

## Committee Minutes

### FINANCE AND RESOURCE MANAGEMENT COMMITTEE Virginia Tech Newport News Center August 22, 2022

#### Open Session

August 22, 2022

**Board Members Present:** Ed Baine, Sharon Brickhouse Martin, David Calhoun, Brad Hobbs, Anna James, Tish Long

**Virginia Tech Personnel:** Beth Armstrong, Callan Bartel, Lynsay Belshe, Bob Broyden, Al Cooper, John Cusimano, Guru Ghosh, Kay Heidbreder, Mary Helmick, Tim Hodge, Elizabeth Hooper, Sharon Kurek, Roop Mahajan, Elizabeth McClanahan, Nancy Meacham, Scott Midkiff, Ken Miller, Kim O'Rourke, Charlie Phlegar, Menah Pratt-Clarke, Tim Sands, Tarun Sen, Dan Sui, Tracy Vosburgh

1. **Motion to Reconvene in Open Session**
2. **Welcome and Opening Remarks:** The Committee Chair welcomed the attendees and gave 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 June 7, 2022 Meeting**
  - c. **Report on Higher Education Restructuring Institutional Performance Measures:** The Committee reviewed a report on the Higher Education Restructuring Institutional Performance Standards (IPS), focusing on finance and administrative performance standards results for fiscal year 2021. The university is in full compliance with all 17 finance and administrative measures and six academic measures reported.

The Committee approved the items on the Consent Agenda.

- # 4. **Report on Administrative Efficiencies – Procurement:** The Committee received a report on administrative efficiencies. This report provides an analysis of the university's cost structure as compared to peer institutions across several established cost benchmarks and highlights recent university efficiency initiatives, including a spotlight on cost efficiencies achieved through Procurement's management of purchases and contracts.
- \* 5. **Approval of Year-to-Date Financial Performance Report (July 1, 2021 – June 30, 2022):** The Committee reviewed for approval the Year-to-Date Financial Performance Report for July 1, 2021 to June 30, 2022. The university successfully closed its fiscal year in accordance with guidance and requirements of the commonwealth. The Educational and General budgets were balanced at year-end, with no operating deficit incurred.

For year-ended June 30, 2022, \$180.8 million was expended for Educational and General capital projects, and \$42.6 million was expended on Auxiliary Enterprises capital projects. Cumulative capital outlay expenditures for the quarter ending June 30, 2022 totaled \$223.4 million against a budget of \$200.7 million. All projects remained within their overall budget, but expenditures occurred sooner than expected.

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

- \* 6. **Approval of 9(c) and 9(d) Financing Resolutions:** The Committee reviewed for approval debt financing resolutions through the state's 9(c) bond program and the Virginia College Building Authority's 9(d) debt financing program.
- a. **9(c) Financing Resolutions:** This included financing for Hitt Hall (dining), Innovation Campus Academic Building (parking), and New Upper Quad Residence Hall totaling \$101.877 million.
  - b. **9(d) Financing Resolutions:** This included financing for Corps Leadership and Military Sciences building, the Data and Decision Science Building, the academic portion of Hitt Hall, the Innovation Campus Academic Building, and Student Wellness Services totaling \$207.304 million.

The Committee recommended the 9(c) and 9(d) Financing Resolutions to the full Board for approval.

7. **Related Corporations Performance – Update on Virginia Tech India Research and Education Forum:** The Committee received an update on the performance of Virginia Tech India Research and Education Forum (VTIREF), a Virginia Tech Related Corporation. This report provides an overview of VTIREF’s regional centers including program details and key projects.
- #+ 8. Comprehensive Update on Advancement:** The Committee received a comprehensive presentation from University Advancement providing an update on the fiscal year 2022 giving results and giving trends since the launch of the Advancement Model. New gifts and commitments totaled \$268 million for fiscal year 2022, the largest since the start of the campaign. In addition, the overall alumni participation rate was 22.43 percent thereby achieving the goal of 22 percent by 2022. The Boundless Impact Campaign has raised over \$1.157 billion toward a \$1.872 billion goal.
9. **Discussion of Future Agenda Topics and Closing Remarks:** Due to time constraints, the Committee did not discuss any future agenda topics.  
  
There being no further business, the meeting adjourned at 3:56 p.m.

### **Joint Open Session with the Buildings and Grounds Committee**

August 22, 2022

**Board Members Present:** Ed Baine, Sharon Brickhouse Martin, Anna Buhle – Graduate Student Representative, Shelley Butler Barlow, David Calhoun, Sandy Cupp Davis, Holli Drewry – Administrative and Professional Faculty Representative, Greta Harris, C. T. Hill, Brad Hobbs, Anna James, Tish Long, Melissa Nelson, Chris Petersen, Jamal Ross – Undergraduate Student Representative, Jeff Veatch, Robert Weiss – Faculty Representative, Serena Young – Staff Representative

**Virginia Tech Personnel:** Callan Bartel, Lynsay Belshe, Bob Broyden, Brock Burroughs, Cyril Clarke, John Cusimano, Kari Evans, Mark Gess, Kay Heidbreder, Patrick Hilt, Tim Hodge, Frances Keene, Chris Kiwus, Sharon Kurek, Elizabeth McClanahan, Nancy Meacham, Ken Miller, Liza Morris, Justin Noble, Kim O’Rourke, Mark Owczarski, Charlie Phlegar, Zohair Qazi, Dan Sui, Don Taylor, Dwyn Taylor, Jon Clark Teglas, Rob Viers, Tracy Vosburgh

- \* 1. Approval of Resolution for Building Envelope Improvements:** The Committees reviewed a resolution for a capital project for building envelope

improvements for approval. The resolution is for a \$47.2 million authorization to complete building envelope improvements.

The Committees recommended the Resolution for Building Envelope Improvements to the full Board for approval.

There being no further business, the meeting adjourned at 4:31 p.m.

- \* Requires full Board approval
- # Discusses Enterprise Risk Management topic(s)
- + Discusses Strategic Investment Priorities topic(s)

**Closed Session Agenda**  
**FINANCE AND RESOURCE MANAGEMENT COMMITTEE**  
**1:30 p.m.**  
**Conference Room, Newport News Center / Tech Center Research Park**  
**August 22, 2022**

<b><u>Agenda Item</u></b>	<b><u>Reporting Responsibility</u></b>
1. Motion for Closed Session	Anna James
* 2. Ratification of Personnel Changes Report	Ken Miller

\* Requires full Board approval  
# Discusses Enterprise Risk Management topic(s)  
+ Discusses Strategic Investment Priorities topic(s)

**Open Session Agenda**  
**FINANCE AND RESOURCE MANAGEMENT COMMITTEE**  
**1:45 p.m.**  
**Conference Room, Newport News Center / Tech Center Research Park**  
**August 22, 2022**

<b><u>Agenda Item</u></b>	<b><u>Reporting Responsibility</u></b>
1. Motion to Reconvene in Open Session	Brad Hobbs
2. Welcome and Opening Remarks	Ed Baine
3. Consent Agenda	Ed Baine
a. Approval of Items Discussed in Closed Session	
b. Approval of Minutes of the June 7, 2022 Meeting	
c. Report on Higher Education Restructuring Institutional Performance Measures	
# 4. Report on Administrative Efficiencies – Procurement	Ken Miller Mary Helmick
* 5. Approval of Year-to-Date Financial Performance Report (July 1, 2021 – June 30, 2022)	Tim Hodge Bob Broyden
* 6. Approval of 9(c) and 9(d) Financing Resolutions	Ken Miller John Cusimano
a. 9(c) Financing Resolutions	
b. 9(d) Financing Resolutions	
7. Related Corporations Performance – Update on Virginia Tech India Research and Education Forum	Ken Miller Guru Ghosh
#+ 8. Comprehensive Update on Advancement	Charlie Phlegar
9. Discussion of Future Agenda Topics and Closing Remarks	Ed Baine

**Open Joint Session Agenda**

**FINANCE AND RESOURCE MANAGEMENT COMMITTEE  
AND BUILDINGS AND GROUNDS COMMITTEE**

**3:45 p.m.**

**Hokie Stone Room, Newport News Center / Tech Center Research Park**

**August 22, 2022**

<u>Agenda Item</u>	<u>Reporting Responsibility</u>
* 1. Approval of Resolution for a Capital Project for Building Envelope Improvements	Ken Miller Chris Kiwus Bob Broyden

# CONSENT AGENDA

Attachment J

- a. Approval of Items Discussed in Closed Session
- b. Approval of Minutes of the June 7, 2022 Meeting
- c. Report on Higher Education Restructuring  
Institutional Performance Measures



## **Report on Higher Education Restructuring Institutional Performance Standards**

### **FINANCE AND RESOURCE MANAGEMENT COMMITTEE**

**August 1, 2022**

#### **Background**

In 2005, the Virginia General Assembly passed the Restructured Higher Education Financial and Administrative Operations Act (Restructuring Act). This Act provided restructuring benefits and allowed all Virginia institutions of higher education to have more responsibility for their financial and operational activities.

For Virginia Tech, the Act also provided the opportunity to apply for additional “Level 3” authority and responsibilities. In 2005, Virginia Tech entered into a Management Agreement with the Commonwealth of Virginia under the Restructuring Act, offering increased management autonomy in exchange for high level accountability in several performance areas.

The Management Agreement became effective on July 1, 2006. It provides the university greater autonomy in the areas of capital outlay, leasing, procurement, information technology, finance, and human resources. This autonomy has enabled the institution to implement revised financial and administrative policies and business practices in specified areas to proactively address the needs of the institution. The Management Agreement was initially approved for a period of four years. Subsequently, legislation was approved granting the continuation of the Management Agreement. The 2014 General Assembly renewed the Level 3 restructured institutions’ Management Agreements for an indefinite period. Along with Virginia Tech, the University of Virginia and the College of William and Mary were also granted Level 3 restructured status. Since that time, Virginia Commonwealth University, James Madison University, and George Mason University have also been granted Level 3 restructured status.

Accountability is an important part of the Restructuring Act, and all institutions of higher education have a common set of performance measures to achieve. The Institutional Performance Standards (IPS) are the primary performance metrics evaluated under the Restructuring Act. Until fiscal year 2010, the State Council of Higher Education of Virginia (SCHEV) annually assessed the degree to which individual public institutions of higher education met the financial and administrative management and education-related performance benchmarks set forth in the Appropriation Act in effect. The university provided an annual report to the committee on the status of compliance with these measures.

The Higher Education Opportunity Act passed in 2011 suspended the assessment of IPS measures until the Higher Education Advisory Council (HEAC) completed its review of the IPS measures and recommended a new set of reporting measures. In May, 2011 SCHEV certified all institutions as meeting the IPS measures for the 2011-12 to 2013-14 period. The 2013 General Assembly incorporated the recommended changes to the IPS measures proposed by HEAC in the Appropriation Act. The number of measures were reduced, and the assessment period changed from an annual reporting period to a biennial reporting period. The revised IPS measures continue to focus on two primary areas:

- **Academic Measures:** There are six education-related measures with a focus on enrollment. SCHEV monitors institutional compliance with these measures and has broad authority to certify institutions as having met these standards. In addition, SCHEV may develop, adopt, and publish standards for granting exemptions and ongoing modifications to the certification process.
- **Finance and Administrative measures:** There are 17 finance and administrative measures. HEAC retained all the finance and administrative measures from the previous reporting cycle. The Secretary of Finance through the Department of Planning and Budget (DPB) is responsible for monitoring institutional compliance with these measures.

### **Current Status of Performance Measures**

- **Academic Measures:** SCHEV has performed the 2022 biennial assessment of the academic related measures. In April 2022, SCHEV reported that Virginia Tech has met all six academic standards. *Attachment A* details the six academic related measures and Virginia Tech's performance for the 2022 Biennial Assessment Results as reported by SCHEV.
- **Finance and Administrative Measures:** In August 2022, the university provided a report on the performance of the finance and administrative measures to the Secretaries of Finance, Administration, and Education. *Attachment B* provides a summary of the results reported to the state. The university is in full compliance with all 17 measures. There was one measure that required additional explanation, which was provided as detailed below.

#### *Financial Standards*

The Financial standard, *audit deficiencies*, (Item 1.b. on *Attachment B*) requires no significant audit deficiencies attested to by the Auditor of Public Accounts. No such deficiencies were identified for FY21, resulting in Virginia

Tech's full compliance with the standard. However, Virginia Tech did receive two written audit comments: one comment for improving the timeliness of enrollment data to the National Student Loan Data System, and the other comment for improving compliance over enrollment reporting. The university is in the process of implementing corrective action plans to address these audit comments.

The university anticipates that SCHEV will perform an institutional assessment of the IPS measures by October 2022, in accordance with past assessment timelines. The university believes it will be considered in compliance for these measures when the State Council makes its final determination of compliance by spring 2023.

**Academic Performance Standards  
2022 Biennial Assessment Results\***  
(Using 2019 Projections for PMs 1 - 4)

Institution	PM 1		PM 2		PM 3		PM 4		PM 5	PM 6
	19-20	20-21	19-20	20-21	19-20	20-21	19-20	20-21	Biennium	Biennium
VT	100	102.5	103	100.6	120.2	113.2	105.3	107.8	290**	185***

*\*As reported to Virginia Tech by SCHEV in April, 2022*

**Performance Measures:**

**PM 1** - Institution meets at least 95 percent of its State Council-approved biennial projections for in-state undergraduate headcount enrollment.

**Projections compared to Fall Headcount file**

**PM 2** - Institution meets at least 95 percent of its State Council-approved biennial projections for the number of in-state associate and bachelor degree awards.

**Projections compared to Degrees Conferred file**

**PM 3** - Institution meets at least 95 percent of its State Council-approved biennial projections for the number of in-state STEM-H associate and bachelor degree awards.

**Projections compared to Degrees Conferred file**

**PM 4** - Institution meets at least 95 percent of its State Council-approved biennial projections for the number of in-state, upper level - sophomore level for two-year institutions and junior and senior level for four-year institutions - program-placed, full-time equivalent students.

**Projections compared to Course Enrollment file**

**PM 5** - Maintain or increase the number of in-state associate and bachelor degrees awarded to students from under-represented populations.

**Actuals derived from the 2019-20 and 2020-21 Degrees Conferred Files and the last five years of financial aid data files prior to degree award.**

**Averages for the biennial period (2019-20 and 2020-21) under review were compared to averages of prior three-years (16-17, 17-18, and 18-19).**

***\*\*The score of 290 indicates that during this review period, VT increased the number of conferred degrees to students from under-represented populations by an average of 290 more than the threshold target of the prior three-year period's averages.***

**PM 6** - Maintain or increase the number of in-state two-year transfers to four-year institutions.

**Actuals derived from the 2019-20 and 2020-21 Course Enrollment files (CE) and CE files from 5 yrs prior, Degree Conferred Files up to 10 yrs prior.**

**Averages for the biennial period (2019-20 and 2020-21) under review were compared with base year (2010-11) figures.**

***\*\*\*The score of 185 indicates that during this review period, VT increased the number of transfer students by an average of 185 more than the threshold target of the 2010-11 academic year.***

**Virginia Tech**  
**Higher Education Restructuring Institutional Performance Standards**  
**2020-21**

Measure	Metric Definition	Performance Goal	FY 2021 Performance	Result
<b>1. Financial</b>				
a. Audit of Financial Statements	An unqualified opinion from the Auditor of Public Accounts upon the audit of the public institution's financial statements.	Full Compliance	Full Compliance	●
b. Audit Deficiencies	No significant audit deficiencies attested to by the Auditor of Public Accounts.	Full Compliance	Full Compliance <sup>(1)</sup>	●
c. Financial Reporting Standards	Substantial compliance with all financial reporting standards approved by the State Comptroller.	Full Compliance	Full Compliance	●
d. Accounts Receivable Standards	Substantial attainment of accounts receivable standards approved by the State Comptroller, including but not limited to, any standards for outstanding receivables and bad debts.	Full Compliance	Full Compliance	●
e. Accounts Payable Standards	Substantial attainment of accounts payable standards approved by the State Comptroller including, but not limited to, any standards for accounts payable past due.	Full Compliance	Full Compliance	●
<b>2. Debt Management</b>				
a. Bond Rating	The institution shall maintain a bond rating of AA- or better	Aa3/AA-	Aa1 Rating - Moody's	●
b. Investment Returns earned on operating cash balances over rolling three-year period	The institution achieves a three-year average rate of return at least equal to the money.net money market index fund	1.06%	2.05%	●
c. Debt burden ratio	The institution maintains a debt burden ratio equal to or less than the level approved by the Board of Visitors in its debt management policy.	≤7%	3.20%	●
<b>3. Human Resources</b>				
a. Turnover percent as an indicator of classified staff stability and satisfaction	The institution's voluntary turnover rate for classified plus university/college employees will meet the voluntary turnover rate for state classified employees within a variance of 15 percent	8.60% <sup>(2)</sup>	7.34%	●
b. Number of internal employee transfers and promotions as a percentage of total number of newly-hired, transferred and promoted	The institution achieves a rate of internal progression within a range of 40 to 60 percent of the total salaried staff hires for the fiscal year	40%-60%	53.41%	●
<b>4. Procurement</b>				
a. SWAM Participation	The institution will substantially comply with its annual approved Small, Women and Minority (SWAM) procurement plan as submitted to the Department of Minority Business and Supplier Diversity; however, a variance of 15 percent from its SWAM purchase goal, as stated in the plan, will be acceptable	≥85%	107.9%	●
b. Procurement orders process through the Commonwealth's enterprise-wide internet procurement system (eVA)	The institution will make no less than 80 percent of purchase transactions through the Commonwealth's enterprise-wide internet procurement system (eVA) with no less than 75 percent of dollars to vendor locations in eVA	80% -Transactions 75% - Dollars	84.38% - Transactions 85.47% - Dollars	●
<b>5. Capital Outlay</b>				
a. Capital projects within budget <sup>(3)</sup>	The institution will complete capital projects (with an individual cost of over \$1,000,000) within the budget originally approved by the institution's governing board at the preliminary design state for projects initiated under delegated authority, or the budget set out in the Appropriation Act or other Acts of Assembly which provides construction funding for the project at the preliminary design state. If the institution exceeds the budget for any such project, the Secretaries of Administration and Finance shall review the circumstances causing the cost overrun and the manner in which the institution responded and determine whether the institution shall be considered in compliance with the measure despite the cost overrun	100%	100%	●
b. Owner requested change orders	The institution shall complete capital projects with the dollar amount of owner requested change orders not more than 2 percent of the guaranteed maximum price (GMP) or construction price	≤2%	≤2%	●
c. Competitive rates for leased office space	The institution shall pay competitive rates for leased office space - the average cost per square foot for office space leased by the institution is within 5 percent of the average commercial business district lease rate for similar quality space within reasonable proximity to the institution's campus	5%	14.82% below market	●
<b>6. Information Technology</b>				
a. Project Management	The institution will complete major information technology projects (with an individual cost of over \$1,000,000) on time and on budget against their managed project baseline.	100%	N/A <sup>(4)</sup>	●
b. Information Security	The institution will maintain compliance with institutional security standards as evaluated in internal and external audits. The institution will have no significant audit deficiencies unresolved beyond one year	Full Compliance	Full Compliance	●

## NOTE

(1) The university received no significant audit deficiencies from the APA but received one written comment and continued work on one minor written comment from prior year. Additional information is provided in the Letter to the Secretary of Finance.

(2) As of June 2022, the Virginia Department of Human Resource Management (DHRM) has not yet published the voluntary turnover data from FY21. The 8.6% goal represents the most recent data point for this performance metric.

(3) The university capital project threshold was revised from \$1 million to \$2 million in 2011 and to \$3 million in 2018. This change was pursuant to the State increasing its capital project threshold.

(4) There are no major information technology projects for the reporting period.

## Update on University Cost Efficiencies

### FINANCE AND RESOURCE MANAGEMENT COMMITTEE

July 20, 2022

Virginia Tech strives to provide high-quality educational opportunities and fulfill its historic mission as a land-grant institution accessible to all. Affordability is a critical component of that promise. Virginia Tech has implemented a pro-active approach to manage and, to the extent possible, contain administrative and other support costs. This approach has led to below-market tuition pricing without sacrificing support for the university's strategic objectives while operating in a fiscally constrained environment. The university's rigorous budget process carefully contemplates new spending and seeks to focus limited resources on academic programs and strategic initiatives that enhance the university's mission and quality. In addition, the university actively explores opportunities to streamline business processes, eliminate non-value-added functions, and invest in technologies that ensure the effective and scalable delivery of services to the campus community.

