Virginia Tech Board of Visitors Retreat
August 19, 2017

Minutes

A. Resolution: Ratification of Actions Approved by the Executive Committee on June 26, 2017

B. Presentation: Beyond Boundaries

C. Presentation: Higher Education Funding Principles

D. Presentation: Video An Easy Guide to FOIA for Boards of Visitors

E. Presentation: Virginia Tech's Evolving Funding Model - External

F. Presentation: Virginia Tech's Evolving Funding Model - Internal

G. Presentation: VT-MIX Co-Lab Network

H. Presentation: The "VT-Shaped" Student Experience

MINUTES

August 19, 2017

The Board of Visitors of Virginia Polytechnic Institute and State University held a retreat in open session at the Virginia Tech Research Center-Arlington, 900 N. Glebe Road, Arlington, Virginia, on Saturday, August 19, 2017.

Present	**Absent**
Ms. Greta Harris	Mr. Jeff Veatch
Mr. C. T. Hill	
Ms. Anna James	
Mr. Mehmood S. Kazmi	
Ms. Letitia Long	
Mr. Robert Mills	
Mr. L. Chris Petersen	
Ms. Deborah Petrine (Vice Rector)	
Mr. Michael Quillen	
Mr. Wayne Robinson	
Mr. Mehul P. Sanghani	
Mr. Dennis H. Treacy (Rector)	
Mr. Horacio Valeiras	

Constituent Representatives:
Dr. Hans Robinson, Faculty Representative
Mr. Robert Sebek, Staff Representative
Mr. Seyi Olusina, Undergraduate Student Representative
Mr. Brett Netto, Graduate Student Representative

Also present were the following: President Timothy Sands, Ms. Shelia Collins, Mr. Al Cooper, Mr. Corey Earles, Dr. Alan Grant, Ms. Kay Heidbreder, Dr. Rachel Holloway, Dr. Steve McKnight, Ms. April Myers, Ms. Kim O'Rourke, Mr. Mark Owczarski, Dr. Menah Pratt-Clarke, Dr. Thanassis Rikakis, Mr. Dwight Shelton, Dr. Ken Smith, Ms. Tracy Vosburgh, Mr. Christopher Yianilos.

Facilitator: Dr. Terrence MacTaggart

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ORIENTATION SESSION FOR NEW BOARD MEMBERS

Prior to the retreat, there was an orientation session held for new Board members (and open to the public) from 8:00 to 9:30 a.m. in the same location. The orientation included a welcome and introduction by Rector Dennis Treacy and President Tim Sands, a presentation on Virginia Tech's basic financial model by Interim Senior Vice

President Dwight Shelton, a presentation on Virginia's Freedom of Information laws and related regulations by University Legal Counsel Kay Heidbreder, and concluding remarks by Rector Treacy regarding the Board's fundamental responsibility to the university.

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BOARD OF VISITORS RETREAT

The retreat was convened by the Rector at 9:37 a.m. He introduced Dr. Terry MacTaggart, a consultant from the Association of Governing Boards, who would be the facilitator for the retreat. Rector Treacy called upon President Sands, who announced several changes to the President's direct reports, including the creation of three positions: Senior Vice President (replacing the Chief Operating Officer position that has been vacant for several years), Vice President for Human Resources, and Vice President for Policy and Governance.

Rector Treacy reviewed the new committee structure that the Executive Committee approved on June 26, 2017. The ensuing discussion included recommendations that committee chairs task their committee members with responsibility for specific topics and that presentations focus on the most important information that Board members need to know in order to vote on matters.

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Board Actions

Approval of the June 5, 2017, Meeting Minutes of the Board of Visitors

A motion was made by Mr. Valeiras, seconded by Mr. Sanghani, and passed unanimously to approve the minutes of the June 5, 2017, Board of Visitors meeting.

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Approval of the June 26, 2017, Meeting Minutes of the Executive Committee of the Board of Visitors

A motion was made by Ms. Petrine, seconded by Mr. Robinson, and passed unanimously to approve the minutes of the June 26, 2017, Executive Committee meeting.

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Ratification of Actions Approved by the Executive Committee on June 26, 2017

A motion was made by Mr. Valeiras, seconded by Ms. Harris, and passed unanimously to approve the resolution to ratify the following actions taken by the Executive Committee on June 26, 2017:

- Approval of Resolution Regarding 2017-18 Faculty Salary Adjustments
- Approval of Revisions to Board of Visitors By-Laws (including new committee structure)
- Approval of preliminary Committee Charters and meeting schedule

(Copy of the resolution attached to the permanent minutes and marked Attachment A.)

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Topic - Preparing a Great Institution for the Future

President Sands shared with the Board an analysis of the university's strengths, weaknesses, opportunities, and threats. President Sands explained that Beyond Boundaries is an initiative to envision where the university wants to be in a generation in the context of all of these changes and expressed his optimism for the future of the university.

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Topic - Inclusion and Diversity: Urgency, Scope, Objectives, and Resources

Dr. Menah Pratt-Clarke, Vice Provost for Inclusion and Diversity and Vice President for Strategic Affairs, began with a discussion of recent events in Charlottesville, which led into a discussion of the InclusiveVT initiative.

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Topic - Virginia Tech as a 21st Century University

Virginia Tech's Evolving Financial Model - President Sands and Mr. Shelton led a discussion of external factors impacting the university, such as declining trends in state support, federal financial aid, and federal research, and how strategies such as philanthropy can enhance the university's financial strength. The pros and cons of two scenarios were considered. Provost Thanassis Rikakis and Vice Provost Ken Smith provided a presentation about internal changes, focusing on the "Partnership for Incentive-Based Budgeting" (PIBB). Dr. Alan Grant, Dean of the College of Agriculture and Life Sciences, offered the deans' perspective.

Virginia Tech's Campus of the Future - President Sands then discussed how to create collaborative partnerships with industry and other sectors to realize the vision for the Beyond Boundaries campus of the future, and in particular the future of Virginia Tech in the National Capital Region.

The "VT-Shaped" Student Experience – Dr. Rachel Holloway, Vice Provost for Undergraduate Academic Affairs, discussed the "VT-shaped student" and experiential learning opportunities. Ms. Tracy Vosburgh, Senior Associate Vice President for University Relations, distributed copies of the new Admissions "view book," which features personal stories of several students. She had previewed the proposed new Virginia Tech mark for the Board during the lunch break.

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Roundtable Discussion

The meeting concluded with a roundtable discussion of mutual expectations and commitments by the Board and the President and next steps. The need for continued and enhanced communication at every level was a consistent theme. Rector Treacy invited ideas about future agenda topics. The President and Rector encouraged Board members to channel information for the Board through the Board Secretary, Ms. Kim O'Rourke, and to let her know whenever Board members are planning to be on campus.

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The date of the next regular meeting is September 10-11, 2017, in Blacksburg, Virginia.

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Following a motion by Mr. Robinson and second by Mr. Sanghani, the retreat was adjourned at 4:22 p.m.

_____
Dennis H. Treacy, Rector

_____
Kim O'Rourke, Secretary

RESOLUTION TO RATIFY ACTION OF THE EXECUTIVE COMMITTEE OF THE BOARD OF VISITORS

WHEREAS, the Bylaws of the Virginia Tech Board of Visitors, Article I, Section 6a, stipulate that the Executive Committee of the Board in the interim between meetings of the Board has full power to take actions on behalf of the Board and that all such actions taken by the Executive Committee are subject to ratification by the full Board at its next meeting; and

WHEREAS, the university's traditional fall faculty merit process was advanced in order to align with the legislated statewide compensation program effective July 10, 2017, and Board of Visitors approval of the university's merit recommendations is required prior to implementation; however, the quarterly board meeting schedule did not align with the merit process timeline; and

WHEREAS, the Executive Committee of the Board was convened by the Rector on June 26, 2017, to act upon the 2017-18 Faculty Salary Adjustments and several other items of a time-sensitive nature; and

WHEREAS, the next meeting of the full Board of Visitors is a retreat scheduled for August 19, 2017;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Visitors of Virginia Polytechnic Institute and State University hereby ratifies the actions taken by the Executive Committee of the Board on June 26, 2017 (attached), which include:

- Approval of Resolution Regarding 2017-18 Faculty Salary Adjustments
- Approval of Revisions to Board of Visitors By-Laws (including new committee structure)
- Approval of preliminary Committee Charters and meeting schedule

RECOMMENDATION:

That the above resolution ratifying the actions taken by the Executive Committee of the Board of Visitors at a special meeting convened on June 26, 2017, be approved.

August 19, 2017

Beyond Boundaries

- A 30-year visioning process first outlined in my installation address (Oct. 17, 2014).
- Not a strategic plan, but the underpinnings for the next strategic (continuous) planning process that we will initiate this fall.

http://www.beyondboundaries.vt.edu

Major Themes of Beyond Boundaries

- The VT-Shaped Student Experience
- InclusiveVT
- Destination Areas
- Cross-sector Partnerships
- Communities of Discovery
- Partnership for an Incentive-Based Budget (PIBB)

The VT-Shaped Student

InclusiveVT

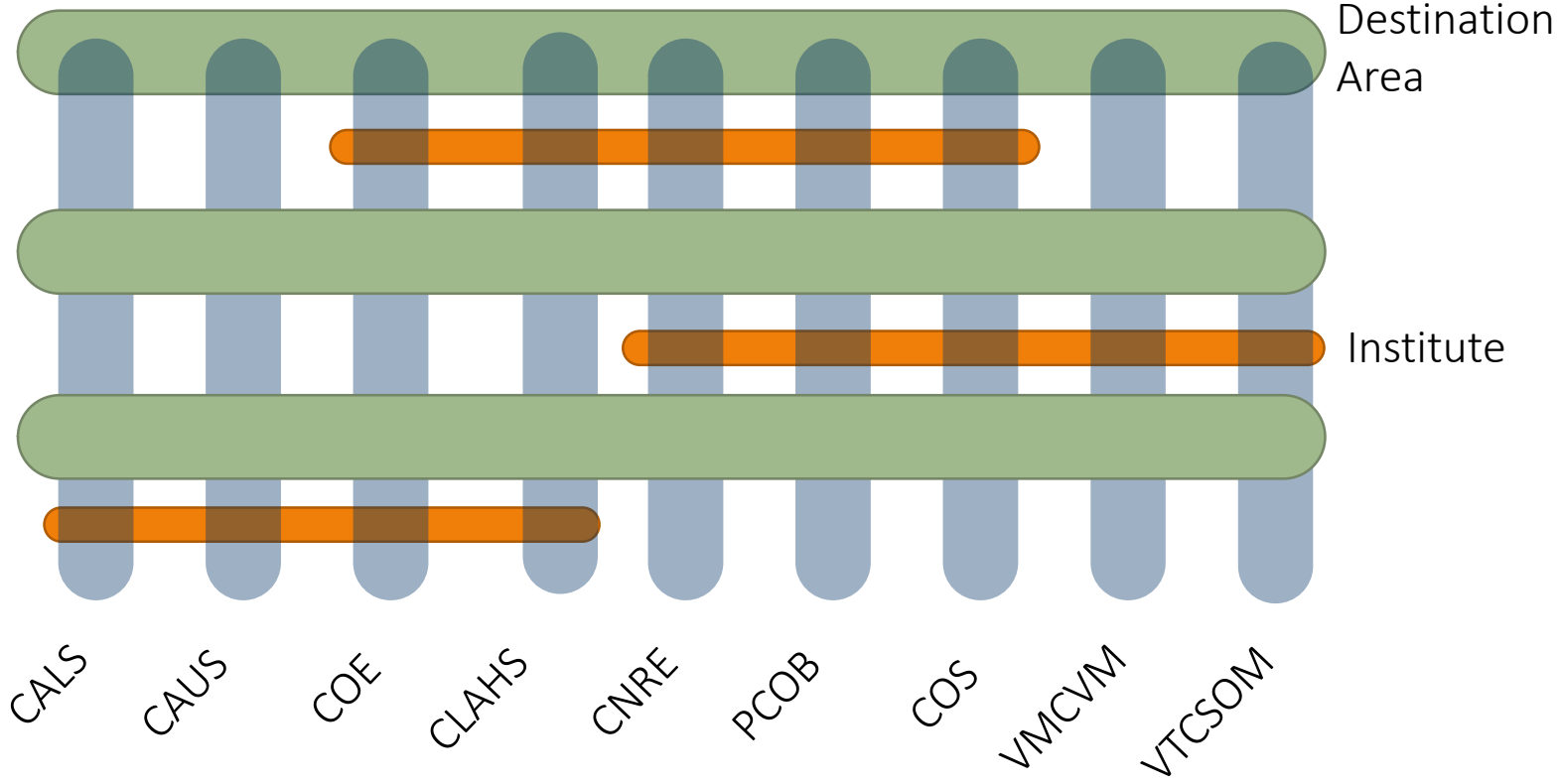
- Equity and difference
  - Understanding our histories, separate and shared
  - Access and opportunity – our land-grant mission
- The demographic imperative
  - Sourcing talent for Virginia Tech
  - Employer mandate
- Preparing ALL of our students for the complex world they are entering
  - *Ut Prosim* – One cannot serve without understanding & empathizing with those to be served. Diversity and inclusion create an environment that enables the practice of empathy in preparation for service.

