Committee Minutes

FINANCE AND RESOURCE MANAGEMENT COMMITTEE
Room 715, Roanoke Higher Education Center
August 27, 2018

Joint Closed Session with Academic, Research, and Student Affairs

Board Members Present: Ed Baine, Greta Harris, Anna James, Tish Long, Chris Petersen, Debbie Petrine, Dennis Treacy, Horacio Valeiras, Preston White

VPI & SU Staff: Cyril Clarke, Jack Finney, Kay Heidbreder, Kim O'Rourke, Dwayne Pinkney, Tim Sands, Savita Sharma, Dwight Shelton, Lisa Wilkes

1. **Motion for Closed Session:** Motion to begin closed session.

   The Committees requested a change in the order of the agenda to discuss the 2018-19 Faculty Salary Program followed by the Ratification of Personnel Changes Report.

* 2. **Consent Agenda:** The Committees met in closed session to review and take action on the items listed on the Consent Agenda.

   a. Resolutions to Approve Appointments to Emeritus/a Status (10): The resolutions seek approval for appointments to Emeritus/a status.

   b. Resolutions to Approve Appointments to Endowed Chairs, Professorships, or Fellowships (3): The resolutions seek approval for appointments to endowed chairs, professorships, or fellowships.

   c. Resolutions for Exclusion of Certain Officers: The resolution seeks approval to exclude members of the Board of Visitors and selected members of the administration from personnel security clearance requirements required by the U.S. Department of Defense in accordance with the National Industry Security Program Operating Manual, Cognizant Security Agencies.

   The Committees approved the items on the Consent Agenda and recommended the Resolutions for Appointments to Emeritus/a Status, Resolutions for Appointments to Endowed Chairs, Professorships, or Fellowships, and Resolutions for Exclusion of Certain Officers to the full Board for approval.

* 3. **Approval of 2018-19 Faculty Salary Program:** The Committees met in closed session to review and take action on the 2018-19 Faculty Salary Program. This report outlines merit adjustments for faculty for the 2018-19 fiscal year. In addition, the report for this year includes adjustments for faculty with demonstrated national distinction and exceptional performance in their role.

The Committees recommended the 2018-19 Faculty Salary Program to the full Board for approval.

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

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

<u>Open Session</u>

Board Members Present: Zo Amani – Graduate Student Representative, Greta Harris, Tish Long, Debbie Petrine, Dennis Treacy, Horacio Valeiras

VPI & SU Staff: Callan Bartel, Richard Blythe, Bob Broyden, Cyril Clarke, David Crotts, John Cusimano, Brian Daniels, John Dooley, Michael Friedlander, Dee Harris, Mary Helmick, Tim Hodge, Katie Hugar, Steven McKnight, Nancy Meacham, Ken Miller, Terri Mitchell, Sally Morton, Mark Owczarski, Charlie Phlegar, Lisa Royal, Tim Sands, Savita Sharma, Dwight Shelton, Ken Smith, Brad Sumpter

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

2. **Opening Remarks**

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

   a. Approval of Items Discussed in Closed Session.

   b. Approval of Minutes of the June 4, 2018 Meeting.

c. Report on Higher Education Restructuring Institutional Performance Measures: The Report on Higher Education Restructuring Institutional Performance Standards (IPS), focused on finance and administrative performance standards results for fiscal year 2017. In July 2018, the university reported on the performance of the finance and administrative measures for fiscal year 2017 to the Secretaries of Finance, Administration, and Education. The assessment of the academic measures is conducted by State Council for Higher Education of Virginia (SCHEV).

This report provided information on the 17 finance and administrative measures and the university's performance for each of those measures. The report also provided information on SCHEV's assessment of the six academic measures. The university is in full compliance with all 17 finance and administrative measures and six academic measures reported.

* d. Approval of O'Shaughnessy Hall Renovation 9(d) Debt Financing Resolution: The resolution seeks approval for 9(d) debt financing for the renovation of O'Shaughnessy Hall through the State's 9(d) Virginia College Building Authority pooled bond program. The O'Shaughnessy Hall Renovation has been authorized by the State to be financed for up to $12.634 million plus amounts needed to fund issuance costs, reserve funds, and other financing expenses.

* e. Approval of VT Carilion Research Institute Biosciences Addition 9(d) Debt Financing Resolution: The resolution seeks approval for 9(d) debt financing for the Virginia Tech Carilion Research Institute Biosciences Addition (commonly known as the VT Carilion Health Sciences and Technology building) through the State's 9(d) Virginia College Building Authority (VCBA) pooled bond program. The Virginia Tech Carilion Research Institute Biosciences Addition has been authorized by the State to be financed for up to $41.558 million, plus amounts needed to fund the issuance costs, reserve funds, and other expenses. The $91.7 million project will be funded with $51.6 million of General Fund appropriations with the remaining $40.1 million consisting of $27.6 million of debt and $12.5 million of cash and donations. Within the $27.6 million of debt, $23.8 million was issued last fall through the VCBA. This resolution seeks authorization to issue up to $4.0 million of additional debt.

The Committee approved the items on the Consent Agenda and recommended the O'Shaughnessy Hall Renovation 9(d) Debt Financing Resolution and the VT Carilion Research Institute Biosciences Addition 9(d) Debt Financing Resolution to the full Board for approval.

4. **Discussion on Resource Development:** The Committee had a follow-up discussion on information presented at the Board of Visitors Retreat.

5. **Comprehensive Report on Advancement:** The Committee received a comprehensive report from University Advancement including an update on the achievements from fiscal year 2018, an overview of the preliminary plans for the upcoming fundraising campaign, and strategic focus for fiscal year 2019.

   The Committee congratulated the Advancement team for a successful fundraising year. Total New Gifts and Commitments for fiscal year 2018 are just over $153.6 million, surpassing the stated goal of $135 million. The private gift income total is nearly $134.4 million, exceeding the stated goal of $110 million. Fiscal year 2018 marks the third consecutive year of private gift income in excess of $100 million annually. Funding for Beyond Boundaries scholarships went from $0 to $765,000 for underrepresented students.

   The university's comprehensive capital campaign is well underway, with the quiet phase beginning in July 2017. The 10-year campaign, scheduled to end in June 2027 will incorporate the university's sesquicentennial celebration in 2022. The campaign will have both an official fundraising goal and an engagement goal.

   Advancement has done a lot of ground work to build the Advancement infrastructure. The discussion focused on ongoing work on the development of an Advancement culture at the university. The Provost, Deans, and other university management are actively engaged in elevating the understanding of fundraising across the university and to scale the Advancement model to leverage future opportunities. At the current return of about 0.14 cents to a dollar, Advancement has been effective in providing a positive return on investment.

   The Advancement report also included a comprehensive list of significant achievements toward established divisional goals for fiscal year 2018; one of which was 100 percent philanthropic participation from the Board of Visitors, Virginia Tech Foundation Board, Advancement Committee, Alumni Board, and the President's Council.

6. **Assessment of Operational Best Practices, Efficiencies, and Future Opportunities:** The university remains committed to seeking additional opportunities to increase efficiencies and continues to evaluate the current status of financial and operational processes. With this in mind, the Vice President for Finance and CFO requested a benchmarking study of key administrative and financial processes in the

Controller's Office against peer institutions and industry to provide comparative analysis and to identify additional opportunities for process improvements.

The study concluded that for a majority of the benchmarking metrics reviewed, Virginia Tech outperforms other higher education institutions, but lags behind commercial entities on certain metrics. This is primarily due to industry's use of advanced automation and fewer compliance constraints which affect higher education. Management plans to conduct a cost-benefit assessment of implementing the recommended Robotic Process Automation and Business Intelligence tools, currently used primarily by private industry, for the proposed Controller's Office and other university processes.