These budget decisions and process innovations are reflected by the university's consistently low spending on institutional support, which has steadily comprised just five percent of total expenditures over the last decade, and a favorable ranking among various peer groups in nationally accepted measures of administrative efficiency. The following report reviews the university's cost structure, with additional attention paid to Educational and General (E&G) funded expenditures. Comparisons to peer institutions are included to provide additional context on the university's administrative efficiency. This report also highlights several administrative investments that demonstrate a balance between achieving cost efficiencies and progressing toward strategic objectives. Cost-consciousness is an overarching theme that guides the university's pursuit of its strategic objectives.

#### Background

Higher education institutions classify and report expenses programmatically according to their primary function or purpose. The National Association of College and University Business Officers (NACUBO) recommends standards that national accounting boards and the Commonwealth of Virginia promulgate through accounting requirements. These accounting standards separately identify academic activities from support activities and allow for comparison between institutions. Academic support and institutional support are the two programmatic categories that primarily represent administrative spending.

#### *Core Expenditures*

Instruction includes all activities which are part of the institution's instructional program. Expenditures for departmental research which are not separately budgeted or organized into an approved research center should be included in Instruction.

Research includes all activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organization unit within the institution. This program does not contain sponsored research only, since internally supported research programs that are separately budgeted should also be included in this program. It includes expenditures specifically budgeted for research.

Public Service includes all activities that provide non-instructional services beneficial to individuals and groups external to the institution. Such activities can include seminars, projects, and various

organizational entities established to provide services to particular sectors of the community such as the Cooperative Extension and economic development activities of the university.

Student Services includes all activities whose primary purpose is to contribute to students' emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instruction program.

Student Financial Assistance applies only to monies given in the form of outright grants and trainee stipends to individuals enrolled in the official courses, either for credit or not.

Academic Support includes activities that support instruction, research, and public service, including academic computing and academic administration (including deans' offices). It is important to note that this category also includes the cost of operating the library and, for Virginia Tech, the veterinary hospital.

Institutional Support reflects an institution's central administration. This expense category includes general administrative services, executive management, legal and fiscal operations, public relations and advancement (fundraising), sponsored programs administration, police and emergency response, finance, information technology, and other centralized services. While many of these costs are under the control of the institution, some costs in this category are due to unfunded mandates or compliance with laws and regulations that are required for basic operations of the university's various academic and support programs.

Depreciation, O&M, and Interest Expense on Capital Assets includes all expenses related to the depreciation, repair and maintenance, and financing of the university's physical plant.

## **Cost Structure Overview**

### Expenditures by Function

#### *University-wide*

An assessment of the university-wide expenditures by function provides one example of administrative efficiency. With only five percent of total expenditures attributed to institutional support expenditures and seven percent to academic support expenditures, the university spends eighty-eight percent of its limited resources on nonsupport activities. This efficiency measure is consistent with a 2017 analysis by Virginia's Auditor of Public Accounts (APA), which found that Virginia Tech has low expenditures on both institutional support and academic support expenditures when compared to Virginia's 15 four-year public higher education institutions.<sup>1</sup>

The university's cost structure remained fairly stable between FY2012 and FY2021, with the relative proportions of expenditures across the various functions changing slightly from year to year. Table 1 illustrates that relative changes in components have primarily been driven by increases in Instruction, Student Financial Assistance, Student Services, and Academic Support, demonstrating the university's growing enrollment and increased resource commitment to the student experience and affordability. That increased resource commitment includes a purposeful investment in the

<sup>1</sup> Higher Education Comparative Report (2017) Available:  
<http://www.apa.virginia.gov/reports/HigherEducationComparativeReport2017.pdf>

university's library, comprising \$11 million, or 27 percent, of the total growth in Academic Support expenditures from FY2012 to FY2021. Significantly, Institutional Support expenditures have not grown in proportion to other functional expenditures over this period.

**Table 1: 10-Year Trend in Financial Statement Expenditures by Function**

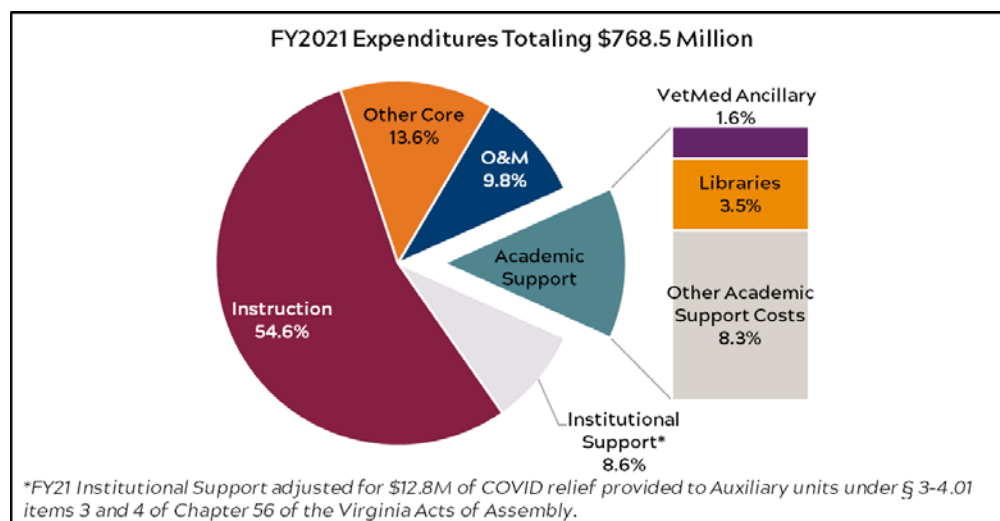
	all dollars in millions										2021*		Relative % Change Since 2012
	2012	2013	2014	2015	2016	2017	2018	2019	2020	Dollars (\$)	Percent (%)		
<b>Core Expenditures</b>													
Instruction	260.1	283.5	298.8	318.7	335.8	357.9	377.5	398.9	426.0	425.9	28%	4%	
Research	280.4	302.1	308.3	304.6	316.8	311.3	323.0	330.9	343.2	330.8	22%	-4%	
Public Service	85.8	97.3	102.7	101.4	100.3	97.7	98.0	92.8	98.5	89.1	6%	-2%	
Student Financial Assistance	13.1	12.3	12.3	13.5	14.4	16.5	18.3	20.6	30.6	32.1	2%	1%	
Student Services	13.3	14.2	14.9	14.6	16.2	18.6	20.8	24.5	26.0	25.6	2%	1%	
	652.7	709.4	737.0	752.8	783.5	802.0	837.6	867.7	924.3	903.5	59%	0%	
<b>Support Expenditures</b>													
Academic Support	65.0	68.5	79.4	80.9	81.7	87.4	91.2	98.9	106.4	105.9	7%	1%	
Institutional Support	52.5	50.7	58.2	56.9	63.1	70.3	75.9	73.4	81.7	80.1	5%	0%	
	117.5	119.2	137.6	137.8	144.8	157.7	167.1	172.3	188.1	186.0	12%	1%	
<b>Auxiliary</b>	159.6	176.3	181.5	196.2	203.0	218.7	227.8	227.9	236.2	219.1	14%	0%	
<b>Depreciation, O&amp;M, and Interest Expense</b>	164.2	172.1	193.3	192.1	207.2	203.7	207.3	216.3	217.8	218.9	14%	-1%	
<b>Total</b>	<b>1,094.0</b>	<b>1,177.0</b>	<b>1,249.4</b>	<b>1,278.9</b>	<b>1,338.5</b>	<b>1,382.1</b>	<b>1,439.8</b>	<b>1,484.2</b>	<b>1,566.4</b>	<b>1,527.5</b>	<b>100%</b>		

\*FY21 Institutional Support and Auxiliary amounts adjusted for \$12.8M of COVID relief provided to Auxiliary units under § 3-4.01 items 3 and 4 of Chapter 56 of the Virginia Acts of Assembly.  
\*\*Increase in Academic Support reflects a purposeful investment in the university's library, comprising \$11M (27%) of the growth between FY2012 and FY2021.

## 208 E&G

208 E&G expenditures represent outflows funded by the Commonwealth and the university's students. Controlled growth in these expenditures significantly affects the university's ability to maintain its competitive affordability metrics. As shown in Chart 1, Instruction and Academic Support are the two largest segments, with more than half of expenditures dedicated to instruction. Other Core Expenditures include Research, Public Service, and Student Services and make up 13.6 percent of 208 E&G expenditures. Institutional support expenditures of \$64.9 million comprised 8.6 percent of 208 E&G expenditures compared with 5 percent (\$80.1 million) of university-wide expenditures. However, 208 E&G institutional support expenditures support activities of the entire university, not just the 208 E&G division.

**Chart 1: Composition of 208 E&G Expenditures by Function  
Financial Statement Totals for 208 E&G Funds**

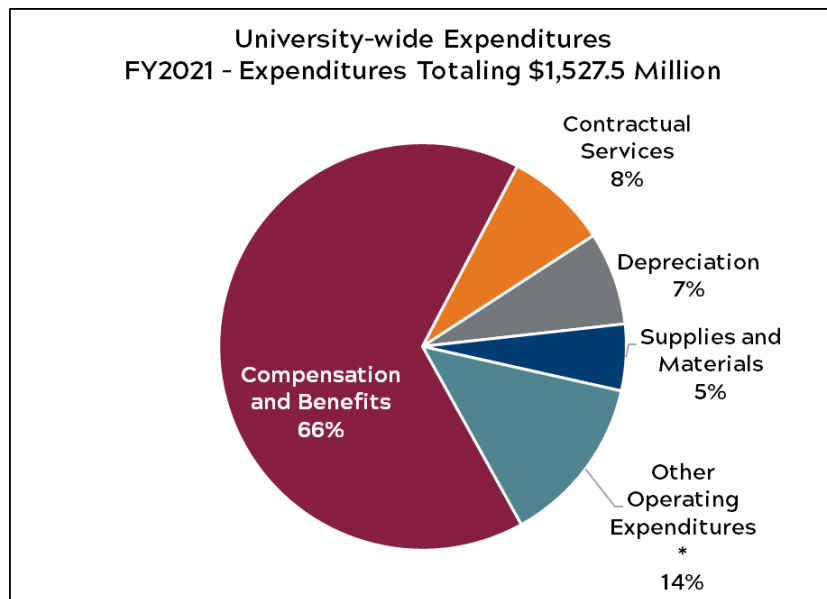




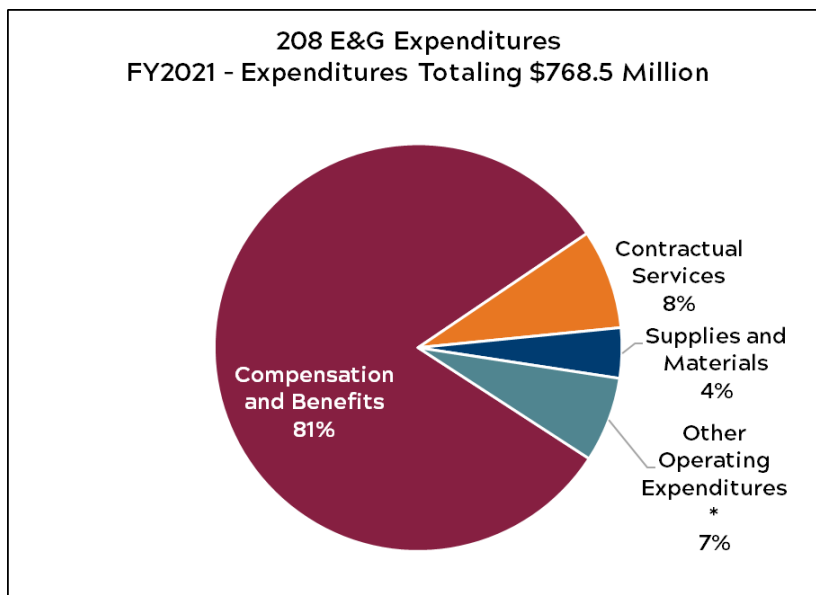
### Expenditures by Natural Classification

Because higher education is a personnel-intensive industry that employs a large share of highly-educated workers, the university's costs are heavily concentrated in compensation and benefits (retirement, health care, and other employment-related benefits). While this is true for the entire enterprise, it is even more evident in the 208 E&G division where instruction takes place. As shown in Charts 2 and 3, compensation and benefits make up 66 percent of expenditures at the university-wide level and 81 percent in the 208 E&G division. Personnel-related costs have grown at a similar pace in both the academic and the support functions.

**Chart 2: Composition of University-wide Expenditures  
Financial Statement Totals by Natural Classification**



**Chart 3: Composition of 208 E&G Expenditures  
Financial Statement Totals by Natural Classification**



## Comparisons to Peers

### Administrative Efficiency

The following comparisons are a product of the university's periodic review of administrative costs using three industry standard perspectives described below. Each uses data sourced from the Integrated Postsecondary Education Data System (IPEDS), which contains publicly available data reported to the federal government by the respective institutions. For each of these perspectives, the university's performance is compared over time and with other comparative institutions. Due to its proprietary methodology, IPEDS amounts by function vary slightly from the financial statement amounts presented above. The numbers presented below are most relevant in making comparisons to peers versus comparing to the university's financial statements. At the time of this report, the most recent data available from IPEDS is for fiscal year 2020.

1. *Administrative costs as a percentage of core expenditures:*

This comparison, which arrays costs according to their primary purpose, comes from a traditional methodology long employed across institutions of higher education.

2. *Administrative costs per student (full-time equivalent, or FTE):*

This methodology offers a student-centric approach and was based upon the Delta Project on Postsecondary Education Costs, Productivity and Accountability. The Delta Project was a well-regarded study of higher education spending, efficiency and ultimately productivity.

3. *Administrative Cost Ratio:*

In 2017, the American Council of Trustees and Alumni (ACTA) published a report entitled *How Much is Too Much: Controlling Administrative Costs Through Effective Oversight*. Using IPEDS data, the ACTA methodology calculates a ratio of Institutional Support (*administrative*) spending compared to Instruction and Academic Support (*instructional*) spending.

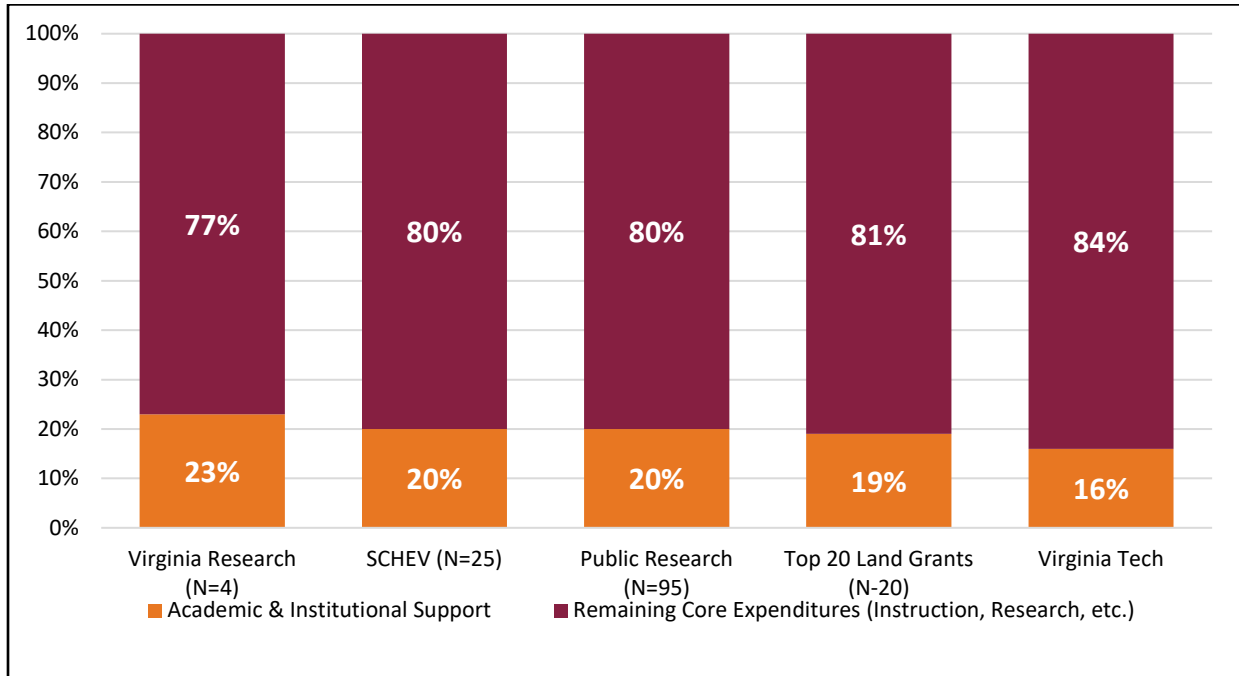
While each individual metric has limitations, the various comparisons considered together indicate that administrative costs at Virginia Tech outperform industry averages for comparable institutions.

### *Administrative Costs as a Percentage of Core Expenditures*

A long-standing method of reviewing administrative costs in higher education has been to examine the proportion of core expenditures that are utilized for administrative activities. IPEDS classifies core expenditures as those expenses essential to the educational activities of the institution, including instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, depreciation, and student financial aid. These expenditures exclude the university's auxiliary enterprises (e.g., dormitories, dining halls).

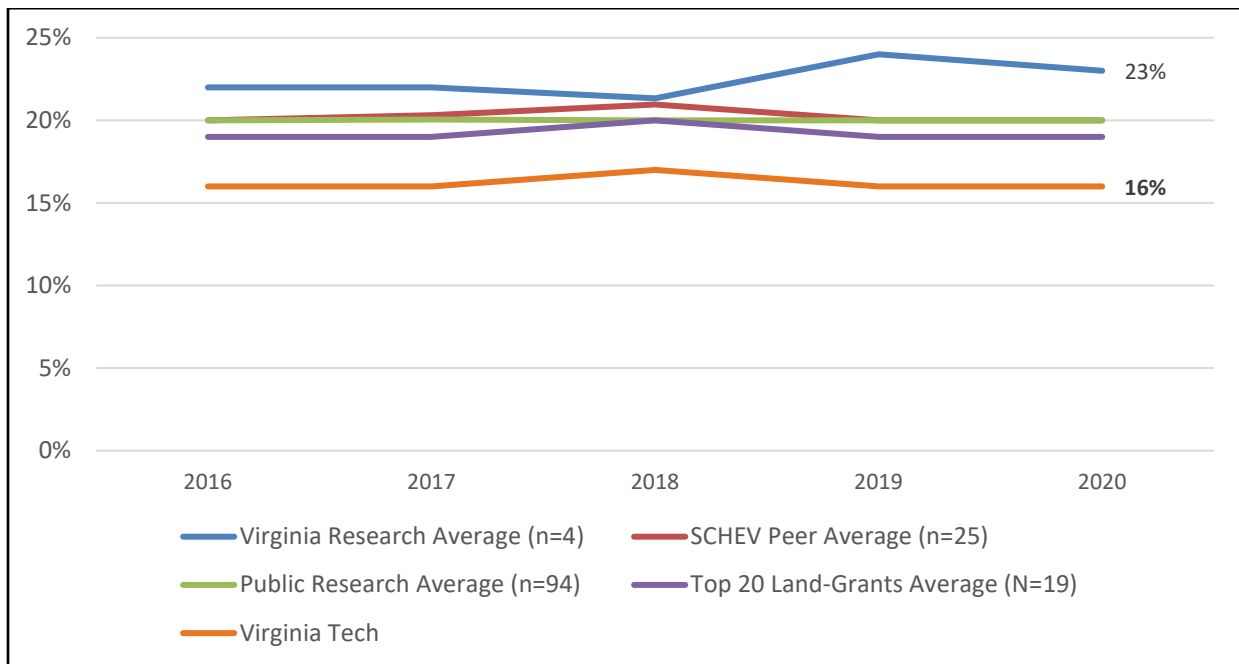
In fiscal year 2020, 16 percent of Virginia Tech's core expenditures were attributable to administrative activities (i.e., academic and institutional support costs). As seen in Chart 5a, Virginia Tech's allocation of resources to administrative costs is significantly below that of the average Virginia research institutions (23 percent), SCHEV peers (20 percent), public research institutions classified by the Carnegie Foundation as having "very high research activity" (20 percent), and the top 20 Land Grant institutions (19 percent). As a percentage of total expenditures, Virginia Tech's administrative spending is within the lowest quartile among both our SCHEV and Top 20 Land Grant peers.

**Chart 5a: Administrative Costs as a Percentage of Core Expenditures**



A longitudinal review of this metric indicates that Virginia Tech’s administrative costs have historically trended well below each of these comparison groups over time, as seen in Chart 5b.