Destination Areas

- Two decades of the institute model have fostered leadership in interdisciplinary research at Virginia Tech; We move now into *transdisciplinary* research, education and engagement.
- No one institution can dominate a complex transdisciplinary problem space
  - Strong partners are needed
  - To become a destination for strong partners and talent, we need to project world-class strengths within each “Destination Area.”
  - Those strengths must be interconnected so partners can see what we offer, and so our students can be immersed in complex problem spaces (VT-Shaped learning and discovery environments for VT-Shaped students)

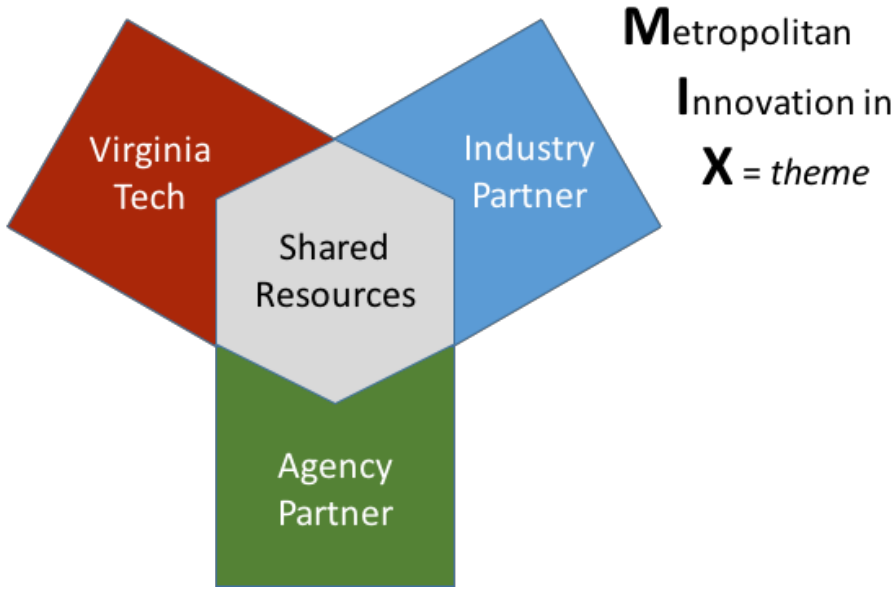
To Deliver a VT-Shaped Education - Virginia Tech must be VT-Shaped

- Unlike interdisciplinary centers and institutes that focus on research, Destination Areas are transdisciplinary and encompass research, engagement, experiential learning and instruction.
- Destination Areas evolve as challenges and opportunities evolve – on a decadal rather than a generational timescale.
- Disciplinary structure (verticals) allows faculty to aggregate knowledge and assess quality.

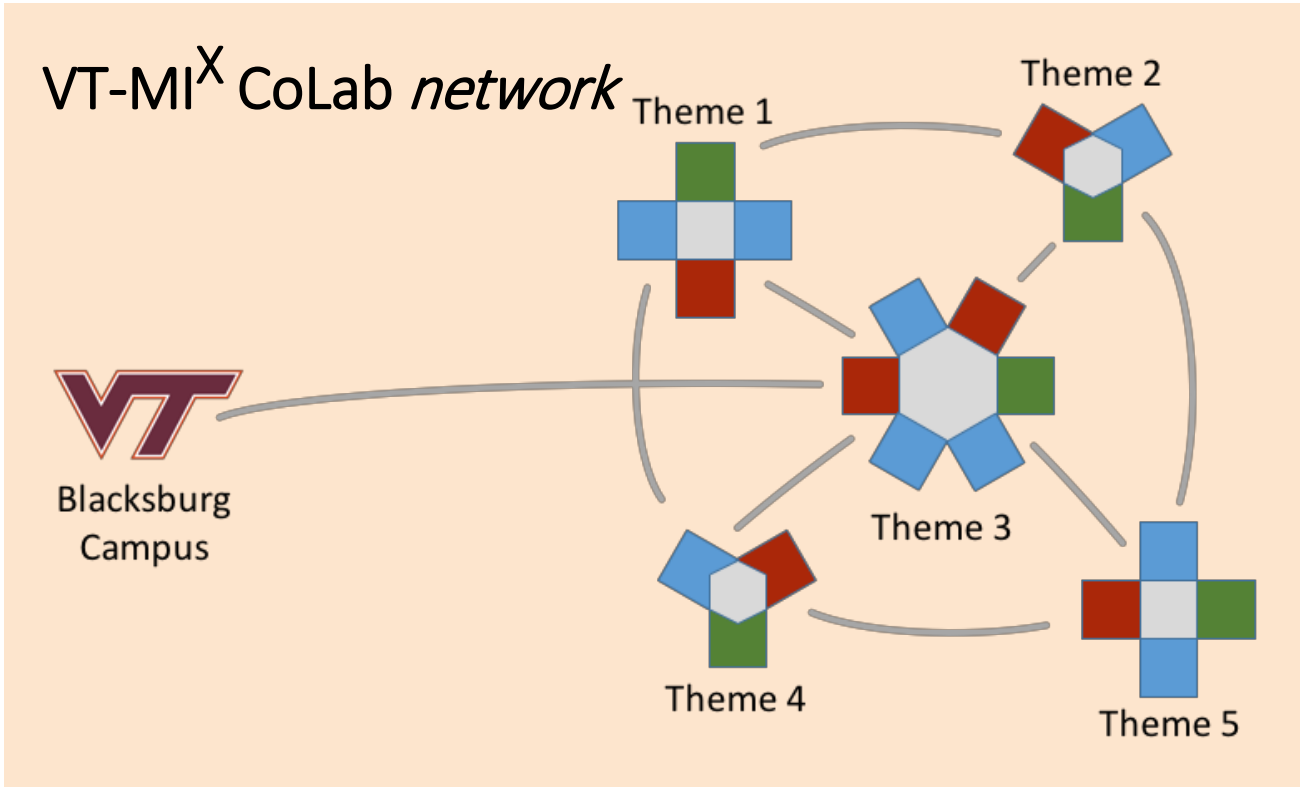


Rethinking the Traditional Campus Model

VT-MI^X CoLab *concept*



Cross-sector partners in the same space with unique shared infrastructure and world-class talent, innovating and learning together within a transdisciplinary theme



Partnership for an Incentive-Based Budget

- PIBB pushes decision-making (and $) to the college, department, institute and Destination Area level
- Transparent
- Data-informed
- Each unit defines quality and chooses metrics
- Annual data-informed discussion with provost about progress and plans
- Incentivizes future performance rather than just rewarding past performance
- Full implementation for AY19-20

Beyond Boundaries Methods and Tools – Other Examples

- **Master Plan** - Moving from disciplinary buildings to shared facilities and innovation districts
- **Partner engagement** - Introducing the Business Engagement Center – one-stop, comprehensive relationship management
- **Advancement** - Combining Alumni Relations, University Relations and Development into an integrated Advancement Division
- **VTC** - Evolving from VTCRI & independent VTC SOM to the VTC Health Sciences & Technology Campus in the Roanoke Innovation Corridor
- **Cooperative Extension** - Creating the Virginia Agricultural and Natural Resources Consortium

STAKEHOLDERS

- Students
- Faculty
- Leadership and Staff
- Local Communities
- Alumni and Donors
- Partners/Funders
- Federal and State Government

INITIATIVES

- Destination Areas
- InclusiveVT
- VT-Shaped Experience
- VA Agriculture & Natural Resources Consortium
- Innovation Ecosystem
- Honors College
- Business Engagement Center

BEYOND BOUNDARIES

A VISION FOR THE FUTURE OF VIRGINIA TECH AS A GLOBAL LAND-GRANT UNIVERSITY

PLACES

- Blacksburg –District and Communities
- Roanoke – VTC Health Sciences and Technology Campus in the Roanoke Innovation Corridor
- National Capital Region (NCR)
- Agricultural Research and Extension Centers
- The Commonwealth, the Nation and the World

METHODS & TOOLS

- Data-Informed Decision Making
- Strategic Alignments and Planning
- Research Revenue Model
- Talent-Focused Realignment of HR
- Advancement Model
- Partnership for Incentive-Based Budget
- Master Plan

VirginiaTech

"Through Beyond Boundaries, we are defining a unique vision for the global land-grant university of the 21st Century, where ideas and solutions are not bounded by disciplines, the university is not bounded by campus walls, and talented people of all backgrounds are invited to be a part of our community." – President Tim Sands