***** 7. **Approval of Year-to-Date Financial Performance Report (July 1, 2017 – June 30, 2018):** The Committee reviewed for approval the Year-to-Date Financial Performance Report for July 1, 2017 – June 30, 2018. The university successfully closed its fiscal year in accordance with guidance and requirements of the Commonwealth. The Education and General budgets were balanced at year-end, with no operating deficit incurred. The Auxiliary Enterprises achieved the annual revenue budget, while expenditures were lower than projected due to the timing of operating expenditures and projects that were initiated but incomplete at year-end.

For the quarter ended June 30, 2018, the Auxiliary Enterprises revenues were higher than projected due to Athletics higher than forecasted ticket sales and ACC revenue, interest savings, and student fees, while expenditures were lower than projected due to the timing of operating expenditures and personnel savings.

For year-ended June 30, 2018, $45.6 million has been expended for Educational and General capital projects, and $61.4 million has been expended for Auxiliary Enterprises capital projects. Total capital outlay expenditures for year-ended June 30, 2018 was $107 million against an annual budget of $135.9 million.

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

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

Joint Open Session with the Buildings and Grounds Committee

Board Members Present: Zo Amani – Graduate Student Representative, Ed Baine, Greta Harris, C. T. Hill, Anna James, Robert Mills, Debbie Petrine, Dennis Treacy, Horacio Valeiras, Preston White

VPI & SU Staff: Mac Babb, Callan Bartel, Bob Broyden, Richard Blythe, D'Elia Chandler, Cyril Clarke, David Crotts, John Cusimano, Brian Daniels, John Dooley, Jack Finney, Kevin Foust, Lance Franklin, Tom Gabbard, Mark Gess, Dee Harris, Mary Helmick, Tim Hodge, Katie Hugar, Chris Kiwus, Steve McNight, Nancy Meacham, Ken Miller, Terri Mitchell, Liza Morris, Sally Morton, Mike Mulhare, Mark Owczarski, Charlie Phlegar, Lisa Royal, Tim Sands, Savita Sharma, Dwight Shelton, Ken Smith, Brad Sumpter, Dwyn Taylor, Sherwood Wilson

***** 1. **Approval of Resolution for Planning the Athletics Weight Room Renovation and Expansion**: The Committees reviewed for approval a resolution for planning the capital project for the Athletics Room Renovation and Expansion.

The Merryman Center was built in 1998 and is approximately 42,000 gross square feet. The facility has received few improvements since its original construction, and requires an update to meet the Athletic department's expectations within the highly competitive environment for NCAA Division I college football. The envisioned renovation and expansion will provide state-of-the-art spaces for weight training, nutrition, team meeting space, circulation, and an updated graphics package.

Based on a feasibility study completed in January 2018, the university has determined that the desired athletics program can be accommodated with an approximately 22,520 gross square foot project. This includes a 17,640 gross square foot renovation of the first two floors of the Merryman Center and a 4,880 gross square foot expansion of the second floor team meeting rooms.

This request is for a $700,000 planning authorization to complete working drawings for the Athletics Weight Room Renovation and Expansion project.

The Athletics program is raising private funds to support the project and has received gifts and commitments sufficient to support the planning phase of the project.

The Committees recommended the Resolution for Planning the Athletics Weight Room Renovation and Expansion to the full Board for approval.

There being no further business, the meeting adjourned at 11:22 a.m.

*** Requires full Board approval.**

Report on Higher Education Restructuring Institutional Performance Standards

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

July 18, 2018

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, the College of William and Mary, and Virginia Commonwealth University were also 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 2018 biennial assessment of the academic related measures. In April 2018, 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 2018 Biennial Assessment Results as reported by SCHEV.

- Finance and Administrative Measures: In July 2018, 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.

SCHEV is scheduled to perform an institutional assessment of the IPS measures by October 2018. The university believes it will be considered in compliance for these measures when the State Council makes its final determination of compliance by Spring 2019.

Academic Performance Standards
2018 Biennial Assessment Results*
(Using 2015 Projections for PMs 1 - 4)

Institution	PM 1		PM 2		PM 3		PM 4		PM 5	PM 6
	15-16	16-17	15-16	16-17	15-16	16-17	15-16	16-17	Biennium	Biennium
VT	100.1	101.7	98.7	98.9	104.4	108.2	98.9	97.9	60**	88***

As reported to Virginia Tech by SCHEV in April, 2018

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 2015-16 and 2016-17 Degrees Conferred Files and the last five years of financial aid data files prior to degree award.
Averages for the biennial period (2015-16 and 2016-17) under review were compared to averages of prior three-years (12-13, 13-14, and 14-15).

*****The score of 60 indicates that during this review period, VT increased the number of conferred degrees to students from under-represented populations by an average of 60 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 2015-16 and 2016-17 Course Enrollment files (CE) and CE files from 5 yrs prior, Degree Conferred Files up to 10 yrs prior.

Averages for the biennial period (2015-16 and 2016-17) under review were compared with base year (2010-11) figures.

******The score of 88 indicates that during this review period, VT increased the number of transfer students by an average of 88 more than the threshold target of the 2010-11 academic year***

Virginia Tech
Higher Education Restructuring Institutional Performance Standards
2016-17

	Measure	Metric Definition	Performance Goal	FY 2017 Performance	Result
1. Financial					
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	●
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	●
2. Debt Management					
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 imoney.net money market index fund	0.14%	0.41%	●
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%	3.67%	●
3. Human Resources					
a.	Turnover percent as an indicator of classified staff stability and satisfaction	The institution's voluntary turnover rate for classified plus university/college staff employees will meet the voluntary turnover rate for state classified employees within a variance of 15 percent	6.27%	7.28%	●
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%	50.20%	●
4. Procurement					
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%	92.8%	●
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	82.4% - Transactions 86% - Dollars	●
5. Capital Outlay					
a.	Capital projects within budget [1]	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%	11% below market	●
6. Information Technology					
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%	100%	●
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 capital project threshold was revised from $1 million to $2 million effective July 1, 2011. This change was pursuant to the State increasing its capital project threshold to $2 million.

University Advancement Update

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

July 20, 2018

For fiscal year 2018, the Advancement division has continued its focus on generating a greater level of philanthropic revenue while also enhancing engagement, increasing the alumni participation rate, and expanding our communication reach among our collective audiences.

This report summarizes the fundraising effort and provides a comparison of results since the launch of the Advancement model; it also provides high-level information on key achievements within the division, preliminary plans for the upcoming campaign, and the top priorities and strategic focus of Advancement for fiscal year 2019.

FUNDRAISING UPDATE

With a critical emphasis on engagement and participation over the past three years, we acknowledge another successful year of philanthropy.

- Total New Gifts and Commitments (NG&C) for fiscal year 2018 is just over $153.6 million, surpassing our stated goal of $135 million and coming in just $8.6 million (5.33 percent) less than last fiscal year's record-breaking result of $162.3 million. Attachment I displays the breakdown of the new gifts and commitments by Gift Type for fiscal year 2018.

- The private gift income (CASH) total is nearly $134.4 million, exceeding our stated goal of $110 million and representing an increase of just over $9.36 million (7.5 percent) more than last fiscal year. Attachment II displays the monthly comparison of private gift income (cash) for fiscal year 2017.

FY18 marks the third <u>consecutive</u> year of private gift income in excess of $100M annually.