**Chart 5b: Administrative Costs as a Percentage of Core Expenditures**

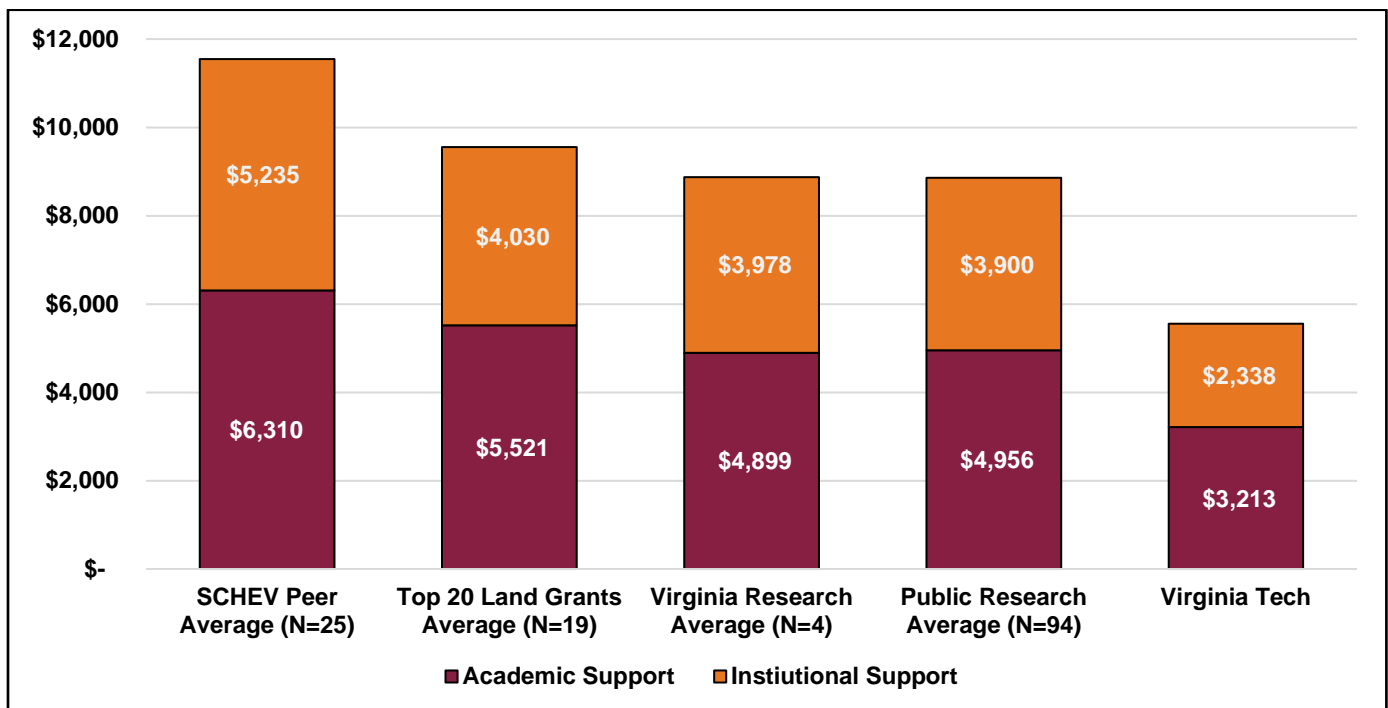


### Administrative Costs per Student FTE

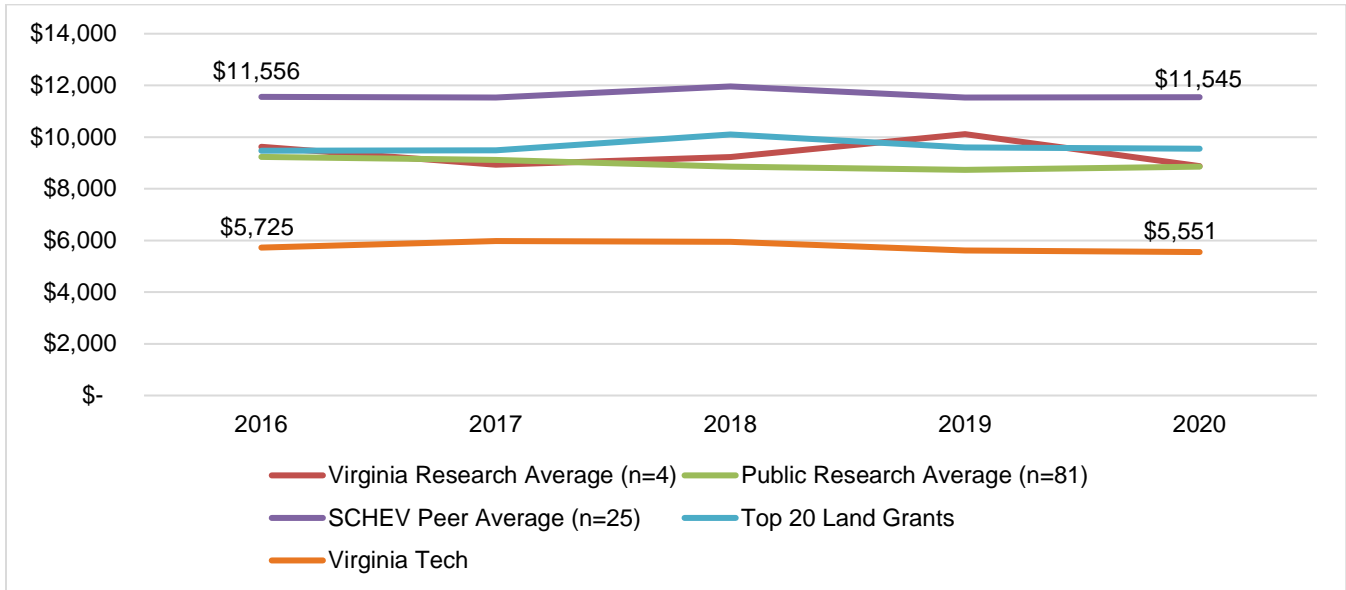
The Delta Project on Postsecondary Education Costs, Productivity, and Accountability established a national best practice methodology for examining higher education costs through a student-centric lens. This methodology normalizes administrative expenses by the number of full-time equivalent students (student FTE).

In fiscal year 2020, Virginia Tech spent \$5,551 per student FTE on administrative costs. As seen in Chart 6a below, Virginia Tech spends considerably less on administrative costs per student FTE, spending just 48 percent to 63 percent of the level of peer institutions. For comparison, Virginia Tech's administrative spending deficit as compared to the Top 20 Land Grant institutions of (\$4,000) per student FTE represents (\$140.7) million less when applied to the total student FTE.

**Chart 6a: Administrative Spending per Student FTE 2020**

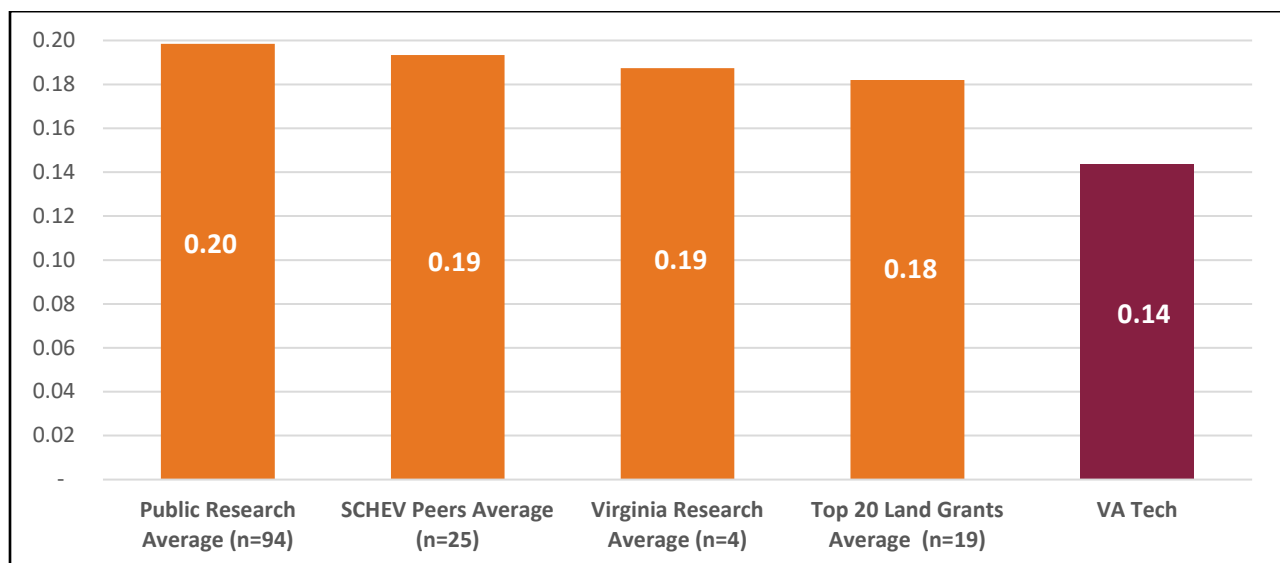


Virginia Tech has maintained this significant efficiency advantage over time, as seen in Chart 6b. From 2016 to 2020 (inflation adjusted to 2020), Virginia Tech reduced spending on administrative activities per student FTE by 3 percent.

**Chart 6b: Administrative Spending per Student FTE 2020**

### Administrative Cost Ratio

In July 2017, the American Council of Trustees and Alumni (ACTA) published a report entitled, *How Much is Too Much: Controlling Administrative Costs through Effective Oversight*, which examined the role administrative expenditures play in an institution's overall cost structure. Relying on publicly available IPEDS data, which includes expenditures by functional classification, the report develops a methodology to determine an institution's ratio of spending on Institutional Support (administrative spending) relative to Instruction and Academic Support (instructional) spending. Updating this methodology with the latest available data (FY2020) finds that Virginia Tech's ratio is 0.14, meaning the university spent \$0.14 on Institutional Support for each \$1.00 of spending on Instruction and Academic Support. This ratio is significantly lower than peer averages, as seen in Chart 7 below.

**Chart 7: ACTA Administrative Cost Ratio FY2020**

## Affordability

### *Total Cost per Degree*

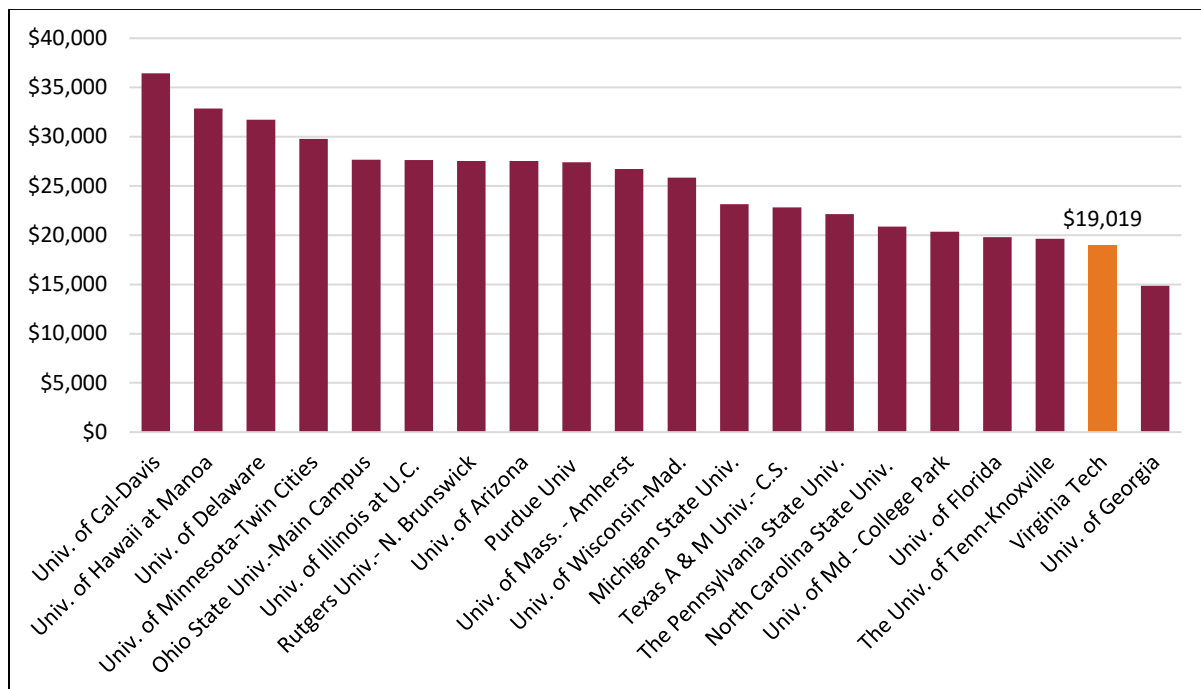
Beyond purely administrative cost comparisons, the university also reviews the total cost of producing a Virginia Tech degree as compared to peers. With support from the Lumina Foundation's Strategy Labs, SCHEV released its *Virginia Postsecondary Strategic Finance Plan* in October 2019. The authors developed a novel standardized cost measure of the operating expenditures required for institutions to graduate students within the Commonwealth's postsecondary system.

Using IPEDS functional expense categories, the methodology calculates a 'Cost Per Degree Year,' based on a calculated "educational and related" set of expenses derived from the overall expenditure data provided to IPEDS. This study did not provide institutional figures, but the methodology can be replicated using IPEDS data to compare Virginia Tech's cost per degree year to other peer groups.

The university's comparison to the Top 20 Land Grants is shown in Chart 9. Highlights for fiscal year 2020, the latest data available, include:

- The average cost per degree year for the top 20 Land-Grants was \$25,518, or \$102,073 for a four-year bachelor's degree.
- Among the top 20 Land Grant institutions in the nation, Virginia Tech's cost per degree year ranked among the lowest at \$19,019, or \$76,076 for a four-year bachelor's degree.

**Chart 9: Cost Per Degree Year – 2020  
Top 20 Land-Grants**



## *Benchmarking Summary*

Virginia Tech outperforms its comparison groups in terms of administrative cost efficiency across various measures; Virginia Tech spends considerably less on administrative support than the average comparison group in the presented measures. The university's strong cost metrics result from cost-consciousness and deliberate efforts to maximize student benefits while minimizing administrative overhead.

## **University Budget Process – Sustaining a Cost-Conscious Culture**

The above expenditure data reflects the cost-conscious culture that Virginia Tech has cultivated. The university utilizes a rigorous budget process carefully contemplates new administrative spending and strives to direct resources towards programs and strategic initiatives that advance the university's mission. As part of these efforts, the university's annual budget process requires units to identify cost-savings strategies and goals that support their budget needs. Through this process, the university also seeks to identify opportunities to further leverage technology and automation, elevate effective and scalable service delivery, eliminate duplicative work efforts, and enhance strategic flexibility. These efficiency efforts promote and facilitate cost-containment actions before considering new resource allocations.

## **Administrative Cost Pressures and Efficiencies**

The university's administrative enterprise faces increasing operational and cost pressures. The university's expansion into the DC-Metro region and the increased administrative support needed for the Innovation Campus, increasingly competitive compensation market, and ever-increasing employee benefit costs represent significant strategic and mandated pressures on costs within the university. Coming from outside the university, unfunded mandates ask more from the administrative enterprise without providing additional resources. Examples of such mandates include the multi-year phased implementation of the U.S. Department of Education's Campus Cybersecurity Program advancing compliance with NIST800.171 Information Security Standards for Controlled Unclassified Information (CUI) to protect data used in the administration of federal student aid programs, the Commonwealth of Virginia's multi-year phase-in of additional minimum wage increases, and other federal requirements. Additionally, the Commonwealth's actions to reduce its net pension liability by requiring larger annual contributions from state agencies and the continuously increasing cost of employer-provided health insurance are adding significant cost pressures on the university administrative enterprise, as well as the university's core programs.

Additionally, punctuated pressures such as the loss of state General Fund support or the acute impacts of the COVID-19 pandemic necessitate the implementation of widespread cost-reduction strategies that focus resources on the highest priority expenditures. In 2020, the university implemented five percent across-the-board budget reductions as part of the base 2020-21 budget in anticipation of significant revenue impacts resulting from the ongoing COVID-19 pandemic. That reduction was subsequently lowered to three percent for academic areas as actual enrollment and state support was better understood. The five percent reduction remained in administrative units and auxiliary budgets to fund critical initiatives and manage university cost increases. For administrative areas, two percent of the five percent reduction was reallocated to fund critical initiatives in administrative areas. These reductions required campus units to prioritize spending and curtail non-critical spending in operating and personnel (largely unfilled positions). Budget reductions are summarized in Chart 11.

**Chart 11: FY2020-21 Budget Reduction Summary**

	<b>Personnel Reductions</b>		<b>Operating Reductions</b>	<b>Total</b>
	<b>Positions</b>	<b>Salary Budget</b>	<b>Operating Budget</b>	
<b>208 E&amp;G</b>				
Colleges	-	-	(8,461,326)	(8,461,326) (a)
Academic Administrative Units	(16.11)	(1,763,684)	(3,784,670)	(5,548,354)
Administrative Units	(84.40)	(2,788,036)	(2,725,262)	(5,513,298)
Subtotal E&G Reductions	(100.51)	(4,551,720)	(14,971,258)	(19,522,978)
<b>Auxiliaries</b>				
Comprehensive Fee Units			(5,268,797)	(5,268,797)
Room and Board Units			(3,513,421)	(3,513,421)
Other Auxiliaries			(1,512,138)	(1,512,138)
Total Auxiliary Reductions			(10,294,356)	(10,294,356) (b)

(a) College reductions distributed through Partnership Incentive Based Budget (PIBB) rather than specific reduction plans.

(b) Auxiliary amounts represent the planned 5% base budget reduction to variable expenses. This does not reflect the full one-time impacts of the pandemic.

The university continues to invest in personnel and systems to support a growing enterprise in pursuit of its Beyond Boundaries vision for the future. Recent growth in administrative operations has included an increase in advancement and support operations for the \$1.872 billion Boundless Impact campaign launched in 2019, information technology investments to transform, the creation of a new Vice President for Health Sciences in 2016, investments into a reimagined Vice President for Human Resources organization, and administrative resources for the newly-integrated Virginia Tech Carilion School of Medicine, whose operations are now fully within Virginia Tech's overall cost structure. In addition, the university has made important strategic investments in academic and administrative operations corresponding with the 20.0 percent growth in student FTE in the decade spanning 2009-10 to 2019-20, including initiatives such as integrated experiential learning, expansion of transdisciplinary research, and the creation of living-learning communities. These initiatives and others have been met with improved efficiency and increased capacity to scale administrative support systems like those used to process new student applications and classroom assignments.

Examples of recent improvements implemented by various units across the university to enhance efficiency and maximize effectiveness in a resource-constrained environment are detailed in Appendix 1. Though not unique in university operations, Appendix 2 is offered to exemplify an account of improved efficiency, increased capacity, and automation in Procurement operations. Administrative units and student service areas continue to implement products and services that leverage technology and automation, improve service delivery, eliminate duplicative work efforts, and support the university's strategic plan.



## **Summary**

A lean administrative structure means the university can direct a greater share of institutional resources to mission-driven activities such as instruction, research, and public service. The university's cost structure compared with peer benchmark data and ongoing administrative investments demonstrate the university's determination to create cost efficiencies while also pursuing the university's stated objectives. Moving ahead, the university's cost-conscious budget process and management structure will continue to maximize limited resources and provide excellent administrative services, despite mounting cost pressures, to keep tuition affordable and achieve strategic goals.