VirginiaTech
Invent the Future

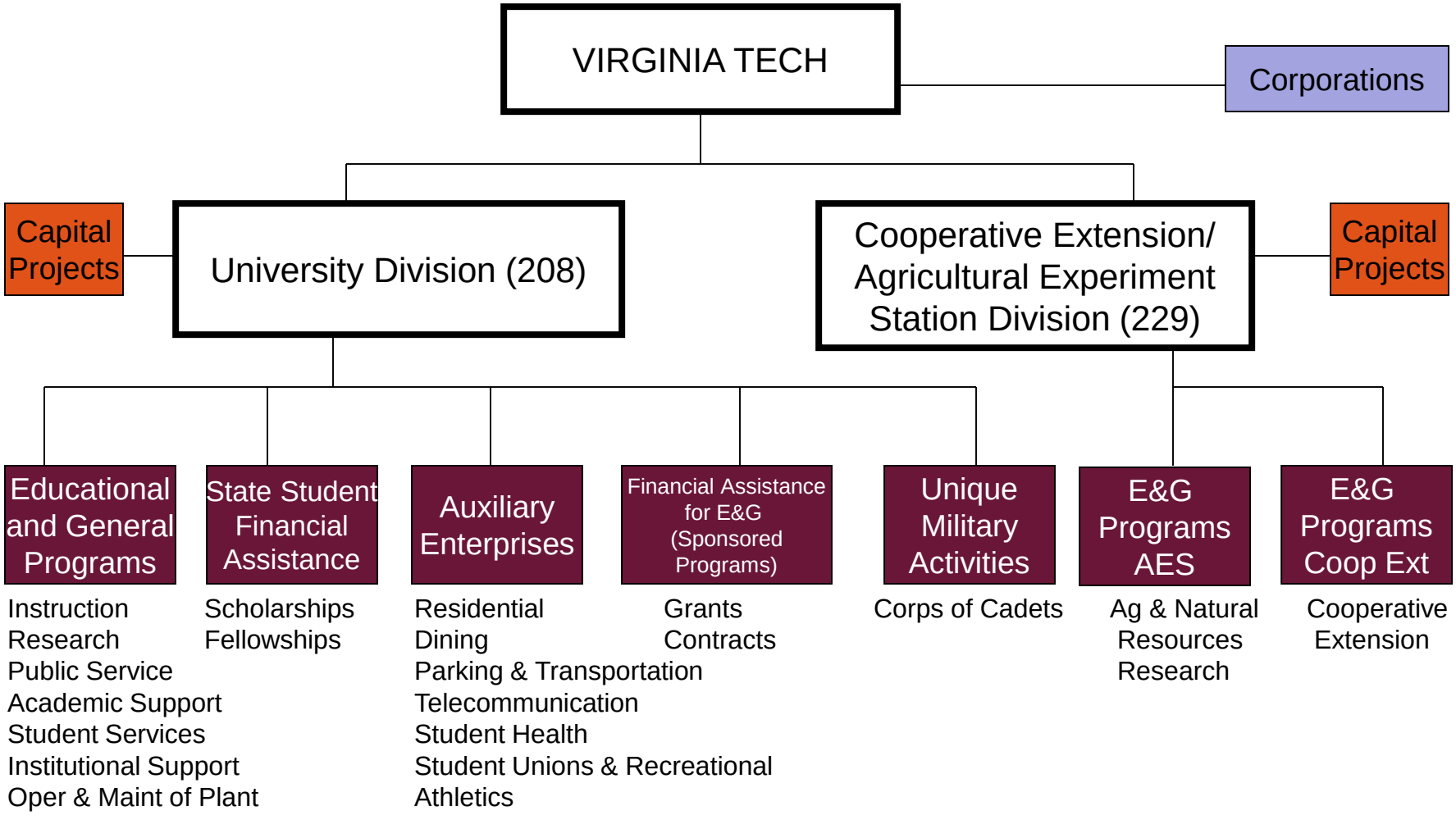
Higher Education Funding Principles

Board of Visitors Retreat
August 19, 2017

M. Dwight Shelton, Jr. VP for Finance and Chief Financial Officer

Program Structure

Attachment C



Virginia Tech
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Public & Private Resources

Attachment C

$s in millions

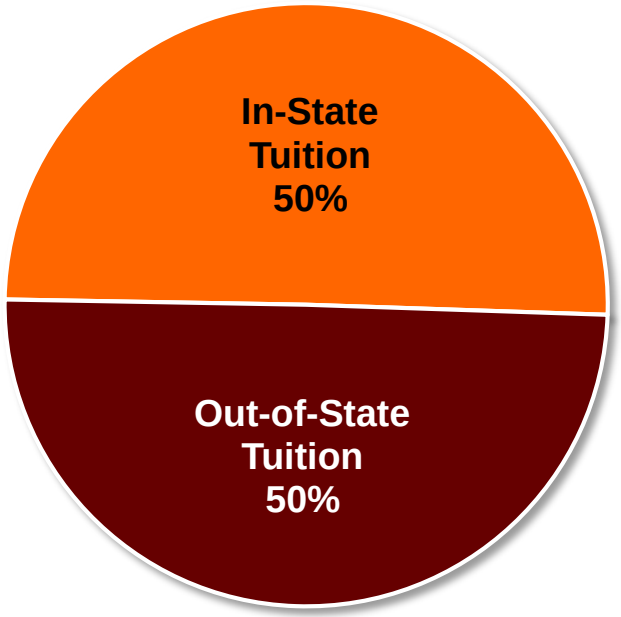
	State	In-State T&F	Out-of-State T&F	Self-Generated	Private	Total
University Division (208) E&G	$166.5	$237.7	$236.9	$42.5		$683.5
VCE/AES (229) E&G	70.2			16.6		86.7
Student Financial Aid	20.8			1.7		22.5
Auxiliary Enterprises		29.0	28.9	262.9		320.8
Sponsored Programs	5.4			336.6		342.0
All Other Programs (UMA*)	2.3			4.5		6.8
Subtotal Public Resources	265.1	266.7	265.8	664.7	-	1,462.3
Virginia Tech Foundation					184.7	184.7
Other University-Related Entities					27.9	27.9
Total	**$265.1**	**$266.7**	**$265.8**	**$664.7**	**$212.6**	**$1,674.9**
% of total	*16%*	*16%*	*16%*	*39%*	*13%*	