ANNUAL FUND

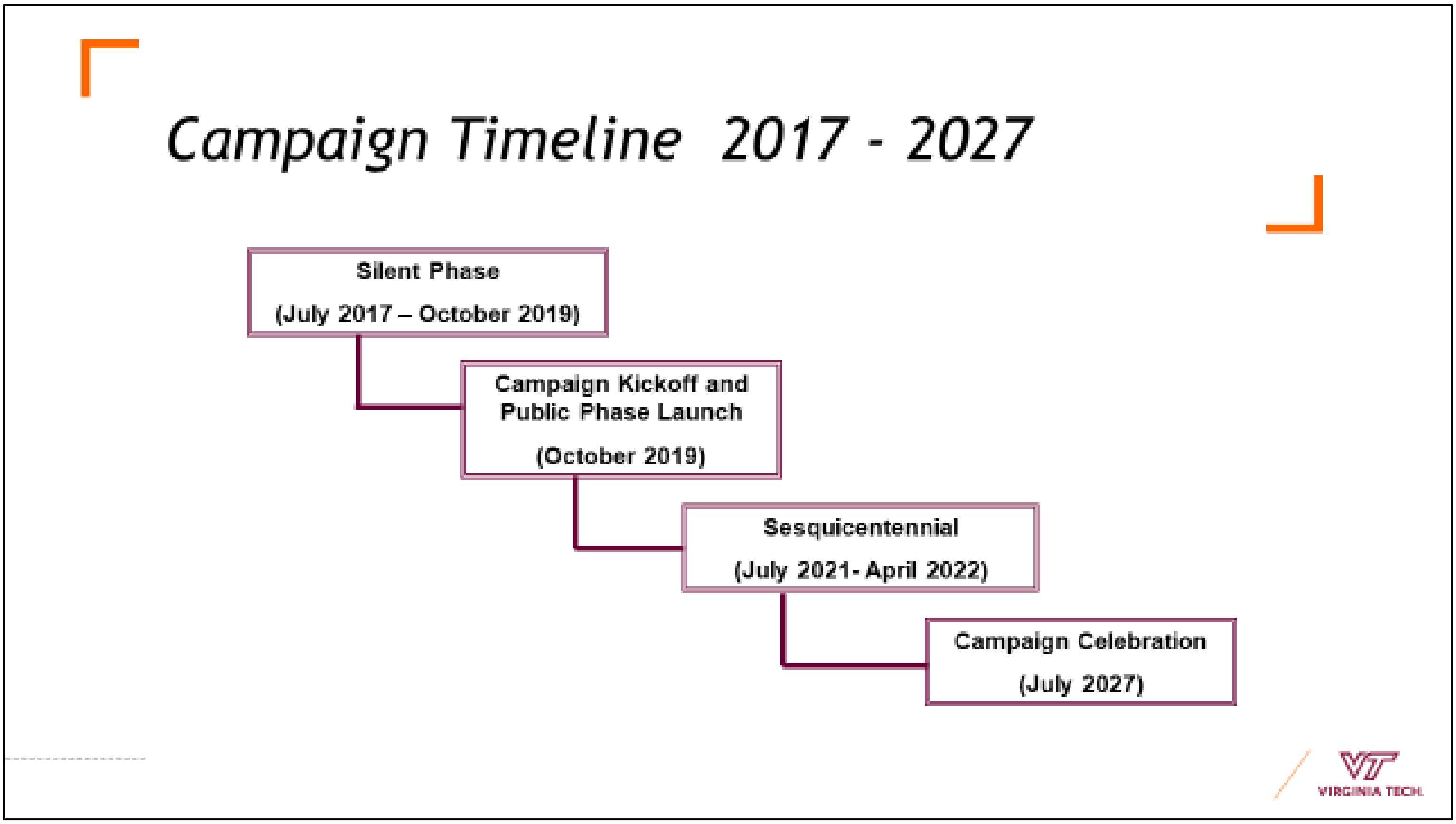
The expanded concentration of engagement and increased participation, coupled with the university's broad vision and ambitious goals continue to fuel our success through annual giving. The fiscal year 2018 results show:

- A 14 percent increase in donors, with 31,570 donors;
- An 8 percent increase in revenue, with more than $24.6 million raised.

We are pleased to acknowledge that we exceeded $9 million in academic annual giving for the first time and are well-established to continue this momentum for FY19.

COMPREHENSIVE CAMPAIGN

The university's comprehensive capital campaign is well underway, with the quiet phase beginning in July 2017. We anticipate a 10-year campaign, scheduled to end in June 2027 and incorporating the university's sesquicentennial celebration.



CAMPAIGN PLAN AND GOAL(S)

The campaign plan has been completed. The official campaign goal, along with the university, college, and unit priorities are being finalized. Individual meetings are currently being held with the Provost, Deans/Unit Leaders, and the Campaign Director to specify priorities that will align with the college or unit objectives, the strategic plan, and overall campaign strategy. We will have an official fundraising goal and an engagement goal, which will be determined by President Sands at the conclusion of the unit review meetings. This campaign will progressively promote a culture of philanthropy amongst our various audiences with a specific focus on achieving 22 percent participation by 2022, which makes the engagement goal a critical component of the campaign strategy.

CAMPAIGN STEERING COMMITTEE

The Campaign Leadership is being actively recruited. Two campaign co-chairs have been identified and full steering committee recruitment of between 20 and 30 members will be completed by September 30. Standing membership seats on the steering committee will be held for a member of the Board of Visitors, Chair of the Virginia Tech Foundation Board of Directors, Chair of the Virginia Tech Foundation Board's Advancement Committee, President of the Virginia Tech Alumni Association Board of Directors, and a representative of the Virginia Tech Athletic Fund Executive Committee.

CAMPAIGN LEADERSHIP AND VOLUNTEER STRUCTURE

LINK AND LAUNCH

Through a partnership with Advancement and the Office of Research and Innovation, LINK: the Center for Advancing Industry Partnerships, was established to support our connections and the experiences of our corporate and foundation partners. LINK is achieving exceptional heights through their efforts. The Executive Director and team serve as points of contact to manage relationships and to leverage and optimize current and future opportunities for the benefit of Virginia Tech, the advantages of which we have already experienced. LINK's primary purpose is to grow sponsored research, recruiting and philanthropy through industry partnerships.

With the immense success of LINK, the vision for LAUNCH was created. LAUNCH, the Center for New Ventures, is being established to ensure discoveries made at Virginia Tech create value and impact with support for new ventures. The underlying concept is to provide a mechanism to create a launch pad for opportunity and impact at the university and beyond.

VIRGINIA TECH CARILION ACADEMIC HEALTH CENTER

The Virginia Tech Carilion Academic Health Center (VTC AHC) is a unique public-private partnership with Virginia Tech and Carilion Clinic to develop an integrated Academic Health Center based at the Virginia Tech Carilion Health Sciences and Technology Campus in Roanoke, VA. This partnership leverages our institutional strengths in science, bioinformatics and engineering with the medical expertise of Carilion Clinic's resources.

A coordinated marketing communication plan for the VTC AHC has been launched with Tracy Vosburgh (Virginia Tech) and Mike Dame (Carilion Clinic) at the helm of execution. A primary marketing strategy includes a video featuring interviews with key stakeholders who make compelling cases for the importance of this endeavor.

The VTC partnership recently concluded an economic impact study led by Dr. Terry Rephann, Regional Economist with the Weldon Cooper Center. The economic impact study has been shared this spring throughout the Roanoke and New River Valleys. Attachment III includes the Roanoke Times article regarding the economic impact study

<u>Summary Points:</u>

- In FY2026, all activities at VTC are anticipated to generate approximately $190.3 million in expenditures – an increase of 350 percent (FY2017 – FY2026).
- Using the REMI PI+ model, VTC's state employment impact is projected to grow from 1,699 in FY2017 to 3,147 in FY2026 – an 85 percent increase.
- Specifically, the employment impacts of the VTC Research Institute and VTC School of Medicine will grow from 722 in FY2017 to 2,211 in FY2026.
- The effect on the state's economic output is projected to grow from $214.3 million FY2017 to $465.2 FY2026 million over the same time – a 117 percent increase.

The Advancement Team is currently engaged in securing several significant financial commitments from principal individuals important to our effort and to the Roanoke Valley.