## **Virginia Tech Efficiency Initiatives**

Below are some examples of recent improvements implemented by various units across the university to enhance efficiency and maximize effectiveness in a resource-constrained environment:

- **Office of the University Bursar**
  - Implementation of Robotic Process Implementation led to a reduction in manual data entry. Example: Cashier Bot has processed 30,195 transactions (tendering items from bank statements) since its inception in June 2020; the Bursar estimates this efficiency offset the need to hire 1 additional position.
- **IT Transformation**
  - An ongoing initiative that is designed to improve the alignment of core IT organizations, processes, and services, streamline the software procurement process, enhance cost recovery administration through central funding, consolidate data storage and explore cloud capabilities, define data governance and warehousing, reduce cybersecurity risks, improve the user experience, and foster innovation and efficiency across the university;
- **Vice President for Finance**
  - Utilities and Central Invoicing transitioned from a monthly to annual process resulting in efficiencies in both invoicing and reconciliation; Invoiced items were consolidated from 5,580 to 465 via annual billing, saving 100 plus hours per year in the Controller's office and additional time savings across campus departments.
  - Deployment of robotic process automation to streamline Fund Creation processes and vendor entity creation for nonvendor, nonstudent, and nonfaculty to facilitate university business accounts receivable operations.
  - Implementation of an electronic Effort Reporting System (ERS) to streamline the required reporting process of salary costs charged to individual sponsored projects to ensure such costs are consistent with employee effort for these projects. This eliminates paper-based processes and manual data entry.
- **Undergraduate Admissions**
  - Engaged CampusESP, a parent engagement platform, to assist with outreach and information sharing to students and families; Since implementation in July 2020, 46,000 family members have subscribed to this service.
- **Student Health Services**
  - Developed partnerships to enhance the delivery of student mental health services, including:
    - A psychiatry residency program with Lewis-Gale to save costs on psychiatrist hours needed;
    - Partnership with James Madison University and Virginia Commonwealth University to provide a range of care options from licensed mental health providers and counselors through TimelyMD, a virtual health care provider which specializes in higher education.
- **Enterprise Operations**
  - Implementation of Wrike project management software will improve efficiency through project prioritization, a singular front door for clients to submit new projects, improve communications, and the tracking of progress on projects through the quantification of average project turnaround time.
- **Campus Planning, Infrastructure, and Facilities (CPIF)**

- **Space Management Program** – continued improvements in space management program to re-engineer space request process, data modeling, and space standards for all university spaces.
- **Lease Approval Process** – collaboration between Controller's office, Office of University Planning, and Real Estate Management in development of new lease approval policy and process to align with GASBS 87.
- **Business and Management Systems (BAMS)**
  - Microsoft Endpoint Protection – allows for automatic notifications of a malicious event on a computer for a more secure computing environment and streamlined reporting;
  - Migration to SharePoint Online – decommissioned a SharePoint framework of numerous servers to migrate to SharePoint Online and other Microsoft 365 technologies; will provide savings in license costs and reduced maintenance of physical servers;
  - Hybrid Workforce Space Reservation System – promote access to available space and improve management of vacant office space.
- **Human Resources**
  - Utilizes PageUp Performance Management (PfM) system to optimize experience for employee performance reviews and discussion; New system emphasizes continuous dialogue between supervisors and employees to improve retention.
  - New Hire Center – improves ease-of-use by new hires through consolidation of various links for state, federal and university compliance requirements into one location. Integrated with Banner HR and Banner Finance to eliminate data entry.
  - Implementation of an HR Ticketing System will create a single repository for all HR related emails will improve communications and accountability.
- **Virginia Tech Electric Systems (VTES)**
  - Implemented the Operational Data Warehouse and ESRI Geospatial Information System to enhance operational efficiency and resiliency, and the monitoring of assets using advanced analytics to improve response times and minimize impacts of critical events.
- **Parking Services**
  - Implemented additional automation through ParkMobile services, a customer focused contactless payment method.

**PROCUREMENT AND CONTRACTING EFFICIENCIES**  
**FINANCE AND RESOURCE MANAGEMENT COMMITTEE**

**August 5, 2022**

**Background:** VT Procurement oversees the purchases of all goods, services, insurance and construction projects except for IT hardware and software purchases. The department has a dedicated staff of twenty-six (26) FTE's who are professional buyers, vendor onboarding specialists, systems and operations specialists, procurement help desk support and university purchasing card program administrators.

A separate and delegated unit of buyers (IT Purchasing and Licensing/ITPALS) reports up through the Division of Information Technology and oversees all procurements related to technology hardware and software.

This report will focus on procurement practices for non-IT operating expenditures and exclude capital construction contracting practices which are routinely discussed in the Buildings and Grounds and Finance and Resource Management committees of the Board of Visitors.

University departments are granted or delegated direct purchasing authority in several ways. Departments are authorized to purchase non-IT goods and services totaling \$10,000 or less. In addition, departments can directly issue purchase orders against existing negotiated contracts for diverse commodities and not be limited by their delegation threshold limits.

Using these negotiated contracts enables efficiencies and cost savings in multiple ways. First, it enables departments to avoid comparison shopping for the best prices for common supplies or services because Procurement has negotiated deep discounts on the market-basket of most commonly ordered items from these vendors. Second, as part of the negotiations, Procurement requires that the vendors invoice the university electronically (whenever possible) and that they participate in the virtual or "ghost" card program for receiving payments electronically. These requirements support the ultimate efficiencies in a procurement-to-pay (P2P) process in that the entire process can be accomplished electronically. In the optimum P2P process, the university departments can order goods electronically, the vendor sends invoices electronically, the departments can verify receipt of goods or services electronically, the procurement system can verify or match the purchase order, the vendor invoice, and receiving report electronically, and finally that the university can pay the vendor electronically.

The virtual or "ghost" card system is payment via a one-time credit card transaction that occurs at the end of procurement process in lieu of a payment via check or electronic bank transfer. This process has two significant advantages over payment via credit card at the beginning of the procurement process. First, departments order the goods or services as normal with all the approval and authorizations obtained before the purchase order is created, in contrast to regular credit card purchases which do not obtain approvals until after the purchase has been completed. Second, the

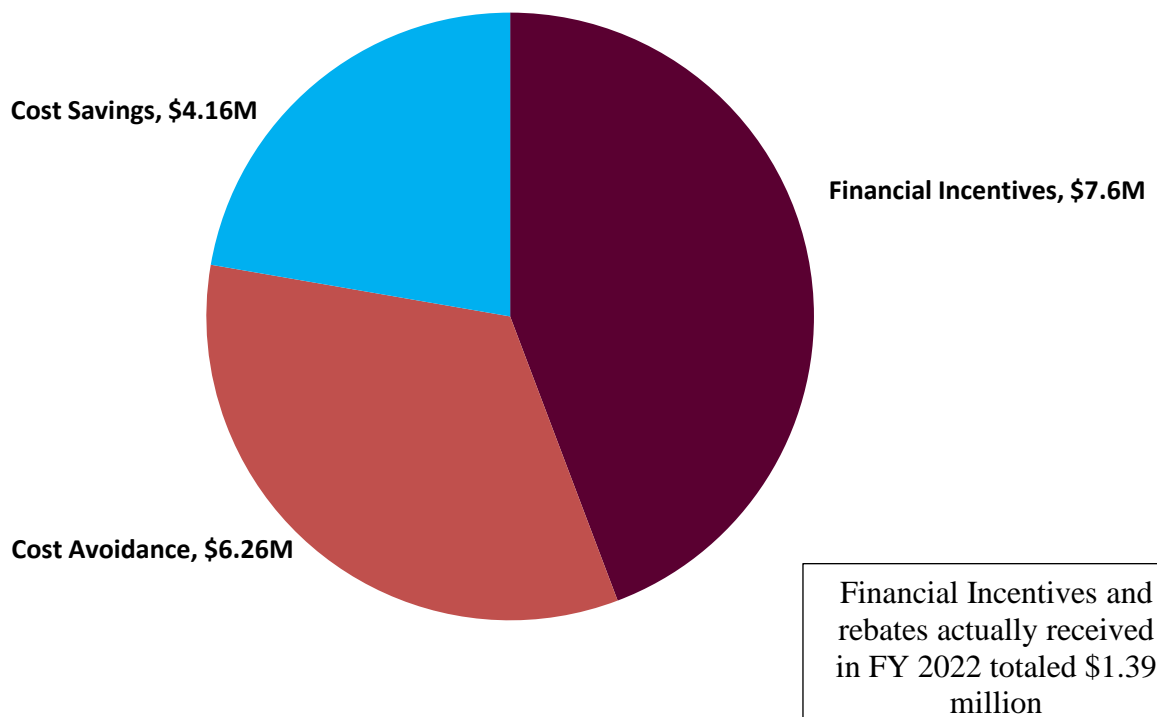
university receives a rebate for qualifying transactions directly from the bank providing the virtual card program. Regular credit card rebates are sent to the Commonwealth of Virginia, and the university may or may not receive any portion of these rebates.

Departmental purchases are expedited through the university's P2P e-procurement system, branded HokieMart. Electronic workflows within the system facilitates oversight, budget checking, and approvals of purchase requisitions entered. Following those electronic checks and balances, a purchase order is issued and can transfer electronically to suppliers for fulfillment in less than two minutes via direct cxml delivery of the purchase order.

The delegated purchasing authority for departments aligns with the small purchasing threshold for federally funded research grants and contracts. Aligning the university procurement thresholds to that of the federal government eliminates multiple rulesets for our researchers who procure goods and services to support federally funded research.

Total University purchases of operating goods and services were \$394.15 million in FY22, of which \$281.6million were via departmental delegated purchasing authority. Purchases that don't fall within a university department's purchasing delegation must be processed by the professional buyers within VT Procurement or ITPALS. These centralized purchases are processed through formal and public procurement solicitations which seek the maximum competition available and include direct sourcing of small, woman owned and minority owned (SWaM) companies. Buyers utilize multiple protocols for selection and award but competitive negotiation is the preferred methodology to maximize cost savings and negotiate value added incentives for the university.

**Estimated Cumulative Cost Savings, Cost Avoidance and  
Financial Incentives  
Realized From Negotiated Contracts in FY 2022**



### **Cost Savings, Cost Avoidance, Financial Incentives and Revenue Share**

Procurement buyers track the value of the competitive procurement process. These amounts are calculated in the year the contract is negotiated based on the estimated benefits to be obtained for the duration of the contract. For example, although the financial incentives shown above is \$7.6 million, rebates received in fiscal year 2022 actually totaled \$448,000. These rebates were received from strategic vendor contracts with vendors such as Fisher Scientific, Dell, Grainger and others. Additional financial incentives / rebates of \$938,000 received from the ghost card program brought the total rebates actually received in fiscal year 2022 to \$1.39 million.

Cost Savings - (a) The amount of savings resulting from negotiation efforts which reduce the price via direct or final negotiation efforts (b) A reduction from previous budgeted spend or a reduction in the projected/budgeted resources used historically because of the results of the VT procurement process for the same type of service or good in the future (c) Volume reductions; reducing the amount of a good or service used on projects that intentionally seek volume reductions through a direct action or a negotiated proposal by an awarded vendor (d) Enhanced operations that will reduce cost overall; a new or better way of doing business was achieved by awarding to a vendor or contractor who can do it better or different than it was done before resulting in savings.

Cost Avoidance – (a) The difference between the highest proposed cost and the lowest priced proposal awarded (b) The removal of cost to the university due to the follow examples including but

not limited to: negotiated trade in value, reduced or no cost maintenance included in final price, favorable freight terms and other cost avoidance incentives to the university over the life of the agreement.

Financial Incentives – (a) The amount of incentives received that lower the total cost to the university (b) refunds received that were negotiated and reported when actually received (c) rebates based on negotiated targets or spend levels and reported when rebates are received (d) signing bonuses (e) value added incentives offered besides the best and final price including but not limited to: scholarships, free equipment, free training, sponsorship of events, etc.

Wells One Corporate Ghost Card for University Vendor Payments – Through the contractual relationship with our commercial bank partner, Wells Fargo, the university implemented a corporate ghost card program for participating suppliers. Procurement supports this program by negotiating the requirement to accept university payments via the ghost card for services or goods provided under contract to the university.

Note: Shared revenue from Wells Fargo is based on the university's utilization of this payment process. In calendar year 2021, the university's revenue share for this program was \$938,000. This amount was actually received in fiscal year 2022. For calendar year 2022, we are tracking ahead of 2021 for number of payment transactions issued through the Ghost Card program with revenue from this program expected to be higher for 2022.

Any of the savings and incentives received are used to support the university's operating budgets and help to fund one-time initiatives or offset cost increases that enable the university to limit increases in tuition and fees.

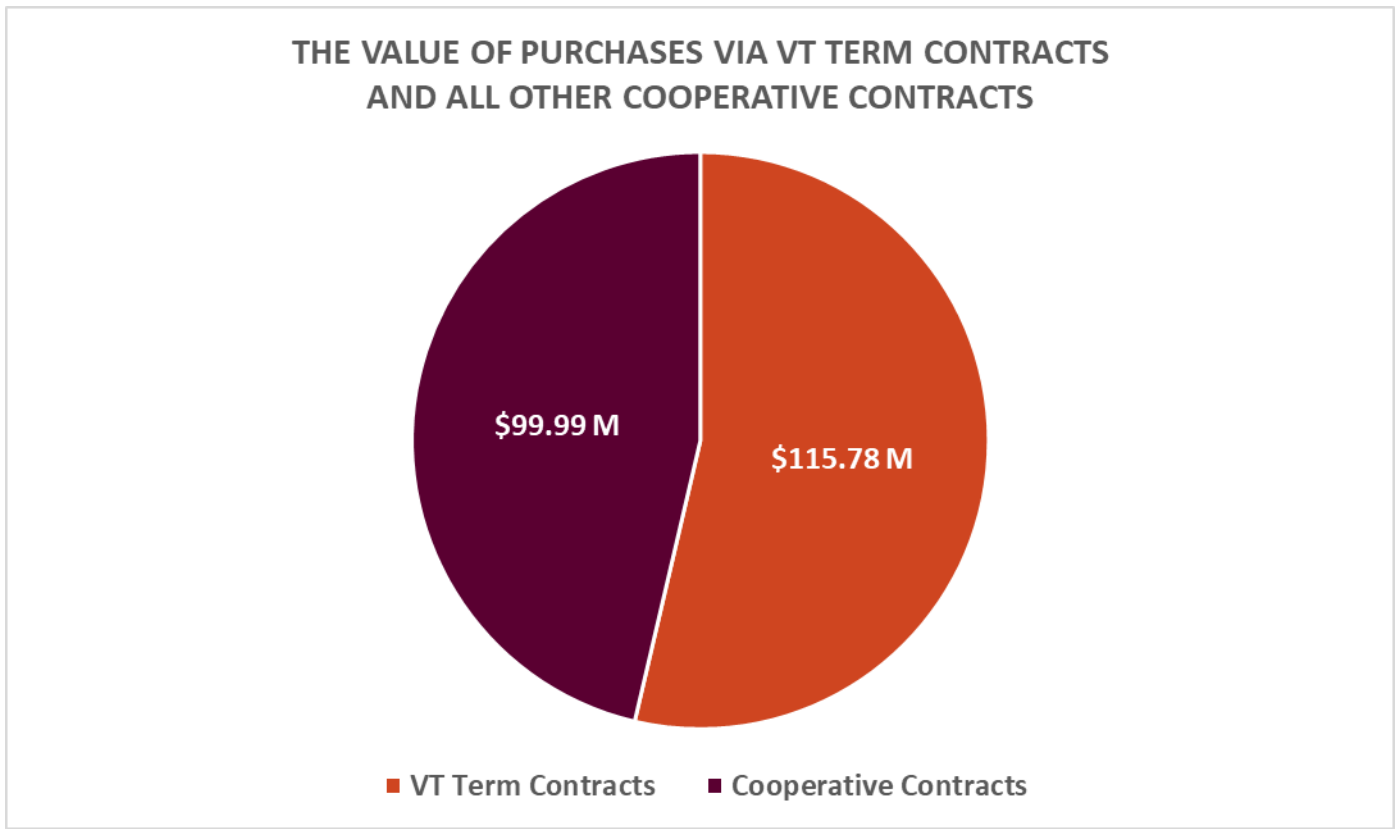
### **University's e-Procurement System:**

Every university purchase, regardless of price or the source of funding is processed electronically through the university e-procurement system. That system, branded Hokiemark, is a Jaggaer (Sciquest) webhosted P2P system implemented originally in 2008. Our implementation design of this system has allowed not only external procurements to be tracked and processed but also facilitates internal purchases transactions between departments of the university creating a "one stop shop" for all purchasing activity.

The university institutes system controls with the HokieMart system that ensure that purchases are (1) approved appropriately ahead of the purchase order being issued (2) budget checked for funds available (3) goods/services are confirmed as "received" by qualified personnel before payments are made and (4) quality assurance oversight through electronic workflows which route certain procurement requests to miscellaneous university units for their specific oversight to ensure the safety, security, and risk of the purchase complies with university standards.

HokieMart also is the electronic repository for tracking all awarded university term contracts and the value of purchases placed against those contracts. University term contracts are solicited publicly and most are awarded utilizing competitive negotiation or "best value" evaluation but always with an emphasis on cost. Occasionally, the university will award a term contract for a well-defined commodity as a low-bid award but the majority of term contracts are awarded through competitive negotiation. In FY22, \$215.77 million in purchase orders issued by the university were issued against

university awarded term contracts or other cooperative contracts which facilitated expedient purchases that support the university's operations efficiently.

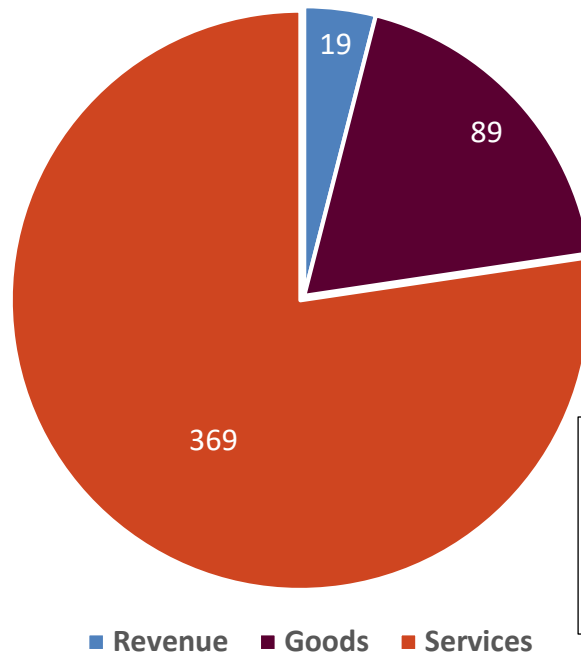


**University Awarded Contracts Portfolio:** The portfolio of existing university awarded contracts include over 500 negotiated agreements available to the university for expedited purchases. Competitively awarded contracts establish the lowest cost or price, discount, warranty, return policy, risk avoidance, etc. University term contracts average three to five-year lifespans but are renewed and reviewed annually. Of these 500+ contracts, 38 of those would be considered strategic contracts and represent an awarded and negotiated agreement strategic to the university's mission.

Strategic contractual agreements and the companies who received that award are marketed to the university departments to encourage first use of these companies for department delegated purchases. Our strategic partners are given top billing on the landing page of the HokieMart system for optimum exposure to buyers on campus along with quick-purchase catalogs for departments to quickly shop from and place orders with these companies. The concept of strategic contracts and their exposure within the university's mandated e-procurement system has allowed the university to implement a flexible but efficient e-procurement methodology that streamlines the majority of purchases of certain high-volume commodities or services to the companies determined to offer the greatest value or savings to the university. The university uses similar practices to highlight and increase visibility and therefore encourage purchases from SWaM vendors.



**University Term Contract Portfolio**  
**Number of total Contracts by Type in FY22**



VT Procurement also manages over 52 active contracts to support the university's capital construction program.

**Best Practices in Contract Administration:** To ensure its portfolio of term contracts continue to maximize business performance, minimize risk and represent the greatest value, the university utilizes contract administration best practices including, but not limited to:

- Contract forms are standardized. Changes to general legal terms are only made twice a year under the guidance of university legal. All other forms utilized in contract administration are templated and standard in format.
- Vendor/supplier performance management is verified annually with the end user or campus experts that deal most closely with the supplier. Contract administrator (CA) training is provided which outlines responsibilities of the CA and specifically outline the protocols for dealing with performance issues. VT Procurement adds its expertise when vendor performance issues escalate utilizing a system of documentation, cure requests and follow-up action within a designated and firm timeframe.
- The university holds in-person annual performance reviews with our strategic contract partners and many other companies who receive a high volume of business from the university.
- The life span of a typical university contract may span three to five years but renewals are still reviewed and authorized annually. The renewal process confirms with the university contract administrator, the supplier and the contracting officer from VT Procurement that all parties wish to continue the relationship. During this renewal, supplier KPI's are reviewed, cost or pricing is reviewed, and adequate performance is confirmed.
- Price increases are defined within the contract with caps on increases to reduce exposure during market instability. Price changes, if applicable, are negotiated at renewals.

- Termination clauses are defined within the term of the contract.
- Contract documents and related forms and contract administration activity is tracked within the Jaggaer e-procurement system for the life of the contract plus five years. Spend tracking is based on issued purchase orders against the contract and are compared to annual estimated spend forecast for each contract.
- Contracts with an annual spend forecast of greater than \$1million are reviewed and executed by the Senior Vice President and Chief Business Officer. Contracts valued at under \$1million are reviewed and executed by the Assistant Vice President of Finance and Director of Procurement.

**Third Party Contract Audits:** Beyond the efforts VT takes to ensure the university's term contracts are performing as negotiated, the university also utilizes third party contract compliance companies to analyze pricing compliance to negotiated pricing and discounting. In 2022, Dell Computing underwent a third party contract review on the VHEPC contract that Virginia Tech utilizes for desktop and laptop purchases. Final negotiations of the findings from that audit are underway. And an audit of the Guy Brown Office Supply contract has just launched and is expected to be completed by mid-October.

