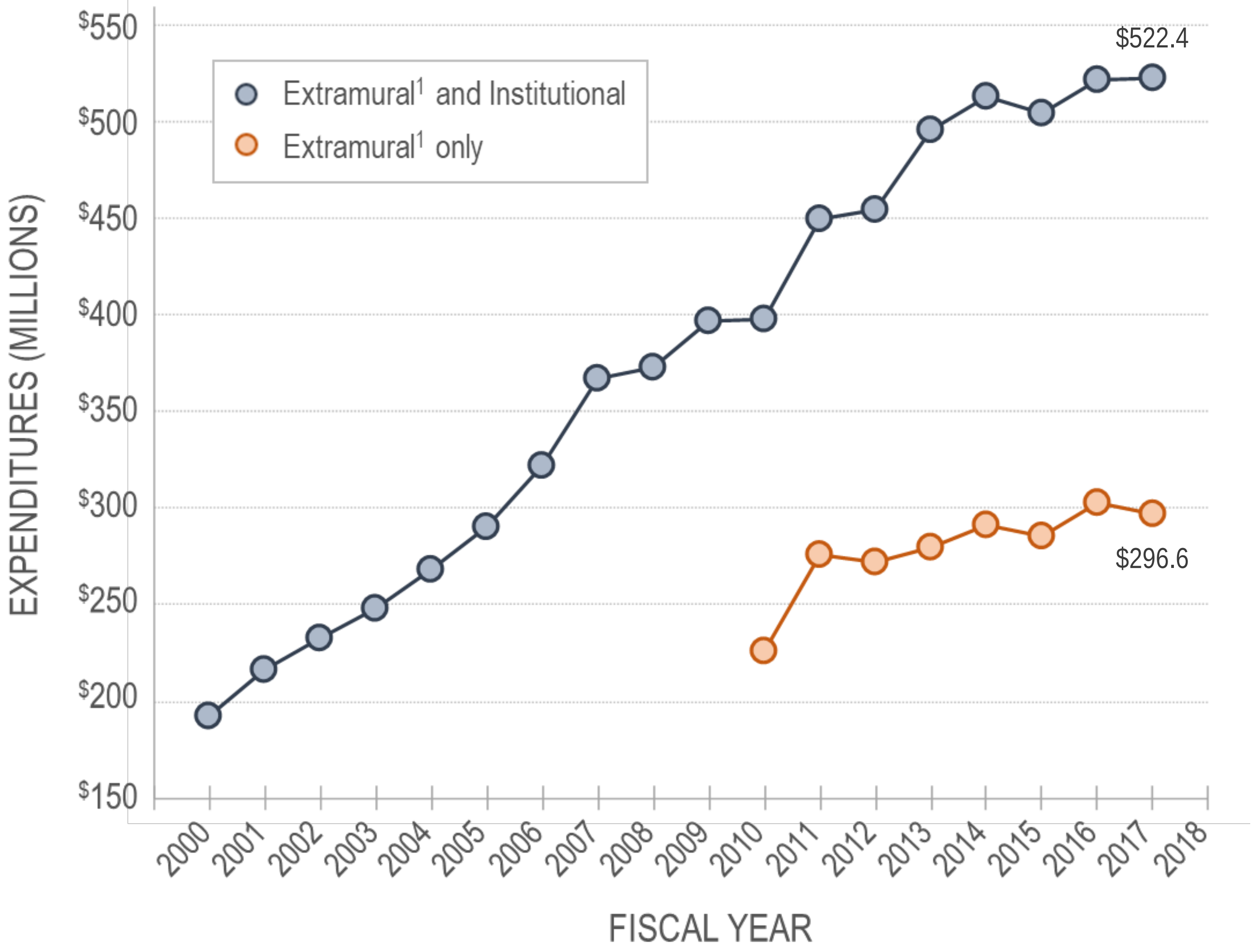
Research & Innovation

FINANCE & RESOURCE MANAGEMENT

NOVEMBER 5, 2018

VIRGINIA TECH'S RESEARCH IS SUPPORTED BY:

- Federal government agencies
- State and local government
- International countries and agencies
- Industry partners and consortia
- Foundations



NSF HERD SURVEY

Over the last 20+ years, Virginia Tech has sustained strong growth in total R&D expenditures as reported in the NSF Higher Education R&D (NSF HERD) survey, allowing us to deliver game changing ideas and technologies.

Expenditures from external sources have leveled out over the last five years.

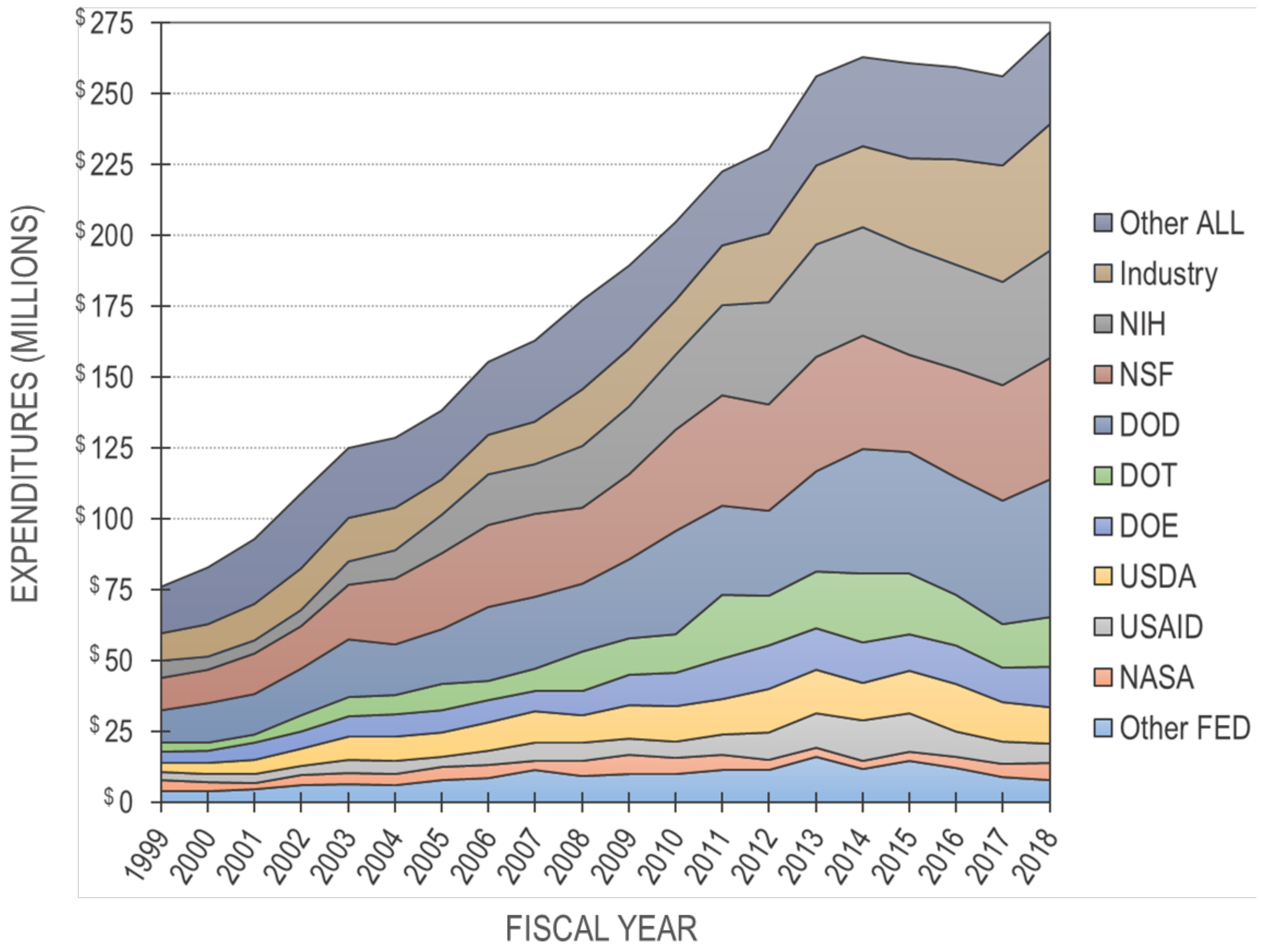
[1] In NSF HERD, extramural funding includes competitive grants and contracts as well as non-competitive state funds and AG capacity funds (Agency 229), gifts to support research, and subcontracts to other organizations.

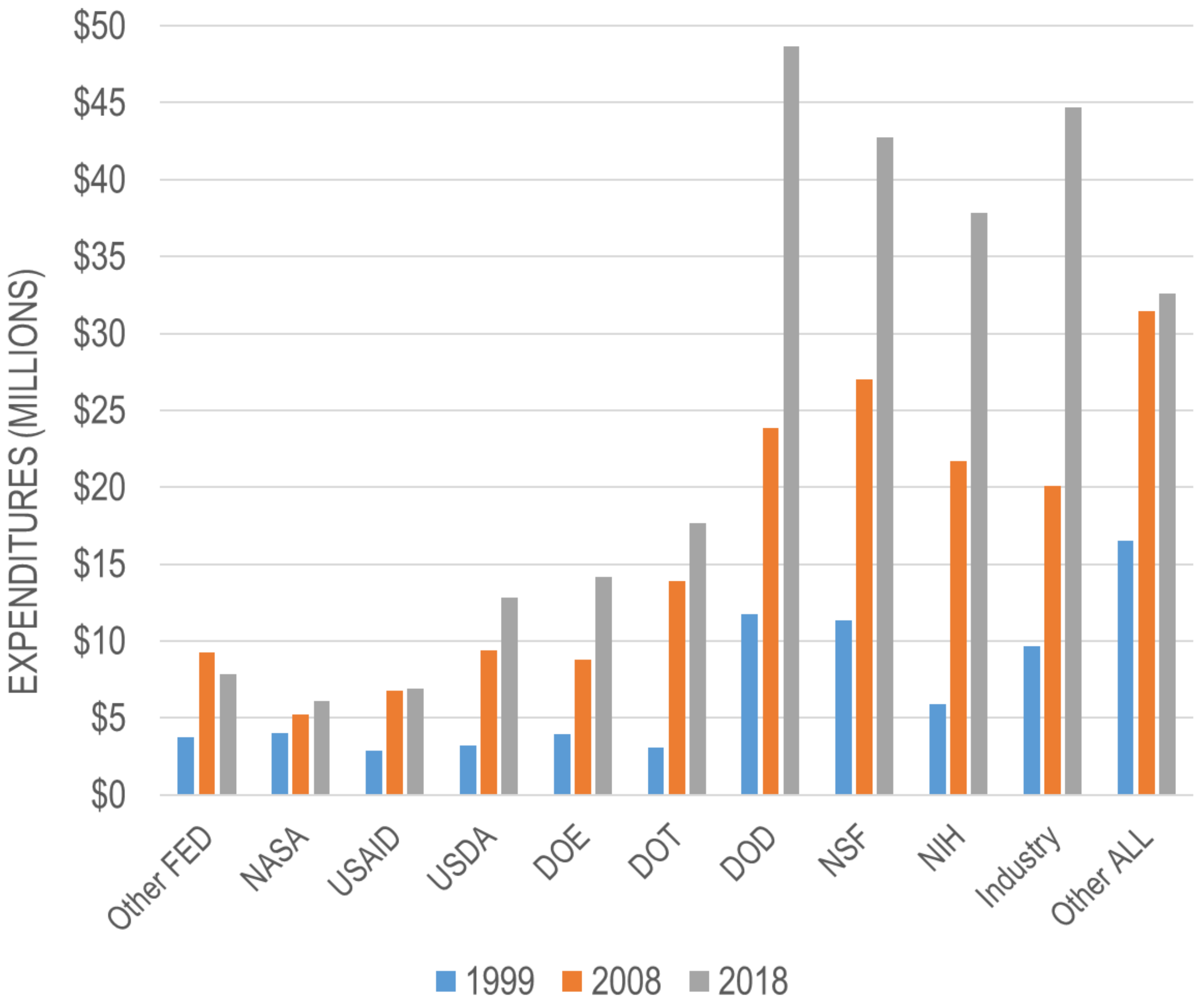
COMPETITIVE EXTRAMURAL RESEARCH EXPENDITURES

Virginia Tech's rapid growth in competitive extramural research expenditures is an important measure of program strength and external recognition, particularly in STEM-H fields.

Fiscal Year 2018 saw record expenditures of $272 million, with over 70% supported by federal agencies.

Industry, NIH, NSF, DOD are sponsors with the largest growth.





COMPETITIVE EXTRAMURAL EXPENDITURE GROWTH

Investments in faculty, facilities, and instruments have driven the rapid growth of competitive extramural research expenditures:

- DOD > 4.1 times to $48.7 million
- NSF > 3.8 times to $42.7 million
- NIH > 6.4 times to $37.8 million
- Industry > 4.6 times to $44.7 million

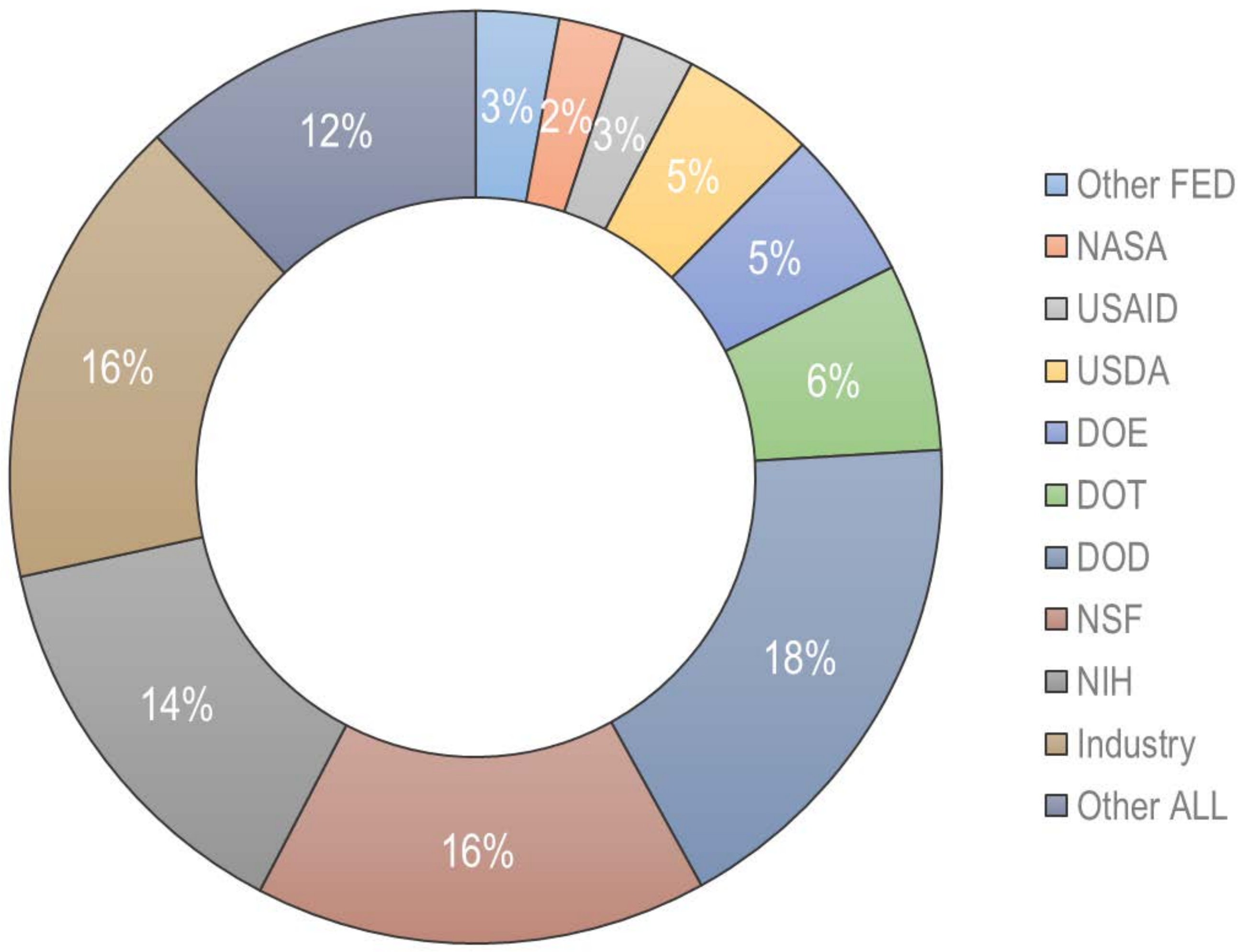
[1] Extramural funding includes competitive grants and contracts and subcontracts to other organizations.