* Unique Military Activities

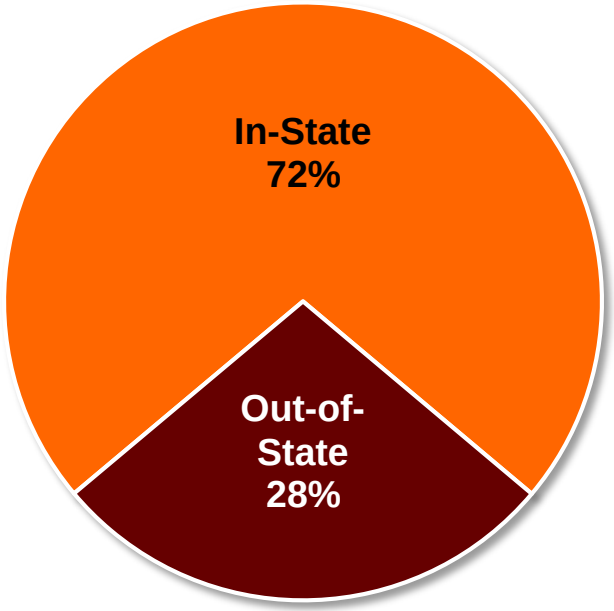
Attachment C

Undergraduate Tuition Revenue

Undergraduate Tuition Revenue
$399.9 million

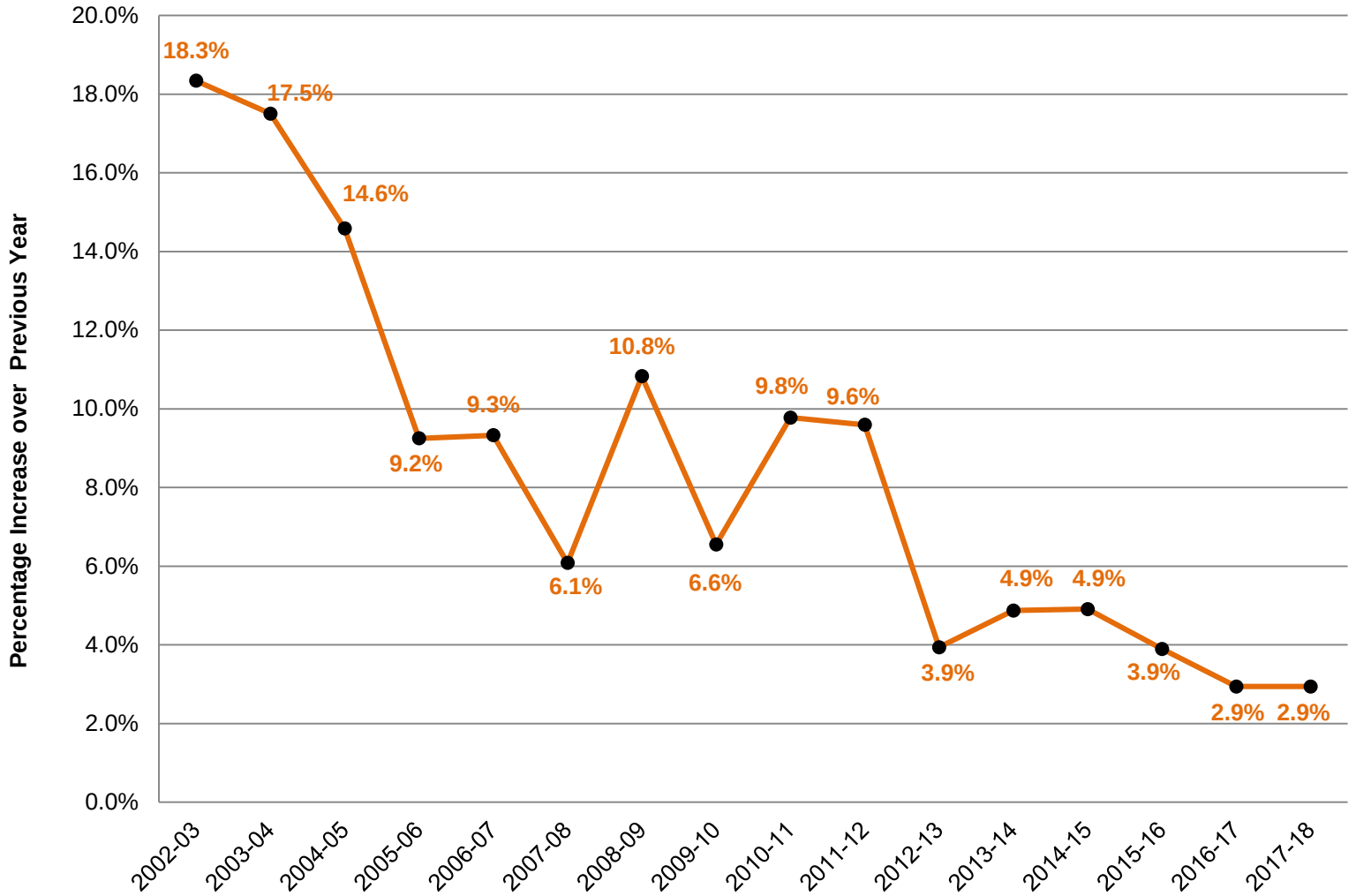


Undergraduate Residency
Fall 2017 Budget



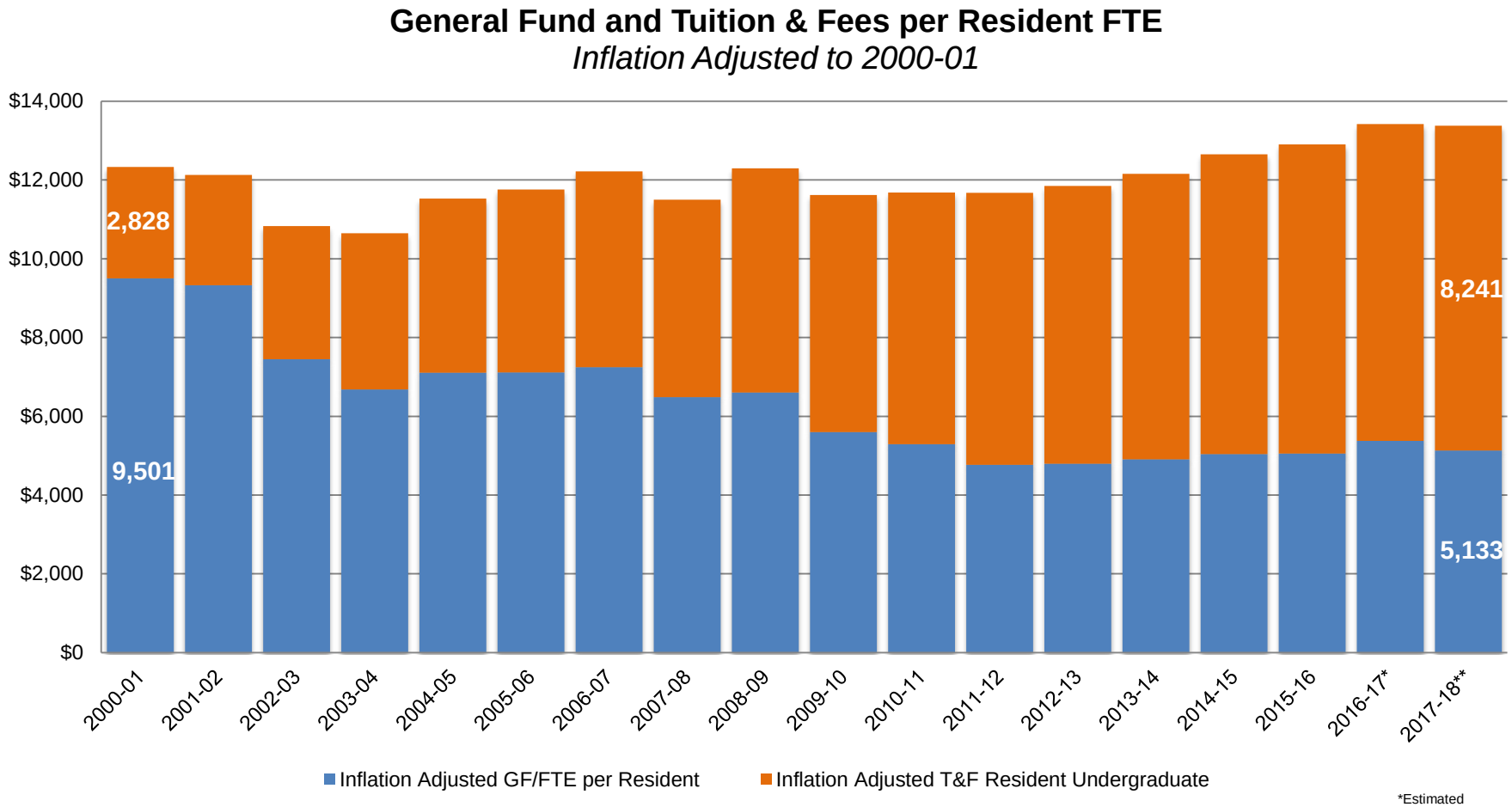
Virginia Undergraduate Tuition and Fee Increase History

2017-18 Recommendation continues the trend of slowing increases.



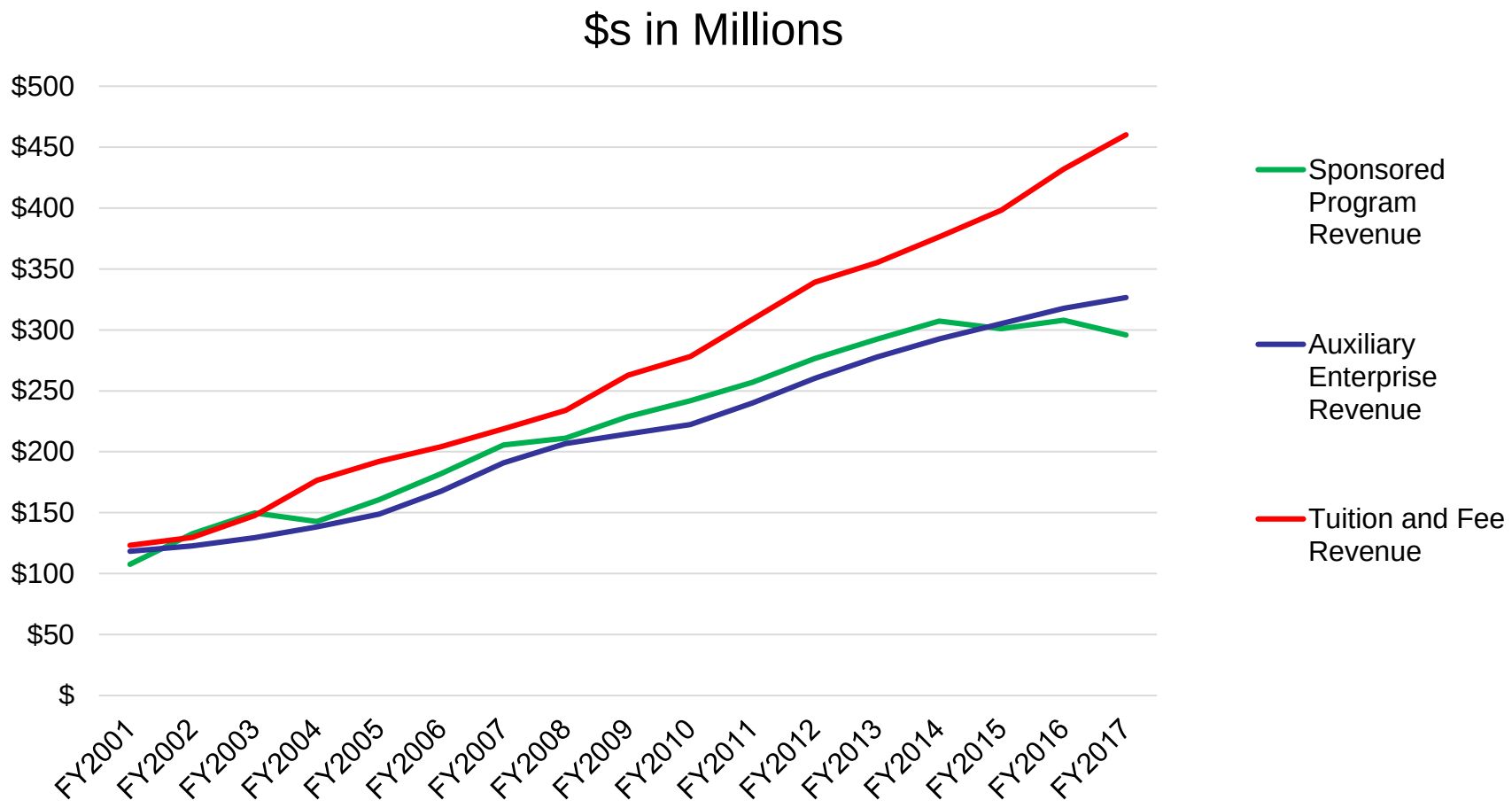
Resources Per Student - CPI

- Tuition and General Fund per student increased marginally since 2001 based on the use of CPI as inflation factor.



Inflation adjustment utilizing the Consumer Price Index (CPI).

Major Categories of Self-Generated Revenue



VirginiaTech
Invent the Future

Capital Funding Trend

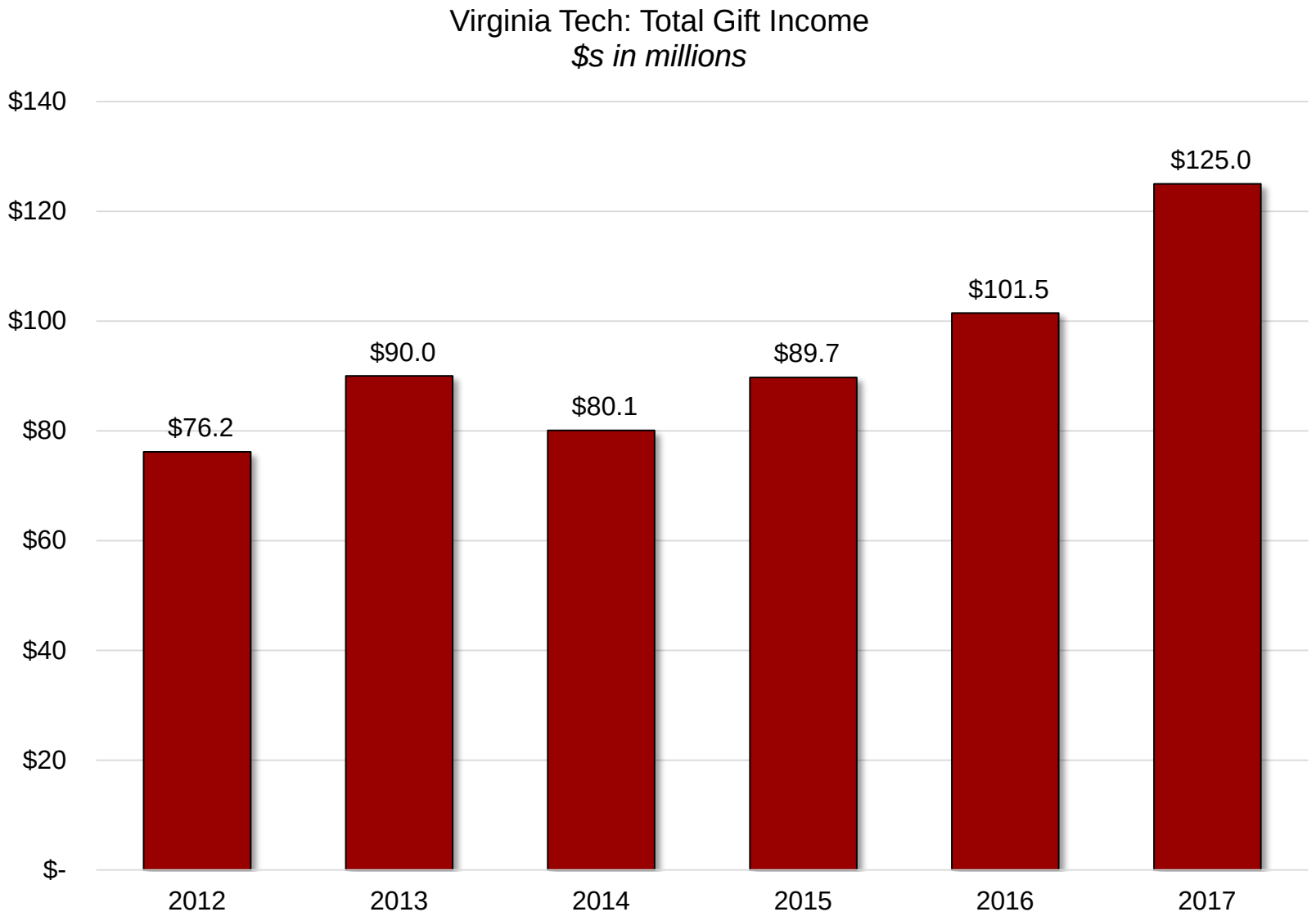
Attachment C

Expenditures by Fund Source

($ in Millions)