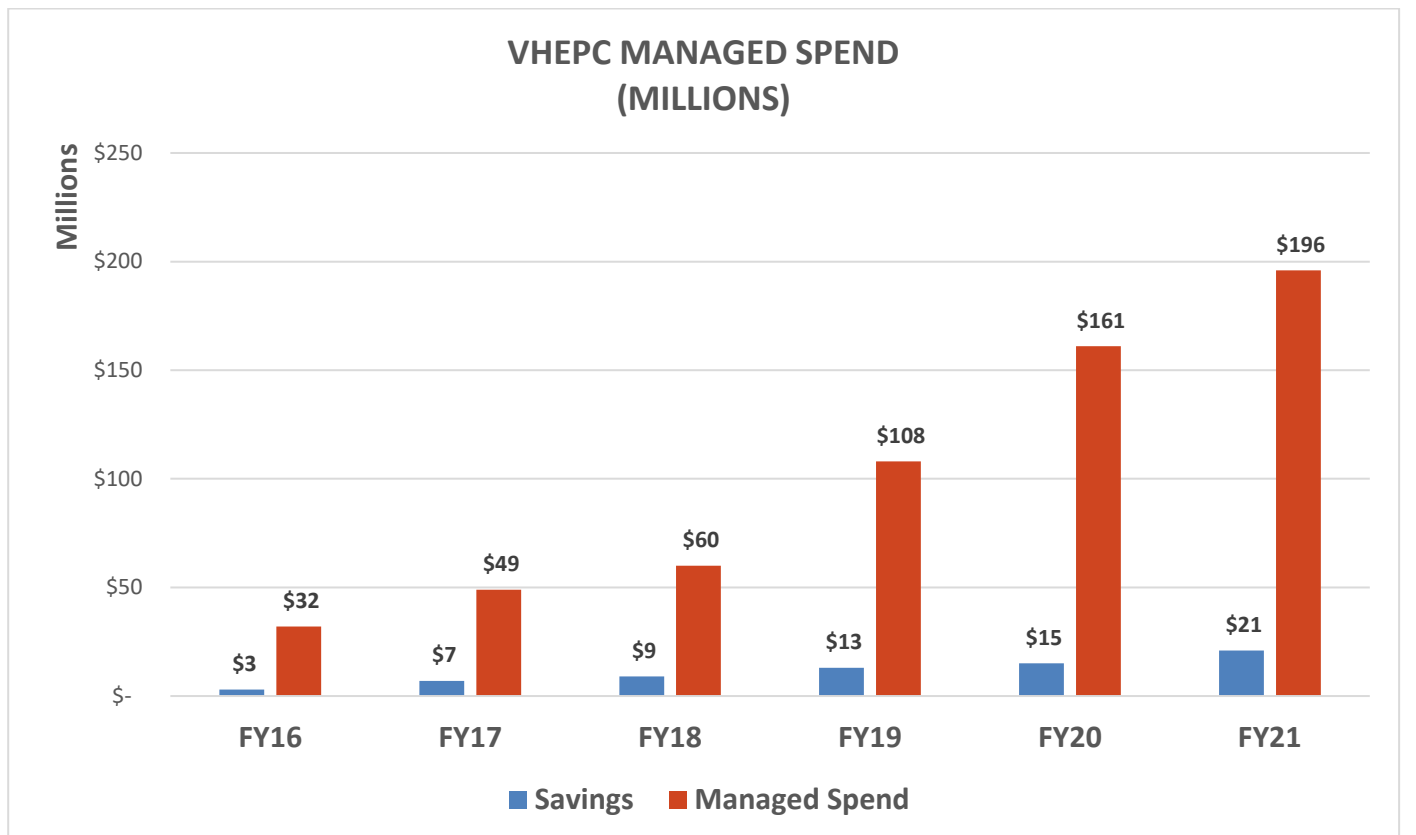
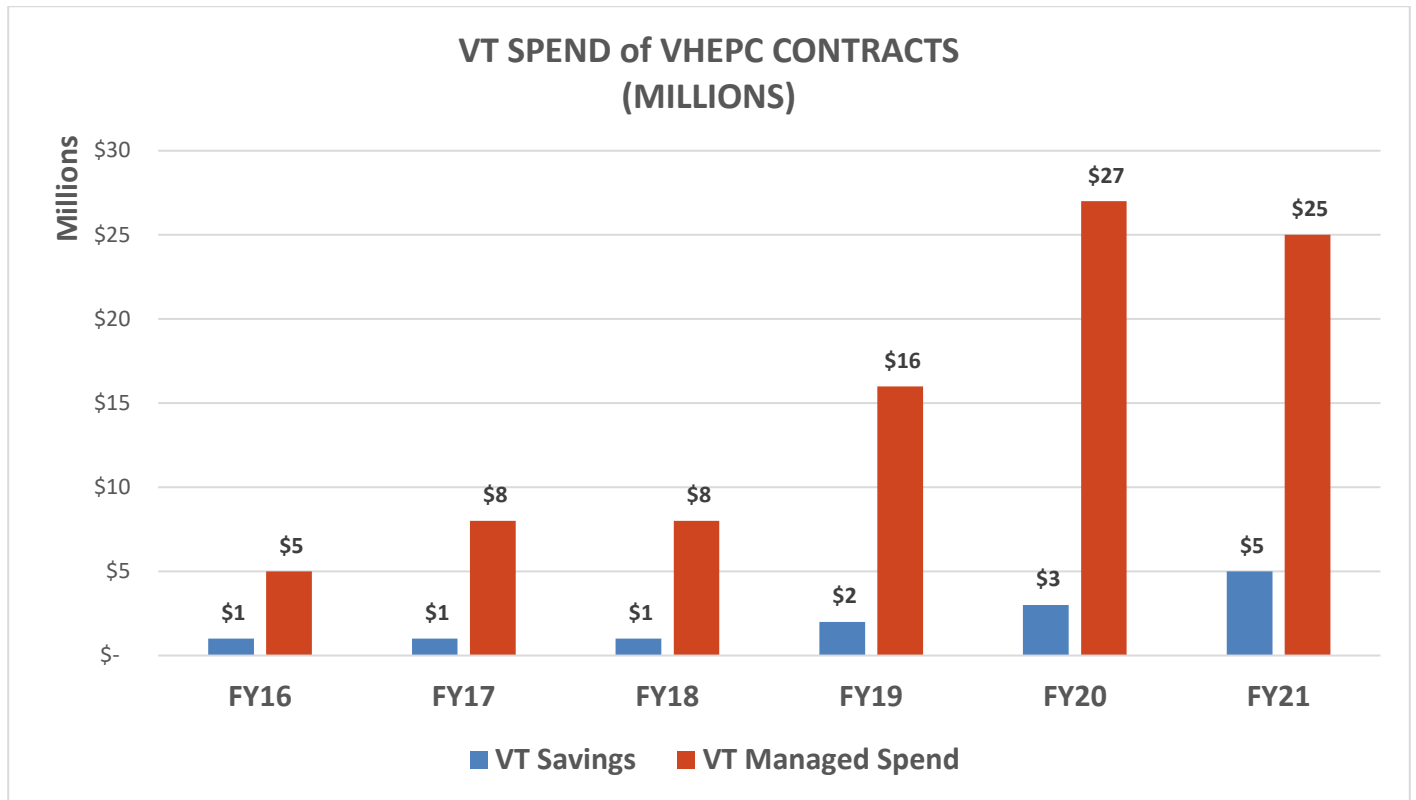
**Cooperative Contracting:** The Code of Virginia and the university's restructuring management agreement with the Commonwealth allows Virginia Tech to utilize cooperative procurement for efficiencies. The concept of cooperative procurement allows one entity to "ride" or "piggyback" off a negotiated term contract of another public entity thus removing the need for multiple entities to repeat procurement processes or duplicate contract awards. In addition, offering a contract opportunity as "cooperative" during negotiations gives further leverage for greater savings and discounting to all entities who may utilize the contracts.

Cooperative Contracting allows the university to have access to an additional 2000+ negotiated statewide cooperative contracts. The restructured higher education institutions in Virginia including Virginia Tech benefit greatly from the efficiency of cooperative contracting. In addition, the university can take advantage of other GPO (Government Purchase Organization) cooperative contracts when determined to be the best value for the university.

The restructured publicly funded universities in Virginia (VASCUPP) makes publicly available a searchable website of cooperative contracts available (<https://vascupp.org/contracts>). You will find over 290 of Virginia Tech's awarded cooperative term contracts on this site.

**Collaborative Contracting:** In 2014, Virginia Tech, University of Virginia and James Madison University worked with the Commonwealth's Secretary of Education staff to assemble a higher education procurement consortium that could serve both public and private universities in the Commonwealth on collaborating on commonly purchased goods and services to maximize savings with combined spend volume. The difference between a collaborative procurement approach and the cooperative procurement concept is that all schools who intend to utilize the potential contract act as one lead entity. Spend from all institutions are accumulated to increase the opportunity for the contractors increasing leverage in negotiations and all institutions provide input in evaluating proposals and negotiations. Resulting contracts are executed by a lead institution but contract administration is conducted at the consortium level.

The **Virginia Higher Education Procurement Consortium (VHEPC)** was chartered in early 2015. Today, it provides opportunities and costs savings for fourteen higher education agencies of the Commonwealth. Its success continues to build upon itself year over year.



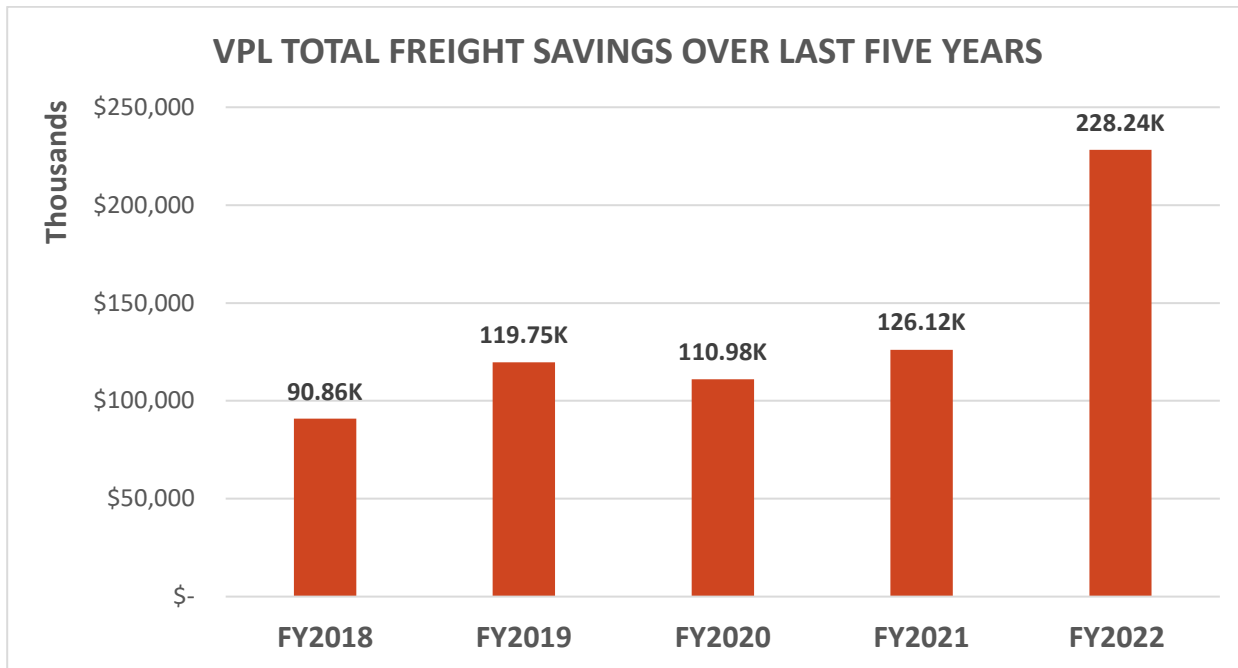
## **Examples of Cost and Efficiency Programs established through Strategic Contracting:**

**America To Go:** In 2019, the university awarded America To Go (<https://www.americatogo.com>) a university term contract to provide catering concierge services to university departments statewide. Catering expenditures exceed \$1.2M annually on the average and before this contract was established, individual catering expenditures typically fell under departmental delegation thresholds. Thus, the university was awarding hundreds of catered events per year with over 200 unique caterers. The university had no way to proactively ensure caterers being used for university events were licensed, insured or had adequate inspections for health and safety. Invoice and payment processing to caterers was handled manually through accounts payable for each event held. The services provided by America To Go include a full vetting of the caterers to ensure they hold a valid business license, maintain adequate insurance coverage and up to date health inspections. America to Go also pays the caterers directly after receiving confirmation from departments that services were successfully delivered. Virginia Tech receives electronic invoices from America To Go that are matched and processed through the HokieMart system, allowing accounts payable to manage catering expenses with electronic invoice processing and payment. Most caterers used at Virginia Tech are small and diverse businesses and America To Go assists these firms with their certifications through the state certification program for small, woman owned or minority owned (SWaM) companies. In addition, America To Go hosts on campus “tastings” for departments to become familiar with caterers available through the program. These event offers free marketing opportunities for the caterers to meet and engage with campus departments. America To Go is compensated via commissions paid by the caterers so this contract is at no additional direct cost to the University outside of the cost for the catering.

The America To Go catering concierge program went live at the University in October of 2019. Departments are instructed to use only caterers on the America To Go program. There are 100 caterers on the America To Go program for departments to choose from. Orders for catering services are placed through a punch out catalog within HokieMart that include menus and caterer information. Departments also can work directly with an approved America To Go caterer to develop a custom menu for an event and caterers can easily upload that order through the America To Go caterer’s portal.

In FY22, America To Go facilitated 3,420 catered events, meals or refreshment orders for the university.

**Vantage Point Logistics:** The University awarded Vantage Point Logistics a term contract in 2018 for managed inbound logistics. The services VPL provides manages the university’s deliveries of product where the cost of shipping has not been negotiated. Typically called prepaid and add freight, suppliers typically charge carrier list price for these deliveries and realize a significant profit by marking up the shipping charges. VPL works with the university’s suppliers to utilize the university’s high-volume FedEx or UPS accounts for shipping product direct to campus. All billing of freight is coordinated by Vantage Point Logistics and submitted through electronic invoices weekly to the university. Since implementation of the VPL program in 2018, the university has realized over \$675K in savings in inbound shipping of purchased product to campus.



**Low Cost/Low Risk Software Purchasing Expediting:** Along with the Division of IT and its delegated IT purchasing unit (ITPALS), VT Procurement collaborated to develop an expedited pilot program for departments to purchase low cost/low risk software faster. This new purchasing approach is based on risk and cost and includes reduced steps for acquisition. As long as the software meets the university's standard for low risk and is of low cost (<\$10K) or a no cost acquisition, the department can proceed with the purchase under their department delegation without further input from ITPALS, VT Legal or VT IT Security Office. The pilot program will run through December 31 with analysis of the volume of orders processed under the pilot, estimated time savings for departments and general feedback from campus. If successful, the program may be adjusted to allow further expansion of the definition of software that could be purchased under the expedited departmental delegation process.

### **Recent Cost Efficiency Successes utilizing Collaborative Procurement:**

**Timely MD, 24/7 Tele-counseling Services for University Students.** In the Fall of 2021, the need for supplemental tele-counseling services for the student population was being discussed at all levels of the university. Virginia Tech contacted its peer institutions to acquire if this service need was being prioritized at the institutions. The answer was a resounding yes and the need was quickly becoming the top priority. Under the umbrella of the Virginia Higher Education Procurement Consortium, Virginia Tech took the lead in issuing a public RFP for both tele-counseling and tele-health services. An evaluation committee was put together that comprised medical and mental health experts from Virginia Tech along with colleagues and counterparts from Virginia Commonwealth University, James Madison University, the Virginia Community College System and University of Virginia. The university received twenty proposals from firms who provide a tele-platform for mental health. Evaluation of the proposals and short listing of four firms deemed most highly qualified for a higher education environment was concluded in January. Final negotiations given the potential of servicing 300,000 students instead of 30,000 (VT only) resulted in savings per student cost, waiving of all up-front implementation costs for each institution and the ability to offer twelve scheduled

appointments per student while having a 24/7 “Talk Now” option. As of this report, over 300,000 students will be serviced this fall with the new 24/7 tele-counseling contract at five 4-year universities (VT, UVA, JMU, and VCU) and all campuses of the Commonwealth’s Community College System. Three more 4-year universities are now under consideration for offering tele-counseling services. The final negotiated cost is on a sliding scale with a retroactive cost reduction per student as the total number of students increase with more schools coming on.

### **Dell Computing**

A data comparison amongst the VASCUPP higher education institutions determined that Dell was charging different pricing for same models and configurations of desktops and laptops to different universities even when those universities were ordering on the exact same day. To standardize pricing using the volume of the accumulated DELL spend from all thirteen restructured higher education universities, the decision was to commit to one common negotiated contract through the VHEPC. After months of negotiation, that contract was finalized with all schools committing to utilize the VHEPC contract for all of its Dell purchases. Since execution of the collaborative contract in late FY2020, Virginia Tech has seen an increase in our educational rebates from Dell rise to over \$200K in FY21 and FY22. Previously, our rebates from DELL were less than \$50K annually. Rebates return to the general fund of the university to support student activity and expense. In addition, annual audits are now required contractually to ensure all schools are receiving pricing in strict compliance with the contract. VHEPC staff are completing the first annual audit.

### **Supplier Opportunity Program: Increasing spend with Virginia Certified Small, Woman Owned and Minority Owned (SWaM) Companies:**

The mission of the Virginia Tech supplier opportunity program is to foster inclusion in the university supply chain and accelerate economic growth in our local communities through the engagement and empowerment of high quality and cost competitive small, minority owned, woman owned (SWaM) and local suppliers. Each year, the University establishes utilization goals based on percentages of discretionary spend. Those goals are shared with campus departments and are also submitted to the Commonwealth as the university’s SWaM Plan goal toward meeting management standards required of a restructured higher education institution. Progress toward spend goals are monitored every quarter. SWaM vendor fairs, news articles, internal vendor training and directly sourcing procurement opportunities to SWaM vendors are all part of the strategic initiative to increase spend with SWaM companies.

When calculating the SWaM spend, the university includes both direct spend with Virginia SWaM certified vendors and also spend with second-tier Virginia SWaM certified subcontractors utilized by majority companies doing business with the university. Construction spend always plays a major factor in the percentage utilization due to the second-tier subcontractor spend with diverse companies who provide much of the trades related work on university construction projects.

In FY22, Virginia Tech recognized its largest spend with diverse vendors in the twenty-year history of keeping records regarding utilization of SwaM firms. In FY22, 39.9% of discretionary spending was with a Virginia SWaM certified vendor. This percentage equates to a total \$164M in university spend with Virginia SWaM certified firms.