VIRGINIA TECH HAS A BALANCED PORTFOLIO OF EXTRAMURAL FUNDING

In FY18, 72% of Virginia Tech's competitive extramural funding was supported by the federal government. The largest sponsors were:

- DOD – 18%
- NSF – 16%
- NIH – 14%
- Industry – 16%
- State, Local, Foundation – 12%

FY18: $272 million

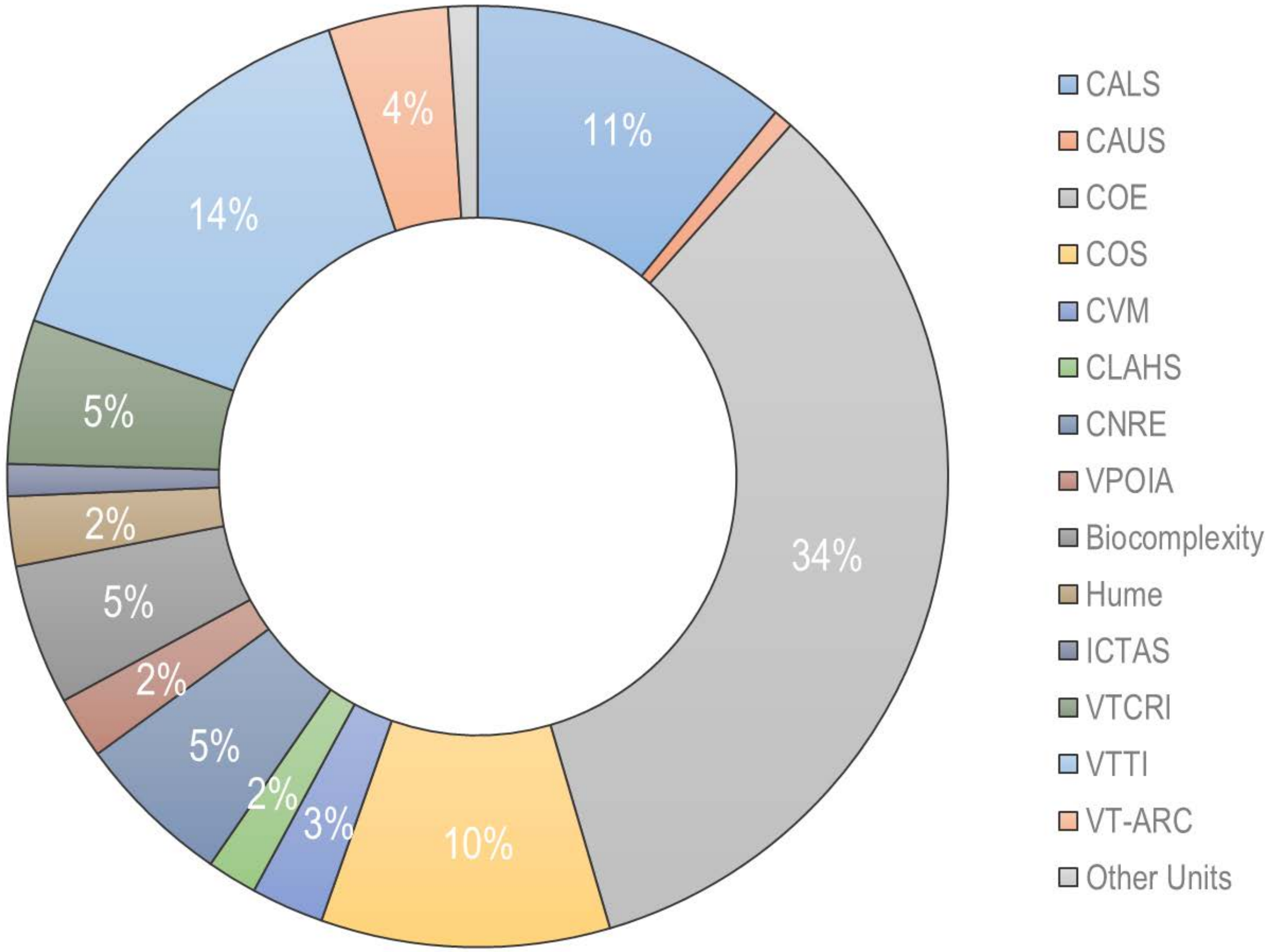


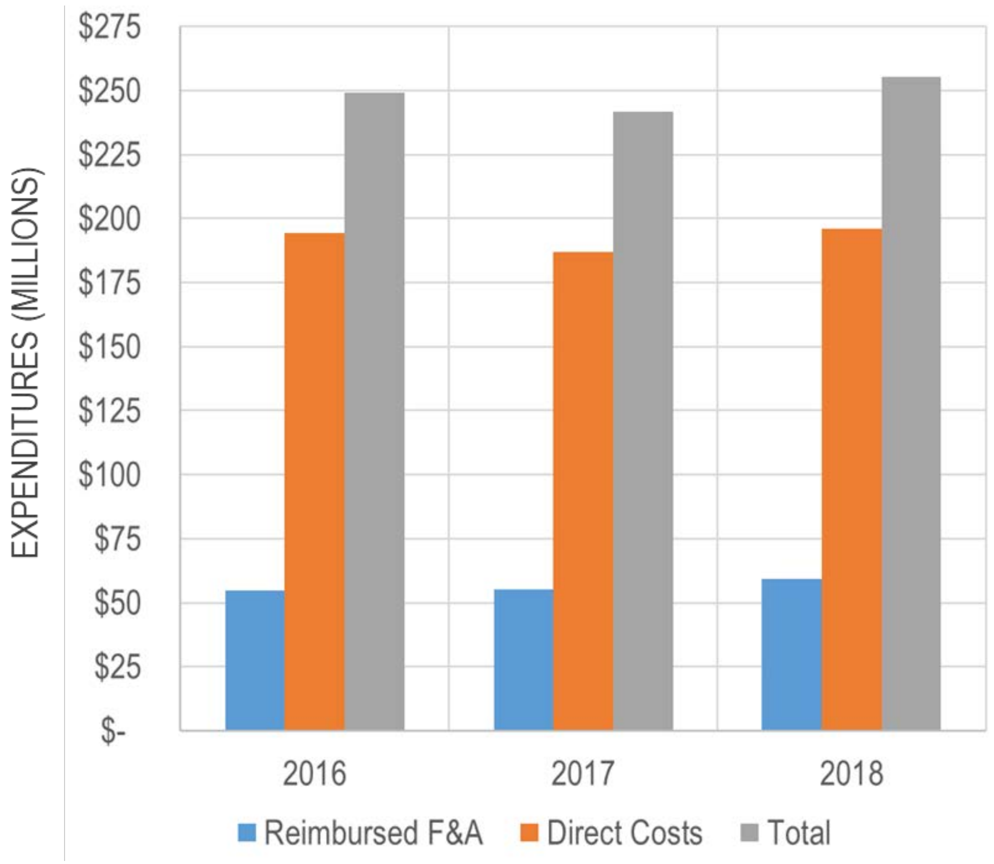
EXTRAMURAL FUNDING ACROSS VIRGINIA TECH

Faculty and researchers in the colleges and institutes are actively engaged in sponsored research programs. In FY18, the largest increases in extramural expenditures were in:

- COE – 9% or $7.2 million
- COS – 13% or $3.1 million
- VTTI – 6% or $2.1 million
- VT-ARC – 27% or $2.3 million

FY18: $272 million





FACILITIES & ADMINISTRATIVE COSTS REIMBURSED BY SPONSORS

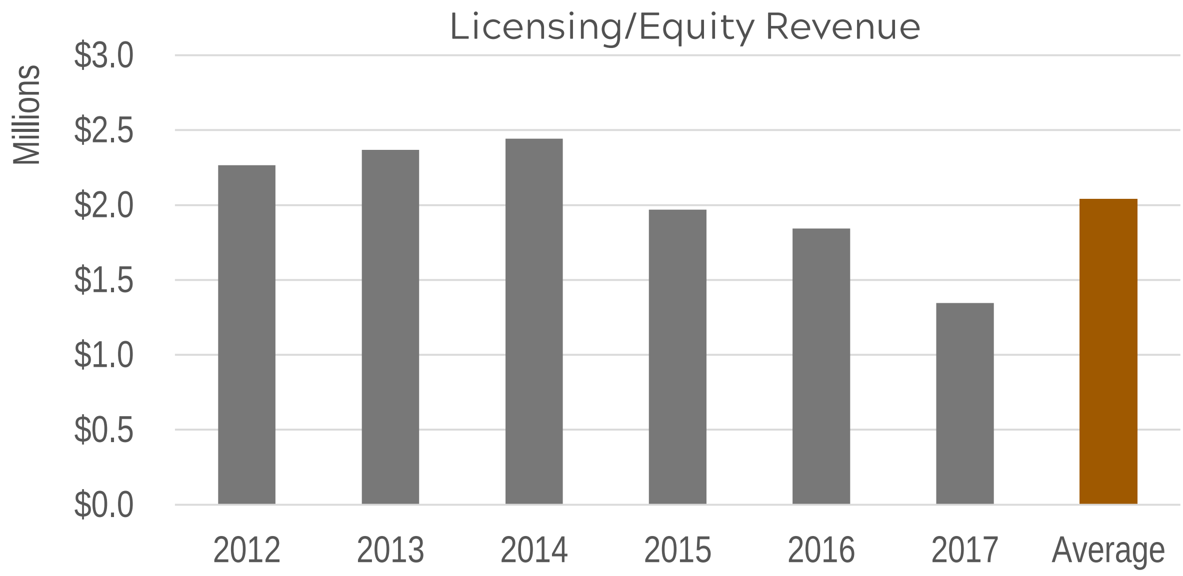
In FY 18, competitive extramural research expenditures totaled $255 million – excluding VT-ARC and VTT LLC:

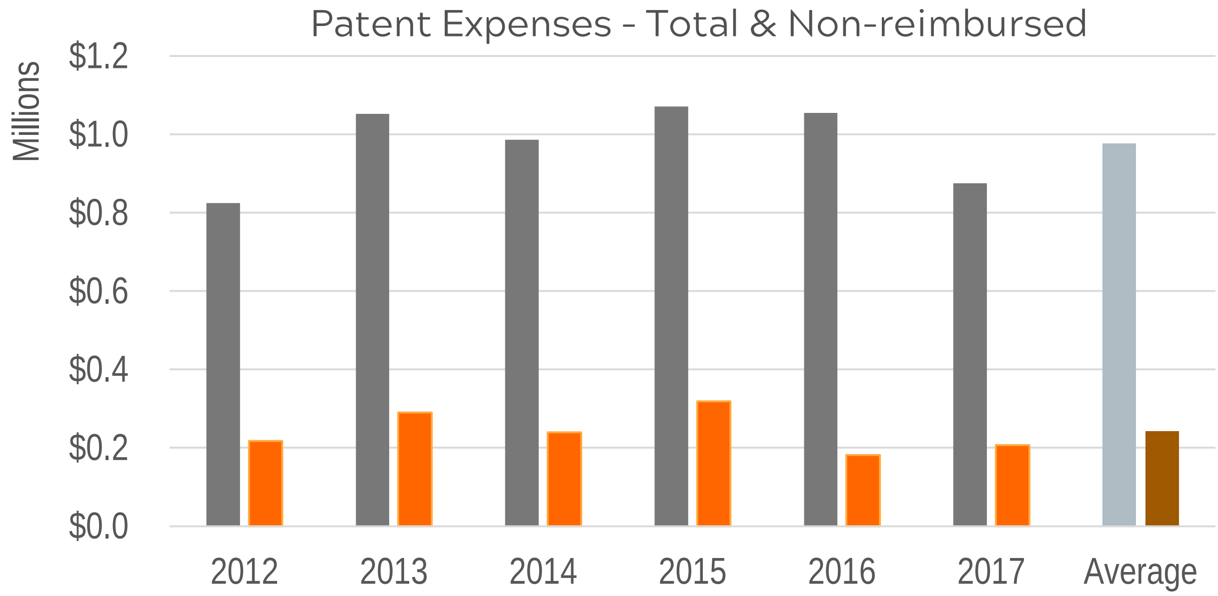
$196.1 M Total Direct Costs

$59.2 M F&A Costs

= $ 150.7 M (MTDC) + $ 45.3 M (excluded DC’s)

*not all grants carry the full capped F&A rate of 61% (e.g., USDA); the uncapped F&A rate on DOD and Industry contracts is 65%



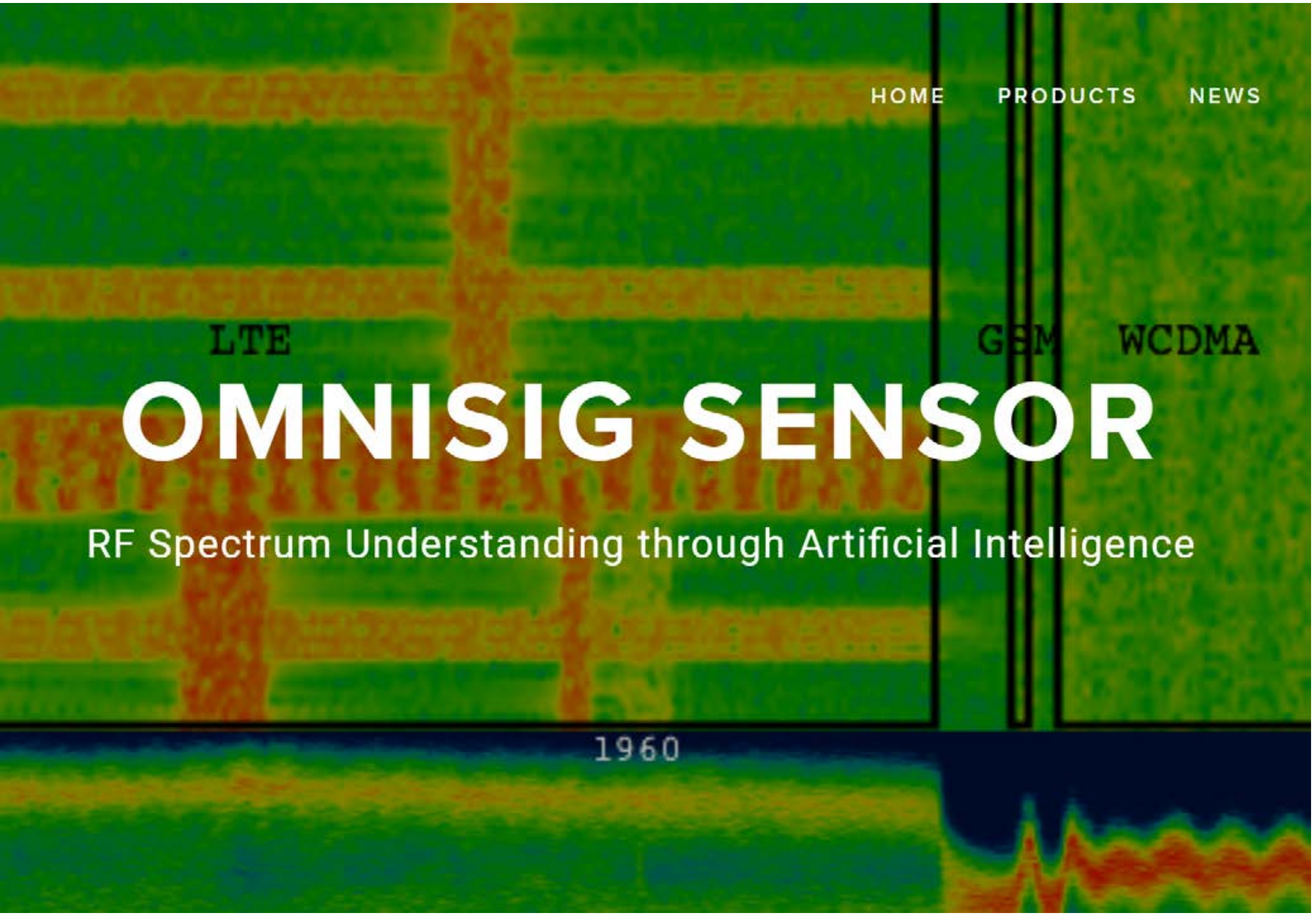


TECH TRANSFER

Licensing revenue has declined in recent years due to limited ability to invest in new patent applications and tightening market for seed portfolio.

Total patent expenses have averaged $1 million per year, with non-reimbursed expenses of $200K per year. The non-reimbursed expenses are a measure of investment in the patent portfolio that is available for start-up formation.

Virginia Tech is investing at least an additional $250K in patent expenses and $400K in a new proof-of-concept grant program in FY 2019.



DEEPSIG

START-UP COMPANIES

Deepsig is a recent start-up based on ground breaking research and IP created by Tim O’Shea and a team at the Hume Center, funded in part by a $1.1M grant from Virginia Research Investment Fund. Virginia Tech took has an equity position in Deepsig.

SUPPORTING THE RESEARCH AND INNOVATION ENTERPRISE

STRATEGIC PROGRAMS	DISCOVERY TO MARKET	SPONSORED PROGRAMS	SCHOLARY INTEGRITY & RESEARCH COMPLIANCE	ANIMAL RESOURCES & ATTENDING VET
▪ Federal & state program development, ▪ Interdisciplinary programs and teaming ▪ Young investigator support ▪ Proposal support, e.g., development, capabilities, partners, budget	▪ Support for industry engagement and start-ups ▪ Relationship management and business development ▪ Teaming and culture ▪ Licensing and ventures ▪ Strategic insight and opportunity shaping	▪ Pre-award support ▪ Contract negotiation ▪ Post-award support ▪ Restricted research ▪ Education and support ▪ Partner with units across campus and foundation ▪ Portfolio analysis	▪ Ethics consultancy ▪ Education and support ▪ Research Integrity ▪ Human Research Protection ▪ Animal Care and Use ▪ Biosafety ▪ Conflict of Interest ▪ Restricted research	▪ Well-being of animals used in research and instruction ▪ Laboratory animal facilities ▪ Veterinary clinical care ▪ Veterinary care oversight ▪ Research support services ▪ Education and training
COMMUNICATIONS & MARKETING	ELECTRONIC RESEARCH ADMINISTRATION	FINANCE & BUSINESS OPERATIONS	IT & DATA MANAGEMENT	HUMAN RESOURCES & TALENT DEVELOPMENT

INVESTMENT INSTITUTES	Fralin, ICAT, ICSE, ICTAS	▪ Service-oriented support for faculty and students in all colleges ▪ Convener for cross-cutting programs	▪ Seed initiatives and multi-college centers ▪ Oversee shared laboratories
THEMATIC INSTITUTES	BI, Hume, VTCRI, VTTI, VT-ARC	▪ Externally funded R&D programs ▪ Deep sponsor relationships ▪ Experiential learning programs	▪ One-of-a-kind facilities ▪ Large contract vehicles ▪ Time and materials contracts