NATIONAL CAPITAL REGION (NCR)

With the university's continued emphasis on expanding our impact in the NCR, the Advancement office has worked to support that objective. In the past year, we have broadened our reach with a full Advancement Team that includes a Principal Gift Officer, a Major Gift Officer, an Alumni Engagement Officer, a Media Relations Officer, an Administrative Assistant, and the growth continues. Further, we are utilizing those existing resources to support major initiatives in the NCR to include the Commonwealth Cyber Initiative (CCI) and an active presence on the NCR Leadership Council, among other efforts critical to the overarching university vision for that region.

BEYOND BOUNDARIES SCHOLARSHIPS

The Beyond Boundaries scholarship program was established to bring exceptional students of diverse backgrounds together in world-class learning environments at the university. Advancement is partnering with other campus colleagues to expand access to a Virginia Tech education by helping to relieve financial strain. This will continue to serve as a mechanism to increase the percentage of underrepresented minorities, raise the level of students from historically underserved populations, and attract high-achieving students from all communities.

In the past fiscal year, approximately $765,000 was raised through the Beyond Boundaries scholarship program. This total represents 165 gifts for the benefit of nearly 250 students from our underserved and underrepresented populations. Advancement will continue to support this presidential priority for Access and Affordability benefiting high achievers and promoting our division's goals around inclusion and diversity.

KEY ADVANCEMENT HIGHLIGHTS

The Division of University Advancement has made great strides in fiscal year 2017-2018 to achieve established divisional goals, aligned with contributing to the success of key university priorities. The completion of the full integration of the Advancement Model allowed us to focus our efforts on the work needing to be accomplished. Some significant achievements include:

- Completing 52 hires in the past fiscal year, such as:
  - Divisional Human Resources (HR) Director for Advancement
  - Assistant Dean for Advancement – Engineering
  - Assistant Dean for Advancement – Liberal Arts & Human Sciences
  - Director of Foundation Relations
  - Adding several positions within LINK
  - Expanded the Advancement Team in the NCR to include a Principal Gifts Officer, Major Gifts Officer
  - Communications Director – Office of the Provost
  - General Manager – WVTF Radio Station

- Launching the university's First "Giving Day" on March 20, 2018. Nearly 5,300 gifts were received from 4,313 donors totaling $1.62M in a 24-hour period.

- Achieved 100 percent philanthropic participation from the Board of Visitors, Virginia Tech Foundation Board, Advancement Committee, Alumni Board, and the President's Council.

- Launched and executed the newly revamped Reunion Weekend on June 7-10, 2018. There were over 300 alumni in attendance and the feedback was extraordinarily positive.

- Finalized the plans to roll out the new Reinvestment Fee Structure that became effective July 1, 2018 and completed the communication plan to inform constituents of the change.

- In partnership with the officers of the Virginia Tech Foundation, Inc., launched the Virginia Tech Donor Advised Fund as an additional vehicle to receive gifts for the university.

- Launched the university's new brand and promoted placement of the new mark to our various constituencies, including branded paraphernalia for key groups and a free t-shirt giveaway on the Drillfield for students, among other efforts.

- Redesigned the Virginia Tech Magazine, increasing editorial and design perspectives, along with creating an online presence for the magazine.

FISCAL YEAR 2019 ADVANCEMENT PRIORITIES AND STRATEGIC FOCUS

The Division of University Advancement collectively establishes our goals and aligns our strategic focus through the creation of a work plan on an annual basis. This year, the division will be implementing the next phases of our Young Alumni Program, increasing participation, preparing for the public launch of the campaign, continuing the integration of the university brand, supporting inclusion and diversity efforts, and achieving our fundraising and engagement goals for the year.

Virginia Tech

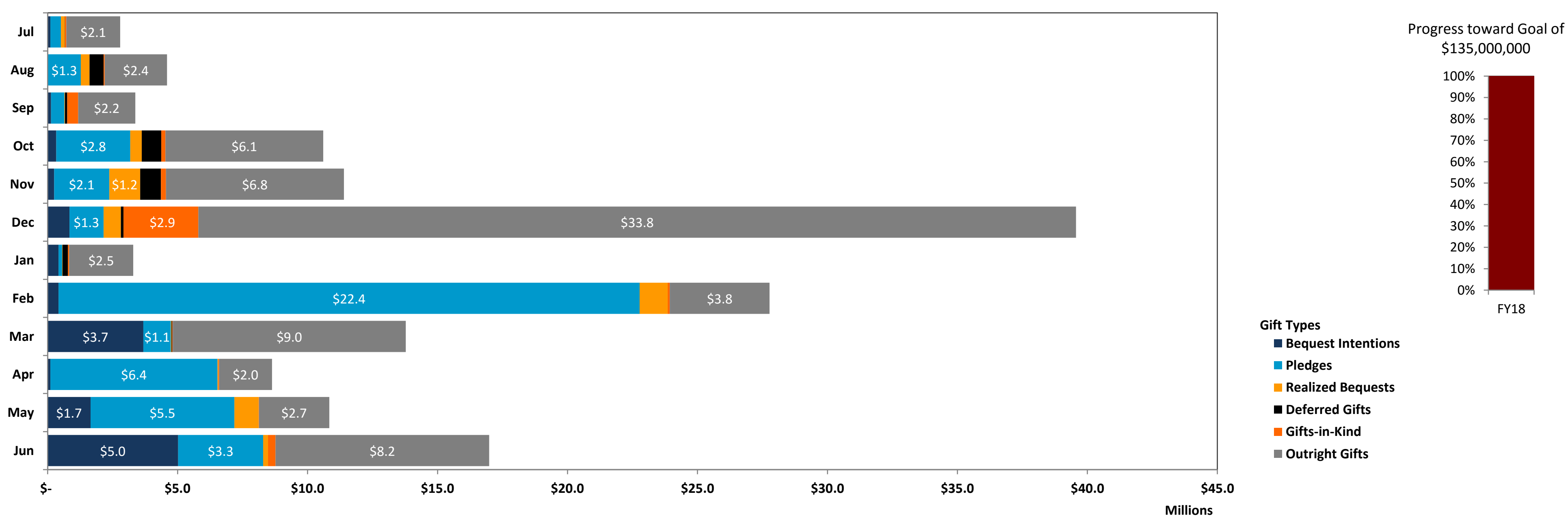
FY18 Monthly Comparison of New Gifts and Commitments