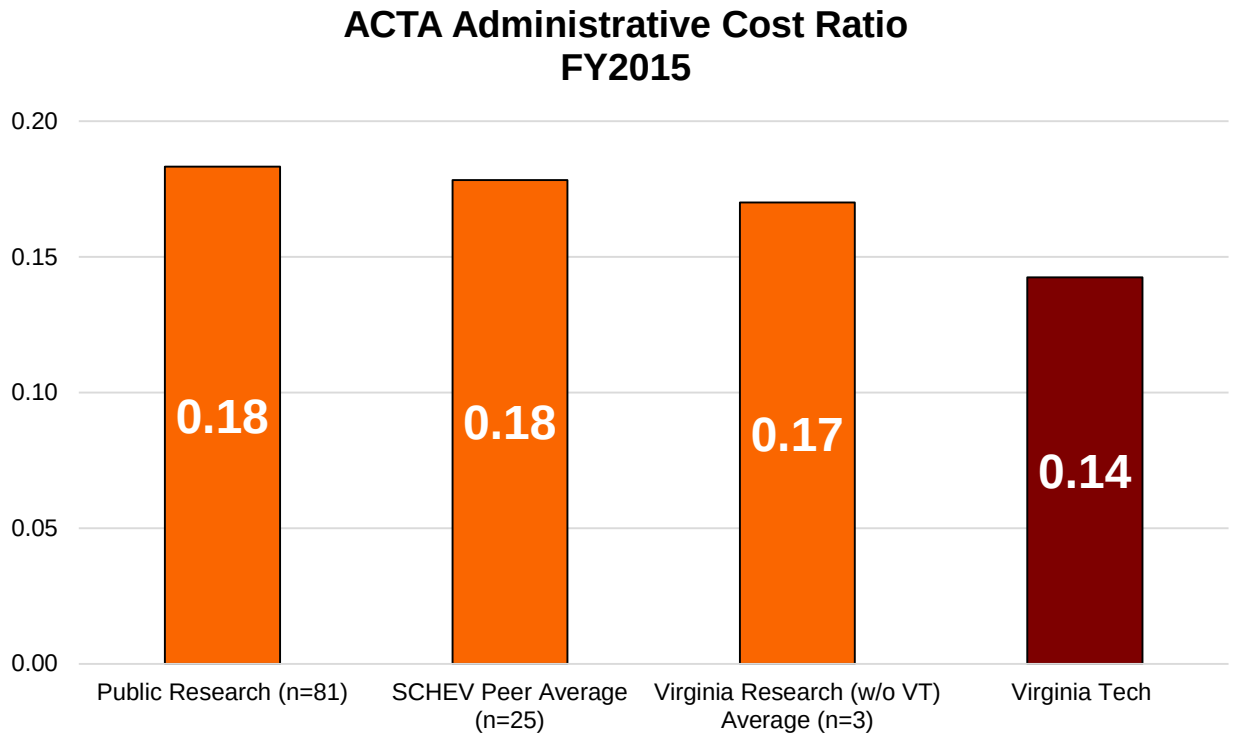
Endowment Income

Attachment C



Administrative Spending

- July 2017 – the ***American Council of Trustees and Alumni (ACTA)*** published a report on administrative costs in higher education.
- Using IPEDS data, study calculates ratio of *institutional support (administrative)* spending compared to *instruction and academic support (instructional)* spending.
- Virginia Tech ratio is **0.14**, meaning VT spent $0.14 on *institutional support* for each $1.00 of spending on *instruction and academic support*. ***This ratio is lower than peer averages.***



Data Source: IPEDS

Discussion

Video: An Easy Guide to FOIA for Boards of Visitors

https://www.youtube.com/watch?v=50oddI3nUe0

Evolving Virginia Tech's Funding Model

Goals, Constraints, Opportunities and Options

A discussion with the BOV, August 19th, 2017

Brief History of Tuition, Fees and State Support

- Since the turn of the century, Virginia Tech has lost 46% of its operating appropriation per Virginia-resident student in inflation-adjusted dollars.
- On a per-student basis, each dollar lost to cuts in state operating funding has been replaced with a dollar of tuition and fee revenue from resident students.
- The total revenue (tuition, fees and state support) per Virginia student in real dollars has been flat since 2000.
- Virginia-resident enrollment has increased by 17% (2,700) while degrees granted to VA students have increased by 32%.
- Virginia Tech's 6-yr grad rate for VA students is now 86.5%.

*See background document: "History of Tuition, Fees and State Support for Virginia Undergraduate Education at Virginia Tech."

Brief History of Tuition, Fees and State Support (continued)

- Revenue from out-of-state students subsidizes in-state students by ~$3,600 per in-state student annually.
- The OOS percentage of enrollment has fluctuated between 26% and 28% since 2000 (flat).
- In-state tuition rates have increased by 5% or less annually since 2012-13, with the last two years at 2.9%.
- VT charges the lowest comprehensive fees (fees not directly tied to instruction) in the state – 15% of the total tuition and mandatory fees.
- Virginia Tech charges the lowest Athletics fee in the state.

*See background document: “History of Tuition, Fees and State Support for Virginia Undergraduate Education at Virginia Tech.”

Virginia's University Research Deficit

- Virginia's public universities are #1 in undergraduate programs (Smart Asset, March 2017)
- Strong undergraduate programs help to attract talent, but research universities catalyze economic growth
- Of the 60 historically elite research universities in the US comprising the AAU, only one (UVa) is located in Virginia.
- Of the top research universities measured by expenditures, only one in Virginia (VT) ranks in the top 50 (#44).
- NC has three in the top 50 (Duke, UNC-Chapel Hill and NC State). Duke and UNC are in the top 15
- Maryland has two, UMd and Johns Hopkins (#1 overall).

Public Land-Grant Research University Peers

University	USN&WR 2017	Money 2017	THE World 2017 (US)	#Undergrads	Research expend FY15 HERD ($M)
UC Davis*	44	9	51 (26)	28,384	721
Illinois*	44	22	36 (21)	33,368	640
Wisconsin*	44	45	45 (23)	31,662	1,069
Penn. State*	50	233	68 (34)	40,742	791
Florida*	50	18	134 (49)	35,043	740
Ohio State*	54	102	72 (36)	45,289	818
Georgia	56	62	301-350 (86)	27,547	374
Purdue*	60	37	70 (35)	29,497	559
Maryland*	60	20	67 (33)	27,443	506
Rutgers*	70	49	141 (51)	35,484	629
Minnesota*	71	57	53 (28)	34,071	881
Texas A&M*	74	34	169 (59)	48,960	867
Virginia Tech	74	23	251-300 (77)	25,384	504
Michigan State*	82	30	101 (42)	39,143	558
NC State	92	50	201-250 (64)	24,111	468

* AAU member

Long-term Aspirations	Status
• **Global top-100** – to attract global talent and partners (AAU eligibility)	• **#251-300 (THE World)**
• **U.S. top-25 in research expenditures** – (imperfect) proxy for impact in discovery, innovation, application and economic development	• **#44**
• **U.S. top-10 in undergraduate outcomes** – ROI, social/economic mobility, alumni satisfaction	• **#23 (Forbes)**

Are these aspirations aggressive enough? too ambitious?

Peer Comparisons: Observations

- Of the 12 peers ranked above or tied with VT, only one (Georgia) has a lower level of research expenditures, and they are the only other such peer that is not a member of the AAU.
- Ranking in the top-100 global universities is an indicator of AAU membership.
- Of the 13 peers (incl. VT), VT has the smallest undergraduate enrollment. Increasing to 30,000 (18%) would move VT into 9th out of 13 (median is 32,500).
- Economies and synergies of scale are important for this class of university – the class with the most comprehensive mission of all types of higher education institutions.

Impact of Scale on Virginia Tech's Research Profile

- Virginia Tech scaled linearly by 20% would generate $625M in research expenditures (#34).
- $740M would be top-25 (FY15 data). Scaling to "critical mass" plus Beyond Boundaries concepts (Destination Areas, deep partnerships and the PIBB) will help us recruit, support and retain the talent necessary to make that "superlinear" jump.
- *Caveat:* research expenditures are a convenient proxy for impactful scholarship. Expenditures alone will not be sufficient to rise globally in reputation and rankings.

Resources

- Efficiencies of scaling to “critical mass” (grow from 25,000 to 30,000 undergraduates and look for further efficiencies)
- Improving “brand” recognition and enhancing reputation nationally and globally
- Growing OOS tuition and fee revenue (limited by national/global exposure)
- Increasing in-state tuition and fee revenue (limited by desire to maintain and enhance access and affordability)
- Continuing tuition/fee differentials to recognize higher cost of specific disciplines
- Leveraging cross-sector partnerships (e.g., BEC, VTC and NCR)
- Philanthropy

How do we enhance resources while staying true to our mission?

Hypothetical options for discussion, assuming growth to 30k UG:

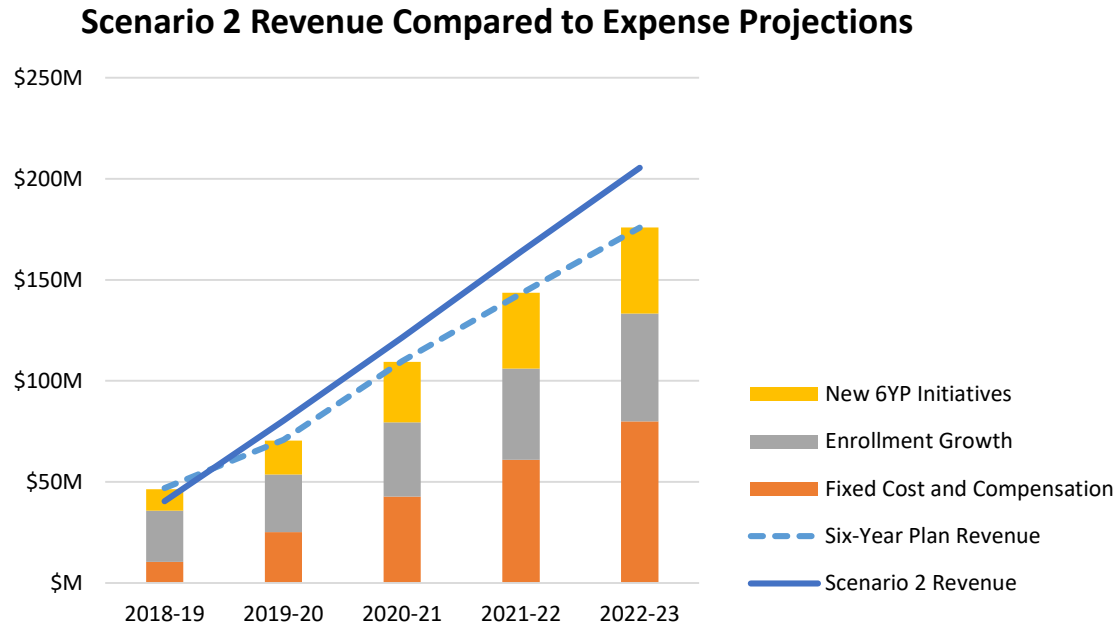
- **Option 1**: Maintain IS/OOS mix while *increasing in-state tuition rates*, transferring resources from those IS students who can pay to those who cannot through grants and scholarships. Use revenue from growth combined with efficiencies of scale to enhance research enterprise.
- **Option 2**: Maintain affordable IS tuition rate and commit to maintaining IS enrollment while *growing OOS enrollment*, using additional revenue with efficiencies of scale to enhance research enterprise and affordability for low-and middle-income IS students.