DISCUSSION

CAMPAIGN UPDATE

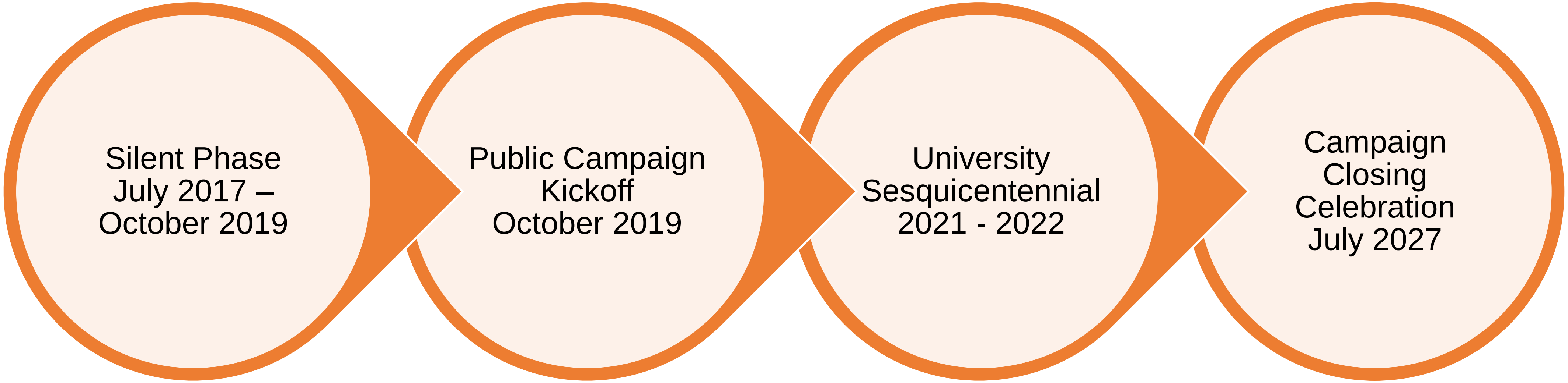
BOARD OF VISITORS
FINANCE AND RESOURCE MANAGEMENT COMMITTEE

NOVEMBER 2018

CHARLES D. PHLEGAR
VICE PRESIDENT FOR ADVANCEMENT

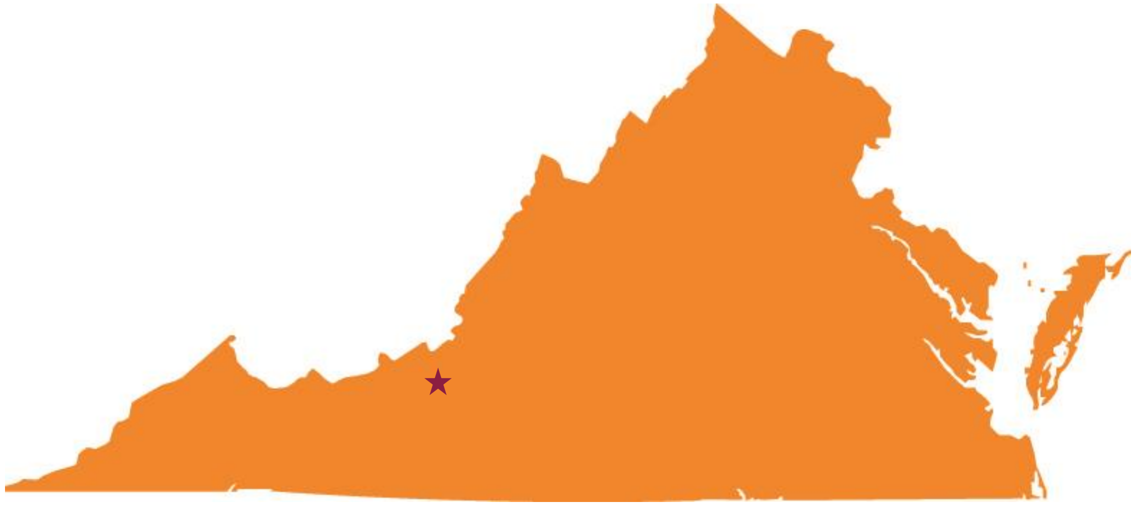
VIRGINIA TECH

Campaign Timeline



Kick Off Weekend

October 10 – 12, 2019



Campaign Goals

$1.5 Billion - $2.0 Billion

Alumni Engagement

Campaign Leadership

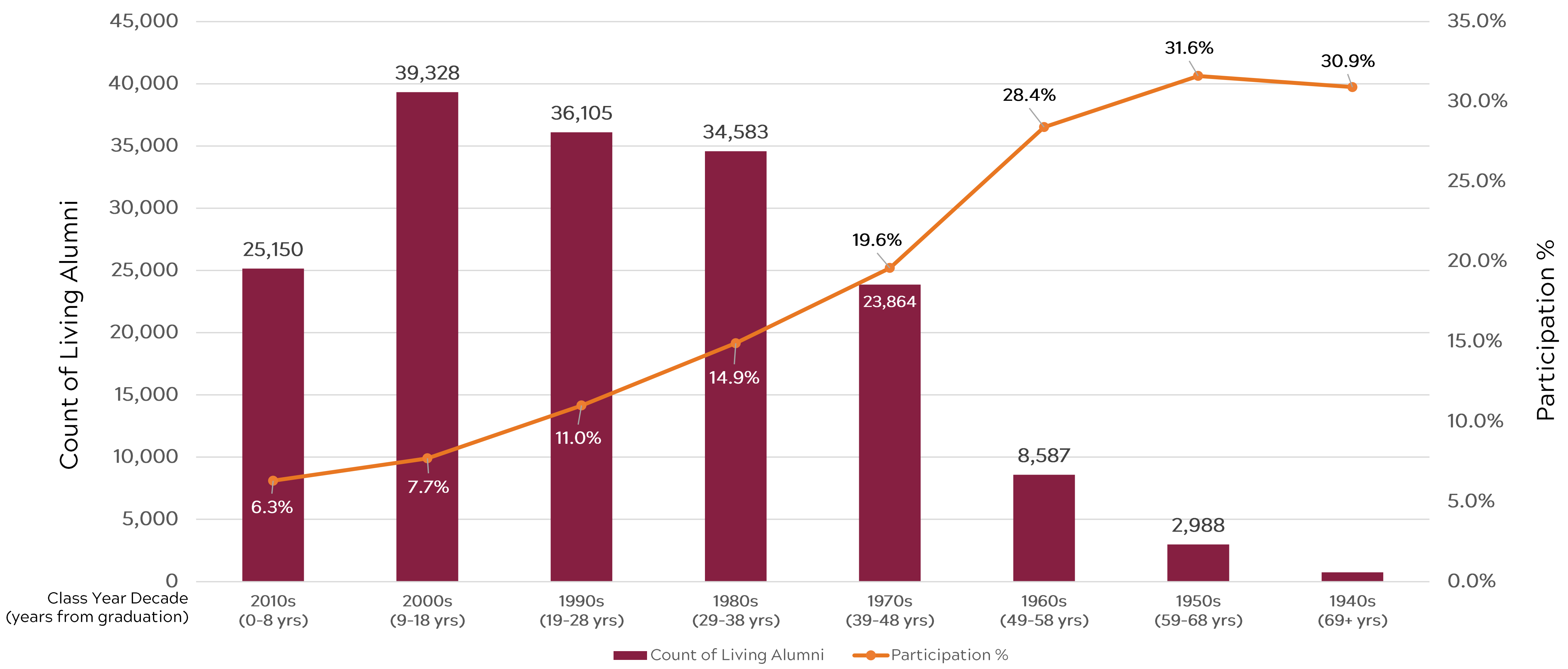
Lynne Doughtie ‘85
Campaign Co-Chair

Horacio Valeiras ‘80
Campaign Co-Chair

Morgan Blackwood Patel ‘03
Campaign Co-Chair for Engagement

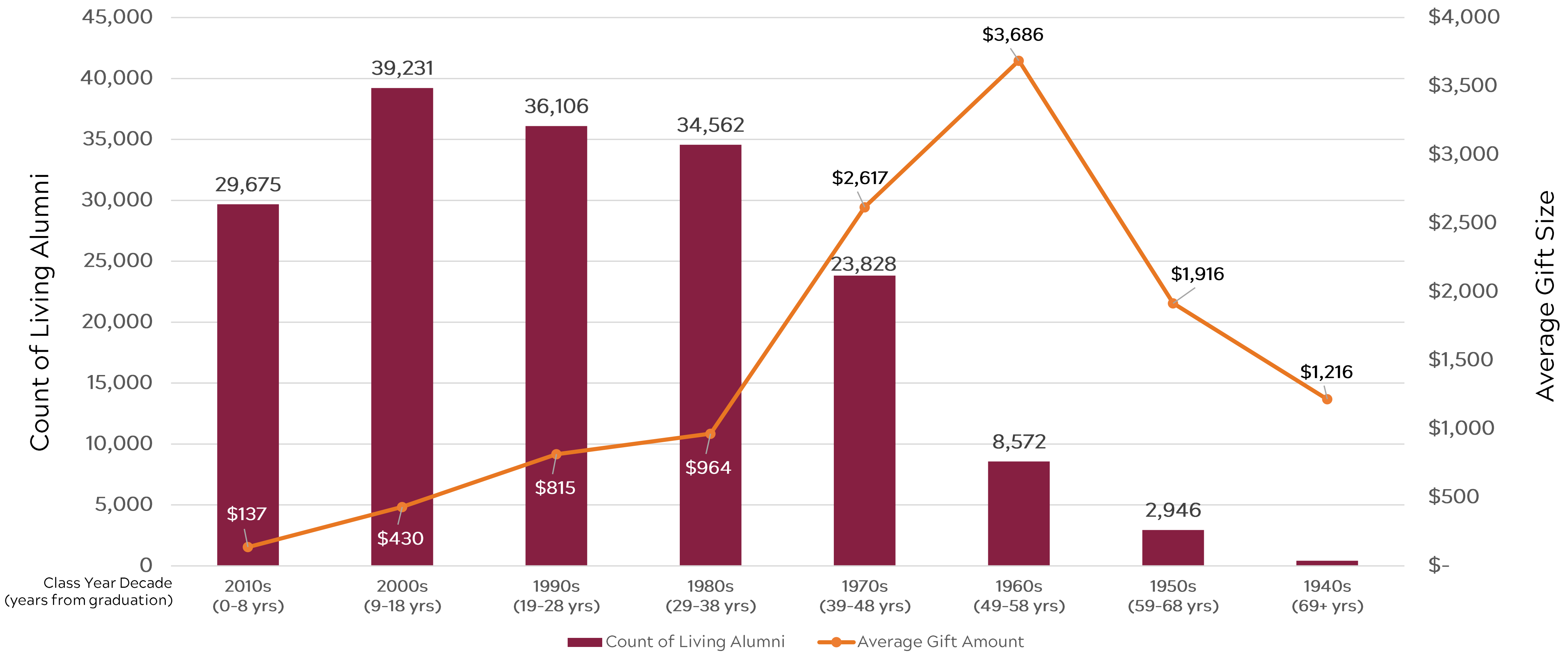
VIRGINIA TECH.

FY18 Alumni Participation by Class Year Decade



Source: Advancement Division, Virginia Tech

Average Gift Size by Class Year Decade Using New Gifts & Commitments for FY16-18

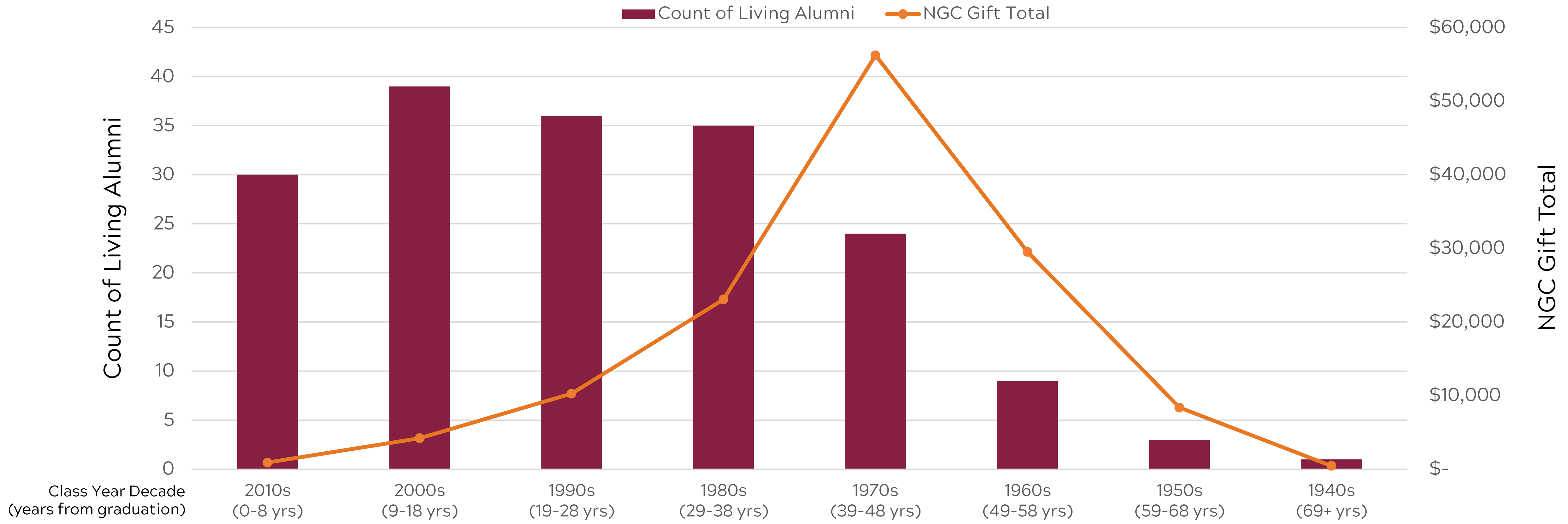


Source: Advancement Division, Virginia Tech

VIRGINIA TECH

Gift Total by Class Year Decade Using New Gifts & Commitments (NGC) for FY16-18

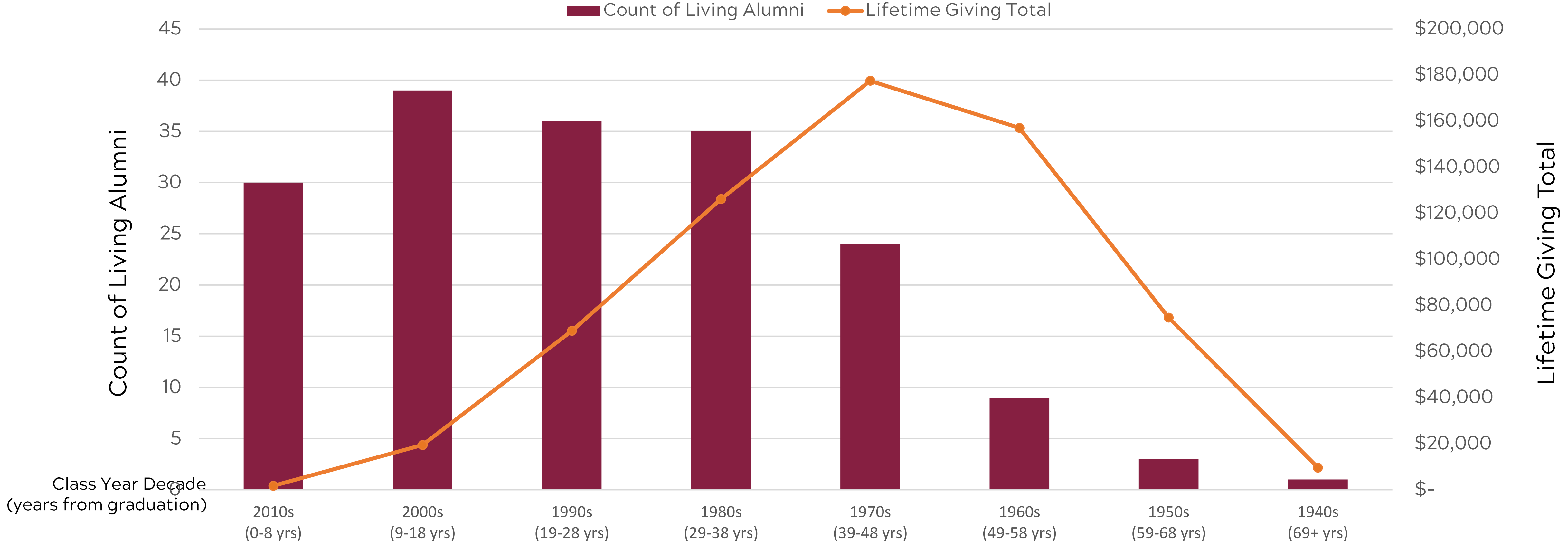
(all data in thousands)



Count of Living Alumni	29,675	39,231	36,106	34,562	23,828	8,572	2,946	425
NGC Gift Total	$902,947	$4,212,994	$10,264,610	$23,064,579	$56,236,158	$29,531,518	$8,369,851	$445,873

Source: Advancement Division, Virginia Tech

Lifetime Giving Total by Class Year Decade and Years from Graduation
(all data in thousands)



Count of Living Alumni	29,675	39,231	36,106	34,562	23,828	8,572	2,946	425
Lifetime Giving Total	$1,756,828	$19,445,324	$68,979,827	$126,153,630	$177,496,898	$157,068,791	$74,713,361	$9,612,595

Source: Advancement Division, Virginia Tech

Questions?

Charlie Phlegar
Vice President for Advancement
540-231-7676
cphlegar@vt.edu

Annual Report on Investments and Quasi-Endowments

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

November 5, 2018

Background

The university has long had the authority to invest endowments, gifts, and other private funds in a wide array of financial securities. With the authority to invest nongeneral funds provided in Section 23.1-2604 of the Code of Virginia, the university authority was expanded to include investment and management of endowment funds, endowment income, gifts, all other nongeneral fund reserves and balances, and local funds of or held by the university in accordance with this section and the provisions of the *Uniform Prudent Management of Institutional Funds Act* (§ 64.2-1100 et seq.) and the university's investment policy. While the investments allowed under this expanded authority have the potential for higher returns, they also involve more risk.

While private gifts and endowments are normally received and invested by the Virginia Tech Foundation (Foundation), the focus of this report is on public university funds that are invested by the Foundation under an agency agreement. These investments are made in accordance with the provisions of the Virginia *Uniform Prudent Management of Institutional Funds Act* and the university's investment policy.

Funds invested in the endowment pool managed by the Foundation consist of true endowments, quasi-endowments and nongeneral fund reserves and balances, and local funds of or held by the university. As of June 30, 2018, the market value of university funds invested in the endowment pool managed by the Foundation was $289.3 million. The payout from these endowment pools may be restricted or unrestricted.

Attachment A lists and defines the university's True Endowments, Quasi-Endowments, and general investments and the respective market value of each as of June 30, 2018.

The Committee received a report on investment of non-general funds at its November 2017 meeting and an additional resolution on Quasi-Endowments at its June 4, 2018 meeting. This report provides information on the resources generated by the true endowments, quasi-endowments, and the non-restricted endowments and its planned use towards university strategic priorities.

Management of Endowments and Other University Investments

The investment of university resources in the foundation creates an ongoing revenue stream for the university. The university's Chief Financial Officer is responsible for the periodic monitoring of these investments and for the deployment of the payouts in the university's budget process to achieve the intended objectives of the university assets. A summary of the 2018-19 payout budget for true endowments, quasi-endowments and general investments is listed in the table below.

# 2018-19 University Investment Payout Budget
$ in Thousands

Fund Title	Use of Funds	2018-19 Budget
True Endowments		
Rolls Royce Endowment		$579
Pouring Rights Endowment		12
Donor Restricted Quasi-Endowments		
Pratt Estate Funds	Animal Nutrition & Engineering programs	1,969
Donaldson Brown Endowment	Scholarships	35
Nationwide Scholarship Fund	Scholarships	254
BOV Restricted Quasi-Endowments		
Student Health Insurance Fund	Support student health insurance program	13
Gloria Smith Professorship	Professorship support	12
Multicultural Affairs Scholarship	Scholarships	4
Chinese Endowed Geosciences Scholarship	Scholarships	4
Licensing & Trademark Scholarship	Scholarships	535
Unrestricted Investments		
University Investments	VTCSOM, auxiliary operations and maintence reserve programs, scholarships and university initiatives	6,764
Total University Investment Payout		$10,181

True Endowments

True endowments are funds received from a donor with the restriction that the principal is not expendable. This allows for the gift to have an impact over a longer period than if it were spent all at once. Endowments may also come with stipulations regarding usage. As a result, an endowment payout may be restricted to a specific purpose such as a scholarship, professorship, or program.

Rolls Royce Endowments

The Rolls Royce Endowments are true endowments created by the Commonwealth in 2010 as part of the incentive package to recruit the company to Virginia. The endowment is restricted to support chaired professorships and graduate students in Engineering. The endowment value of the Rolls Royce Endowments as of June 30, 2018 was $14.0 million.

Pouring Rights Scholarship

The Pouring Rights Scholarship is a true endowment established according to the terms of the 2012 Coca-Cola Pouring Rights contract. The funds are restricted for scholarships. The endowment value as of June 30, 2018 was $0.3 million.