For the period July 1, 2017 - June 30, 2018

NG&C Totals

Gift Type	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Grand Total
Bequest Intentions	$ 104,825	$ 8,400	$ 128,001	$ 333,502	$ 253,330	$ 837,913	$ 416,003	$ 416,681	$ 3,682,908	$ 106,000	$ 1,650,800	$ 5,020,218	$ 12,958,581
Pledges	$ 410,952	$ 1,269,445	$ 520,486	$ 2,845,453	$ 2,119,353	$ 1,313,185	$ 143,733	$ 22,359,539	$ 1,057,645	$ 6,429,001	$ 5,535,376	$ 3,271,770	$ 47,275,937
Realized Bequests	$ 142,116	$ 331,250	$ 17,093	$ 443,418	$ 1,185,403	$ 665,274	$ 11,993	$ 1,078,223	$ 27,289	$ 33,523	$ 931,724	$ 189,126	$ 5,056,433
Deferred Gifts	$ 10,391	$ 543,118	$ 91,142	$ 747,952	$ 799,119	$ 100,971	$ 210,000	$ -	$ 25,042	$ -	$ -	$ -	$ 2,527,735
Gifts-in-Kind	$ 53,121	$ 42,557	$ 421,746	$ 160,952	$ 194,825	$ 2,879,564	$ 48,757	$ 76,097	$ 23,605	$ 26,343	$ 10,880	$ 286,211	$ 4,224,658
Outright Gifts	$ 2,066,810	$ 2,400,732	$ 2,194,985	$ 6,067,959	$ 6,843,774	$ 33,766,182	$ 2,464,370	$ 3,843,540	$ 8,962,602	$ 2,038,810	$ 2,705,701	$ 8,221,203	$ 81,576,670
FY18 Total	**$ 2,788,214**	**$ 4,595,502**	**$ 3,373,453**	**$ 10,599,237**	**$ 11,395,804**	**$ 39,563,088**	**$ 3,294,856**	**$ 27,774,079**	**$ 13,779,092**	**$ 8,633,677**	**$ 10,834,482**	**$ 16,988,528**	**$ 153,620,013**
FY18 $ Needed to Reach Goal	**$ 4,960,422**	**$ 8,651,634**	**$ 4,184,253**	**$ 6,018,372**	**$ 12,402,838**	**$ 25,788,636**	**$ 3,535,138**	**$ 9,382,109**	**$ 19,172,626**	**$ 6,449,597**	**$ 6,290,080**	**$ 28,164,295**	**$ 135,000,000**
Difference	***$ (2,172,207)***	***$ (4,056,132)***	***$ (810,800)***	***$ 4,580,865***	***$ (1,007,034)***	***$ 13,774,453***	***$ (240,282)***	***$ 18,391,970***	***$ (5,393,535)***	***$ 2,184,080***	***$ 4,544,402***	***$ (11,175,767)***	***$ 18,620,013***
FY17 Total	**$ 5,319,340**	**$ 8,288,520**	**$ 4,008,874**	**$ 7,995,438**	**$ 19,304,257**	**$ 23,651,129**	**$ 2,753,603**	**$ 15,066,315**	**$ 31,267,830**	**$ 7,641,080**	**$ 4,670,948**	**$ 32,311,148**	**$ 162,278,480**
Difference	***$ (2,531,126)***	***$ (3,693,018)***	***$ (635,420)***	***$ 2,603,800***	***$ (7,908,453)***	***$ 15,911,960***	***$ 541,253***	***$ 12,707,765***	***$ (17,488,738)***	***$ 992,597***	***$ 6,163,534***	***$ (15,322,619)***	***$ (8,658,467)***
2 Year Average	**$ 4,826,276**	**$ 8,417,666**	**$ 4,071,097**	**$ 5,855,616**	**$ 12,067,425**	**$ 25,091,227**	**$ 3,439,536**	**$ 9,128,387**	**$ 18,654,136**	**$ 6,275,179**	**$ 6,119,976**	**$ 27,402,641**	**$ 131,349,161**
Difference	***$ (2,038,061)***	***$ (3,822,164)***	***$ (697,644)***	***$ 4,743,622***	***$ (671,621)***	***$ 14,471,861***	***$ (144,681)***	***$ 18,645,692***	***$ (4,875,045)***	***$ 2,358,498***	***$ 4,714,506***	***$ (10,414,113)***	***$ 22,270,852***

NG&C Bar - by Gift Type



Source: Office of University Development, Virginia Tech

Prepared: July 15, 2018

Virginia Tech

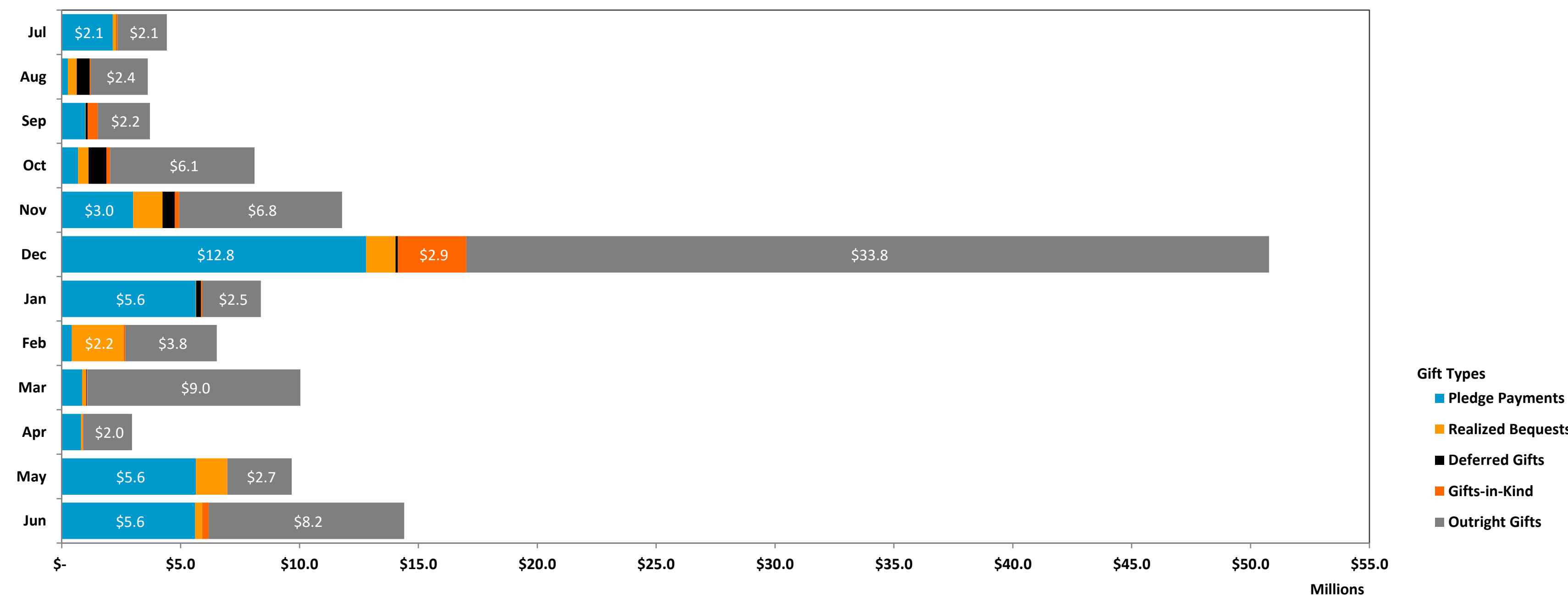
FY18 Monthly Comparison of Cash

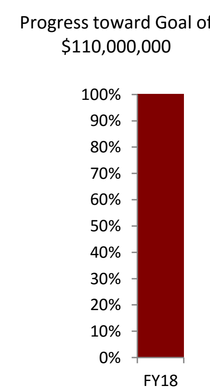
For the Period July 1, 2017 - June 30, 2018