2023 Scenario for Option 2

- Tuition rate for ISUG flat in real (CPI-adjusted) dollars
- No change in net OOS tuition revenue per student in real dollars
- State instructional appropriation flat in real dollars
- ISUG enrollment held at prior proposed AY17 level (18,311)
- OSUG enrollment is ramped up to 11,689 by 2023
  - Requires additional autonomy
- Total enrollment of 30k by 2023 (61% ISUG)
- Comparable expenses based upon Six-Year Plan and out-year forecast
  - Fixed cost assignments (fringe rate increases, O&M, utilities)
  - Enrollment Growth
  - 60^{th} percentile of Peer Salary Averages by FY2024
  - Destination Area Buildout
  - Degree completion, K-12 Pathways, and Student Financial Aid initiatives

2023 Scenario for Option 2

- These assumptions generate **$30 million** more annually than the Six-Year plan assumptions by FY23
  - *This assumes no growth in OSUG aid; ~$10m of incremental revenue if OSUG aid is increased based on current yield model*

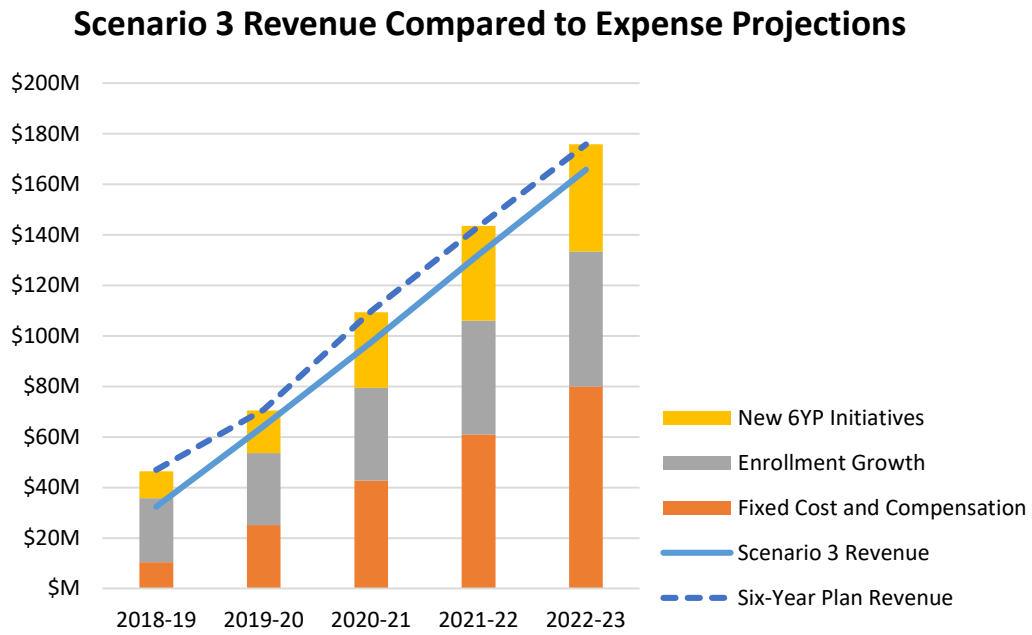


- This incremental revenue could be utilized to advance Access/Affordability for ISUG students and to attract, support, and retain research talent.
- If 50% supported ISUG financial aid, between $5M-$15M could be invested into ISUG financial aid (increase of between 18%-54% of the current need-based financial aid program for ISUG students)

Additional Scenarios for comparison

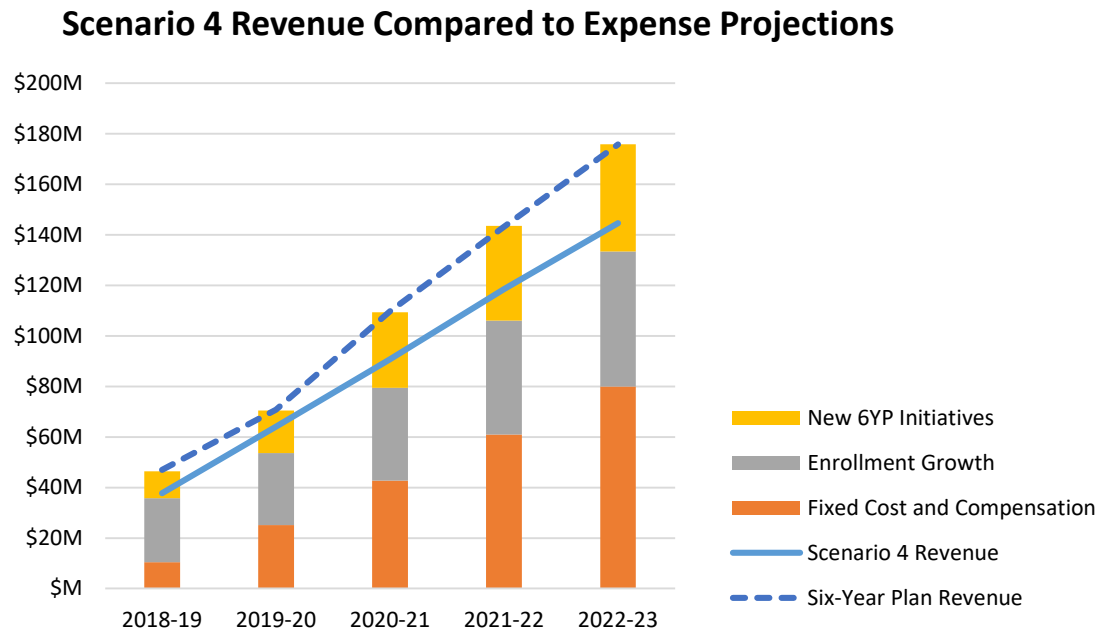
- In each of the following scenarios, enrollment grows to 30,000 by FY2023

- Prior slide with declining state funding of 5% per year



- This results in ~($10M) less than the Six-Year Plan

- Current enrollment mix, Inflationary GF and Tuition



- This results in ~($31M) less than the Six-Year Plan

Discussion…

Virginia Tech's Evolving Financial Model - Internal

Thanassis Rikakis, Executive Vice President and Provost

Ken Smith, Vice Provost for Academic Resource Management

Alan Grant, Dean - College of Agriculture and Life Sciences

Virginia Tech has changed its budget model

In response to changes in the external funding environment and like many large universities Virginia Tech is pursuing a budget decentralization strategy.

Our chosen approach is a performance budget model linking resources to the achievement of outcomes "The Partnership for an Incentive Based Budget"

This model requires parallel development of an extensive decision support system "The University Data Commons"

Components

- Shared Metrics
- Shared Goal Setting
- Related Values for Achieving Goals

Characteristics

- Comprehensiveness
- Customization
- Continuous Calibration
- Complexity

The new model adapts to our annual budget cycle, replacing requests for resources with shared goal setting in a broad range of metrics

Unit Allocations	Teaching – Student Credit Hours
	Enrollment - Headcounts
	External Fundraising
	External Sponsored Expense
Faculty Success Scorecard	Faculty Scholarship
	Faculty Teaching
	Faculty Engagement
	Faculty Diversity
Student Success Scorecard	Entering Students
	Continuing Students
	Graduating Students
	VT Shaped Students
	Student Diversity
Administrative Effectiveness Scorecard	Financial Management
	Continuous Improvement
	Efficiency and Cost Containment

We incorporated features in the model to achieve specific outcomes

Features

- Metrics tied to resource development
- Broad range of metrics used in model
- Unit goals that sum to institutional goals
- Bottom up and top down integration of metrics
- Year to year calibration of model factors
- Shared information systems with defined views of key metrics
- Linkages in the model to central investment initiatives
- Multiyear goal setting and planning
- Multiyear phase in of model

Outcomes

- Decentralization of tactical decision making
- Adoption of university strategic goals at all levels
- Shared understandings of outcomes
- Adaptable to various college and department strengths
- Increased accountability at all levels
- Leveraging of central investments with existing budgets
- Continuous improvement responsive to external environment
- Forward looking, less reactive planning
- Smooth financial transitions
- National benchmarking

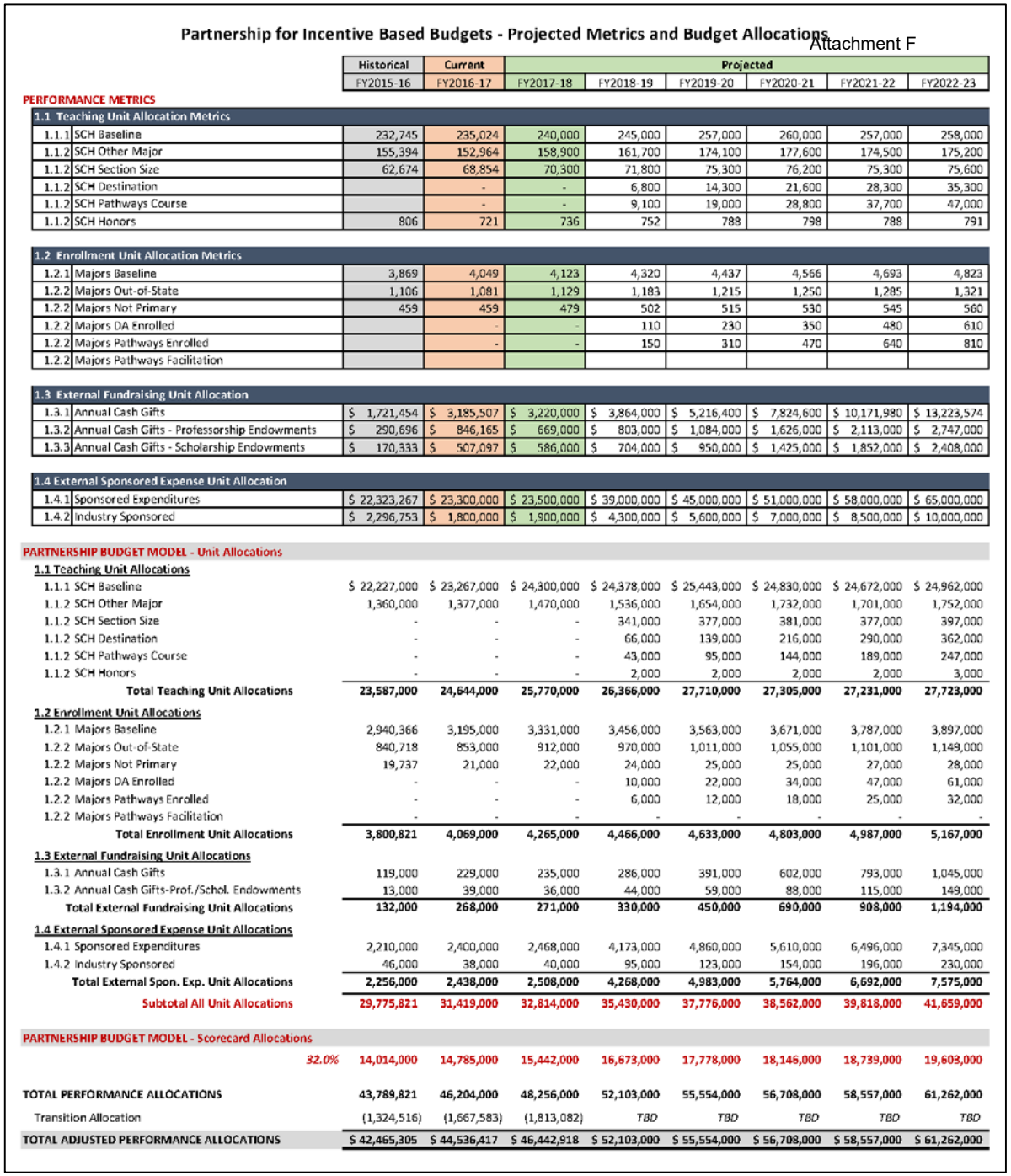
Budget Worksheet Example for Current Fiscal Year