Quasi-Endowments

Quasi-endowments represent university funds designated by the Board of Visitors rather than a donor. They carry the same intent to provide ongoing income from a long-term investment; however, the governing board retains the authority to repurpose such funds and to remove funds from the quasi-endowment asset category at any time.

Pratt Estate

The $11 million restricted gift from John Lee Pratt in 1977 supports Animal Nutrition and the College of Engineering. This fund was established as a quasi-endowment by the Board of Visitors in the 1970s and reaffirmed on June 4, 2018 for its restricted purpose. The endowment value of the Pratt Estate funds as of June 30, 2018 was $47.8 million.

Donaldson Brown Scholarship

During the 1940s, the late Mr. Donaldson Brown made gifts to the university designated for student loans or scholarship. In 1992, the funds were focused to provide scholarships. The Board of Visitors reaffirmed/designated the fund as a quasi-endowment on June 4, 2018 designated for scholarships consistent with the terms of the gift. The endowment value as of June 30, 2018 was $0.9 million.

Nationwide Scholarship

A 2014 settlement agreement with Nationwide Life Insurance Company related to student medical insurance premiums included the establishment of a scholarship fund in their name from any residual or unclaimed funds. The Board of Visitors authorized this fund as a quasi-endowment on June 4, 2018 designated for scholarships. The value as of June 30, 2018 was $6.4 million. Additional funds in the range of $2 to $3 million may be available for investment within the next year if unclaimed.

Student Health Insurance Fund

In 1997, the university received a stock conversion settlement from Trigon when the company went public. The Board of Visitors authorized this fund as a quasi-endowment on June 4, 2018 to support the health care insurance program including the administration of student insurance programs. The value as of June 30, 2018 was $0.4 million.

Gloria Smith Professorship

In August 2000, the university approved an allocation from the Athletic Department's Sugar Bowl proceeds to serve as a base that would provide ongoing support for the Gloria Smith professorship. The professorship, named in honor of the late Gloria D. Smith, a counselor and advocate of minority students on campus before her retirement, is awarded for a period of two years to an outstanding faculty member who contributes significantly to the growth and development of minority students, student athletes, and scholarly pursuits. The Board of Visitors authorized this fund as a quasi-endowment on June 4, 2018 designated for the professorship. The endowment value as of June 30, 2018 was $0.4 million.

Multicultural Affairs Scholarship

In August 2000, the university approved an allocation from the Athletic Department's Sugar Bowl proceeds to serve as a base that would provide ongoing support for scholarships for Multicultural Affairs. The Board of Visitors authorized this fund as a quasi-endowment designated for scholarships on June 4, 2018. The value as of June 30, 2018 was $0.1 million.

Chinese Endowed Geosciences Scholarship

In 2002, the Department of Geological Sciences established a scholarship fund to support Chinese graduate students from funds provided by the People's Republic of China. The endowment value as of June 30, 2018 was $0.1 million.

Licensing & Trademark Scholarship

Over the last two decades, the University's Licensing & Trademark agreements have created one-time resources that have been invested to create ongoing income for scholarships. The Board of Visitors authorized this fund as a quasi-endowment on June 4, 2018 designated for scholarships. The endowment value as of June 30, 2018 was $13.8 million.

General Investment Pool

University nongeneral fund reserves, balances, and local funds may also be invested. These investments are made for the purpose of generating higher investment income to advance university goals and objectives. Investment income currently supports university operations, initiatives, scholarships, and maintenance reserve programs while holding down student fees. Funds which come from certain programs, such as auxiliary enterprises, return resources to that program. Beginning in 2018-19, a portion of the investment income from unrestricted assets supports the university's share of costs for the Virginia Tech Carilion School of Medicine. The value of these investments as of June 30, 2018 was $205.1 million. To date, $197.3 million has been invested and an additional $110 million has been identified for investment.

Attachment F

Annual Report on Investments and Quasi-Endowments

November 5, 2018

DWIGHT SHELTON

VICE PRESIDENT FOR FINANCE AND CFO

VIRGINIA TECH™

Virginia Tech Foundation Investment Pool

FY 2018 Market Value of $1.1 billion

- The Virginia Tech Foundation receives and invests private funds and endowments given for the support of programs at Virginia Tech

- VTF also invests university funds in accordance with an agency agreement with the university

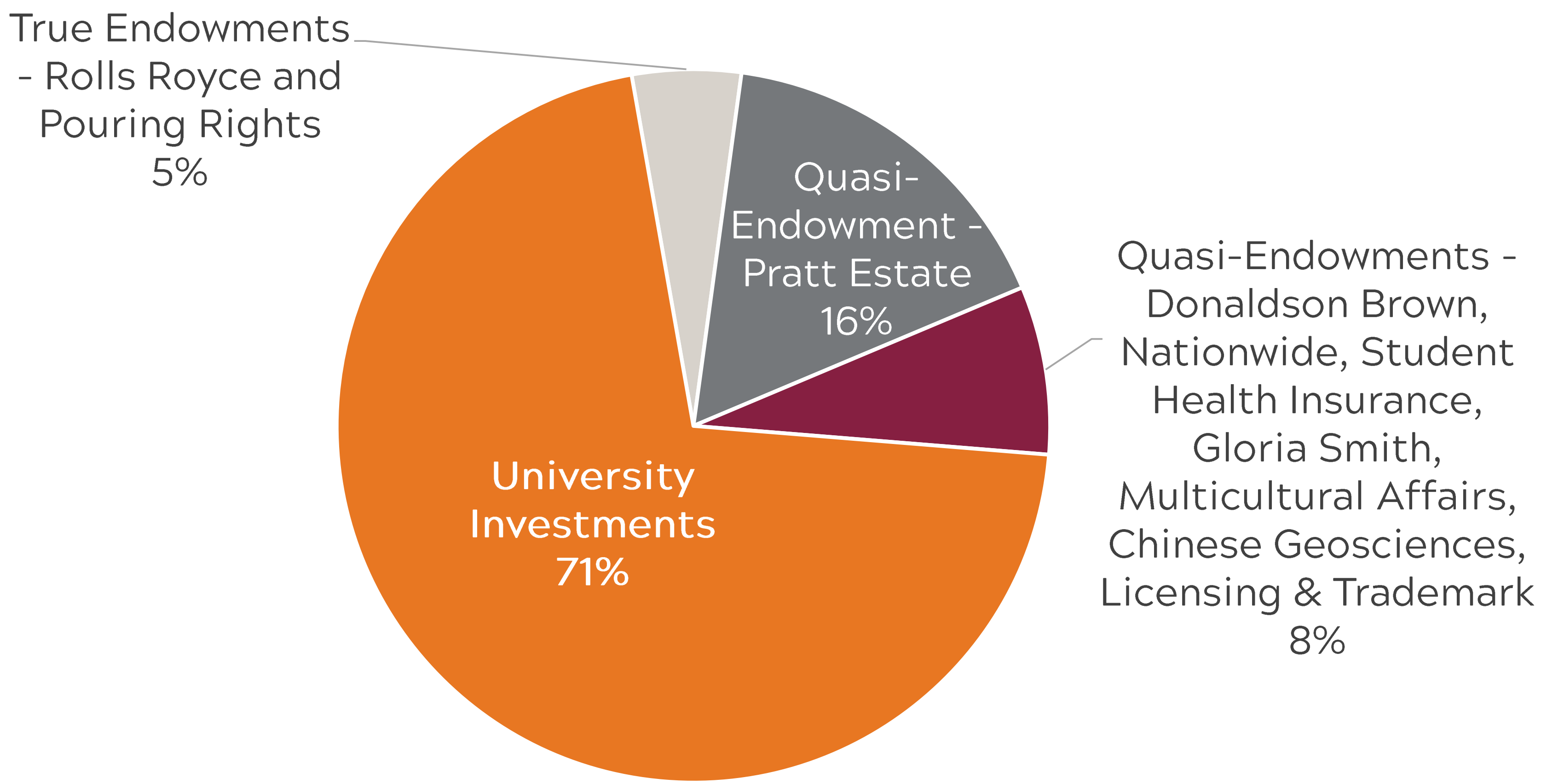
University Investments

- §23.1-2604 of the Code of Virginia provides the authority to invest and manage the endowment funds, endowment income, gifts, all other nongeneral fund reserves and balances, and local funds held by the university
- Investment and management of these funds
  - While there is market risk, the objective is for higher investment income to advance university goals and objectives
  - Supports university operations, initiatives, scholarships, and maintenance reserve projects while holding down student fees
    - Beginning in 2018-19, a portion of the investment income derived from unrestricted assets supports the university's share of the base operating budget for the Virginia Tech Carilion School of Medicine

Attachment F

University Long-Term Investments

$289.3 Million Market Value
As of June 30, 2018



Attachment F

University Long-Term Investments

As of June 30, 2018

Fund Title	Source of Funding	Fund Type	Market Value
True Endowments			
Rolls Royce Endowment	Commonwealth of VA	Restricted	$14.0
Pouring Rights Endowment	Coca-Cola pouring rights contract	Restricted	$0.3
Quasi-Endowments			
Pratt Estate Funds	Estate of John L. Pratt	Restricted	$47.8
Donaldson Brown Endowment	Gift from Donaldson Brown	Restricted	$0.9
Nationwide Scholarship Fund	Medical Insurance Settlement from Nationwide	Restricted	$6.4
Student Health Insurance Fund	Trigon Stock Conversion Settlement	Unrestricted	$0.4
Gloria Smith Professorship	Athletic Sugar Bowl Proceeds	Unrestricted	$0.4
Multicultural Affairs Scholarship	Athletic Sugar Bowl Proceeds	Unrestricted	$0.1
Chinese Endowed Geosciences Scholarship	People's Republic of China	Unrestricted	$0.1
Licensing & Trademark Scholarship	University Licensing & Trademark Agreements	Unrestricted	$13.8
Other Long-term Investments			
University Investments	University Nongeneral Funds	Unrestricted	$205.1
			$289.3

Payout Budget 2018-19

$ in Thousands

Fund Title	Use of Funds	2018-19 Budget
True Endowments		
Rolls Royce Endowment		$579
Pouring Rights Endowment		$12
Donor Restricted Quasi-Endowments		
Pratt Estate Funds	Animal Nutrition & Engineering programs	$1,969
Donaldson Brown Endowment	Scholarships	$35
Nationwide Scholarship Fund	Scholarships	$254
BOV Restricted Quasi-Endowments		
Student Health Insurance Fund	Support student health insurance program	$13
Gloria Smith Professorship	Professorship support	$12
Multicultural Affairs Scholarship	Scholarships	$4
Chinese Endowed Geosciences Scholarship	Scholarships	$4
Licensing & Trademark Scholarship	Scholarships	$535
Unrestricted Investments		
University Investments	VTCSOM, auxiliary operations and maintence reserve programs, scholarships and university initiatives	$6,764
Total University Investment Payout		$10,181

VIRGINIA TECH

Discussion

University Support for Student Financial Aid
FINANCE AND RESOURCE MANAGEMENT COMMITTEE
November 5, 2018

Consistent with prior years, the university is providing the Finance and Resource Management Committee of the Board of Visitors with an update on the university's Student Financial Aid program. This annual report provides an overview of the types of student financial assistance programs available at the university, sources of funding for these programs, and a review of the institutional undergraduate aid programs that can be controlled or influenced by the university.

This report is an integral part of the information flow to the Board of Visitors to assist in the assessment and approval of the university's tuition and fee rate proposals for the fall of 2019.

Funding Environment

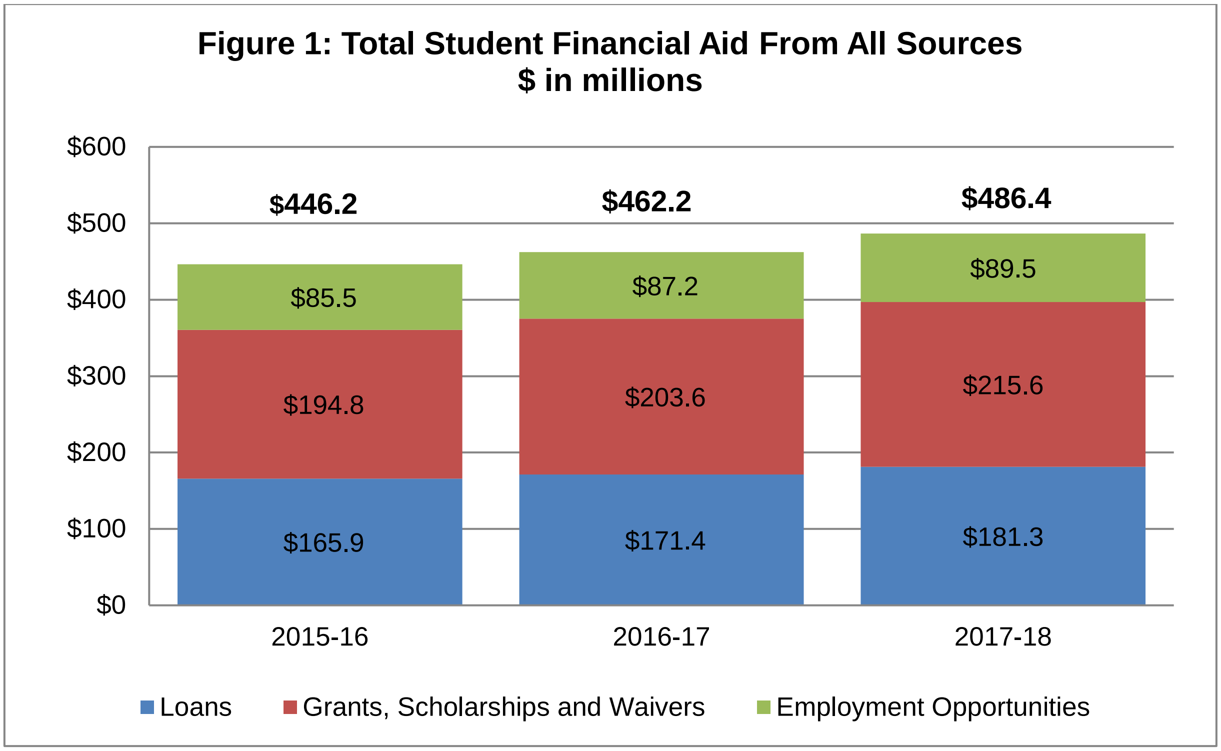
Virginia Tech is experiencing an ongoing shift in the types of resources available to support its instructional programs. These changes include periodic increases in tuition and required fees as driven by a combination of increasing costs, the requirement to maintain the quality and integrity of the instructional programs, enrollment growth to support additional Virginia students, increasing competitiveness for students in high demand both in Virginia and nationally, and the inability of the state to maintain its historic level of financial support.

The state-funded share of support per student is impacted by limited General Fund resources at the state level, mandatory cost increases such as health care benefits, enrollment growth of Virginia resident students, and inflation; as a result, increases in tuition and fees are increasingly relied upon to support the university's instructional activities. In this environment, the role of student financial assistance of all types has become a more critical element of financial planning in the university's efforts to ensure access and affordability. Financial aid programs are critical to support those goals, as well as promoting the recruitment, retention, and graduation of students. The university's financial aid efforts seek to ensure that qualified students can access a Virginia Tech education and help to promote a diverse and inclusive community in support of the university's goals and objectives.

Historically, the university has strived to manage increases in tuition and fees at a reasonable level to enhance access and affordability; this strategy was predicated on a certain level of state support. However, the funding mix of higher education continues to evolve. As the state share of a student's cost has fallen significantly over time, the student's share of their cost of education has grown. Understanding this shift, the university has proactively focused its efforts to increase support for student financial aid. These efforts are specifically designed to ensure access and affordability and meet the goals of the university as described in its Management Agreement with the Commonwealth.

Types of Student Financial Aid

The university facilitates a multifaceted scholarship and financial aid program that provides assistance to undergraduate students through grants and scholarships, employment opportunities, loans, and payment strategies. Graduate students are supported through graduate assistantships, which provide tuition remission and a stipend in exchange for university service. Fund sources for this assistance are varied as are their accompanying eligibility protocols. For fiscal year 2017-18, total aid reached $486.4 million, as seen in Figure 1 below.



Financial assistance to students is provided in the four main categories of grants and scholarships, employment, loans, and payment options:

1. **<u>Grants and Scholarships</u>** provide aid based on academic or extracurricular achievement, or financial need, and require no exchange of service. Some of these are need-based, while others are merit-based. No repayment is expected.

   Need-based awards are offered to students who demonstrate financial need as determined by federal and institutional standards. Such standards involve the computation of the cost of attendance including estimated books and supplies, transportation, personal expenses, and room and board whether on or off campus, in addition to tuition and required fees. From this total cost of attendance the university subtracts the Expected Family Contribution (standardized through the Free Application for Federal Student Aid, the FAFSA), and any outside aid the student has obtained from sources other than the university to determine the student's financial need.

Non-need-based awards may be merit-based and offered to students who demonstrate exceptional aptitude and academic and/or extracurricular achievement.

2. **Employment** includes wage employment, student work-study opportunities at the undergraduate level, and graduate assistantships at the graduate level. In 2017-18, 36 percent (12,655) of Virginia Tech students participated in an employment opportunity.

   Federal Work-Study – provides eligible students a financial aid allotment and a wage employment position. This program is subsidized by the federal government and is supported in part by the university. Federal Work Study (FWS) participants are employed both on and off-campus; gaining valuable work experience along with financial assistance. Award amounts, generally between $1,500 and $2,500 are based on a student's Free Application for Federal Student Aid (FAFSA) filing. In 2017-18, 699 students participated in FWS programs; 692 at the undergraduate level and 7 at the graduate/professional level.

   Wage employment opportunities - provide university employment to students based upon individual qualifications subject to departmental needs and resources. The university employed 7,615 students in wage positions during 2017-18; 6,630 at the undergraduate level and 985 at the graduate/professional level.

   Assistantships - offer tuition remission and a stipend in return for the student's (typically graduate-level) effort through research, service, or teaching. This funding supports both the graduate student and the university's programs. The university employed 3,714 individual graduate students, or 3,246 full-time equivalent students, as graduate assistants in administrative, teaching, and research positions in 2017-18. This represents 73 percent of the full-time graduate student population.

3. **Loans** are offered through institutional, federal, and private lenders and provide financial assistance. These loans have repayment requirements. Loans may be subsidized or unsubsidized.

   Subsidized loans - are generally from the federal government, carry a lower interest rate, and do not accrue interest or require payment during qualifying enrollment and deferment periods.

   Unsubsidized loans - generally accrue higher, market-based interest rates from the date the loan is disbursed, and may not require repayment during qualifying enrollment and deferment periods.

4. **Payment Options** include prepaid tuition plans offered by the Commonwealth of Virginia (such as tax sheltered savings plans) and the Budget Tuition Plan operated by the university. The Budget Tuition Plan is an installment payment plan which provides students and families the opportunity to spread the cost of tuition and fees over the course of the semester.