# Update on University Cost Efficiencies

KEN MILLER, VICE PRESIDENT FOR FINANCE

MARY HELMICK, ASSISTANT VICE PRESIDENT  
FOR FINANCE AND DIRECTOR OF PROCUREMENT

AUGUST 22, 2022

# Cost Efficiencies Overview

- **Purpose:** *to build awareness of the university's administrative cost efficiency.*
- **Key Insights:**
  - *Proportion of expenditures by function (instruction, support, research, etc.) are consistent over the last ten years.*
    - *Support expenditures remain a small percentage of the university's total expenditures.*
  - *The university is personnel-intensive, particularly in its 208 E&G activities where compensation and benefits comprise 81% of all expenditures.*
  - *The university consistently ranks favorably among its various peer groups in nationally accepted measures of administrative efficiency.*
  - *The university continues to identify improvements in service delivery, leverage technology to automate and simplify processes, and implement cost-effective operating principles.*
  - *Increasing efficiencies produces savings which can be used for mission-driven activities.*



# Expenditures by Function

## 10-Year Trend Per Audited Financial Statements

	all dollars in millions										2021*		Relative % Change Since 2012
	2012	2013	2014	2015	2016	2017	2018	2019	2020	Dollars (\$)	Percent (%)		
<b>Core Expenditures</b>													
<i>Instruction</i>	260.1	283.5	298.8	318.7	335.8	357.9	377.5	398.9	426.0	425.9	28%	4%	
<i>Research</i>	280.4	302.1	308.3	304.6	316.8	311.3	323.0	330.9	343.2	330.8	22%	-4%	
<i>Public Service</i>	85.8	97.3	102.7	101.4	100.3	97.7	98.0	92.8	98.5	89.1	6%	-2%	
<i>Student Financial Assistance</i>	13.1	12.3	12.3	13.5	14.4	16.5	18.3	20.6	30.6	32.1	2%	1%	
<i>Student Services</i>	13.3	14.2	14.9	14.6	16.2	18.6	20.8	24.5	26.0	25.6	2%	1%	
	652.7	709.4	737.0	752.8	783.5	802.0	837.6	867.7	924.3	903.5	59%	0%	
<b>Support Expenditures</b>													
<i>Academic Support**</i>	65.0	68.5	79.4	80.9	81.7	87.4	91.2	98.9	106.4	105.9	7%	1%	
<i>Institutional Support</i>	52.5	50.7	58.2	56.9	63.1	70.3	75.9	73.4	81.7	80.1	5%	0%	
	117.5	119.2	137.6	137.8	144.8	157.7	167.1	172.3	188.1	186.0	12%	1%	
<b>Auxiliary</b>	159.6	176.3	181.5	196.2	203.0	218.7	227.8	227.9	236.2	219.1	14%	0%	
<b>Depreciation, O&amp;M, and Interest Expense</b>	164.2	172.1	193.3	192.1	207.2	203.7	207.3	216.3	217.8	218.9	14%	-1%	
<b>Total</b>	<b>1,094.0</b>	<b>1,177.0</b>	<b>1,249.4</b>	<b>1,278.9</b>	<b>1,338.5</b>	<b>1,382.1</b>	<b>1,439.8</b>	<b>1,484.2</b>	<b>1,566.4</b>	<b>1,527.5</b>	<b>100%</b>		

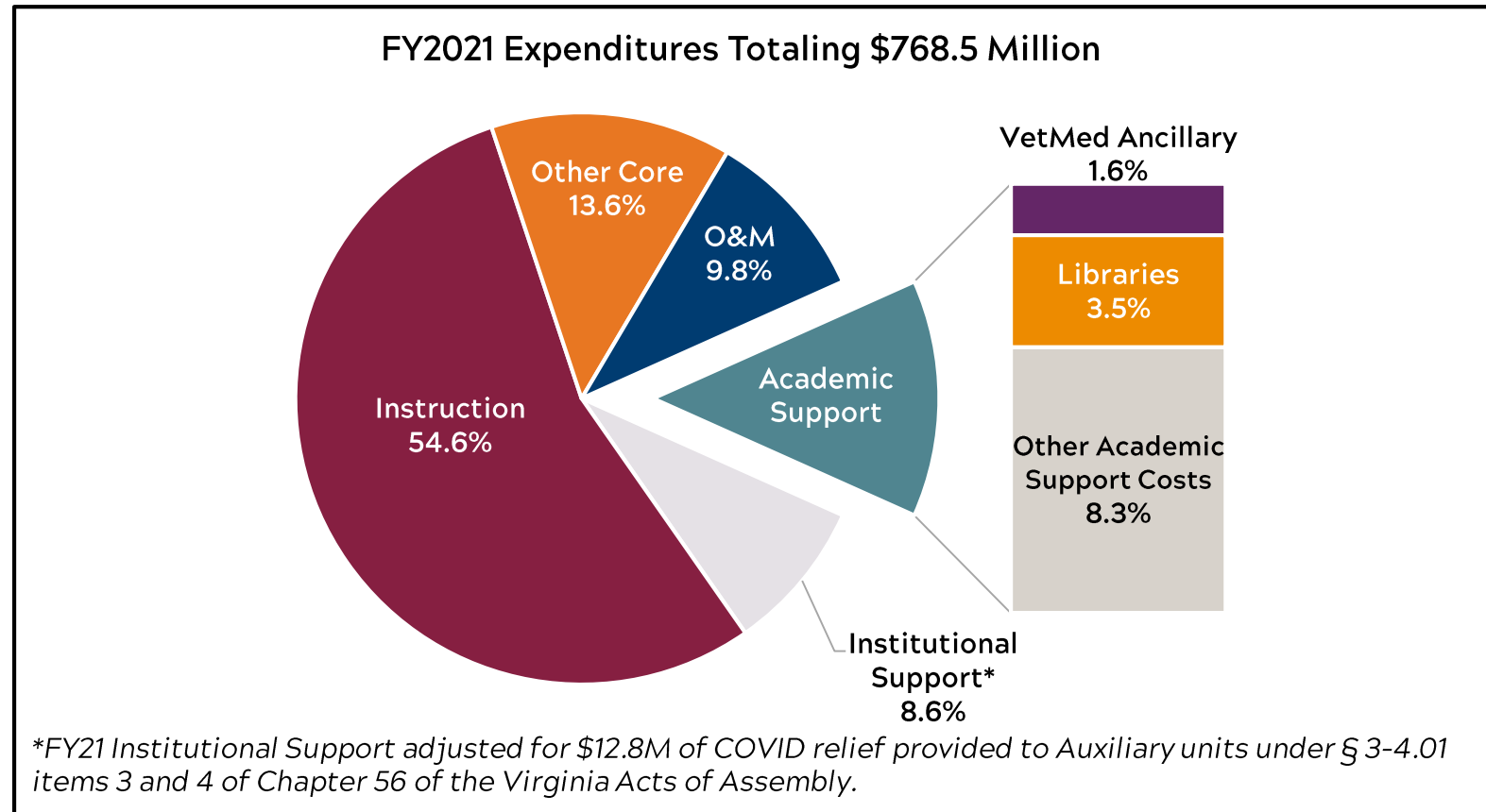
\*FY21 Institutional Support and Auxiliary amounts adjusted for \$12.8M of COVID relief provided to Auxiliary units under § 3-4.01 items 3 and 4 of Chapter 56 of the Virginia Acts of Assembly.

\*\*Increase in Academic Support reflects a purposeful investment in the university's library, comprising \$11M (27%) of the growth between FY2012 and FY2021.

# Composition of 208 E&G Expenditures by Function

Attachment J

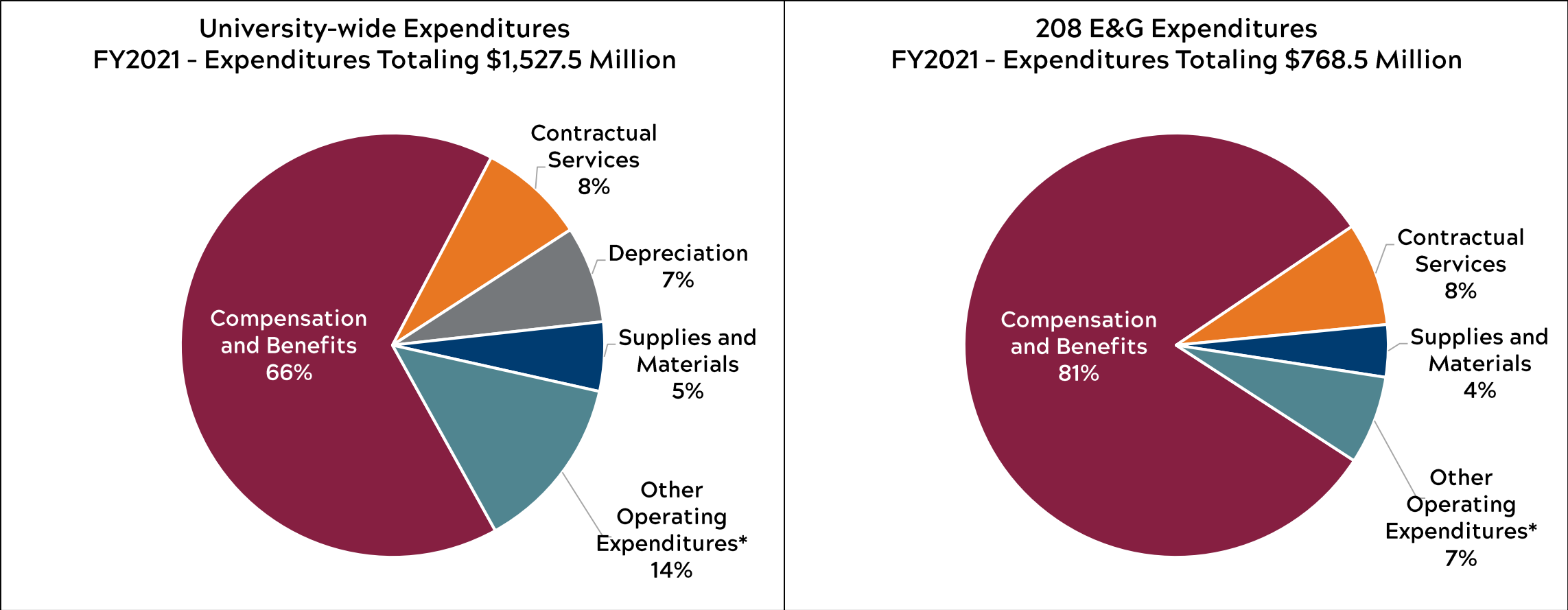
## Financial Statement Totals for 208 E&G Funds



- *Instruction, Academic Support, and Institutional Support costs comprised 77 percent of 208 E&G expenditures in FY2021.*

# Personnel Intensive Cost-Structure

## Financial Statement Totals by Natural Classification

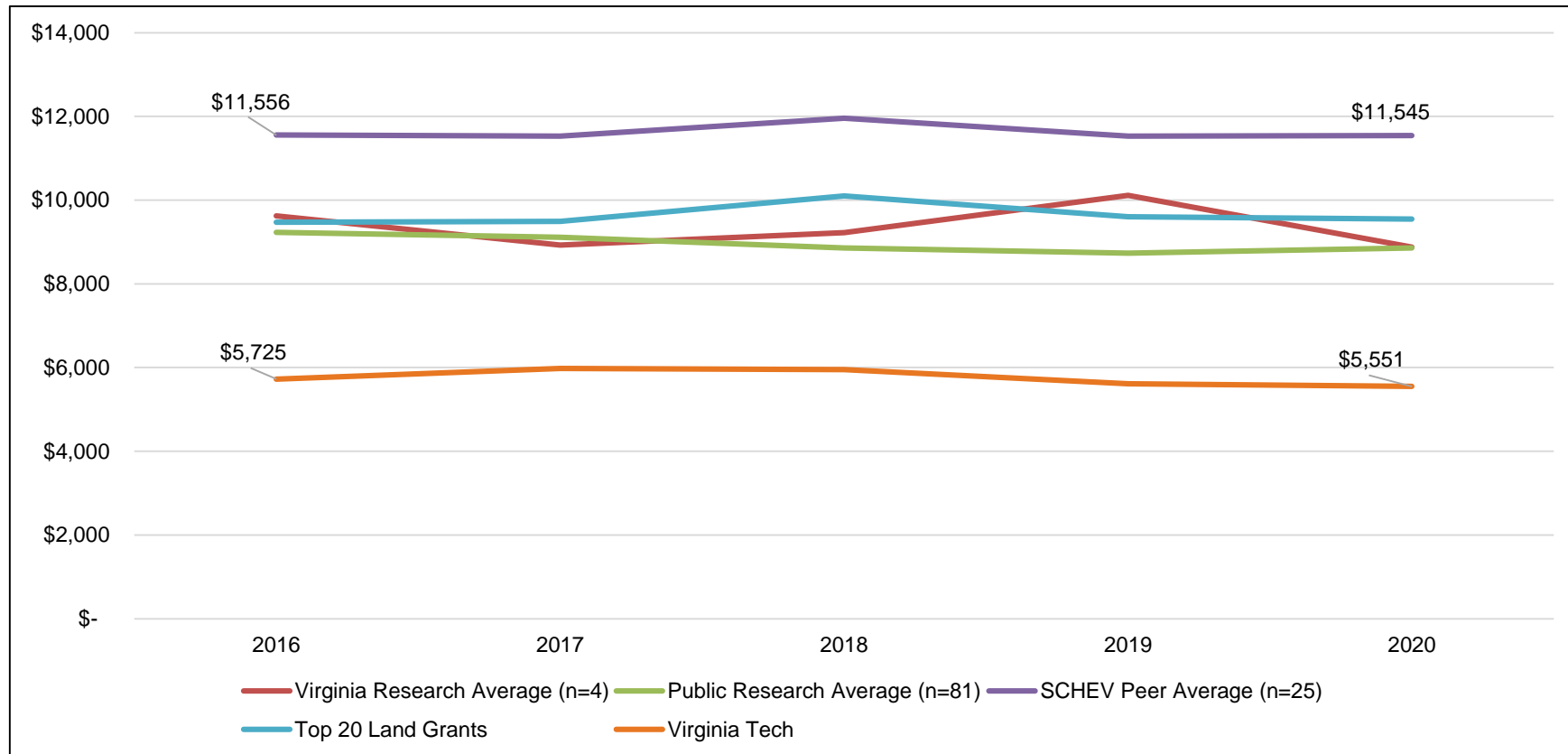


*\*Other Operating Expenditures include scholarships and fellowships, sponsored program subcontracts, and travel.*

# Peer Comparison

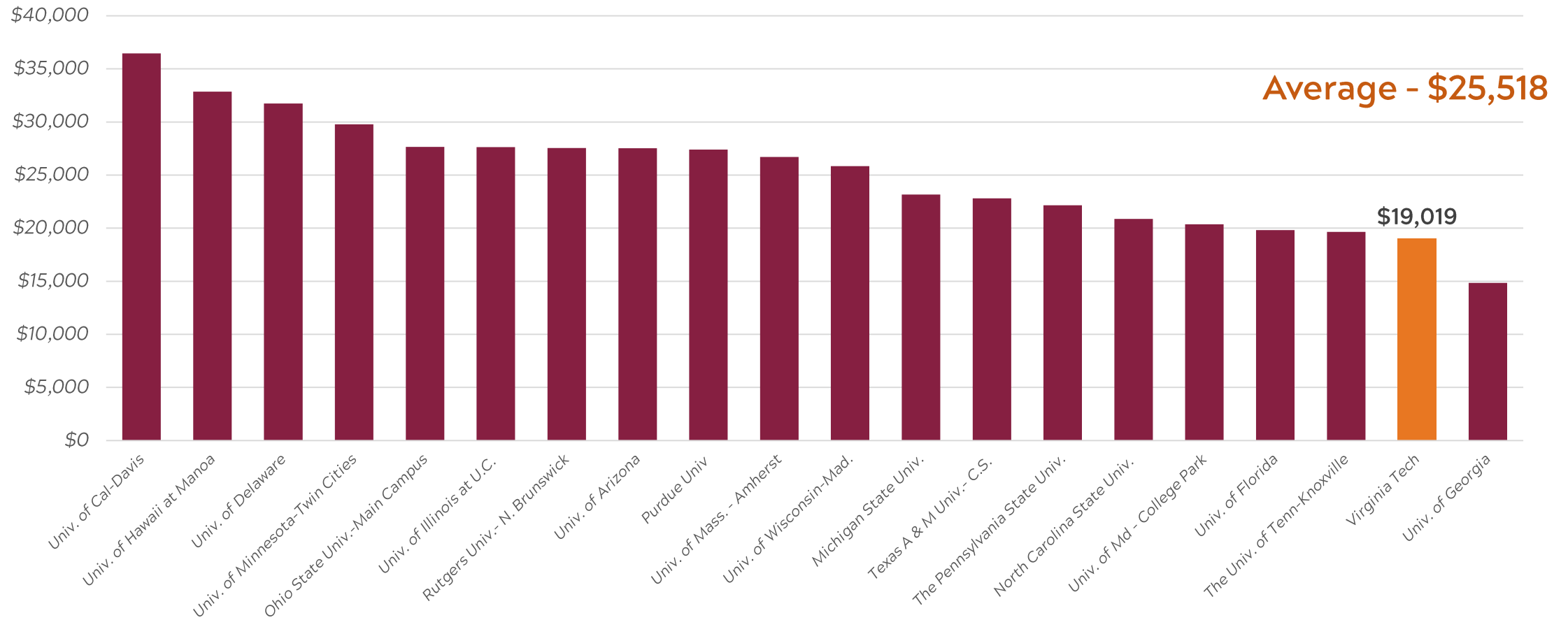
## Administrative Spending Per FTE

*Inflation adjusted to 2020 dollars*



# Peer Comparison

## Cost Per Degree Year\* - 2020 Top 20 Land-Grants



\*Based on methodology developed by SCHEV/Lumina Foundation Strategy Labs in Virginia Postsecondary Strategic Finance Plan (2019)

# Sustaining a Cost-Conscious Culture Attachment J

- *The university's annual budget process requires units to identify cost-savings strategies and goals.*
  - *Cost-containment activities are considered prior to the allocation of new resources.*
- *Periodically, the university engages outside consultants to evaluate specific processes and identify opportunities for improvement by:*
  - *Eliminating barriers and duplications*
  - *Improving service delivery and reducing transaction times*
  - *Leveraging technology to automate and streamline processes.*
- *In response to COVID-19 uncertainty, the university implemented a five percent across-the-board reduction to base 2020-21 budget.*
  - *Reduction subsequently lowered to three percent for academic areas.*

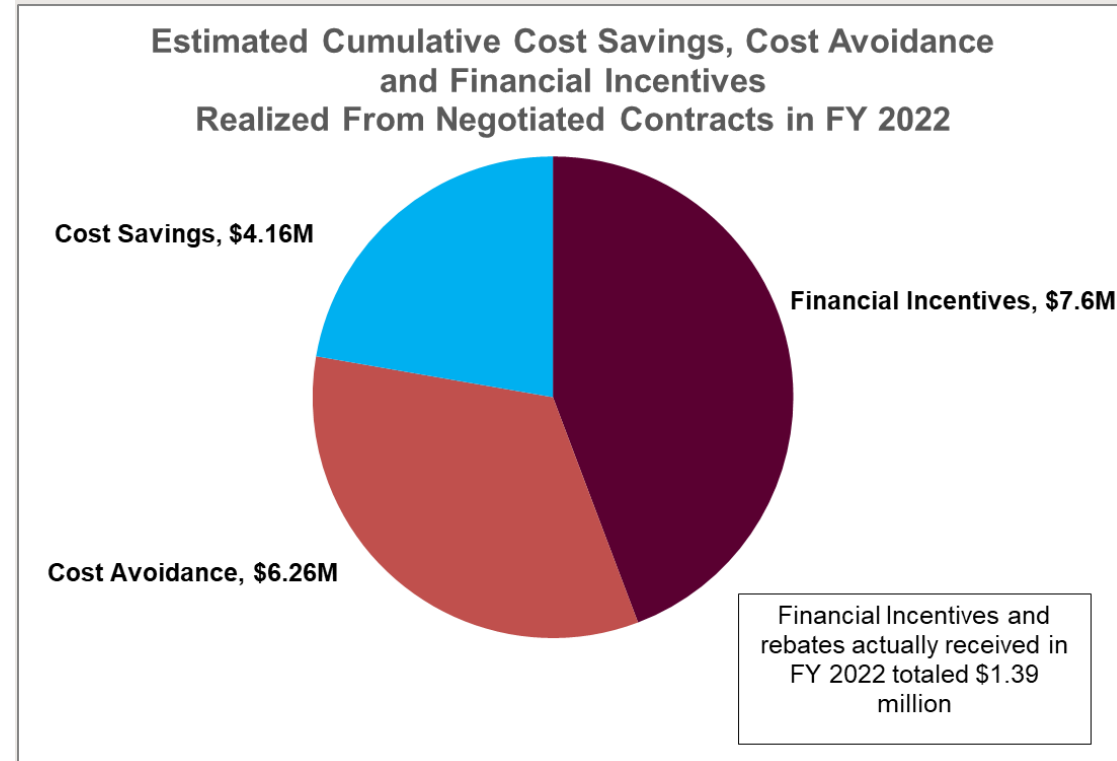
# Cost Efficiency Spotlight- Procurement and Contracting

- *Central Procurement: Acquisition of all goods, services, insurance, and construction projects for the university.*
- *IT Hardware and Software is delegated to purchasing unit in Division of Information Technology.*
- *University Departmental Delegation Threshold = Purchases <\$10K*

*Central Procurement oversees \$215.77 million in competitively negotiated purchases and purchases against negotiated term contracts.*

# Cost Efficiency Spotlight- Procurement and Contracting

- *Efficiency tools used for cost savings and executing best value procurements:*
  - *Negotiation of strategic contracts*
  - *Standardization of high-volume commodities*
  - *Cooperative Procurement - VASCUPP*
  - *Collaborative Procurement - Virginia Higher Ed Procurement Consortium*
- *Best Practices*
  - *Efficient Contract Administration*
  - *University e-Procurement (P2P) System - mandated for all purchases*





# Administrative Cost Pressures

- *Investments in efficiency and security, such as technology, often appear as Institutional Support costs*
- *Inflationary cost pressures, including accelerating competition in labor market*
- *Costs related to supporting the achievement of strategic initiatives*
- *State and Federal mandates*

# DISCUSSION

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# Virginia Tech Efficiency Initiatives