Cash Totals

Gift Type	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Grand Total
Pledge Payments	$ 2,146,611	$ 258,050	$ 983,968	$ 684,839	$ 3,001,644	$ 12,805,925	$ 5,635,083	$ 423,338	$ 858,014	$ 810,369	$ 5,642,451	$ 5,611,590	$ 38,861,882
Realized Bequests	$ 143,366	$ 373,616	$ 17,593	$ 443,418	$ 1,235,653	$ 1,230,594	$ 16,174	$ 2,173,180	$ 169,350	$ 68,773	$ 1,314,132	$ 284,783	$ 7,470,633
Deferred Gifts	$ 10,391	$ 543,118	$ 91,142	$ 747,952	$ 511,004	$ 100,971	$ 210,000	$ -	$ 25,042	$ -	$ -	$ -	$ 2,239,619
Gifts-in-Kind	$ 53,121	$ 42,557	$ 421,746	$ 160,952	$ 194,825	$ 2,879,564	$ 48,757	$ 76,097	$ 23,605	$ 26,343	$ 10,880	$ 286,211	$ 4,224,658
Outright Gifts	$ 2,066,810	$ 2,400,732	$ 2,194,985	$ 6,067,959	$ 6,843,774	$ 33,766,182	$ 2,464,370	$ 3,843,540	$ 8,962,602	$ 2,049,325	$ 2,705,708	$ 8,221,203	$ 81,587,192
FY18 Total	**$ 4,420,299**	**$ 3,618,073**	**$ 3,709,434**	**$ 8,105,122**	**$ 11,786,899**	**$ 50,783,237**	**$ 8,374,383**	**$ 6,516,154**	**$ 10,038,613**	**$ 2,954,810**	**$ 9,673,172**	**$ 14,403,787**	**$ 134,383,984**
FY18 $ Needed to Reach Goal	**$ 4,589,210**	**$ 4,090,656**	**$ 5,068,043**	**$ 6,513,233**	**$ 9,318,395**	**$ 31,554,033**	**$ 3,436,487**	**$ 3,704,150**	**$ 9,860,477**	**$ 7,470,271**	**$ 5,097,642**	**$ 19,297,403**	**$ 110,000,000**
Difference	***$ (168,911)***	***$ (472,583)***	***$ (1,358,608)***	***$ 1,591,889***	***$ 2,468,505***	***$ 19,229,203***	***$ 4,937,896***	***$ 2,812,004***	***$ 178,136***	***$ (4,515,461)***	***$ 4,575,530***	***$ (4,893,616)***	***$ 24,383,984***
FY17 Total	**$ 5,682,019**	**$ 5,346,968**	**$ 6,148,867**	**$ 9,100,494**	**$ 9,560,869**	**$ 28,900,488**	**$ 3,305,057**	**$ 4,961,116**	**$ 19,113,117**	**$ 10,690,679**	**$ 4,529,335**	**$ 17,676,027**	**$ 125,015,035**
Difference	***$ (1,261,720)***	***$ (1,728,895)***	***$ (2,439,433)***	***$ (995,372)***	***$ 2,226,031***	***$ 21,882,749***	***$ 5,069,327***	***$ 1,555,038***	***$ (9,074,503)***	***$ (7,735,869)***	***$ 5,143,836***	***$ (3,272,240)***	***$ 9,368,949***
3 Year Average	**$ 4,397,228**	**$ 3,919,531**	**$ 4,856,030**	**$ 6,240,763**	**$ 8,928,576**	**$ 30,234,025**	**$ 3,292,728**	**$ 3,549,193**	**$ 9,447,981**	**$ 7,157,765**	**$ 4,884,391**	**$ 18,490,129**	**$ 105,398,340**
Difference	***$ 23,071***	***$ (301,457)***	***$ (1,146,595)***	***$ 1,864,359***	***$ 2,858,323***	***$ 20,549,212***	***$ 5,081,656***	***$ 2,966,961***	***$ 590,632***	***$ (4,202,955)***	***$ 4,788,781***	***$ (4,086,342)***	***$ 28,985,644***

Cash Bar - by Gift Type





Attachment G
Attachment III

https://www.roanoke.com/business/news/roanoke/economist-says-tech-carilion-roanoke-campus-will-contribute-at-least/article_508bd7ed-e120-5c5d-937d-8346e79afad3.html

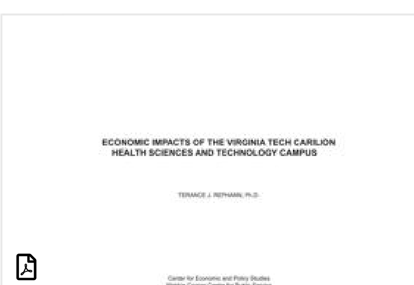
Economist says Tech, Carilion Roanoke campus will contribute at least $465 million to economy within 8 years

By Luanne Rife luanne.rife@roanoke.com 981-3209 May 23, 2018

Construction is under way on a second building for the Virginia Tech Carilion Research Institute. The site near the Roanoke River was being elevated as shown in this photo taken in late April.

Buy Now

STEPHANIE KLEIN-DAVIS | The Roanoke Times



ECONOMIC IMPACTS OF THE VIRGINIA TECH CARILION HEALTH SCIENCES AND TECHNOLOGY CAMPUS

TERANCE J. REPHANN, Ph.D.

Center for Economic and Policy Studies
Weldon Cooper Center for Public Service
University of Virginia

The impact on the state's economy by Virginia Tech Carilion health sciences campus in Roanoke will grow from $214 million today to $465.2 million annually within eight years, according to an economist's conservative projection.

Attachment G

Virginia Tech Carilion economic report
May 23, 2018

The addition of a second building for the research institute alone will create 828 new jobs and generate $150 million in additional spending by 2026.

An economist with the University of Virginia's Weldon Cooper Center for Public Service looked at expected growth on the VTC health sciences campus once the second research building opens there next year.

He said the study is conservative and did not look at the impact hundreds of additional undergraduates will have on Roanoke, nor did he include projections for Carilion Clinic's growth or speculate about additional development that could occur on the campus or in the surrounding area.

"This is just a basic benchmark based on exactly what is happening at Virginia Tech and Carilion right now. It is not a measure of possible impact," said Heywood Fralin, chairman of the VTC Academic Health Center Steering Committee. "The possible impact is going to be far greater than what is shown in this study."

The steering committee, which is made up of people who are not employed by either Carilion or Virginia Tech, is charged with advancing VTC through philanthropy, government relations and economic development.

Fralin said the study will encourage philanthropy and economic development.

"I think that as a region we need to think big because this is an opportunity that comes our way once a century," he said. He equated the impact of the health sciences campus and innovation corridor on Roanoke to that of Norfolk Western moving its headquarters here in the 1800s.

Tech and Carilion formed a partnership a decade ago to build a medical school and research institute on the Riverside

Attachment G

campus. The research institute is at capacity, and a new building is underway that will double its size and expand its reach in advancing medical discoveries through trials and to market. Tech intends to offer more undergraduate programs in Roanoke centered around its school of neuroscience, and the Virginia-Maryland College of Veterinary Medicine will move its cancer treatment center to Roanoke. Four companies have been spun off from research since 2010. At that pace, the economist expects 10 more companies will form by 2025.

Fralin said the pace of growth will quicken and have a greater impact on the region with philanthropic investment.

“Clearly, the more financial support we can give to this effort the better it will be,” Fralin said. “There is an enormous list of things that are needed. To date, the commonwealth of Virginia has funded the buildings. I don’t think it’s reasonable to assume that every building going forward will be built by the commonwealth.”

Beth Doughty, executive director of the Roanoke Regional Partnership, said the study will help in attracting developers.

“It helps to portray the potential of the future. It documents and confirms, this is the beginning, there are plans and there is a strategy,” she said.

The study’s author, economist Terance Rephan, said the VTC economic footprint through payroll and operational and capital spending will more than double from its current $42.1 million to $110 million once the new building opens next year, and that figure will grow to $190.3 million as research teams are recruited.

Rephann said his report includes spending on salaries by the university but does not include spending that will come through grants, such as those from the National Institutes of Health. The research institute now has a $100 million portfolio

Attachment G

of such grants.

Currently, about 1,700 people are employed on the campus, which also houses Carilion administrators and physician clinics. By 2026, the workforce will rise to nearly 3,150 employees. Rephann kept the Carilion jobs level static.

The study does not address the impact that the growth of undergrads from 300 to more than 1,000 will have on Roanoke.

"That can be huge and how the story is even better," Doughty said.

Carilion also announced earlier this year that its Jefferson College of Health Sciences will become part of Radford University, which would allow for a greater expansion of programs to train health care providers.

Jefferson and Radford offer programs at Carilion Roanoke Community Hospital, which is at the opposite end of the Jefferson Avenue corridor from the VTC Riverside campus. Jefferson is expected to become part of an innovation corridor with a grouping of academic institutions, affiliated businesses, housing, restaurants and other services that the growing population will need.

"We've brought in several groups of site locators and they are blown away by the potential for it," Doughty said. "To this point, it's been an undiscovered opportunity, but that's going to change."

Roanoke City Manager Bob Cowell said the city recently updated its downtown plan and included provisions to guide growth and to build more pedestrian and bike ways.