The university is involved in the administration and distribution of each of these types of financial aid. Many programs are administered outside of the university, and students arrive with financial aid arrangements (which are in general termed "outside aid" in this report) that the university facilitates on their behalf. Other programs are developed within the institution.

Sources of Funding for Grants and Scholarships

A wide range of resources support grants and scholarships, including federal, state, institutional, and outside aid, as seen below in Table 1.

Table 1: Grants, Scholarships, & Waivers
($ in millions)

	2015-16	2016-17	2017-18
Undergraduate			
Federal	$ 18.3	$ 18.3	$ 20.5
State	15.6	16.1	16.1
Institutional			
Unfunded Scholarships	15.1	17.2	16.7
Tuition/Fee Funded Aid	1.2	1.8	5.7
Internal Resources	0.4	0.7	0.4
Other Undergraduate (1)	5.7	5.3	6.2
Private (Foundation)	22.9	24.0	25.7
Subtotal Institutional	45.3	49.0	54.7
Outside	28.2	28.8	30.8
Subtotal Undergraduate	107.4	112.2	122.1
Graduate			
Federal	0.0	0.0	0.0
State	4.5	4.9	5.1
Institutional			
Graduate Tuition Remission	68.8	72.0	74.2
Tuition/Fee Funded Aid	0.2	0.1	0.0
Other Graduate (2)	3.7	3.3	3.2
Private (Foundation)	2.7	3.0	3.2
Subtotal Institutional	75.4	78.4	80.6
Outside	7.5	8.1	7.8
Subtotal Graduate	87.4	91.4	93.5
Total Grants, Scholarships, & Waivers	$ 194.8	$203.6	$215.6

(1) Other Undergraduate includes external grants and contracts, waivers codified in the Code of Virginia, and educational benefits for employees.

(2) Other Graduate includes waivers codified in the Code of Virginia and educational benefits for employees, and internal resources used to support graduate students.

Federal Support comes from the federal government and is provided through Pell Grants and Federal Supplemental Educational Opportunity (FSEOG) support. These programs are administered by, and flow to the student through, the university. The appropriations for these programs are often congressionally approved and, in the case of Pell Grants, follow the student to their university.

State Support is provided by the Commonwealth from the state General Fund in several ways. The bulk of the Commonwealth's appropriation is directed to the university in support of Virginia resident undergraduate need-based scholarships. Funding is also appropriated to support graduate student assistantships. Additionally, the Commonwealth directs a small portion of funding to the university to fund students in the Soil Sciences and students participating in the Multicultural Affairs and Opportunities Program. Other state funding may flow to the university on behalf of students, and is not under the university's control.

Institutional Support is the area of financial aid that the university can impact directly, providing financial assistance in the form of scholarships and grants at the undergraduate level and assistantships at the graduate level. Institutional support comes through six main categories: unfunded scholarships, Tuition & Fee Revenue Used for Financial Aid, internal resources, codified waivers, graduate tuition remission, and private funding. In 2017-18, institutional support provided $54.7 million to 10,961 undergraduate students; an average of $4,991 per student.

> *Unfunded Scholarships*: Section §23-1 of the Code of Virginia authorizes institutions of higher education to create need-based scholarships through the remission of tuition and fees up to certain limits at both the student and institutional level. These programs are supported by the tuition budget and are reflected in the net tuition revenue collected by the university.
>
> *Tuition & Fee Revenue Used for Financial Aid*: The 2014 General Assembly session added language in Section §4-5.01 b.1.a of the Appropriation Act that authorizes institutions of higher education to create nongeneral fund appropriations for student financial assistance, as follows: (i) funds derived from in-state student tuition will not subsidize out-of-state students, (ii) students receiving these funds must be making satisfactory academic progress, (iii) awards made to students should be based primarily on financial need, and (iv) institutions should make larger grant and scholarship awards to students taking the number of credit hours necessary to complete a degree in a timely manner. These programs are supported by the tuition budget and are reflected in the net tuition revenue collected by the university.
>
> *Internal Resources:* Some institutional support is available from specific resources. Given the public nature of much of the university's resources, the university is limited in its ability to generate resources for flexible scholarship support. Examples of this type of support are revenue from Virginia Tech license plate sales and net revenues from licensing and trademark activities.
>
> *Codified Waivers:* While the university is generally unable to waive student charges, codified waivers are specific programs that are enacted in the Code of Virginia that

authorize the waiver of charges to support specific groups targeted by the Commonwealth. These groups include:

- Dependents and spouses of military personnel such as members of the United States Armed Forces or Virginia National Guard who were killed or severely disabled in action,
- Surviving spouses and children of Virginia public safety personnel such as law-enforcement officers, campus police officers, and firefighters killed in the line of duty,
- Senior citizens with income less than $23,850 per year, as long as tuition paying students are not displaced.

Because the costs of these programs are managed by the institution, these programs are considered institutional support. The university also supports graduate students on assistantship through the waiver of the nonresident differential (the difference in the tuition rate between resident and nonresident graduate students) as authorized by the Appropriation Act for significantly employed graduate students.

Graduate Tuition Remission: The most common source of support for graduate students is the graduate assistantship. An assistantship is comprised of a stipend, health insurance, and graduate tuition remission. Assistantships support teaching, research, or other service within the university. The university funds a portion of the graduate tuition remission program, as do grants and contracts tied to specific externally sponsored activities, primarily research.

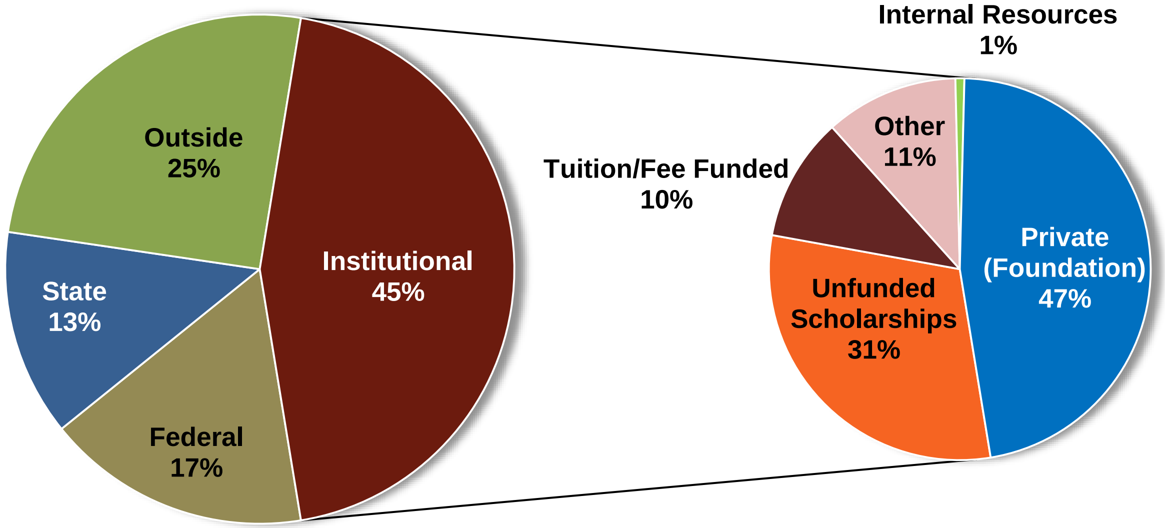
Private Funding: University Development supports the vision of Virginia Tech by raising private resources for student scholarships and endowments. These privately-funded scholarships resources are received, managed, and disbursed by the Virginia Tech Foundation on behalf of the institution. While some resources are managed by the university, the university's individual colleges and departments are responsible for awarding a significant portion of the private support and administering restricted scholarships to eligible students based upon donor intent. Utilization of these departmentally administered resources is detailed later in this report.

<u>Outside Aid</u> is aid which normally comes with a student from private external parties. This could include private organizations, nonprofit organizations, businesses, governmental entities, international organizations, and other special-interest groups. The university does not control this fund source but works to facilitate and coordinate the delivery of such support. Often these awards are tied to academic progress eligibility which the university may monitor on behalf of the awarding entity.

Undergraduate Scholarships

Of the sources of undergraduate scholarships and grants, 45 percent are derived from institutional sources, as seen in Figure 2.

Figure 2: Sources of Undergraduate Grants and Scholarships - 2017-18
($ in millions)

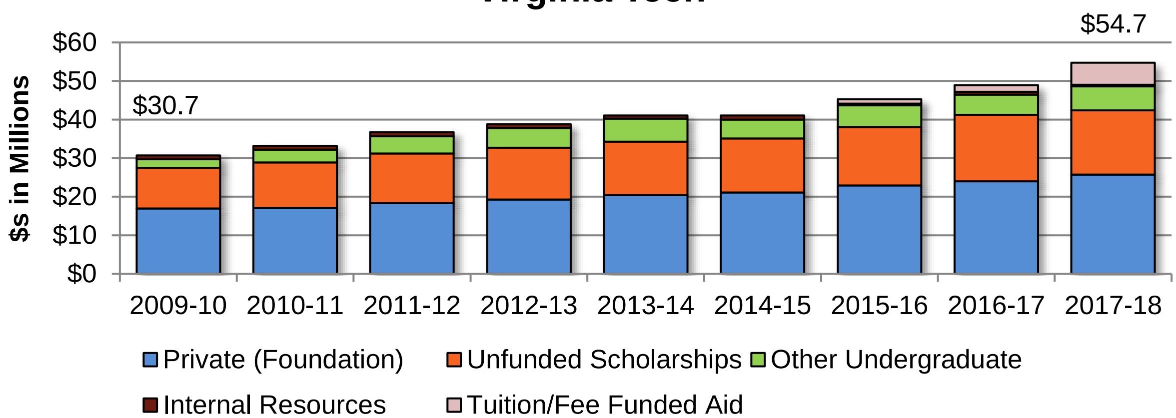


Federal:	$ 20.5
State:	16.1
Institutional:	54.7
Outside:	30.8
Total:	$ 122.1

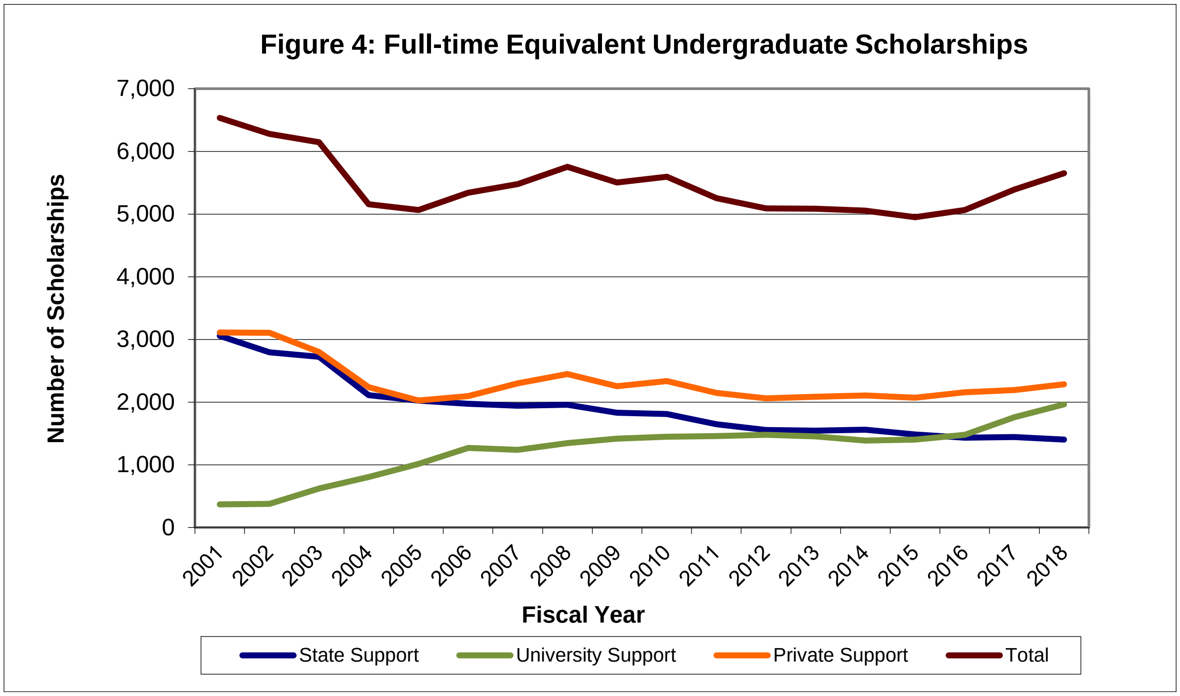
Unfunded Scholarships:	$16.7
Tuition/Fee Funded:	5.7
Internal Resources:	0.4
Other:	6.2
Private (Foundation):	25.7
Total:	$ 54.7

Institutional resources to support undergraduate student financial aid awards have increased over time, as seen in Figure 3.

Figure 3: Undergraduate Institutional Support at Virginia Tech



Though resources have increased over time, tuition increases and enrollment growth often have outpaced increases in state and private sources, and in most years resulted in a declining number of theoretical tuition and E&G fee scholarships that could be supported by these resources. In 2017-18, the university was able to make measured progress in the total number of Full-Time Equivalent number of awards for undergraduates. Moving forward, the university intends to continue to exert additional emphasis on raising additional funds to further increase the university's capacity to help with student affordability. Figure 4 displays the trend of this scholarship analysis from these sources.



Uses of Funds

The university leverages institutional support to advance access and affordability and has also created several innovative, very successful programs. Two major undergraduate Grant and Scholarship programs, which the university committed to as part of the Higher Education Restructuring Act, are:

Funds for the Future –This is an important university undergraduate financial aid program, designed to assist returning students with financial need by mitigating all or a portion of increases in tuition and required fees based on level of family income. For students from low to middle-income families, the Funds for the Future program provides pricing predictability and the mitigation of annual increases while avoiding the institutional risk and potential for over-pricing inherent in "fixed-price" models. Depending upon the adjusted gross income of the student's family, the student can be fully protected from tuition and required fee increases in each year the student returns to the university. Table 2 displays the program parameters, and Table 3 shows the number of resident and nonresident students receiving this aid in 2017-18.

Table 2: Funds for the Future Protection Levels

2017-18 FFF Program Parameters			
Family Income (AGI)	Undergraduate Tuition & Fee Increase Protection *	Example Impact of FFF Protection for Undergraduate Student	
		Total Tuition & E&G Fee Increase	Net Impact of Tuition & Fee Increase
$0 - $74,999	100%	2.9%	0%
$75,000 - $87,499	50%	2.9%	1.5%
$87,500 - $99,999	25%	2.9%	2.2%

Table 3: 2017-18 Funds for the Future Award Recipients

Family Income (AGI)	Number of Virginia Undergraduates Receiving Award	Number of Nonresident Undergraduates Receiving Award
$0 - $74,999	2,560	442
$75,000 - $87,499	408	80
$87,500 - $99,999	487	108
Total	**3,455**	**630**

VT Grant – In addition to protecting students with financial need from tuition and required fee increases, the university has also been methodically working to expand its total aid program, with the goal of reducing unmet need. Additional funds have been allocated to this program annually with the goal of reducing unmet need at a measured pace over time.

Other programs that have been designed to offset the costs of attendance, achieve enrollment goals, and recognize academically talented students include:

- Presidential Scholarship Initiative to assist low-income and first-generation Virginia students with significant financial need;
- VT Scholars award to recruit academically talented students and advance university first generation enrollment goals;
- Emerging Leaders Scholarship for participants in the Corps of Cadets;
- Presidential Campus Enrichment Grants and Alumni Presidential Scholar Program that serve both students with need and students who demonstrate merit to achieve university enrollment goals;
- Yellow Ribbon program for military veterans and dependents (university support for federal matching program);
- Scholarships to defray a portion of a student's costs to study at the Steger Center for International Scholarship, and;
- Scholarship support to help offset the higher costs of study abroad programs.

These programs help address the commitment to access and affordability that the university undertook as part of the Restructured Higher Education Financial and Administrative Operations Act initiative. Further, these programs have been well-received by students, families, and the Commonwealth and help to advance strategic goals.

Trends in Student Indebtedness

Loans

The university continues to monitor students' borrowing behavior. Table 4 below displays the average borrower debt of the graduation class at Virginia Tech and nationally for the past 5 years, as well as the percentage of each class who carried student loan debt upon graduation. According to the Institute for College Access and Success, 65 percent of 2017 graduates of public and nonprofit four-year colleges had student debt averaging of $28,650 per borrower. At Virginia Tech, only 49 percent of the class of 2017 graduated with any debt. Of those who did graduate with debt, the average was $30,221. For Virginia residents in the class of 2017, 50% graduated with debt; the average debt for this cohort was $27,162. Though the use of student loans remains a personal decision, the university provides students and parents with information and counseling to understand the benefits and responsibilities of student loan resources. Moving forward, the university envisions making enhanced aid and loan counseling programs in an effort to help reduce student debt.

Table 4: Loan Statistics of Virginia Tech Graduates

	Class Of:	**2013**	**2014**	**2015**	**2016**	**2017**
VT - All	$	$26,925	$27,925	$28,873	$28,884	$30,221
	%	55%	53%	53%	51%	49%
National Average	$	$28,400	$28,950	$30,100	$28,350	$28,650
	%	69%	69%	68%	66%	65%
VT - Virginia Resident	$	$24,256	$25,208	$25,862	$26,273	$27,162
	%	54%	53%	53%	53%	50%

Default Rate

Virginia Tech's 2015 cohort default rate for the Federal Direct Loan (FDL) and Federal Family Education Loan (FFEL) programs was 1.8 percent, compared with a 2.7 percent average default rate among the university's peer group. While default rates are linked to the national economy, Virginia Tech has consistently had a default rate below the national average, as seen in Table 5 below.

Table 5: Cohort Default Statistics of Virginia Tech Borrowers

Cohort Default Rate	**2013**	**2014**	**2015**
National Peer Average	2.8%	2.8%	2.7%
VT	1.6%	1.4%	1.8%

Net Price

When all available financial aid resources are applied to the overall Cost of Attendance (including tuition and fees, room and board, books, travel, and other costs), a "Net Price" can be derived to represent the remaining cost to the student. Due to various discounting strategies across institutions, the Net Price can be a helpful comparison point of the choice faced by students and their families. The National Center for Educational Statistics (NCES) compiles Net Price data across five student income categories. Table 6 below compares the university's net price with national and state peers for a first year full-time Virginia undergraduate (or resident student within another state). This analysis finds that while the university remains competitive in terms of the average Cost of Attendance (sticker price), the university has an opportunity to enhance the net price competitiveness for low and middle-income students. As a result, the university is working diligently to make progress.