Attachment J

Initiative	Strategic Objective/Outcome
<p><b><u>University Bursar</u></b>  <i>Robotic Process Automation</i></p>	<p><i>Reduction in manual data entry - Cashier Bot has processed 30,195 transactions (tendering items from bank statements) since its inception in June 2020. Bursar estimates savings of 1 FTE.</i></p>
<p><b><u>Human Resources</u></b>  <i>New Hire System</i></p>	<p><i>Consolidation of onboarding tasks into one location to reduce data entry and multiple points of contact</i></p>
<p><b><u>IT Transformation</u></b></p>	<p><i>Improve alignment of core IT processes, streamline software procurement, consolidate data storage, and reduce cybersecurity risks.</i></p>
<p><b><u>Virginia Tech Electric Systems</u></b>  <i>Operational Data Warehouse/ESRI Geospatial Information System</i></p>	<p><i>Enhance operational efficiency and resiliency, and the monitoring of assets using advanced analytics to improve response times and minimize impacts of critical events.</i></p>
<p><b><u>Student Health Services</u></b>  <i>Partnerships to deliver Mental Health Services</i></p>	<p><i>Partnerships with Lewis-Gale Hospital, and other institutions of higher education to expand student mental health care options, including tele-counseling services.</i></p>
<p><b><u>Business and Management Systems</u></b>  <i>SharePoint Online</i></p>	<p><i>Migration to SharePoint Online provides savings in license costs and reduced maintenance of physical servers.</i></p>
<p><b><u>Controller's Office</u></b>  <i>Effort Reporting System</i></p>	<p><i>Utilize electronic workflows to streamline the required reporting process of salary costs charged to individual sponsored projects to ensure such costs are consistent with employee effort for these projects. This eliminates paper-based processes and manual data entry.</i></p>

# FINANCIAL PERFORMANCE REPORT

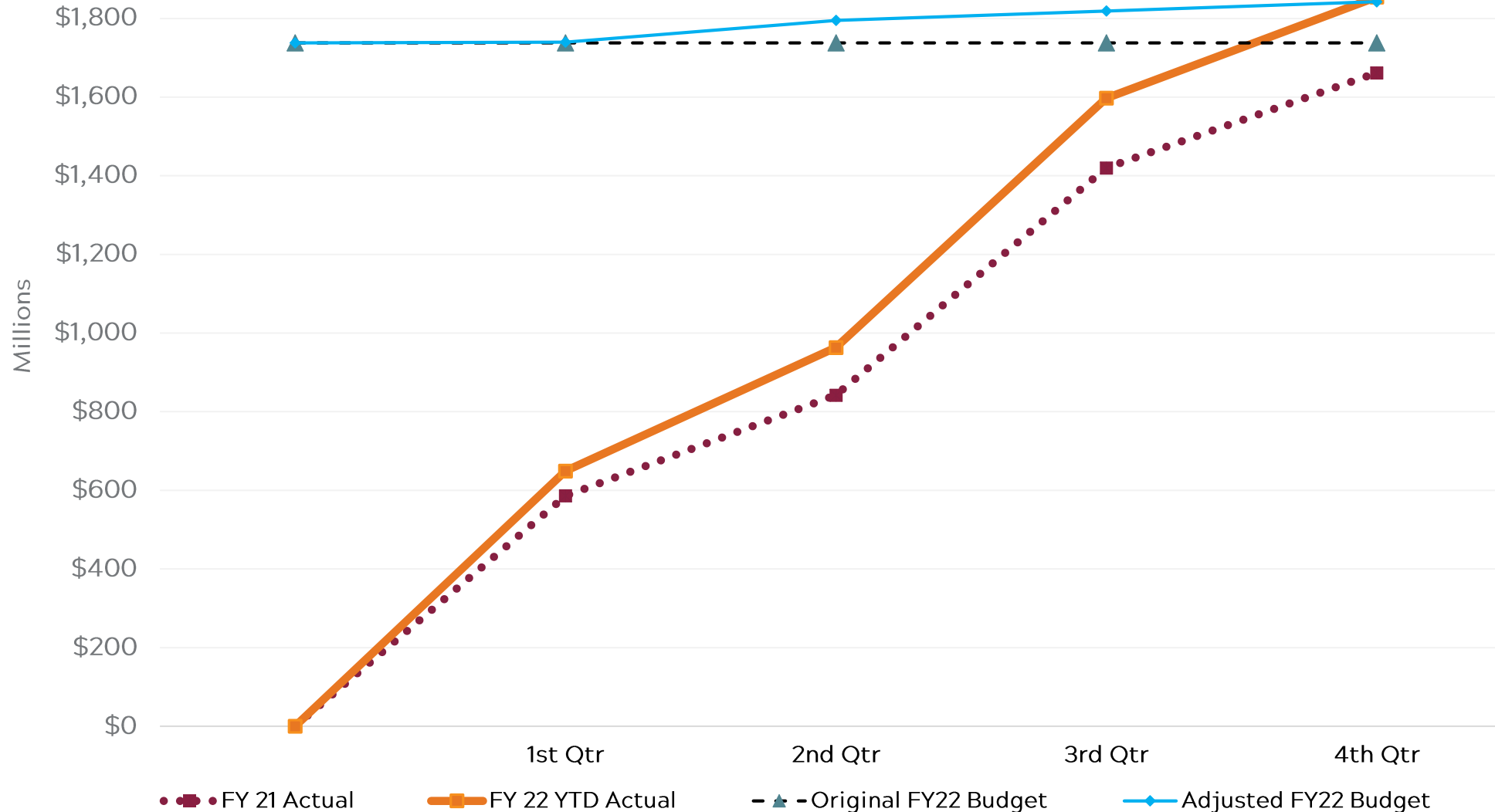
## July 1, 2021 - June 30, 2022

TIM HODGE, ASSOCIATE VICE PRESIDENT FOR  
BUDGET AND FINANCIAL PLANNING

BOB BROYDEN, ASSOCIATE VICE PRESIDENT FOR  
CAMPUS PLANNING AND CAPITAL FINANCING

AUGUST 22, 2022

# OPERATING REVENUES



Federal student and institutional support for pandemic relief recognized in budget during in Q2 and Q3

# 4<sup>TH</sup> QUARTER 2021-22

## Annual Budget Changes

### Educational and General, Sponsored Programs, and Student Financial Aid

- Minor budget adjustments

### Auxiliary Enterprises

- Residential & Dining : \$2.2 million revenue and \$7.1 million expense increase for business volume and projects delayed due to pandemic.
- Targeted pandemic relief of \$6.0 million to restore units to neutral financial position

## Financial Performance

### Educational and General

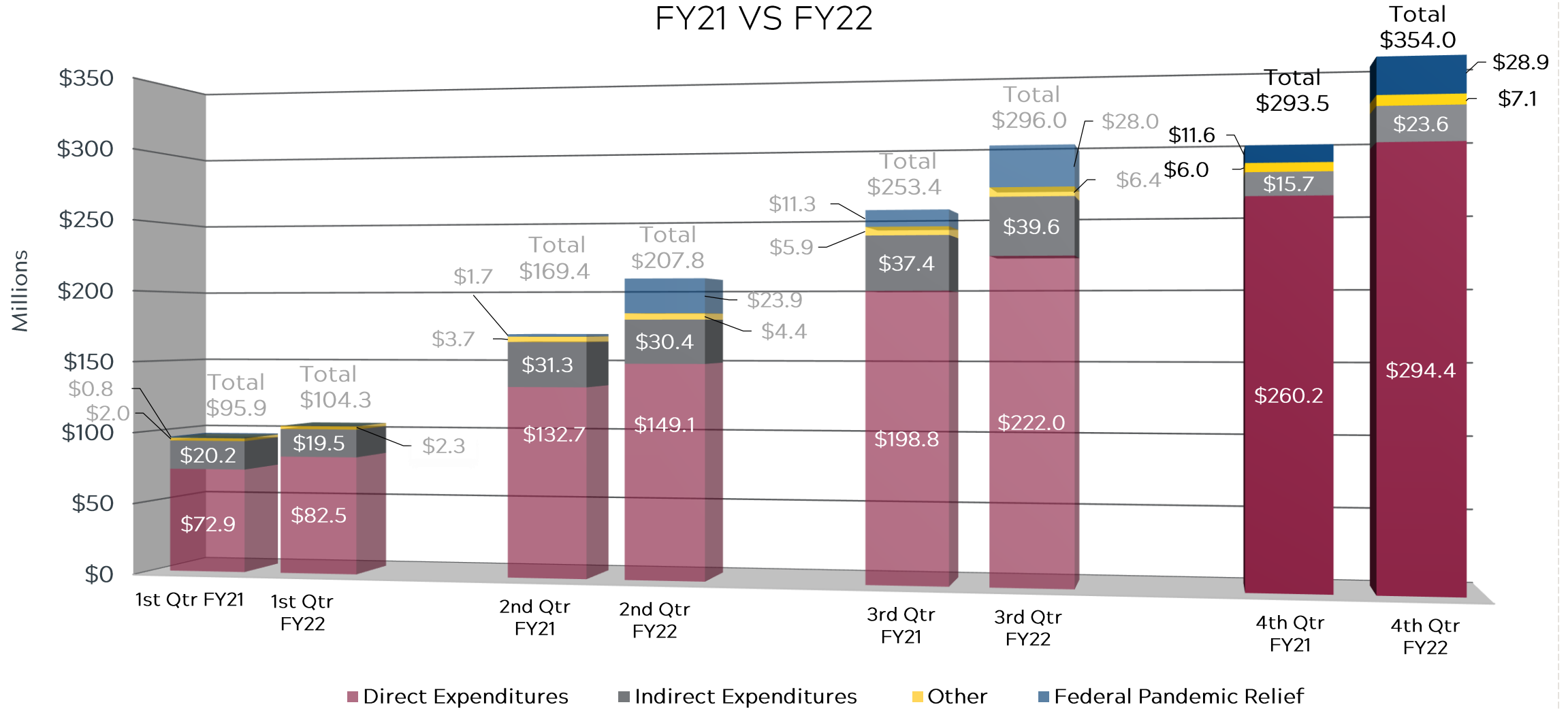
- Successfully closed fiscal year in both Agencies.
- In accordance with State rules, E&G funds were fully utilized without deficit.

### Auxiliary Enterprise

- Athletics: higher than projected revenues \$8 million due to higher than budgeted revenues from ACC network, IMG multimedia contract, and post-season income
- Auxiliary loan repayments (underwritten by reserves)
- Expenses lower than projected due to pandemic impacts on product availability, long lead times and staffing challenges
- Auxiliary temporary year end savings due to timing of incomplete projects (carryover): estimated \$20 million

# SPONSORED PROGRAM EXPENDITURES

## FY21 VS FY22



# CAPITAL PROGRAM





# KEY PROGRAM UPDATES

## *Mitchell Hall*

- *State authorized construction*

## *Accessible Pedestrian Pathways*

- *State authorized supplement to complete construction of enclosed elevators and to extend North Academic District Accessible pathway system*





## *Hampton Roads AREC Study*

- *Study the requirements and impacts to relocate an Agriculture Research and Extension Center (AREC) in Virginia Beach*
- *Study due the General Assembly in mid-December*

## *Maintenance Reserve Program*

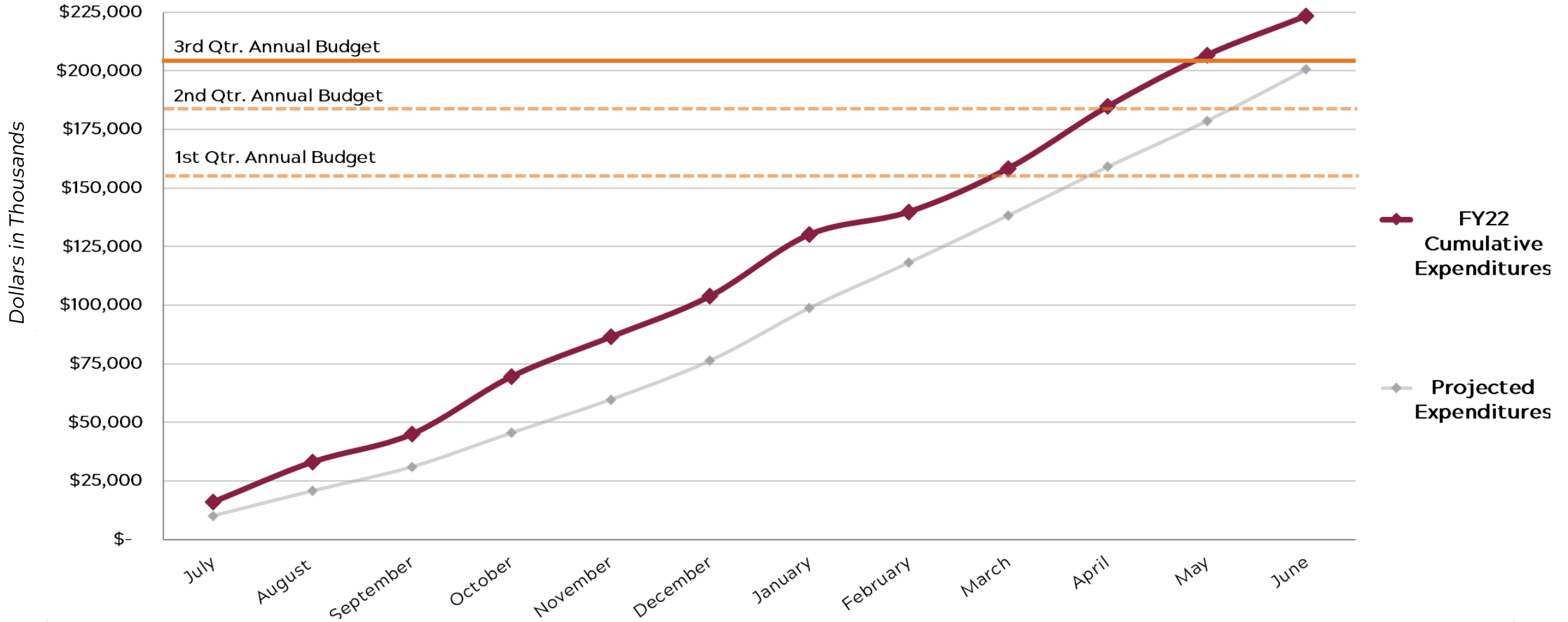
- *Achieved the state 85% expenditure requirement*

# CAPITAL OUTLAY TOTAL PROGRAM Attachment J

	1 <sup>st</sup> Quarter Ended	2 <sup>nd</sup> Quarter Ended	3 <sup>rd</sup> Quarter Ended	4 <sup>th</sup> Quarter
 Design	7	6	4	4
 Construction	10	10	10	10
 Equipment	3	3	3	3
 Closeout	6	7	10	10
Total Projects	26	26	27	27
Total Budget (\$ in Thousands)	\$1,180,056	\$1,180,275	\$1,192,921	\$1,204,921
Total Expenditures (\$ in Thousands)	\$328,691	\$387,543	\$442,063	\$507,162

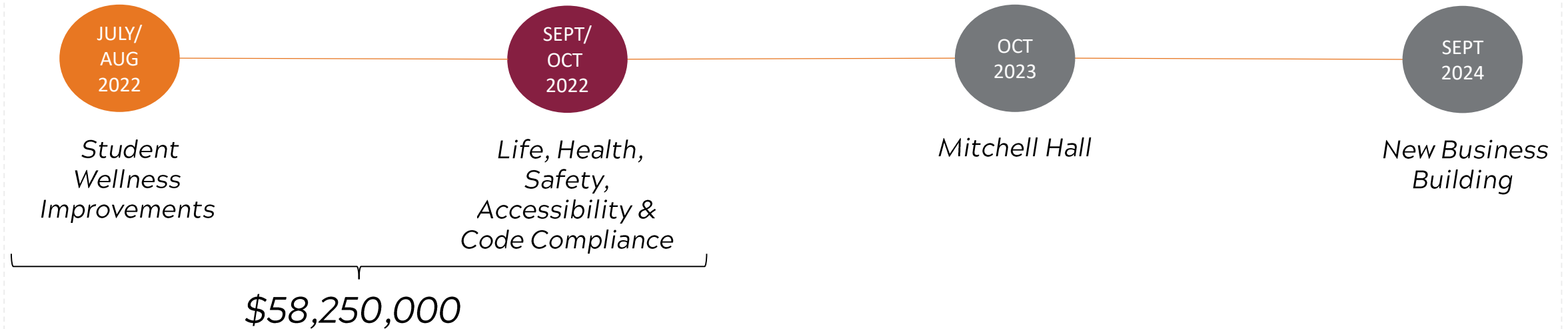
# ACTIVITY THROUGH JUNE 30, 2021

Attachment J



# TIMING FOR CONSTRUCTION PRICING

Attachment J



Spending on  
Projects in design  
phase through  
June 30, 2022-  
\$8,405,000

# PROJECTS COMING ONLINE

Attachment J

2022

- ❖ JAN: Holden Hall Renovation
- ❖ MAY: Construct Seafood AREC
- ❖ AUG: Livestock & Poultry Research Facilities, Phase I

2023

- ❖ MAR: Dietrick Renovation
- ❖ APRIL: Data & Decision Sciences Building
- ❖ JULY: Corps Leadership & Military Sciences Building
- ❖ AUG: New Upper Quad Residence Hall

2024

- ❖ MAR: Hitt Hall
- ❖ APRIL: Innovation Campus-Academic Building
- ❖ APRIL: Undergraduate Science Lab

*Spending on projects in construction phase through June 30, 2022 - \$227,274,000*

# APPROVAL OF YEAR-TO-DATE FINANCIAL PERFORMANCE REPORT

Attachment J

July 1, 2021 - June 30, 2022

## RECOMMENDATION

That the report of income and expenditures for the University Division and the Cooperative Extension/Agricultural Experiment Station Division for the period of July 1, 2021 through June 30, 2022 and the Capital Outlay report be approved.

August 22, 2022

# APPROVAL OF 9(c) AND 9(d) FINANCING RESOLUTIONS

KEN MILLER, VICE PRESIDENT FOR FINANCE

JOHN CUSIMANO, UNIVERSITY TREASURER

AUGUST 22, 2022

# 9(c) AND 9(d) FINANCING RESOLUTIONS Attachment J

- *To complete the financing plans for eight capital projects under construction and previously authorized by the Board of Visitors, the university needs approval to issue two types of long-term debt .*
- *The debt financing for these projects was included in the “University Debt Ratio and Debt Capacity” report accepted by the Finance and Resource Management Committee on November 8, 2021.*
- *The university generally uses commercial paper to fund the initial planning and construction costs which are reimbursed once the permanent debt is issued.*
- *The university accesses state debt programs to reduce administrative burdens and costs of issuance and to obtain lower costs of capital.*



# 9(c) DEBT FINANCING

- *Debt issued under Section 9(c) of Article X of the Constitution of Virginia:*
  - *Is issued by the Treasury Board on behalf of the University.*
  - *Is a general obligation revenue bond of the university and backed by the full faith and credit of the commonwealth.*
  - *Is generally approved for NGF auxiliary revenue producing projects - such as parking facilities, residence halls, and dining facilities.*
  - *Is rated AAA.*

# 9(d) DEBT FINANCING

- *Debt issued under section 9(d) of Article X of the Constitution of Virginia:*
  - *Can be issued by the university or a conduit issuer like the Virginia College Building Authority (VCBA).*
  - *Is backed by a pledge of its general revenues.*
  - *Is rated Aa1/AA+ when issued through VCBA.*

# 9(c) and 9(d) Financing Resolutions Details



# 9(c) FINANCING RESOLUTIONS

- *Three financing resolutions must be approved to participate in the Commonwealth's 9(c) issuance.*
- *The underlying projects and authorized principal amounts include:*

	<u>(in millions)</u>
■ <i>Hitt Hall (Dining)</i>	<i>\$41.741</i>
■ <i>Innovation Campus Academic Bldg. (Parking)</i>	<i>\$27.136</i>
■ <i>New Upper Quad Residence Hall</i>	<i>\$33.00</i>

*Total: \$101.877*

# 9(c) FINANCING RESOLUTIONS

- *The financing parameters of the 9(c) bond sale include:*
  - *That the aggregate principal amount shall not exceed the authorized principal amount plus other issuance costs, reserve funds, construction period interest, and other financing expenses.*
  - *That the repayment of the bonds are secured by the net revenues of the projects.*
  - *That the 9(c) bonds secured by the net revenues of an individual project are on parity with other university 9(c) obligations secured by the same net revenues.*
  - *That the university pay it proportionate share of all expenses incurred in connection to the sale of the bonds.*

# 9(d) FINANCING RESOLUTIONS

- *Five financing resolutions must be approved to participate in the VCBA's 9(d) issuance.*
- *The underlying projects and authorized principal amounts include:*

*(in millions)*

■ <i>Corps Leadership and Military Science</i>	<i>\$31.35</i>
■ <i>Data and Decision Science Building</i>	<i>\$10.00</i>
■ <i>Hitt Hall</i>	<i>\$12.00</i>
■ <i>Innovation Campus Academic Building</i>	<i>\$107.00</i>
■ <i>Student Wellness Services</i>	<i>\$46.954</i>

*Total: \$207.304*

# 9(d) FINANCING RESOLUTIONS

- *The financing parameters of the 9(d) bond sale include:*
  - *That the principal amount for each project shall not be greater than the amount authorized by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing expenses, and any other increase permitted by law.*
  - *That the interest rate shall not exceed more than 50 basis points higher than the rate for “AA” rated securities with comparable maturities.*
  - *That the weighted average maturity of the principal payments shall not exceed 20 years.*
  - *That the last principal payment shall not exceed the reasonable expected life of the project.*

# 9(c) AND 9(d) FINANCE RESOLUTIONS Attachment J

The resolutions authorize the Vice President for Finance, University Treasurer, and Assistant Vice President for Finance and Associate Treasurer, in consultation with the Chief Business Officer, to do the following:

## **9(c) debt issues**

- *Execute and deliver all certificates and instruments; and*
- *To take all such further action as may be considered necessary in connection with the sale and issuance of the bonds.*

## **9(d) debt issues**

- *To execute and deliver the loan agreement and promissory note with the Authority and any amendments thereto.*
- *To execute and deliver any other documents, instruments, or certificates as may be deemed necessary or desirable to finance or refinance the costs of the project through the VCBA program.*



# SUMMARY

- *The university plans on participating in the Department of Treasury's 9(c) and VCBA's 9(d) debt financing programs.*
- *To do so, the three 9(c) and the five 9(d) financing resolutions need to be approved by the Board.*
- *Total debt financing is \$309.2 million*
  - *Total 9(c) = \$101.9 million*
  - *Total 9(d) = \$207.3 million*

# APPROVAL OF 9(c) AND 9(d) FINANCING RESOLUTIONS Attachment J

## RECOMMENDATION

- 1) That the resolutions authorizing the issuance of 9(c) bonds totaling \$101.877 million for the Hitt Hall (dining facility), Innovation Campus Academic Building (parking facility), and Upper Quad Residence Hall projects be approved; and
- 2) That the resolutions authorizing the issuance of 9(d) bonds through the VCBA totaling \$207.304 million for the Corps Leadership and Military Science, Data and Decision Science Building, Hitt Hall, Innovation Campus Academic Building, and Student Wellness Services projects be approved.