"The beauty of the campus is that it is an urban campus, and we can get people there in as many different ways as possible,"

Attachment G

Cowell said. “The real objective is to figure how people can move without getting in cars.”

Cowell said another challenge will be housing. He said the Franklin Road area “is very ripe for investment. There are folks that have moved out, large tracts of land, parking lots and those things.” He said Earth Fare and Carilion Institute for Orthopaedics and Neurosciences provide examples of how redevelopment along Franklin Road might look.

He said most of Franklin Road is zoned commercial, so the city will need to look at more mixed uses to accommodate housing. He said the city is also talking with Roanoke County officials about plans to redevelop the area around Tanglewood Mall, as that would anchor the other end of the corridor.

Cowell said there are more buildings downtown that could be converted to apartments and condos, and he does not foresee the construction of new apartment buildings in residential areas.

“It would be a real challenge and inappropriate to push that activity into the neighborhoods,” he said.

Cowell said a committee of key stakeholders meets monthly to talk about the issues.

“The hope is they can realize what they are projecting and that we can accommodate and capitalize on that,” he said.

Luanne Rife

Luanne Rife writes about the businesses, policies, discoveries and inventions that affect the health of people living in southwestern Virginia.

University Advancement Update

August 27, 2018

CHARLES D. PHLEGAR, ‘78, ‘87

VICE PRESIDENT FOR ADVANCEMENT

VIRGINIA TECH™

Overview

- Fundraising Update
- Campaign Update
- LINK + LAUNCH
- VTC AHC/Roanoke Initiative
- NCR
- Beyond Boundaries Scholarships Update
- Fiscal Year 2018 Key Highlights
- Fiscal Year 2019 Priorities and Strategic Focus

Fiscal Year 2018 Fundraising Results & Campaign Status

- FY 18 New Gifts & Commitments: $153.62 million
- FY 18 Cash: $134.38 million – third consecutive year exceeding $100 million annually
- 100% Philanthropic Participation from Leadership Boards
- FY 18 Annual Fund
  - 31,570 donors (14% increase)
  - Over $24.6 million raised (8% increase)

CAMPAIGN UPDATE

- 10-year campaign (July 2017 – June 2027), with sesquicentennial embedded
- Will have dollar goal and engagement goal
- Public kickoff scheduled for October 2019; Closing Celebration in July 2027
- Volunteer Structure – Campaign Steering Committee

Primary Focus Areas

- LINK: Center for Advancing Industry Partnerships
- LAUNCH: Center for New Ventures
- VTC AHC: Virginia Tech Carilion Academic Health Center
- National Capital Region
- Beyond Boundaries Scholarships
  - Nearly $765,000 raised (165 gifts; 250 scholarships awarded)

Summary

- Fiscal Year 2018 Highlights
  - New Hires; Giving Day; Reunion Weekend; Reinvestment Structure, Donor Advised Fund, Brand Launch
- Fiscal Year 2019 Priorities and Strategic Focus
  - Young Alumni; Increasing Participation; Campaign Launch; Brand Awareness; Achieving Fundraising & Engagement Goals

- QUESTIONS?

Charlie Phlegar ~ cphlegar@vt.edu ~ 540-231-7676

Assessment of Operational Best Practices, Efficiencies, and Future Opportunities in the Controller's Office

FINANCE AND RESOURCE MANAGEMENT COMMITTEE

August 27, 2018

Background

During the last decade, the Virginia Tech Controller's and Bursar's offices have implemented multiple electronic processes and systems to significantly improve the efficiency and customer service aspects of business practices and procedures. These electronic system and process enhancements have enabled the university to provide timely and accurate services to both internal and external stakeholders (employees, students and vendors).

The university remains committed to seeking additional opportunities to increase efficiencies and continues to evaluate and assess the current status of the financial and operational processes. With this in mind, the Vice President for Finance and CFO requested a benchmarking study of key administrative and financial systems/processes against peer institutions and industry to provide comparative analysis and to identify additional opportunities for process improvements. The consulting firm of Ernst and Young (EY) was engaged to conduct the benchmarking study and presented the final report in May 2018.

The scope of work included an assessment of the current status of key financial and operational processes in the Payroll, Accounts Payable, and Bursar's Office. The scope also included a comparison of current university processes against those in other higher education institutions and corporate entities to identify opportunities for additional efficiencies, potential cost savings, or improvements to the customer experience. These processes were selected for review because of their broad impact on faculty, staff, and students and because they affect the majority of the university's expenditures and revenue transactions.

The review included obtaining an in-depth understanding of the business processes for each of the respective areas, analyzing the time effort required for each process/task, and the salary and fringe cost for employees performing these tasks. Ernst and Young (EY) mapped the processes to comparable business processes in their benchmarking database to compare both the relative amount of full-time-equivalent (FTE) staff time and salary and fringe benefit costs devoted to these processes. Additionally, EY evaluated our processes to best practices of other entities based on their breadth of knowledge gained through other consulting engagements.

Overall, the Ernst and Young study reports that the "Controller's Office has continued to improve process and systems to lift the overall quality and efficiency of the University's finance practices". The study concludes that for majority of the benchmarking metrics, Virginia Tech outperforms other higher education institutions. However, university performance lags other industries on certain metrics.

Benchmarking results showed Virginia Tech performing ”best in class” on 85 percent of the Payroll metrics and “above average” on 86 percent of the Bursar’s office metrics. Accounts Payable compared favorably to peer higher education institutions but did not benchmark well against private industry. This is primarily due to industry’s use of advanced automation and fewer compliance constraints which affect higher education. This report provides a summary of findings and recommendations from the EY study.

General Recommendations for all areas

For the three areas reviewed, EY recommends utilization of new technologies to gain further efficiencies:

- Robotic Process Automation (RPA) tool: RPA is an emerging form of business process automation that utilizes robotics and artificial intelligence to handle routine and repetitive tasks enabling the employees to conduct more complex and higher level tasks. Examples of these tools are Blue Prism, UiPath, or Automation Anywhere. This was rated by EY as requiring a medium level of effort to implement with a high level of benefit.

- Business Intelligence (BI) tool: BI tool will allow the creation of dashboards, enhance recurring report generation and management, and enable easier data analysis with ad-hoc or drill-down queries to research exceptions currently identified on hard-copy reports. This was rated by EY as requiring a high level of effort to implement with a high level of benefit.

These recommendations require purchase of new software, consulting time, and technology and functional personnel resources. The university will conduct further cost-benefit analysis regarding the use of these technologies for Virginia Tech operations and also evaluate our current BI tool (Microstrategy) to determine how it may be leveraged to enhance efficiencies. The AVP for Finance & University Controller will lead the effort to make these evaluations as phase two of this process

Payroll

Ernst and Young’s review of payroll validates the effectiveness of our processes to pay our employees accurately and timely and in an efficient manner. Payroll benchmarking results showed Virginia Tech performing “Best in Class” for 85 percent of the metrics and “Above average” for an additional five percent of the metrics. Below are highlights of the findings and recommendations for payroll:

Current Leading Practices Implemented at Virginia Tech

- 98 percent of payroll payments are made to employees through direct deposit versus the industry average of 94 percent. This practice limits the number of errors and reduces check reprints.

- Policies and processes are in place to ensure a low occurrence of adjustments and manual checks resulting in 78 percent fewer manual payments than the median number of other industries.

Use of employee electronic portal to allow employees to update personal information, which eliminates the need for data entry by payroll or human resources personnel.

Potential Opportunities for Improvements or Additional Efficiencies

- The university's wage payroll cycle time was longer than other industries (10 days versus 2 days), however, the additional days in the process were used for error checking and research of exceptions resulting in greater accuracy and a significant reduction in the number of adjustments and manual checks.