Table 6: Comparison of Net Price for Undergraduate Residents

	Cost of Attendance (Sticker Price)	Average Net Price by Income (2016-17 Data)				
		$0-30,000	$30,001-48,000	$48,001-75000	$75,001-$110,000	$110,001+
Virginia Tech	25,762	12,895	14,143	18,078	22,235	24,809
National Peer Average	30,756	10,143	11,829	16,288	21,765	26,696
Advantage (Disadvantage)	4,994	(2,752)	(2,314)	(1,790)	(470)	1,887
Virginia Tech	25,762	12,895	14,143	18,078	22,235	24,809
Select VA Doctorals	33,589	7,534	9,291	12,339	20,842	30,013
Advantage (Disadvantage)	7,827	(5,361)	(4,852)	(5,739)	(1,393)	5,204

Unmet Need

A student's need is determined using the federal Free Application for Federal Student Aid (FAFSA). This calculation begins with the cost of attendance (tuition, fees, room, board, books and travel), subtracts the expected family contribution (EFC) along with any aid provided (including loans), and the remaining amount is considered "unmet need". While external factors such as state budget reductions and student family income significantly effect this calculation, reducing the percentage of unmet need over time is a goal of the university's student financial aid program. Table 7 below displays the unmet need of resident and nonresident undergraduates over time.

Table 7: Trend of Unmet Need

	2013-14	**2014-15**	**2015-16**	**2016-17**	**2017-18**
Virginia Undergraduate	$5,814	$5,299	$5,480	$6,200	$6,264
% Average Unmet Need	36.7%	33.2%	34.1%	35.9%	35.3%
Nonresident Undergraduate	$10,541	$9,783	$10,855	$11,617	$11,445

% Average Unmet Need	45.8%	41.8%	44.4%	44.7%	43.2%

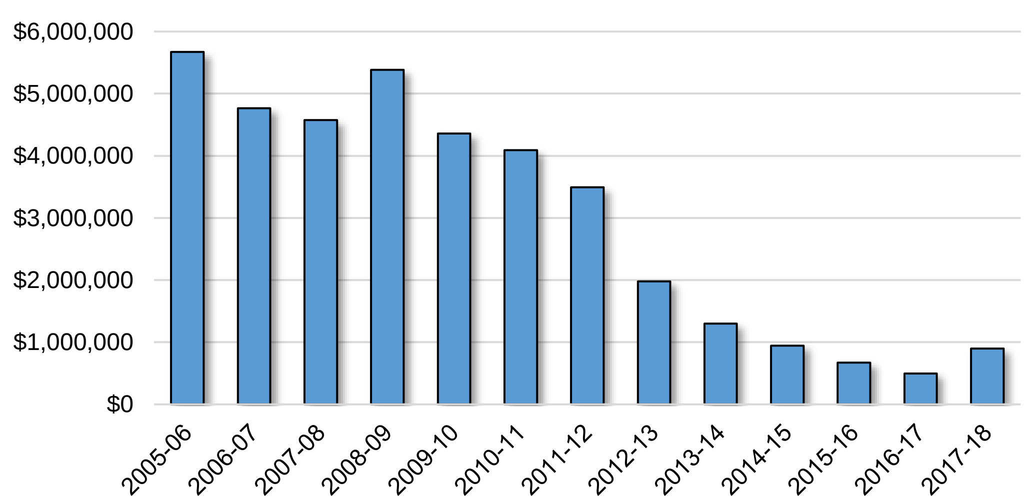
Utilization of Private Support

University colleges and departments are responsible for awarding and administering much of the university's Private support for student financial aid. In past years, the university provided an annual report to the Committee to outline Endowment Scholarship utilization and Scholarship Expenditure plans. Over the years, unspent Endowment Scholarship balances had accumulated due to lack of oversight of departmental allocations, leading to a remediation strategy to ensure maximum utilization of departmentally allocated private scholarships. Due the success of these actions, and the significant reduction in unspent balances, pertinent information from the prior report is now incorporated into this report to provide one comprehensive report on Student Financial Aid.

The Office of the Vice Provost for Enrollment and Degree Management provides guidance to scholarship-managing units through procedures, reports, and data analysis. Each college's annual expenditure plan of endowed scholarships is reviewed and approved to ensure that these resources are utilized effectively. Enrollment and Degree Managements efforts have resulted in enhanced utilization and significant reductions in unallocated cash balances. To continue this success, the Office of Scholarships and Financial Aid provides an annual management report to the Chief Financial Officer to affirm scholarship utilization and the status of funding.

Figure 5 below displays the trend of accumulated departmental private scholarship cash balances. The university believes that the year-end cash balances are at acceptable levels, and the Office of the Vice President for Finance will monitor performance in future years to ensure that the cash balances remain at acceptable levels.

Figure 5: Endowed Scholarship Cash Balance



Current Events

The university is currently discussing how the state can partner to provide student financial aid to meet the university and the commonwealth's goals of enrolling traditionally underserved and underrepresented students. The university will also need to continue to explore all possible opportunities to enhance access and affordability for Virginia undergraduates through increased institutional sources, with an emphasis on private fundraising.

The university is currently developing strategies to raise significant additional funding for scholarships and financial aid, specifically to reduce the net price for Virginia undergraduates in the lowest three income quintiles. Enhancing the resources available to these students through the university's student financial aid program is an important goal to advance Virginia Tech.

In addition to supporting resident student financial need, the university's scholarship program is integral to the achievement of enrollment targets, particularly of nonresident undergraduates. This enrollment strategy is designed to provide net resources to the institution to allocate towards support of resident students and university strategic initiatives. Aid to attract and retain students in targeted disciplines is a focus.

The university will continue to work to assist students and families with managing the cost of education in the future. For 2017-18, 11,327 full-time Virginia Tech undergraduate students (43 percent of the university's undergraduate full-time population) were determined to have financial need. For 2018-19, the university again worked to moderate tuition increases while increasing the allocation of unfunded scholarship support for undergraduates. This plan ties into the university's commitment in its Management Agreement to increase support for need-based student financial aid to help ensure access and affordability.

The university has increased its unfunded scholarships commitment each year since expanding the program in 2001-02. While the university has been leveraging the unfunded scholarship authority to expand need-based aid, the use of unfunded scholarships has legal and practical limits. As a result, it will be important for the university to continue to work to expand funding from other sources in the future, especially by increasing private fundraising and endowed scholarships, and work to create new innovative sources.

Attachment F

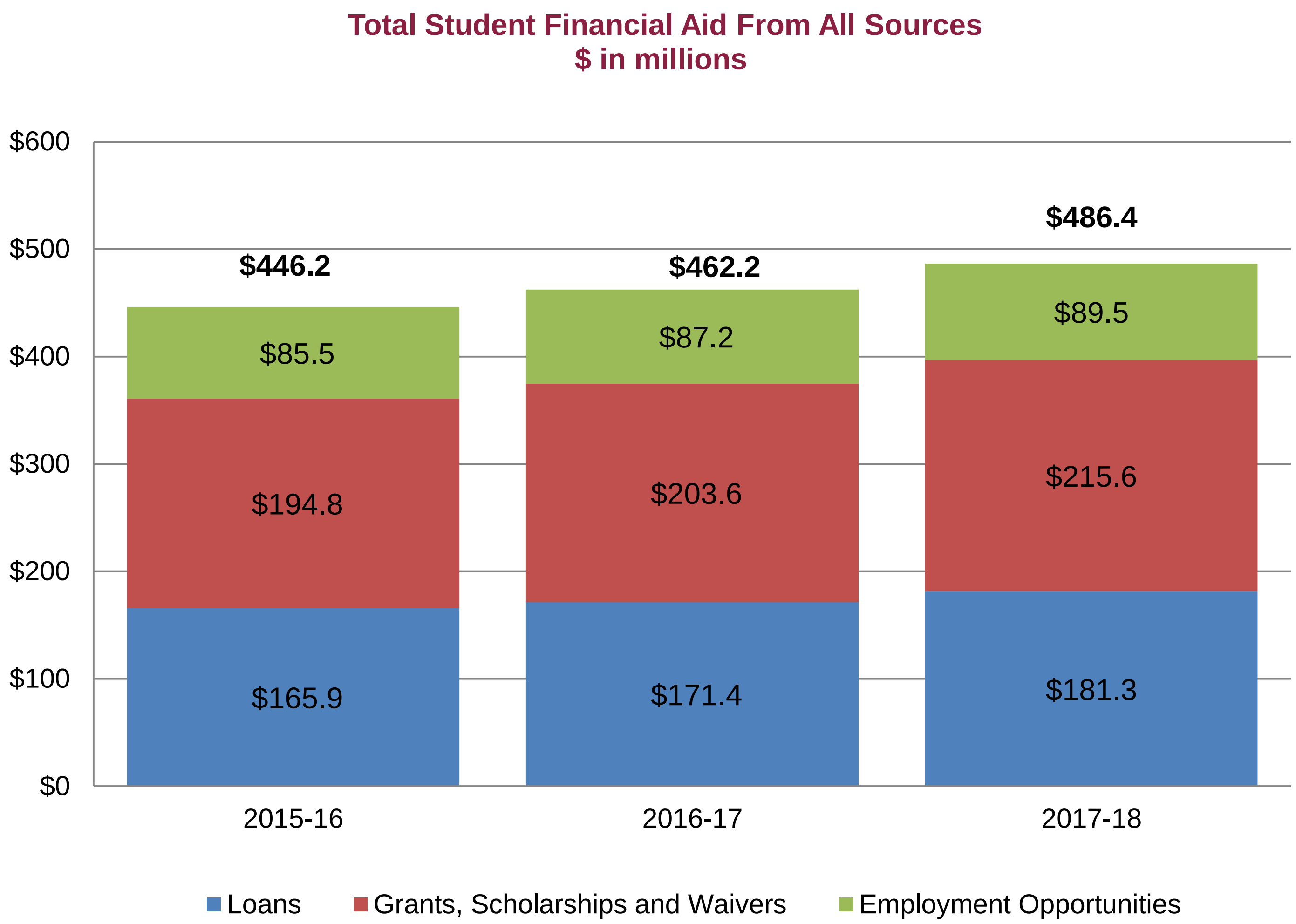
University Support for Student Financial Aid

November 5, 2018

TIM HODGE,
ASSOCIATE VICE PRESIDENT FOR BUDGET AND FINANCIAL PLANNING

VIRGINIA TECH™

Student Financial Aid at Virginia Tech



VIRGINIA TECH.

Undergraduate Grants and Scholarships

($ in millions)

	2015-16	2016-17	2017-18
Undergraduate			
Federal	18.3	18.3	20.5
State	15.6	16.1	16.1
Institutional			
Unfunded Scholarships	15.1	17.2	16.7
Tuition/Fee Funded Aid	1.2	1.8	5.7
Internal Resources	0.4	0.7	0.4
Other Undergraduate (1)	5.7	5.3	6.2
Private (Foundation)	22.9	24.0	25.7
Subtotal Institutional	45.3	49.0	54.7
Outside	28.2	28.8	30.8
Total Undergraduate	107.4	112.2	122.1

(1) Other Undergraduate includes external grants and contracts, waivers codified in the Code of Virginia, and educational benefits for employees.

Attachment F

Grants & Scholarships includes Graduate Tuition Remission Program

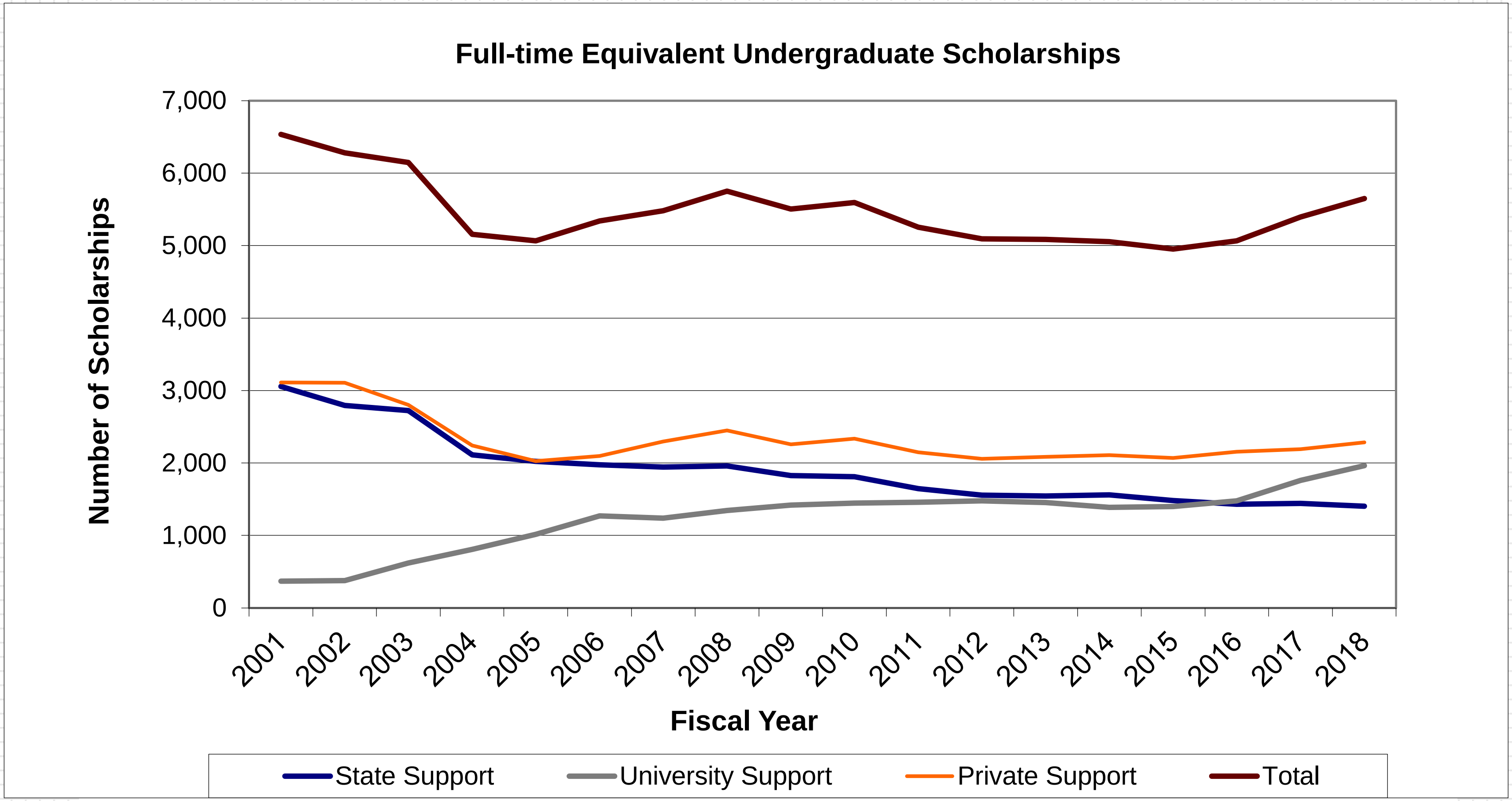
($ in millions)

	2015-16	2016-17	2017-18
Graduate			
Federal	0.0	0.0	0.0
State	4.5	4.9	5.1
Institutional			
Tuition Remission	68.8	72.0	74.2
Tuition/Fee Funded Aid	0.2	0.1	0.0
Other Graduate [1]	3.7	3.3	3.2
Private (Foundation)	2.7	3.0	3.2
Subtotal Institutional	75.4	78.4	80.6
Outside	7.5	8.1	7.8
Total Graduate	87.4	91.4	93.5

[1] Other Graduate includes waivers codified in the Code of Virginia and educational benefits for employees, and internal resources used to support graduate students.

VIRGINIA TECH.

Analysis of State & Institutional Support for Undergraduate Scholarships



VIRGINIA TECH.

Institutional Undergraduate Scholarship Priorities

- Support Virginia Residents in the low- to middle-income range.
- Enhance access to underrepresented and first-generation Virginians.
- Support enrollment management as part of the overall revenue strategy.
- Examples of university-funded scholarship priorities Include:

Need-Based Scholarships:

VT Grant: *need-based aid to undergraduate students to reduce unmet need.*

Presidential Scholarship Initiative: *need-based "full-ride" program with enhanced advising and support for underrepresented and first-generation Virginians.*

College Access Collaborative: *for underrepresented Virginians in the K-12 pathway program.*

Merit-Based Scholarships:

Beyond Boundaries: *matches private giving in support of underrepresented and high-achieving students.*

Enrollment Management Scholarships: *support strategic nonresident enrollment goals, including underrepresented and academically talented students.*

- ***Provost Achievement***
- ***VT Scholars***
- ***Ut Prosim***
- ***Julian Burruss***

VIRGINIA TECH

Undergraduate Scholarships
Institutional Programs

Funds for the Future

- *Mitigates tuition increases for continuing students based upon family income levels.*
- *Includes Virginia and non-resident undergraduates.*
- *Need based program, requires FAFSA*

Family Income (AGI)	Undergraduate Tuition & Fee Increase Protection	Example Impact of FFF Protection for Undergraduate Student	
		Total Tuition & E&G Fee Increase	Net Impact of Tuition & Fee Increase
$0 - $74,999	*100%*	*2.9%*	*0%*
$75,000 - $87,499	*50%*	*2.9%*	*1.5%*
$87,500 - $99,999	*25%*	*2.9%*	*2.2%*

Trends in Undergraduate Indebtedness

Average Debt per Borrower and Percentage of Students Graduating with Debt

	Class Of:	**2013**	**2014**	**2015**	**2016**	**2017**
VT - All	$	$26,925	$27,925	$28,873	$28,884	$30,221
	%	55%	53%	53%	51%	49%
National Average	$	$28,400	$28,950	$30,100	$28,350	$28,650
	%	69%	69%	68%	66%	65%
VT - Virginia Resident	$	$24,256	$25,208	$25,862	$26,273	$27,162
	%	54%	53%	53%	53%	50%

National data from the Project on Student Loan Debt, an aggregator of Common Data Set submissions. *www.projectonstudentdebt.org*

Attachment F

Net Price Comparison

- *Net Price is the cost remaining after financial aid has been applied to the total Cost of Attendance (tuition, fees, room & board, and other expenses).*

- *The university remains competitive with "Sticker" price, but has an opportunity to enhance the "Net" price competitiveness for resident low and middle-income students.*

	Cost of Attendance (Sticker Price)	Average Net Price by Income (2016-17 Data)				
		$0-30,000	**$30,001-48,000**	**$48,001-75,000**	**$75,001-110,000**	**$110,001 +**
Virginia Tech	25,762	12,895	14,143	18,078	22,235	24,809
National Peer Average	30,756	10,143	11,829	16,288	21,765	26,696
Advantage (Disadvantage)	4,994	(2,752)	(2,314)	(1,790)	(470)	1,887
UVa & CWM	33,589	7,534	9,291	12,339	20,842	30,013
Advantage (Disadvantage)	7,827	(5,361)	(4,852)	(5,739)	(1,393)	5,204
Other VA Comparable*	26,912	13,091	15,057	18,735	21,939	24,144
Advantage (Disadvantage)	1,150	196	914	657	(296)	(666)

* ODU, GMU, VCU, JMU

Current Events

- *University continues to raise additional funding for student financial aid, specifically to reduce the net price for Virginia undergraduates in the lowest three income quintiles and enhance support for underrepresented student populations.*

- *Working with state to explore potential of prospective state support to grow underrepresented and underserved populations.*

- *Financial aid is integral to achieving enrollment targets, particularly nonresident undergraduate, which provides overall resources to support resident students and university strategic initiatives.*

- *In an era of modest tuition increases, institutional support for financial aid is significantly constrained and has practical limits.*

- *As a result, the university must continue to support institutional financial aid programs, with an emphasis on expanding student financial aid funding through private philanthropy.*

Discussion

Report on Efficiencies – Payment and Deposit Portal

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

November 5, 2018

Background

Students and families completed approximately 346,000 payment and deposit transactions with the university in fiscal year 2018, totaling $432 million. Students use the Hokie Passport card to make purchases at university dining centers and on- and off-campus merchants and to pay for on-campus laundry, printing, photocopying, and supplies. The university partnered with industry-leading vendors to leverage enterprise system capabilities and implement electronic tuition billing and payments in 2005 and electronic Hokie Passport ID Card-based deposits in 2002. Today, 95 percent of student account payments and 99 percent of Hokie Passport ID Card-based deposits are electronic.