Shared Goal Setting in a Multi-Year Context

Unit Allocation Budgets Tied to Shared Goals

Scorecard Budgets Tied to Broader Assessment of Key Metrics

Multiyear Phase In



Attachment F

Partnership for Incentive Based Budgets - Projected Metrics and Budget Allocations

		Historical	Current	Projected					
		FY2015-16	FY2016-17	FY2017-18	FY2018-19	FY2019-20	FY2020-21	FY2021-22	FY2022-23
PERFORMANCE METRICS									
1.1 Teaching Unit Allocation Metrics									
1.1.1	SCH Baseline	232,745	235,024	240,000	245,000	257,000	260,000	257,000	258,000
1.1.2	SCH Other Major	155,394	152,964	158,900	161,700	174,100	177,600	174,500	175,200
1.1.2	SCH Section Size	62,674	68,854	70,300	71,800	75,300	76,200	75,300	75,600
1.1.2	SCH Destination		-	-	6,800	14,300	21,600	28,300	35,300
1.1.2	SCH Pathways Course		-	-	9,100	19,000	28,800	37,700	47,000
1.1.2	SCH Honors	806	721	736	752	788	798	788	791
1.2 Enrollment Unit Allocation Metrics									
1.2.1	Majors Baseline	3,869	4,049	4,123	4,320	4,437	4,566	4,693	4,823
1.2.2	Majors Out-of-State	1,106	1,081	1,129	1,183	1,215	1,250	1,285	1,321
1.2.2	Majors Not Primary	459	459	479	502	515	530	545	560
1.2.2	Majors DA Enrolled		-	-	110	230	350	480	610
1.2.2	Majors Pathways Enrolled		-	-	150	310	470	640	810
1.2.2	Majors Pathways Facilitation								
1.3 External Fundraising Unit Allocation									
1.3.1	Annual Cash Gifts	$ 1,721,454	$ 3,185,507	$ 3,220,000	$ 3,864,000	$ 5,216,400	$ 7,824,600	$ 10,171,980	$ 13,223,574
1.3.2	Annual Cash Gifts - Professorship Endowments	$ 290,696	$ 846,165	$ 669,000	$ 803,000	$ 1,084,000	$ 1,626,000	$ 2,113,000	$ 2,747,000
1.3.3	Annual Cash Gifts - Scholarship Endowments	$ 170,333	$ 507,097	$ 586,000	$ 704,000	$ 950,000	$ 1,425,000	$ 1,852,000	$ 2,408,000
1.4 External Sponsored Expense Unit Allocation									
1.4.1	Sponsored Expenditures	$ 22,323,267	$ 23,300,000	$ 23,500,000	$ 39,000,000	$ 45,000,000	$ 51,000,000	$ 58,000,000	$ 65,000,000
1.4.2	Industry Sponsored	$ 2,296,753	$ 1,800,000	$ 1,900,000	$ 4,300,000	$ 5,600,000	$ 7,000,000	$ 8,500,000	$ 10,000,000
PARTNERSHIP BUDGET MODEL - Unit Allocations									
1.1 Teaching Unit Allocations									
1.1.1	SCH Baseline	$ 22,227,000	$ 23,267,000	$ 24,300,000	$ 24,378,000	$ 25,443,000	$ 24,830,000	$ 24,672,000	$ 24,962,000
1.1.2	SCH Other Major	1,360,000	1,377,000	1,470,000	1,536,000	1,654,000	1,732,000	1,701,000	1,752,000
1.1.2	SCH Section Size	-	-	-	341,000	377,000	381,000	377,000	397,000
1.1.2	SCH Destination	-	-	-	66,000	139,000	216,000	290,000	362,000
1.1.2	SCH Pathways Course	-	-	-	43,000	95,000	144,000	189,000	247,000
1.1.2	SCH Honors	-	-	-	2,000	2,000	2,000	2,000	3,000
	Total Teaching Unit Allocations	**23,587,000**	**24,644,000**	**25,770,000**	**26,366,000**	**27,710,000**	**27,305,000**	**27,231,000**	**27,723,000**
1.2 Enrollment Unit Allocations									
1.2.1	Majors Baseline	2,940,366	3,195,000	3,331,000	3,456,000	3,563,000	3,671,000	3,787,000	3,897,000
1.2.2	Majors Out-of-State	840,718	853,000	912,000	970,000	1,011,000	1,055,000	1,101,000	1,149,000
1.2.2	Majors Not Primary	19,737	21,000	22,000	24,000	25,000	25,000	27,000	28,000
1.2.2	Majors DA Enrolled	-	-	-	10,000	22,000	34,000	47,000	61,000
1.2.2	Majors Pathways Enrolled	-	-	-	6,000	12,000	18,000	25,000	32,000
1.2.2	Majors Pathways Facilitation	-	-	-	-	-	-	-	-
	Total Enrollment Unit Allocations	**3,800,821**	**4,069,000**	**4,265,000**	**4,466,000**	**4,633,000**	**4,803,000**	**4,987,000**	**5,167,000**
1.3 External Fundraising Unit Allocations									
1.3.1	Annual Cash Gifts	119,000	229,000	235,000	286,000	391,000	602,000	793,000	1,045,000
1.3.2	Annual Cash Gifts-Prof./Schol. Endowments	13,000	39,000	36,000	44,000	59,000	88,000	115,000	149,000
	Total External Fundraising Unit Allocations	**132,000**	**268,000**	**271,000**	**330,000**	**450,000**	**690,000**	**908,000**	**1,194,000**
1.4 External Sponsored Expense Unit Allocations									
1.4.1	Sponsored Expenditures	2,210,000	2,400,000	2,468,000	4,173,000	4,860,000	5,610,000	6,496,000	7,345,000
1.4.2	Industry Sponsored	46,000	38,000	40,000	95,000	123,000	154,000	196,000	230,000
	Total External Spon. Exp. Unit Allocations	**2,256,000**	**2,438,000**	**2,508,000**	**4,268,000**	**4,983,000**	**5,764,000**	**6,692,000**	**7,575,000**
	Subtotal All Unit Allocations	**29,775,821**	**31,419,000**	**32,814,000**	**35,430,000**	**37,776,000**	**38,562,000**	**39,818,000**	**41,659,000**
PARTNERSHIP BUDGET MODEL - Scorecard Allocations									
	32.0%	**14,014,000**	**14,785,000**	**15,442,000**	**16,673,000**	**17,778,000**	**18,146,000**	**18,739,000**	**19,603,000**
TOTAL PERFORMANCE ALLOCATIONS		**43,789,821**	**46,204,000**	**48,256,000**	**52,103,000**	**55,554,000**	**56,708,000**	**58,557,000**	**61,262,000**
Transition Allocation		(1,324,516)	(1,667,583)	(1,813,082)	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*
TOTAL ADJUSTED PERFORMANCE ALLOCATIONS		$ 42,465,305	$ 44,536,417	$ 46,442,918	$ 52,103,000	$ 55,554,000	$ 56,708,000	$ 58,557,000	$ 61,262,000

Discussion with Alan Grant – Dean, College of Agriculture and Life Sciences

College and Department PIBB Engagement

- Moves away from historical budgeting
- Incentivizes deans and department heads to take strategic actions at the department and college level with predictable resources for sustainability and growth
- Reinforces the need to diversify funding sources to support growth and to reward growth
- Comprehensive across teaching, research, and engagement
- Transition period gives colleges time to align, adjust, leverage, and prioritize