- The number of payroll disbursements per FTE for Virginia Tech is 245 percent higher than the median for higher education peers. Multiple additional benchmarks with higher education and other industries reveal similar patterns indicating high productivity of payroll staff. Although these metrics indicate high performance, the report concludes that the payroll area is understaffed resulting in a risk of employee burnout and lack of staff resources to innovate and execute special projects.

- Use the RPA tool referenced above to implement a greater degree of automation for complex payroll reconciliation processes. This will enhance efficiency, build staff capacity, reduce risk of errors, and free up management time for payroll innovation opportunities.

    - Based on this analysis, a new senior account staff position is being added to the payroll team for better workload management and to build capacity for payroll operations.

- Finally, EY recommended that the consolidation of all types of employee's payroll processes into a single payroll cycle may lead to greater efficiencies. Currently, Virginia Tech has separate payroll processing cycles for wage and salary employees, although the pay dates coincide.

    - Management will investigate to see if the significant changes required to implement a single payroll process will yield sufficient efficiencies to justify the effort. The current process allows university departments to spread the workload related to payroll processing over multiple days. A single payroll cycle may create peak workloads that strain existing staffing resources.

Accounts Payable (AP)

Overall, the university compares favorably to peer higher education institutions on accounts payable metrics related to processing of AP transactions and expense reimbursements, but lags commercial entities primarily due to industry's advanced automation and fewer regulatory compliance issues that affect higher education. The study concluded that AP has implemented many of the technology tools and leading practices available.

Current Leading Practices Implemented by Virginia Tech

- Electronic procurement/payables/expense systems or portals
- Electronic approval workflows for expense payments and employee reimbursements
- Electronic invoice receipt from large volume vendors
- Centralized electronic scanning and archiving of paper invoices
- Centralized email queue for payment inquiries from vendors or university departments

Potential Opportunities for Improvements or Additional Efficiencies

- Current process automation and workflow functionality have allowed Virginia Tech to outperform other college and universities by 34 percent for FTE counts for processing accounts payable and expense reimbursements.
    - However, other industries are further ahead with process automation than the universities, which allows for reduced staff FTE's. Virginia Tech's FTE's per billion dollars of revenue are more than double the FTE's in other industries.

Industries included in the benchmarking database use RPA tools for multiple functions, including optically scanning documents to obtain the amounts and other information on invoices or expense reimbursement documents which eliminates the need for manual entry of such information.

Bursar's Office

Ernst and Young's review showcases the work of the Bursar's Office as utilizing available technology to be innovative and capitalizing on the skillsets of experienced staff. The benchmarking metrics related to customer invoicing, customer credit management, collection processing, and related metrics. Overall, the Bursar's Office is "Best in Class" in 43 percent of the metrics and "Above Average" for an additional 43 percent as compared to the benchmarking data.

Current Leading Practices Implemented at Virginia Tech

- Adoption of electronic billing and electronic payment portal processes
- Billing processes that effectively validate tuition and fee charges and reduce the number of post-billing adjustments
- Management adept in SQL queries to create ad-hoc reports
- A low percentage of delinquent accounts and labor associated with collections

Potential Opportunities for Additional Efficiencies

The Bursar's Office compared favorably with other universities and other industries in all but one benchmarking metric. Information on this metric and other EY recommendations are provided below:

- The number of FTE's to process receivables is higher than other industries primarily due to unique conditions not encountered by these entities. The Bursar's Office realigns all staff operations to address peak activity levels at the beginning of each semester to manage numerous and complex federal regulations related to federal financial aid programs and manual processes for unique third party scholarship programs.

- The Bursar's Office has implemented extensive review and reconciliation processes to ensure tuition and fee rates posted to student accounts are Board of Visitors approved rates. The reviews serve to validate fee assessments and familiarize the team with changes in the authorized rates. EY recommends the use of the Robotic Process Automation (RPA) tool to conduct the validation steps in the tuition assessment process to reduce personnel time. The fee assessment process is complex with many changes to program fees and institutional charges annually.
    - Management will need to assess the effort required of replicating this logic in a RPA tool to gain the efficiencies in the validation calculations, as well as the additional training time that would be required for the customer service team.

- The Bursar's Office currently has automated processes, which generate and print 11 daily reports to monitor activities and identify potential exceptions or errors from the previous day's activity. EY suggests that a BI tool would allow users to create ad-hoc queries of data to research exceptions and decrease paper use by digitizing these reports.
    - Management will explore existing technologies to see if the reports could be produced digitally and annotated electronically to document how the exceptions included in the report were resolved.

Conclusion

The Ernst and Young study validates the cost-effectiveness of a majority of the Payroll, Accounts Payable and Bursar's Office processes across various metrics in comparison to benchmarked institutions. The report identified opportunities for additional efficiencies and improvements through emerging technologies and automation. The university will conduct a cost-benefit assessment on implementation of industry technologies such as Robotic Process Automation (RPA) and Business Intelligence (BI) tools for the recommended and other processes.

Attachment G

Assessment of Operational Best Practices, Efficiencies, and Future Opportunities

August 27, 2018

KEN MILLER

ASSISTANT VP FOR FINANCE & UNIVERSITY CONTROLLER

VIRGINIA TECH™

Overview

Scope of Review

- Assessment of current business processes
- Peer benchmarking
- Identify opportunities to increase efficiencies, enhance cost savings, and improve customer experience

Areas of Review

- Accounts Payable
- Payroll
- Bursar's Office

Payroll

Current Leading Practices

- 98% of employees receive pay via direct deposit vs. 94% at other industries
- Policies and processes in place to ensure a low occurrence of adjustment and manual checks – 78% fewer than manual payments of other industries
- Employee electronic portal allows employees to update personal information

Results of the Review - New Opportunities

- VT has significantly fewer FTE's on multiple payroll metrics compared to universities and other industries
- VT wage payroll cycle is longer than other industries (10 days vs. 2 days)
  - the additional days allow time for error checking resulting in a significant reduction in adjustments and manual checks
- Consolidation of multiple payroll processes into a single payroll cycle

Accounts Payable (AP)

Current Leading Practices

- Electronic procurement/payable/expense systems & portal
- Electronic routing and approval workflows
- Electronic receipt of vendor invoices for high volume vendors
- Centralized scanning and indexing of paper invoices
- Centralized email queue for payment inquiries

Results of the Review - New Opportunities

- Virginia Tech outperforms other universities by 34% for FTE counts for AP processing and expense reimbursements
- Virginia Tech lags behind commercial industries and has almost double the FTE's to process AP and expense reimbursements; this is primarily due to industry's advanced automation and fewer compliance constraints

Bursar's Office

Current Leading Practices

- Adoption of eBilling and ePayment portal process
- Effective billing practices resulting in few post-billing adjustments
- Seasoned management staff adept in performing queries and data analysis
- A low percentage of delinquent accounts and labor associated with collections of receivables

Results of the Review - New Opportunities

- The Bursar's Office was above average compared to the benchmarking data in 86 percent of all metrics except the number of FTE's to process receivables. This is due to unique conditions not encountered by these entities such as complex federal regulations related to financial aid programs and manual processes for third party scholarship programs
- Additional efficiencies may be obtained if new technology could be leveraged to improve the tuition and fee assessment process and daily exception report processes

Summary and Next Steps

- Results of dedicated efforts for the past decade demonstrate the offices of the Controller and Bursar have implemented many best practices.

- The Ernst and Young study validated the cost-effectiveness of a majority of the Payroll, Accounts Payable and Bursar’s Office processes across various metrics. Virginia Tech generally outperformed their benchmarked peers; areas for improvement were noted when benchmarked against commercial industries.

- Additional efficiencies and improvements can be achieved by using emerging technologies and automation currently used primarily by private industry such as Robotic Process Automation (RPA) and Business Intelligence (BI) tools

- Management will explore the potential benefits of implementing RPA and BI tools and conduct a cost-benefit assessment of implementing these tools for the recommended and other university processes