While the university has made great strides in enhancing management's efficiency and effectiveness of the payment and deposit processes, the customer experience to conduct these operations needed improvement. In the fall of 2017, the Virginia Tech Parent Committee, a group comprised of diverse and engaged parent volunteers, invited members of the Vice President for Finance leadership team to share their experiences making payments to Virginia Tech. The Committee expressed a strong desire for a simplified and more intuitive user experience when attempting to make tuition payments and Hokie Passport ID Card-based deposits on behalf of their students. Specifically, the parents expressed challenges in the following areas:

- Web Interface: finding the correct webpages, navigating between pages, and inconsistencies in the look and feel of webpages
- Account management: the process to obtain a guest account, multiple user accounts and credentials required to perform transactions on behalf of their students.
- Clarity of instructions
- The lack of a mobile app to check balances and perform transactions

To address concerns raised by the Virginia Tech Parent Committee, the Vice President for Finance (VPF) area convened a team of key unit leaders with the charge to develop an action plan to address customer feedback without compromising financial controls, security, or effectiveness, and to implement improvements prior to the July 9, 2018 start of summer orientation sessions.

Project Overview

The VPF Team (Team) conducted an initial assessment of the customer requests that included a review of current university business practices and related internal control environment, peer benchmarking of student financial transaction processes, exploration of vendor options, and brainstorming potential solutions to address the customer request.

Based on the results of the initial assessment, the Team recognized the need to obtain expertise in website design, user experience testing and analysis, content management, and marketing. The Team hired NewCity Media (NewCity) to serve as an integral member on the project. The Team and NewCity determined that a subset of the user expectations listed above could be met prior to a July 9, 2018 deadline, and this effort would be considered Phase One. Requests for a mobile app and single sign-on for guests are more complex requiring significant system modifications. These requests will be explored beginning in early 2019 as Phase Two of the project.

Phase One of the project comprised of five components – discovery and research, user experience and audience testing, prototype development and testing, implementation, and assessment. The detailed steps completed for each component are listed in Appendix A.

The Team mapped out known pathways that customers utilize to access payment and deposit systems and reviewed website analyses from the Bursar and Hokie Passport Services websites. Additionally, a communications review was conducted of Bursar and Hokie Passport orientation materials, informational pamphlets, and tuition and billing emails.

The central principle of the project is that all enhancements are based on user testing, feedback, and analysis. This involved in-person and virtual audience interviews and baseline usability testing. Based on several rounds of user experience and audience testing results, a prototype solution was developed and refined to address the identified challenges. The prototype was branded as the "Hokie Wallet" to aid in marketing efforts to relevant stakeholders. The prototype provided the following customer improvements:

- Web Interface:
    - created a new, dedicated landing page (the Hokie Wallet) with links to the Bursar's and Hokie Passport Services' electronic payment and deposit sites,
    - improved search results to direct search words and phrases to the new landing page and individual electronic payment and deposit sites,
    - standardized the appearance and layout of related webpages,

- Account Management: introduced a streamlined process for requesting and gaining guest user access to perform electronic transactions,

- Clarity of Instructions: consolidated and streamlined instructions and guidelines for completing tasks within and between the relevant payment and deposit sites, and

- Established a "Quick Deposit" system for Hokie Passport deposits, utilizing student ID and PID without guest user login credentials.

Assessment

Key performance requirements for the project include timely improvements for the customer experience without compromising controls or effectiveness. Phase One of the Hokie Wallet project was implemented on time, and has received positive feedback from families, students, and the chair of the Virginia Tech Parent Committee. In parallel, the university processed its normal amount of revenue activity for the period July 9, 2018 through September 30, 2018 with approximately 54,000 electronic payments and deposits.

Future Considerations

The next steps for the Hokie Wallet project include the exploration of providing additional technology enhancements to further improve the user experience of students, families and other key stakeholders who transact with Virginia Tech. The Virginia Tech Parent Committee expressed interest in a mobile application by which parents could initiate transactions, as well as a single-sign-on to vendor hosted payment systems.

Additionally, the Team identified other potential areas to build upon the success of the Hokie Wallet project. Those opportunities include performing a full-scale review of the Finance Division's web presence to look at the effectiveness of public presentation of information and content management (align content and presentation with objective of webpage), and an assessment of the additional payment portals within the institution (Parking Services, Athletics, Moss Arts Center, Development, etc.) for opportunities to streamline or consolidate.

Appendix A

Key Actions by Project Phase

Discovery & Research Phase:

- Review feedback previously provided by customers and employees to tailor improvements to expressed needs
- Review relevant processes and strategies from peer institutions
- Conduct Stakeholder Discovery Workshops with NewCity
- Review existing payment and deposit systems
- Develop an Audience Research Plan
- Review existing Virginia Tech website analytics
- Establish design parameters according to University Relations standards
- Determine optimal internal website search navigation
- Review and analyze existing content on the Bursar, Hokie Passport Services, and various Virginia Tech websites pertaining to tuition, payments, and Hokie Passport ID Card deposits
- Create a navigation and site map of content on the Bursar website and Hokie Passport Services website
- Review orientation and communication materials related to financial activities

User Experience & Audience Testing Phase:

- Identify a test group of university customers
- Establish test sites, accounts, and credentials for user experience testing
- Conduct in-person and virtual user interviews and process testing of existing environment
- Transcribe and analyze user interviews and process testing

Prototype Development & Testing Phase:

- Develop a prototype website for a single landing page for customers
- Develop scenarios to test the prototype website for payments and deposits
- Complete customer testing of prototypes – local customers, distant customers, and employee customers
- Test name/branding options for the new website using Google Consumer Survey of 500 Virginia Adults (Ages 35-64)
- Catalog Bursar content related to payment topics
- Streamline content on Bursar and Hokie Passport Services websites
- Perform customer navigation tests on prototype Bursar and Hokie Passport Services websites
- Evaluate university content templates for potential adaptation of Hokie Passport Services website

- Develop the Quick Deposit option for family members/guests (A Quick Deposit can now be made – without the necessity of establishing a HokieSpa Guest account via the student)
- Enhance the mobile friendliness and ADA accessibility of the Hokie Passport Services website
- Establish access request pages for QuikPAY, the Budget Tuition Plan and HokieSpa guest access, prompting instructions to be emailed to the student and the requestor
- Create easily accessible user forms to collect user feedback
- Add Getting Started Guides for both Bursar and Hokie Passport Services

Implementation Phase:

- Secure a new domain name for Hokie Wallet
- Secure access to Ensemble Content Management System for NewCity
- Design and create the Hokie Wallet website to correspond to current Virginia Tech website layout
- Design and build custom website layout elements with the Hokie Wallet website
- Update orientation materials and other communications to reference Hokie Wallet
- Convert prototype content to the university's Ensemble Content Management System
- Establish website redirects and website analytics for the Hokie Wallet website
- Refine content revisions to Bursar and Hokie Passport Services websites for consistent look and feel
- Distribute Hokie Wallet marketing materials at orientation, via social media and websites, and via the Hokie Family eNews
- Revise vendor hosted portals to correspond to Virginia Tech look and feel and clarify editable content on payment and deposit pages
- Update HokieSpa to reflect Hokie Wallet and new icon navigation
- Create a website content governance guideline document
- Complete a customer usability test of the Hokie Wallet, and revised Bursar and Hokie Passport Services websites prior to launch
- Implement new Bursar website navigation structure
- Improve Hokie Passport Services deposit screen

Assessment Phase:

- Payment and deposit controls and effectiveness remain intact
- Review webpage traffic and analytics
- Obtain feedback from Virginia Tech Parent Committee members
- Survey customers for feedback via the spring 2019 Hokie Passport Services Student Satisfaction Survey and review results

Attachment F

Report on Efficiencies – Parent Portal

November 5, 2018

DWIGHT SHELTON,
VICE PRESIDENT FOR FINANCE AND CHIEF FINANCIAL OFFICER

BOB BROYDEN,
ASSOCIATE VICE PRESIDENT FOR CAPITAL ASSETS AND FINANCIAL MANAGEMENT

VIRGINIA TECH™

Hokie Wallet Video

Discussion

University Debt Ratio and Debt Capacity

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

October 1, 2018

Background:

The university has provided an annual debt report to the Board of Visitors since 2006. The Restructuring Act and the university's debt policy require that the university maintain a debt service to operations ratio of no greater than seven percent. In addition to the seven percent limitation, and based on guidelines provided by the Board of Visitors, management internally targets a five percent benchmark for planning purposes and subsequent recommendations to the Board.

The management of debt is critical to the success of the university's capital program and to meeting one of the conditions of eligibility for restructured operational authority with the Commonwealth. The required condition is that the university maintain an unenhanced bond rating from Moody's, Standard and Poor's, or Fitch of at least AA- or its equivalent.

An established committee including representatives from Capital Assets and Financial Management, Investments and Debt Management, the Controller's Office, and the Budget Office meets regularly to review debt activities and the timing of debt issuances to ensure compliance with the five percent debt ratio and potential impacts to credit ratings. The Vice President for Finance and Chief Financial Officer provides oversight of these activities.

Status:

The university currently has a Aa1 rating from Moody's and a AA rating from S&P. At the conclusion of fiscal year 2018, the university had outstanding long-term debt of $484 million with a debt ratio of 3.97 percent.

Planning for Capital Projects:

As part of the university's capital outlay planning and debt management program, the university maintains a six-year forward-looking plan of debt issuances for projects. The projected university debt ratio and debt capacity based on expected debt issuances are shown in Attachment A. This planning supports the development of capital outlay plans that advance projects within the debt policy and restructuring conditions. Each project is carefully reviewed in consideration of the university's debt capacity before submitting project authorizations for debt to the Board. The university's current planning projections by project and estimated debt consumption are shown in Attachment B. Based on the current placeholders and projections, debt consumption pushes the university's debt ratio to 5.10 percent in fiscal year 2026. As part of management's ongoing activities, the university will monitor each project and work to refine its funding plan as necessary for the overall program to remain within performance requirements.

<u>Planning for Governmental Accounting Standards Board Statement No. 87</u>:

The Governmental Accounting Standards Board (GASB) issued Statement No. 87 on June 28, 2017 to revise governmental lease accounting effective fiscal year 2021. The revision eliminates the distinction between operating and capital leases resulting in the recognition of operating lease commitments as long-term debt. Operating lease payments are currently recognized as operating expenses on the financial statements with no associated long-term debt obligation. The university projects that GASB 87 will result in higher debt ratios because of increased debt service due to the recognition of operating leases as long-term debt in the debt report. Based on a review of the university's historical trend of operating lease commitments and expenditures, the anticipated impact is an average increase of 110 basis points or 1.1 percent to the projected debt ratio beginning in fiscal year 2021. The university will continue to monitor GASB 87 implementation and actively consult with rating agencies regarding potential impact on credit ratings.

<u>Attachments</u>:

Attachment A includes the outstanding long-term debt and debt ratio calculation for the current fiscal year and a summary of estimated potential issuances through fiscal year 2024, along with future debt ratios and related capacity for each year. The schedule includes a three-year trailing period through fiscal year 2027 to show the full impact of loading principal and interest payments.

Attachment B shows an illustration of the estimated timing of potential debt issuances for certain projects.

Attachment C shows a trend line of the university's debt ratio from fiscal year 2002 to 2027. The debt ratio is calculated as debt service over operating expenditures. Management routinely examines, prioritizes, and adjusts the allocation plan to ensure the debt ratio remains within five percent.

Attachment D shows a benchmark comparison of fiscal year 2017 debt ratios from Moody's for Virginia Tech and 23 other peer institutions, which are calculated as debt service over operating expenditures.

<u>RECOMMENDATION</u>:

That the report on University Debt Ratio and Debt Capacity for fiscal year 2018, including the ongoing guidance to manage debt issuances at a level that ensures that the debt ratio does not exceed five percent of operating expenditures, be accepted.

November 5, 2018

University Debt Ratio and Debt Capacity Based on Expected Debt Issuances
FINANCE AND RESOURCE MANAGEMENT COMMITTEE
October 1, 2018
(Dollars in Thousands)

	Actual	Estimated Issuances						Trailing Period		
Fiscal Year	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**
Long-Term Debt Outstanding, Start of Year	$494,210	$ 484,305	$ 481,934	$ 502,143	$ 558,662	$ 728,949	$ 861,926	$ 905,984	$ 849,024	$ 789,939
Net New Long-Term Debt Issuance	27,331	29,277	54,250	90,140	205,936	177,000	96,000	-	-	-
Current Year Refunding Bonds										
Current Year Refunded / Defeased Bonds										
Net Long-Term Debt Repayment	(37,236)	(31,648)	(34,041)	(33,620)	(35,649)	(44,023)	(51,943)	(56,959)	(59,085)	(60,421)
Total Long-Term Debt Outstanding, End of Year	**$ 484,305**	**$ 481,934**	**$ 502,143**	**$ 558,662**	**$ 728,949**	**$ 861,926**	**$ 905,984**	**$ 849,024**	**$ 789,939**	**$ 729,518**
Total Debt Service	$ 56,485 [1]	$ 51,720	$ 53,813	$ 55,057	$ 59,928	$ 67,268	$ 78,946	$ 87,804	$ 90,829	$ 89,725
Total Operating Expenditures	1,423,455 [1]	1,468,009	1,512,049	1,557,411	1,604,133	1,652,257	1,693,564	1,735,903	1,779,300	1,823,783
Debt Ratio [2]	**3.97%**	**3.52%**	**3.56%**	**3.54%**	**3.74%**	**4.07%**	**4.66%**	**5.06%**	**5.10%**	**4.92%**
5% of Operating Expenditures	$ 71,173	$ 73,400	$ 75,602	$ 77,871	$ 80,207	$ 82,613	$ 84,678	$ 86,795	$ 88,965	$ 91,189
Additional Allowable Debt Service	14,688	21,681	21,790	22,814	20,279	15,345	5,733	(1,009)	(1,864)	1,464
Additional Debt Capacity (at 5%)	**$269,817**	**$301,277**	**$300,105**	**$312,807**	**$275,600**	**$207,624**	**$77,223**	**($13,591)**	**($25,106)**	**$19,717**

Assumptions:

* Total Operating Expenditures for FY19 through FY27 are estimated based on the following growth rate: 3.13 for FY19, 3.0% for FY20-FY23, and 2.5% for FY24 and thereafter.
* Estimated Cost of Capital includes: 3.75% for FY19; 3.85% for FY20; 3.90% for FY21, 4.00% for FY22, 4.05% for FY23, and 4.10% thereafter.

Notes:

(1) Unaudited actual.

(2) Debt ratio projections for fiscal years 2021 and beyond do not include the estimated impact of revisions to GASB 87 on governmental lease accounting.

Attachment F
Attachment B

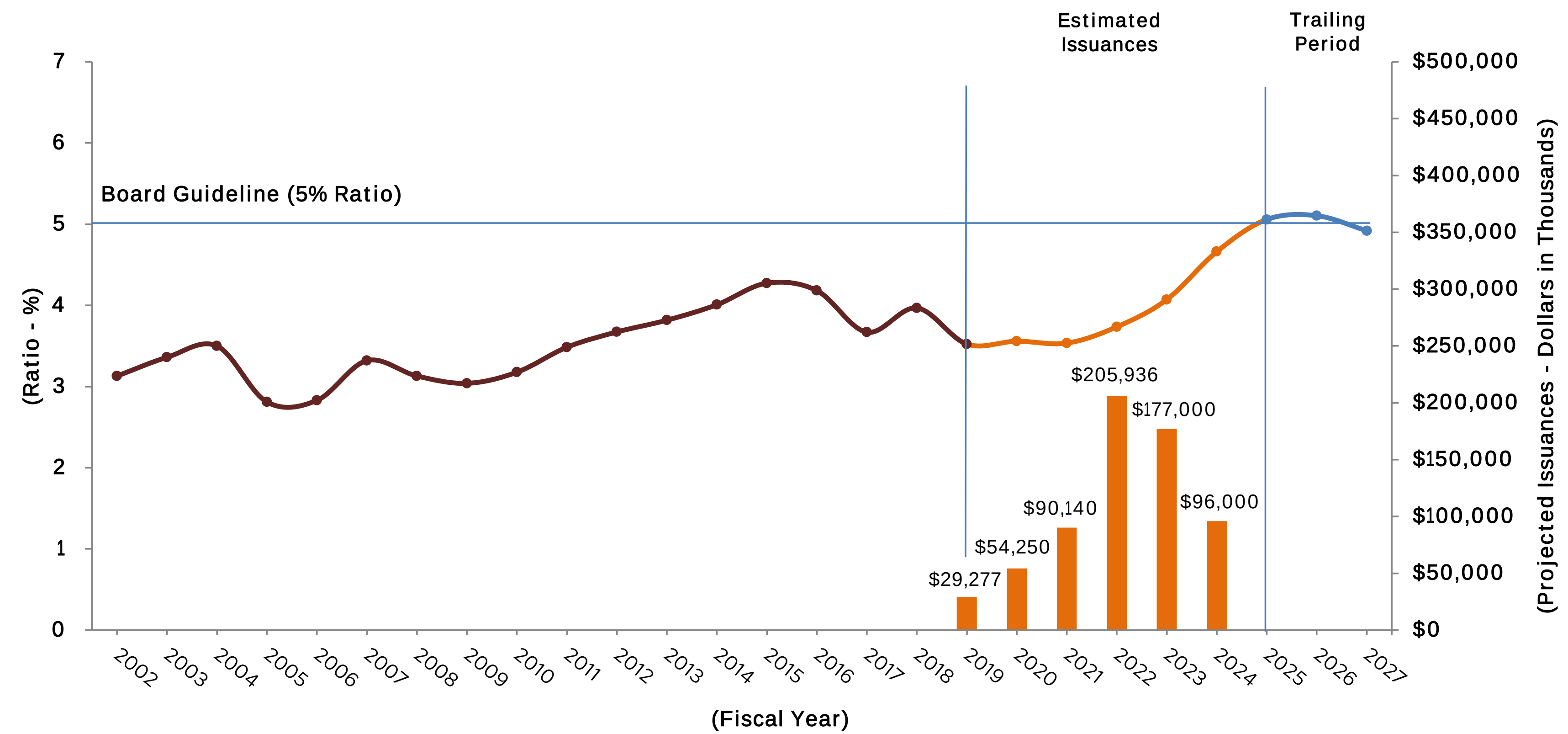
Illustration of Debt Allocations Within a Five Percent Ratio
FINANCE AND RESOURCE MANAGEMENT COMMITTEE
As of October 1, 2018
(Dollars in Thousands)