*August 23, 2022*

# Virginia Tech India

GURU GHOSH, VICE PRESIDENT, OUTREACH & INTERNATIONAL AFFAIRS  
ROOP MAHAJAN  
TARUN SEN

Board of Visitors - Finance and Resource Management  
Committee August 21-22, 2022

# VIRGINIA TECH - INDIA REGIONAL CENTERS

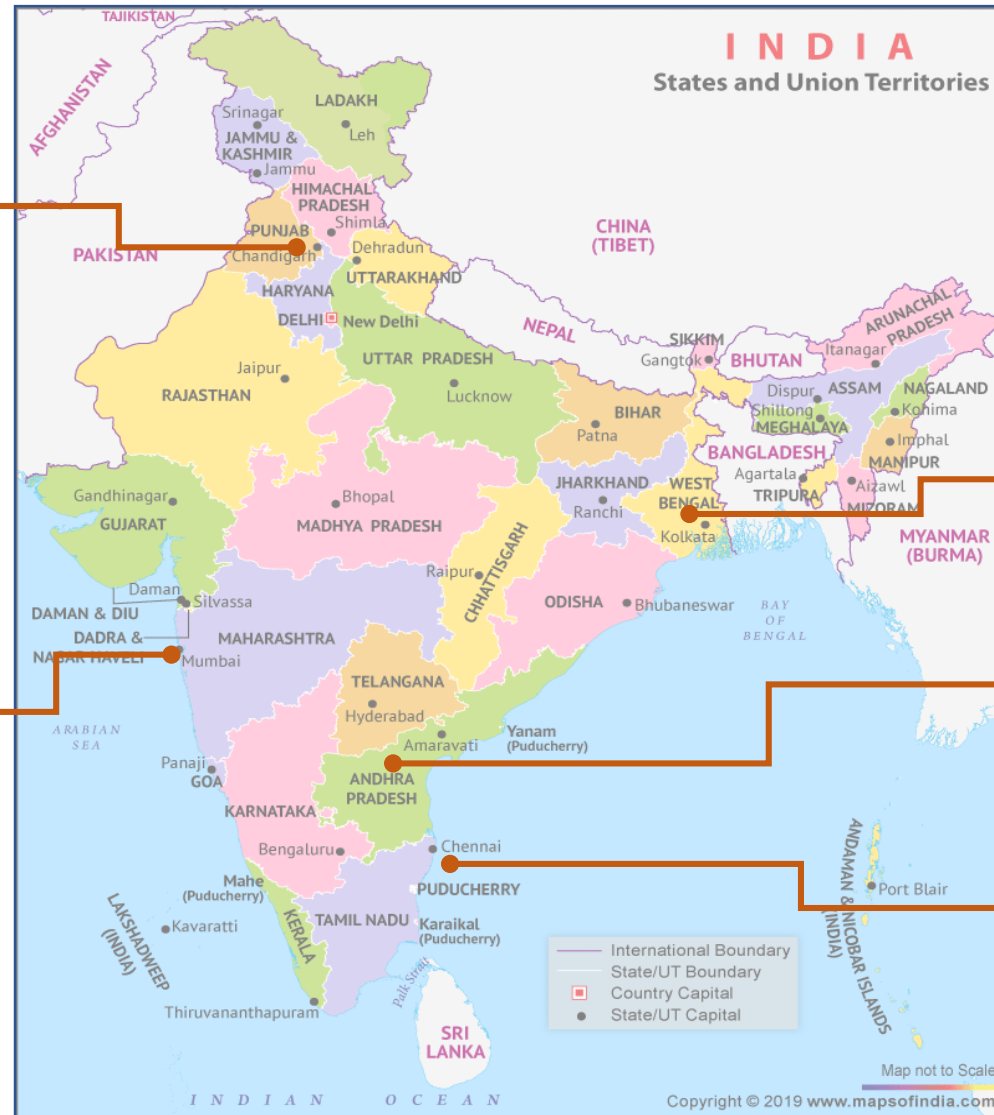
Center for Emerging  
Materials (CEEMS) [4]  
*Thapar University, Patiala*

Virginia Tech - NMIMS  
Institute for Global Education  
and Curriculum Development  
(IGE) [1]  
*Mumbai*

Research and Education  
Collaboration  
Virginia Tech - IIT Kharagpur [2]  
*Kharagpur*

VTIREF [3]  
B. Tech Nano Technology  
Virginia Tech - Mahindra  
University  
*Hyderabad*

VTIREF [4]  
MGR University Research  
IIT Madras Research Park  
*Chennai*



## Ongoing Programs

### Flagship Program

Certificate Program in  
Business Analytics & AI  
[6 months] - 4 Cohorts completed

### Corporate Mentorship

Development Program  
[3 Days]

## Proposed Programs

Certificate Program in  
Automotive Analytics & AI  
[4 months]

Space System  
Technology  
[9 months]

Cybersecurity  
[4 months]

Drone Pilot Program  
Training  
[9 months]

## University Collaborations

Mahindra University  
Hyderabad  
B. Tech Nano Technology - Aug  
2022

Vellore Institute of  
Technology (VIT)  
Business Analytics and AI

ABBS College, Bengaluru  
Business Analytics and AI

## Institute for Global Education & Curriculum Development (IGE)

- Graduate and undergraduate programs in Mumbai and Blacksburg
- Encourage applicants to graduate programs at Virginia Tech from NMIMS
- Faculty collaborations for international research

200+ students annually enrolling through VT-NMIMS programs

25+ Virginia Tech faculty participating in programs in India

## BS/MS Program in Business Analytics & Cybersecurity

2011

Started with Pamplin's BIT Department

3+1+1

3 years in NMIMS, Mumbai | 1 year in Pamplin (BS) | 1 year in Pamplin (MS)

3

3 degrees: B. Tech in CS from NMIMS | BS and MS from Virginia Tech

40

Annual Enrollments

Fall '23

First batch arrives in Virginia Tech Campus

## M. Tech in Data Science

- Started in 2019
- M. Tech offered by NMIMS
- Certificate from Virginia Tech
- Batches graduated - 2
- Enrollments ~ 20 annually - 3 Virginia Tech Faculty

## B. Tech - Artificial Intelligence

- Started in 2020
- B. Tech offered by NMIMS
- Certificate from Virginia Tech
- Enrollments ~ 60 annually - 7 Virginia Tech Faculty

## B. Tech in Data Science

- Started in 2020
- B. Tech offered by NMIMS
- Certificate from Virginia Tech
- Enrollments ~ 60 annually - 7 Virginia Tech Faculty

## B. Tech - Cybersecurity

- Started in 2020
- B. Tech offered by NMIMS
- Certificate from Virginia Tech
- Enrollments ~ 60 annually - 7 Virginia Tech Faculty

## VT-IIT KGP Certificate Program in Business Analytics and Artificial Intelligence

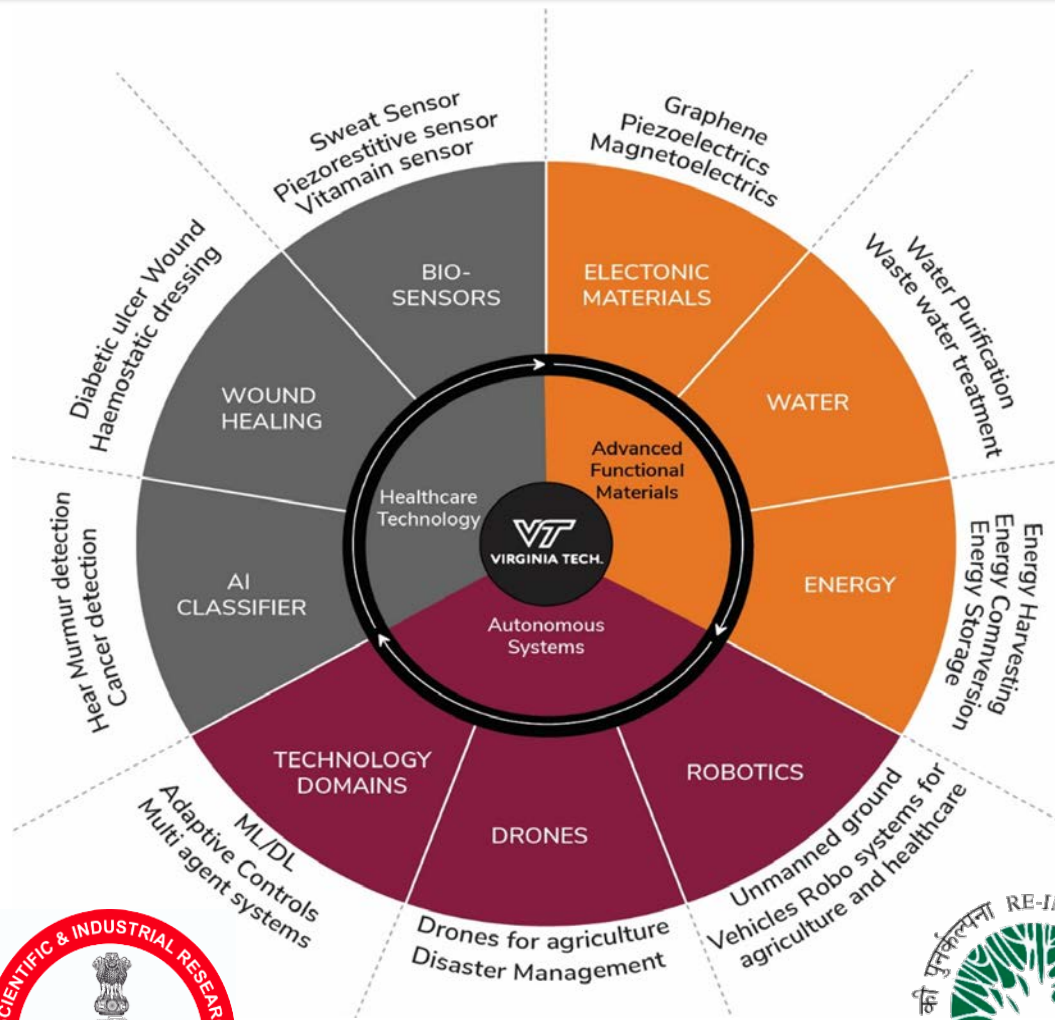
- Started in June 2022
- 9 month online program - jointly taught by Virginia Tech and IIT KGP faculty
- Enrollment - 16

## Research Collaboration (in-progress)

- Joint Ph.D. Programs in areas of mutual interest; Creates valuable Ph.D. student pipeline
- IIT KGP B. Tech student internships; encourages applicants for Masters programs at Virginia Tech
- Approvals in process at - IIT KGP and Virginia Tech
- Team from IIT KGP visited campus in May 2022



# [3] VTIREF - MGR UNIVERSITY RESEARCH CENTER



## LAB FACILITIES

1. Material Processing Lab
2. Material Characterization Lab
3. Centre for Excellence in Emerging Technologies
4. Flight Simulator Lab
5. Drone Integration Lab



# [4] VTIREF - IIT MADRAS RESEARCH PARK & CEEMS



Indian Institute of Technology Madras (IITM) is ranked:

- #1 in Engineering, 7<sup>th</sup> consecutive year
- #1 Overall, 4<sup>th</sup> consecutive year

Source: National Institute Ranking Framework (NIRF) in 2022

VTIREF's IITM Research Park is India's first university-based Research Park

- Situated in the IITM Research Park
- Started in January 2022
- Aim is to work in close relationship with IITM for Research & Innovation
  - Research Projects and Joint Research Funding
  - Conferences and Seminars
  - Student and Faculty Programs

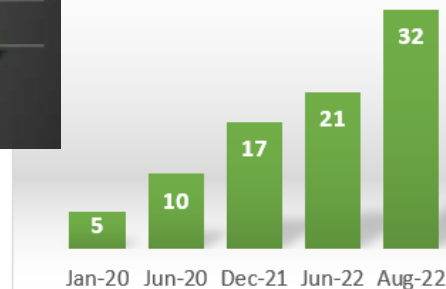
Virginia Tech-Thapar University Center of Excellence in Emerging Materials (CEEMS)

- Harnessing the power of Nano+Materials
  - Graphene-x
  - Composite & Exploratory Research
  - Bio-x
  - Computational
- 22 Number of regular (with JRF) projects, + 2 projects of RA
- 15 Number of seed-money projects (no JRF)
- 50 Number of TIET faculty involved
- 1 Patent: one application on epoxy-graphene anticorrosion coatings for steel and concrete
- 17 Number of SCI publications: 8 (published/accepted) 9 (under review)

No. of Regular Projects

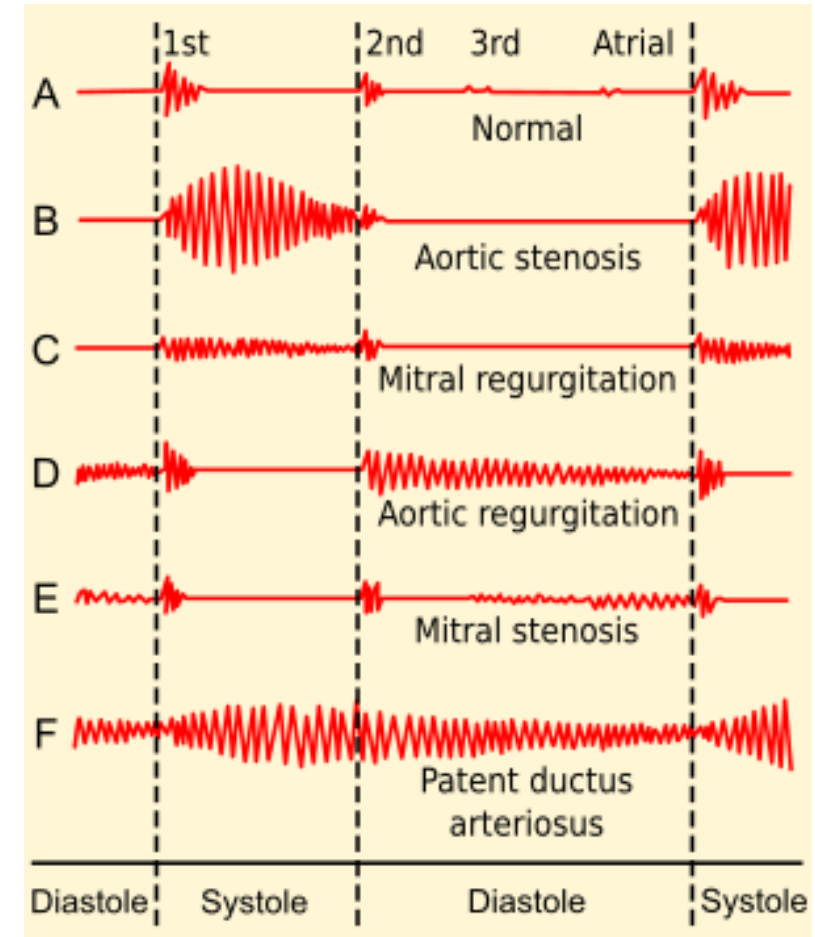


Junior Research Fellows



# Machine learning (ML) based smart digital stethoscope for detection and classification of the heart murmur

- Congenital heart disease (CHD) is one of the leading causes of death among children all over the world
- It was estimated that in India alone 240,000 children are affected by CHD and accounted for 10% of infant mortality annually
- CHD disease can be identified during auscultation and detected through the presence of a murmur
- The objective of this project is to automatically identify pathological murmurs using machine learning algorithm and classify them from innocent ones



## Finances

### Virginia Tech India Research and Education Forum

#### (VTIREF)

(FY 17 – FY22)

#### Revenue

Virginia Tech to VTIREF \$ 1,441,750

India Sourced Revenue: NMIMS, Thapar,  
MGR, and Certificate Programs \$ 988,250

**Total Revenue \$2,430,000**

#### Expenditures

Research Equipment, India Salaries  
and Operations \$ 1,527,680

Virginia Tech Faculty and Staff Salaries \$ 874,200

**Total Expenditures \$ 2,401,880**

**Balance \$ 28,120**



# COMPREHENSIVE UPDATE ON ADVANCEMENT

CHARLES D. PHLEGAR, VICE PRESIDENT FOR  
ADVANCEMENT

AUGUST 22, 2022

# YEAR-END GIVING RESULTS

Attachment J

for the period July 1, 2021 - June 30, 2022

- New Gifts & Commitments
  - **\$268,362,824**
  - Increased from \$100,419,843 in 2016
- Cash
  - **\$207,149,449**
  - Increased from \$101,451,931 in 2016
- Beyond Boundaries Scholarship Initiative
  - Over **\$1.2M** raised that will be matched by VT to support under-represented and high-achieving students

# YEAR-END GIVING RESULTS

Attachment J

for the period July 1, 2021 - June 30, 2022

- Boundless Impact Campaign
  - **\$1,157,556,855** raised toward a \$1.872 billion goal
- Overall Alumni Participation Rate was **22.43%**
  - **42,162** undergraduate alumni donors
  - More than doubled participation in less than 6 years
  - Class of 2022: **42%** participation rate
  - Additional \$1B over the next 20 years due to alumni base growth



# NEAR-TERM FOCUS AREAS

Attachment J

- Fundraising Priorities:
  - Focus on university strategic plan
- Athletics
- Innovation Campus
- Principal Partnership Office
- Continued Alumni Donor Growth
- Culture of Philanthropy

# DISCUSSION



# RESOLUTION FOR A CAPITAL PROJECT FOR BUILDING ENVELOPE IMPROVEMENTS

BOB BROYDEN, ASSOCIATE VICE PRESIDENT FOR  
CAMPUS PLANNING AND CAPITAL FINANCING

August 22, 2022

# Building Envelope Improvements

- This request is a follow up to previous briefings to the Board of Visitors
- A new envelope system methodology was used during the 2000s and later modified because it did not meet the needs of the university
- The modified methodology is proven to meet our requirements
- The Board provided guidance to refurbish the envelope systems introduced in the 2000s that do not meet our requirements
- The university has developed a plan to refurbish the envelope systems of all the effected buildings
- Most of the buildings will be refurbished by an in-house team of stonemasons
- This request is for a capital project authorization to make improvements to the four buildings that exceed the capabilities of the in-house team
- The university has developed an entirely nongeneral fund financing plan for the project; thus, the project may be authorized by the Board

# RESOLUTION FOR A CAPITAL PROJECT FOR BUILDING ENVELOPE IMPROVEMENTS

Attachment J

*NOW, THEREFORE, BE IT RESOLVED*, that the university be authorized to complete the Building Envelope Improvements project and to secure temporary short-term financing through any borrowing mechanism that, prior to such borrowing, has been approved by the Board, as applicable, in an aggregate principal amount not to exceed the \$47.2 million authorized for the total project budget, plus related issuance costs and financing expenses.

## RECOMMENDATION

That the resolution authorizing Virginia Tech to proceed with the Building Envelope Improvement Package be approved.

August 23, 2022