	Actual	Planning Projections						Trailing Period			
	2017-18	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**2024-25**	**2025-26**	**2026-27**	**Total**
Authorized Projects											
Scheduled Issuances											
Health Sciences and Technology (HS&T)	$ 24,848	$ 4,000									$ 28,848
O'Shaughnessy Renovation		12,633									12,633
Holden Hall Renovation & Expansion			$ 17,500								17,500
Dietrick First Floor & Plaza Renovation			3,300								3,300
Student Wellness Services				$ 44,690							44,690
Capital Leases											
Virginia Automation Park	2,483										2,483
Applied Projects Building		10,144									10,144
VTTI Intern Hub		2,500									2,500
	27,331	29,277	20,800	44,690	-	-	-	-	-	-	122,098
Placeholder Issuances for High Priority Planning Items											
Projects											
Building Envelope Repairs			9,450	9,450	$ 9,450	$ 9,450					37,800
Falls Church Property Acquisition			14,000								14,000
Dietrick Generator			2,500								2,500
Translational Medicine					16,500						16,500
Corps Leadership & Military Science					10,116						10,116
Creativity & Innovation District Residential Community					89,620						89,620
Intelligent Infrastructure Hitt Hall					6,250						6,250
Smart Dining Hall					38,000						38,000
Potential New Initiatives					10,000						10,000
Residential Renewal - Slusher Hall					26,000		$ 39,000				65,000
Engineering Renewal - Randolph Hall						18,250					18,250
Business Learning Community (academic)						35,000					35,000
Residential Learning Community (350 beds) - Business						60,600					60,600
Residential Learning Community (350 beds) - Global						46,700					46,700
Food Processing Center & Warehouse						7,000					7,000
Owens Hall Renewal							57,000				57,000
Capital Leases											
University Data Center			5,500								5,500
Turbo Research Lab			2,000								2,000
Capital Lease Placeholder				36,000							36,000
	-	-	33,450	45,450	205,936	177,000	96,000	-	-	-	557,836
Total Authorized and Placeholder Issuances	$ 27,331	$ 29,277	$ 54,250	$ 90,140	$ 205,936	$ 177,000	$ 96,000	$ -	$ -	$ -	$ 679,934
Net Capacity at five percent ratio	$269,817	$301,277	$300,105	$312,807	$275,600	$207,624	$77,223	($13,591)	($25,106)	$19,717	

University Debt Ratio Trend

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

October 1, 2018



Source: Restructuring Management Performance Metrics; 2018 Data.

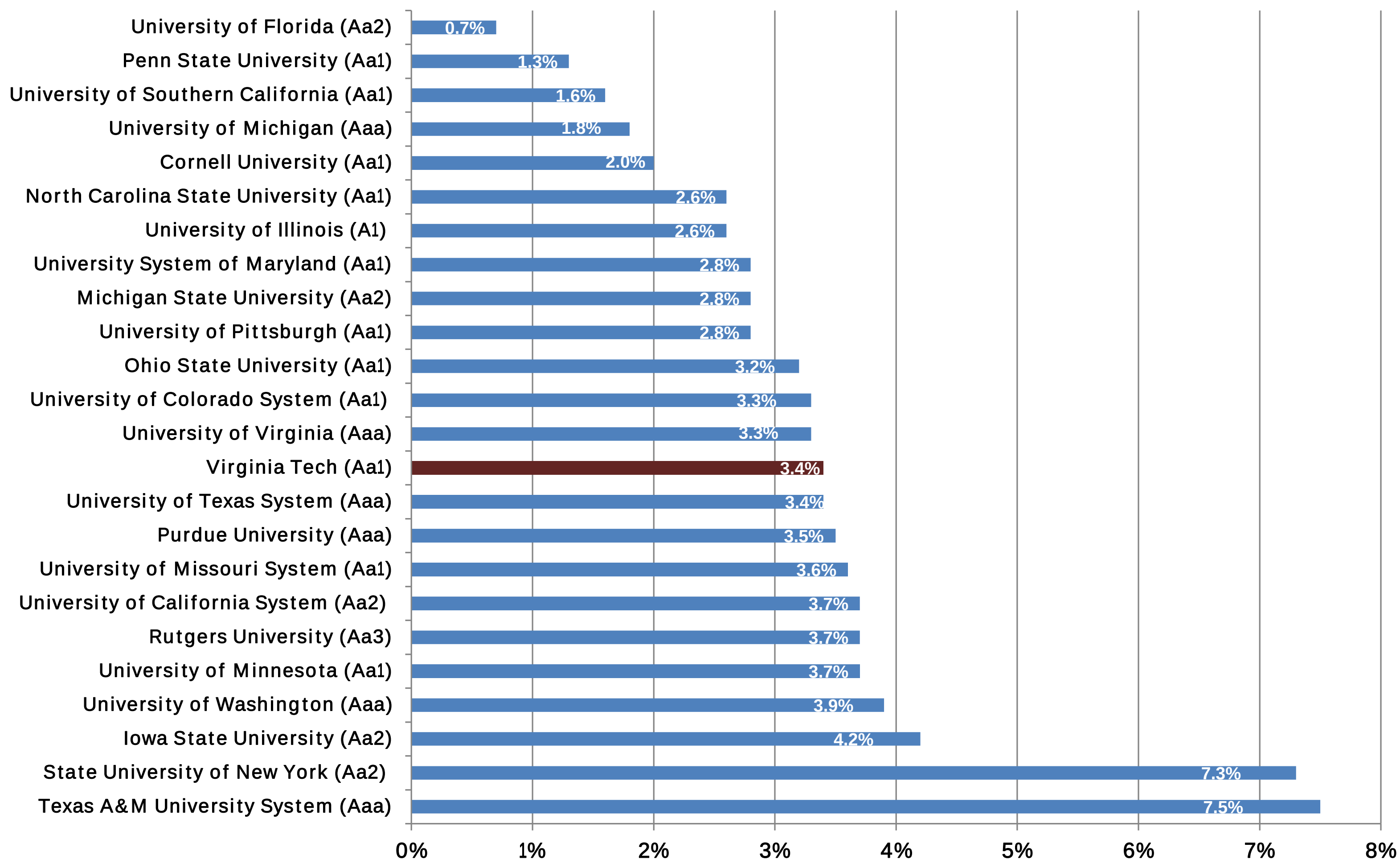
Projected ratios for fiscal years 2021 and beyond do not include the estimated impact of revisions to GASB 87 on governmental lease acc ounting.

Maroon = Actual Debt Burden Ratio
Orange = Projected Debt Burden Ratio
Blue = Trailing Period Debt Burden Ratio
Bar = Planned Issuances

Fiscal Year 2017 Debt Ratio Benchmarking of Peers

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

October 1, 2018



Based on SCHEV Peer Group and UVA

Attachment F

Annual Report on University Debt Ratio and Debt Capacity

November 5, 2018

BOB BROYDEN,
ASSOCIATE VICE PRESIDENT FOR CAPITAL ASSETS AND FINANCIAL MANAGEMENT

JOHN CUSIMANO,
UNIVERSITY TREASURER AND ASSOCIATE VICE PRESIDENT FOR FINANCE-VT FOUNDATION

VIRGINIA TECH™

Debt Ratio and Credit Ratings Requirements and Performance

5.0%

Debt Ratio

3.97%

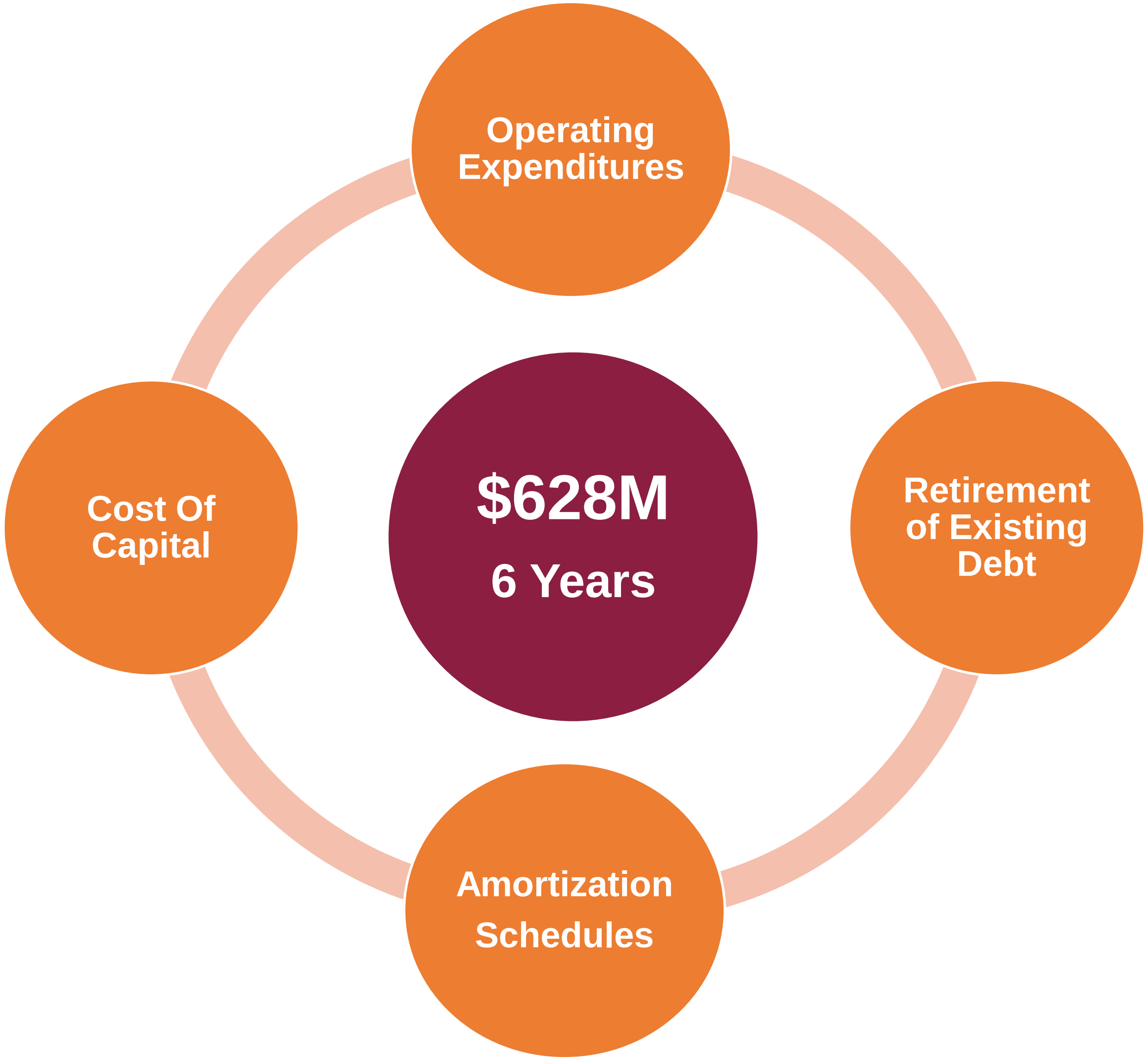
AA- / Aa3

Credit Rating

AA S&P

Aa1 Moody's

Gross Capacity Projections FY2024



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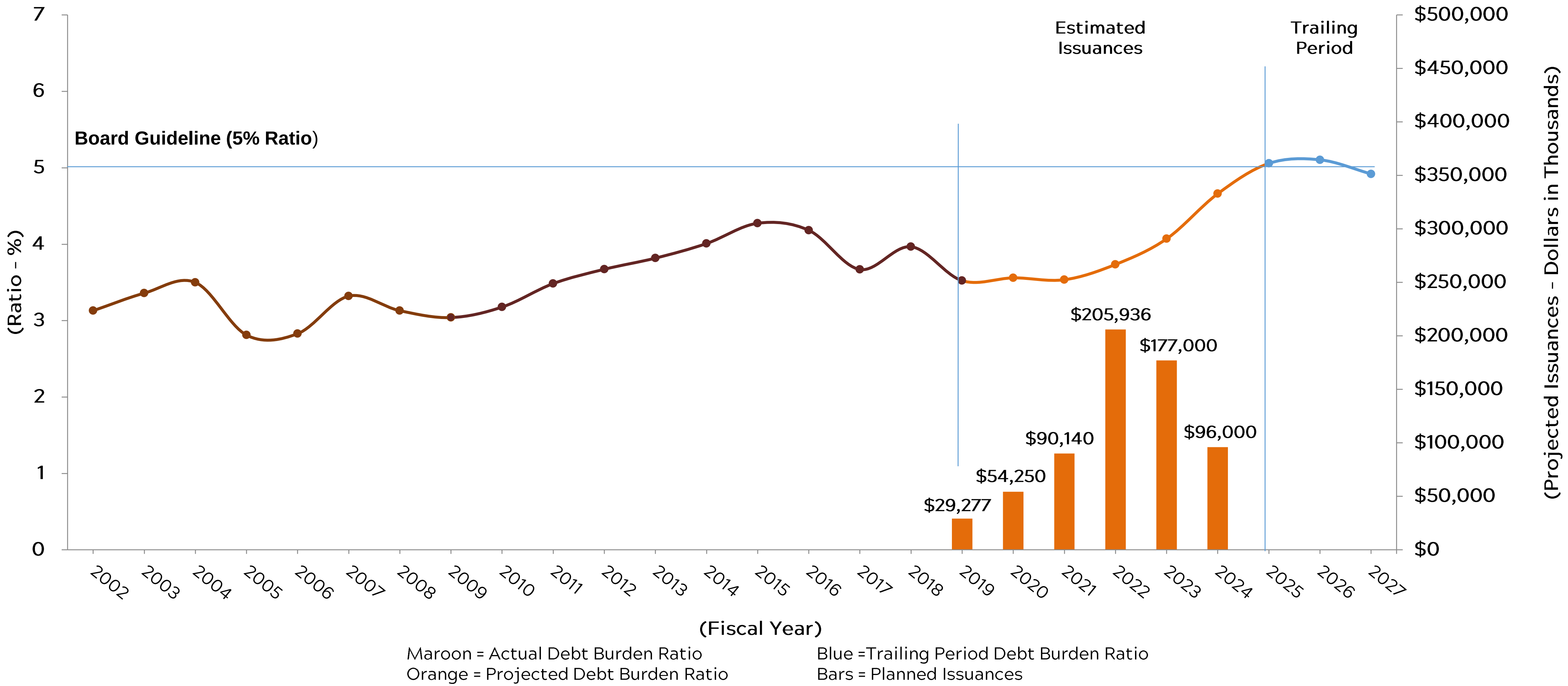
University Debt Ratio Trend



Source: Restructuring Management Performance Metrics; 2018 Data.
Projected ratios for fiscal years 2021 and beyond do not include the estimated impact of revisions to GASB 87 on governmental lease accounting.

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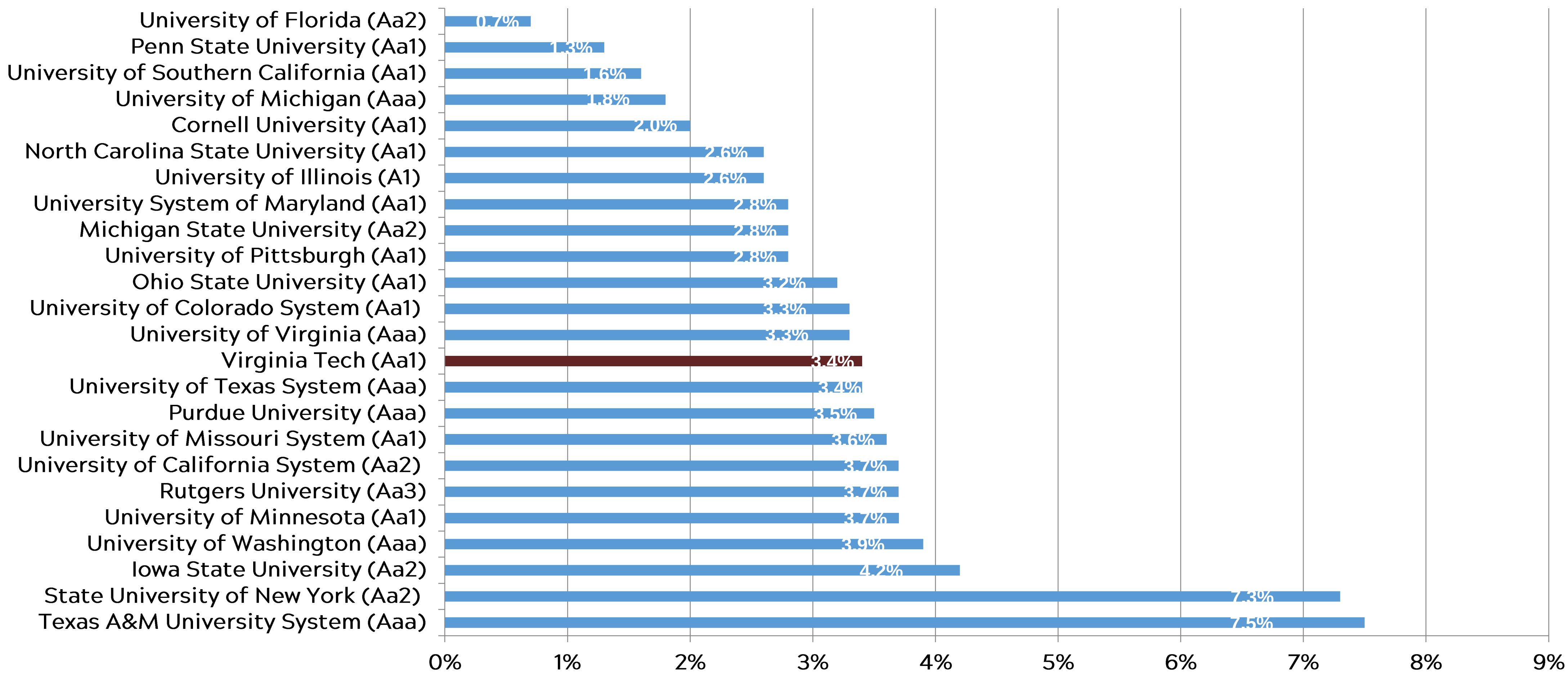
Attachment F

Benchmarking of Peers



Based on SCHEV Peer Group and UVA
Source: Moody's Performance Metrics, Moody's Investors Service, September 12, 2018; 2017 Data.

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