Questions

Appendices

Outcomes of Hiring Plans for Destination/Strategic Growth Areas

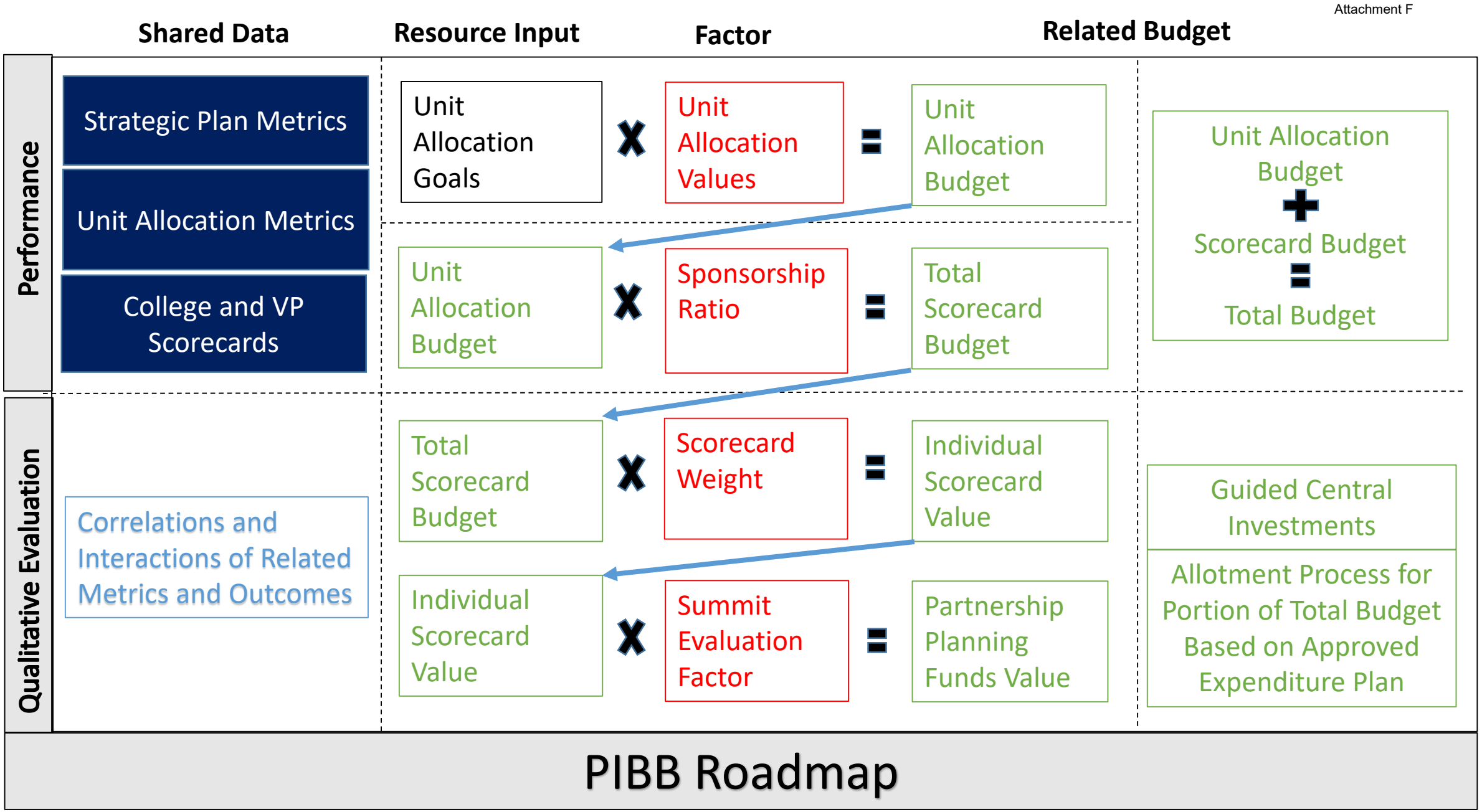
PIBB Budget Model Roadmap

Decentralized Decision Making Across the Academic Enterprise

The outcome of our hiring plans for destination and strategic growth areas demonstrates how budget model links to strategic central investments can result in significant shared resource plans

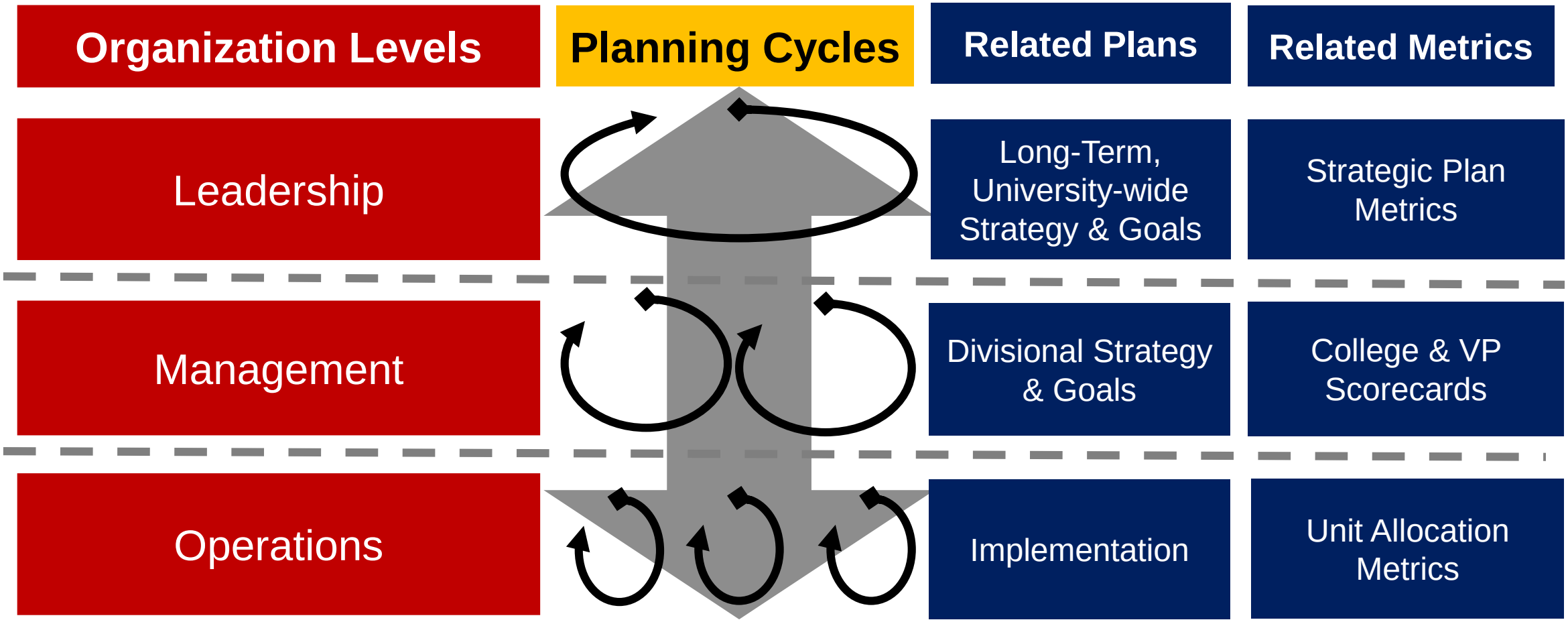
Destination Area/Strategic Growth Area Hiring Plan Outcomes (June 2017)	Number of Planned Hires - All Phases (2016-24)		
	Central Investment	College Existing	Total
IIHCC + Materials + Equity	25	50	75
Integrated Security + Policy + Equity	25	50	75
D&D + Policy + Equity	25	50	75
CTE + Innovation + Equity	12	24	36
GSS + Materials + Equity	30	60	90
ABB + Equity	20	40	60
Total	137	274	411

1:2 Ratio New to Existing


Shared Data
Resource Input
Factor
Related Budget
Performance
Strategic Plan Metrics
Unit Allocation Metrics
College and VP Scorecards
Unit Allocation Goals
X
Unit Allocation Values
=
Unit Allocation Budget
Unit Allocation Budget
+
Scorecard Budget
=
Total Budget
Unit Allocation Budget
X
Sponsorship Ratio
=
Total Scorecard Budget
Qualitative Evaluation
Correlations and Interactions of Related Metrics and Outcomes
Total Scorecard Budget
X
Scorecard Weight
=
Individual Scorecard Value
Guided Central Investments
Individual Scorecard Value
X
Summit Evaluation Factor
=
Partnership Planning Funds Value
Allotment Process for Portion of Total Budget Based on Approved Expenditure Plan
PIBB Roadmap

Decentralized Decision Making Process for VT Academic Enterprise and Relation to PIBB

The new budget model replaces top-down budgeting with accountability for application of resources to achieve strategic goals



VT-MI^{X} Co-Lab Network

Reinventing the engaged metropolitan research university - Beyond Boundaries

Concept for Discussion – BOV Retreat – August 19th, 2017

For Beyond Boundaries context, see:

http://www.beyondboundaries.vt.edu/about.html

Scope

- Generative discussion with focus on the National Capital Region
- Not about the current Master Plan for the Blacksburg campus
- Not about on-line vs. in-person instruction

Today's urban research university

Central land-locked campus that has grown beyond its original physical boundaries by acquisition of buildings dedicated to disciplines and professional programs

- **Pros:** accessible by urban population; close to centers of economic activity; easily accessible by partners; urban amenities that attract talent
- **Cons:** high cost of living; constraints on space and activities; many distractions for undergraduates

Today's rural land-grant research university

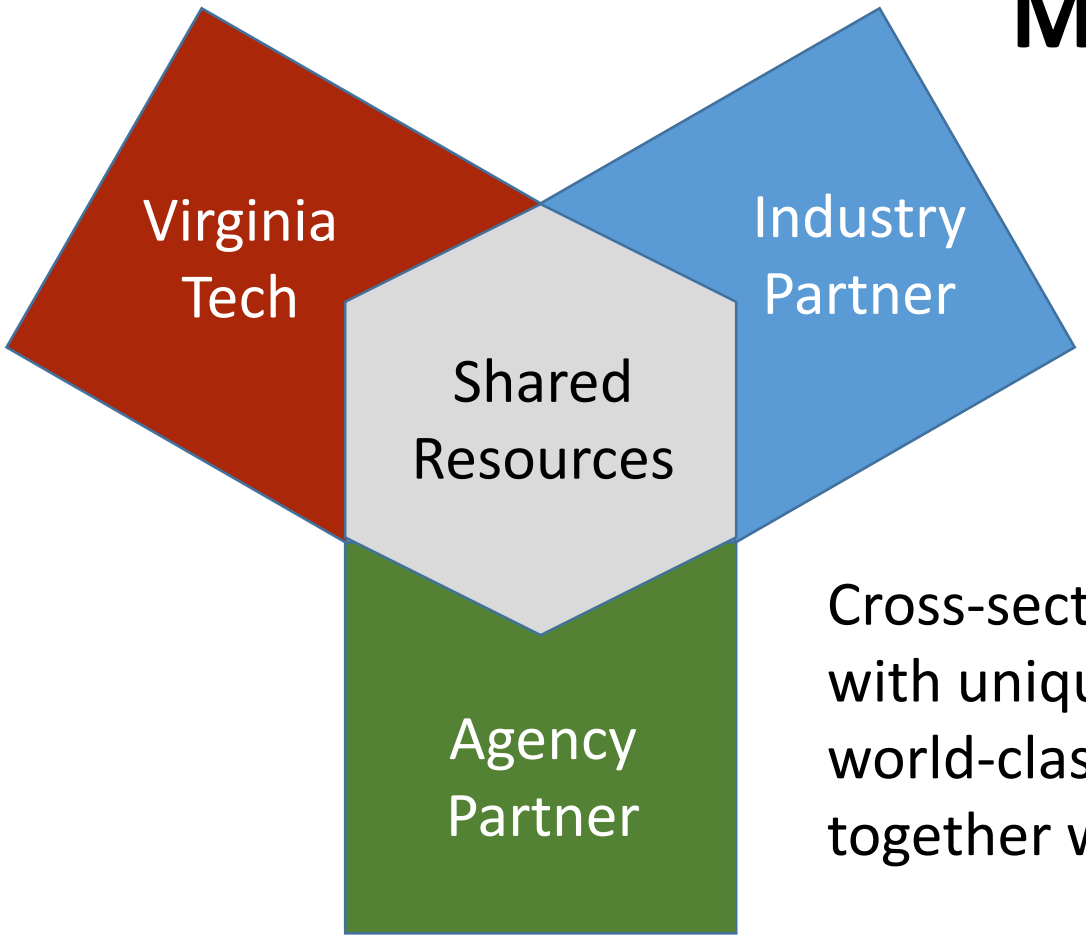
Sprawling isolated campus with disciplinary and interdisciplinary buildings ideally suited for undergraduate residential education, curiosity-driven interdisciplinary research and land-intensive academic programs

- **Pros:** controlled and safe residential environment for undergraduates; unlimited space; low cost of living for faculty, staff and students; sense of community
- **Cons:** far from urban centers of economic activity; difficult to access by partners; lack of urban amenities that attract talent

The opportunity – *Beyond Boundaries*

- Break down disciplinary silos
- Knock down walls between sectors and institutions
- Organize around current transdisciplinary human-centered themes
- Locate at hubs of activity across sectors
- Create vibrant, open, collaborative work spaces
- Prioritize engaged scholarship in teaching, learning and innovation
- Blur boundaries between education and career

VT-MI^{X} CoLab *concept*



Metropolitan

Innovation in

X = *theme*

Cross-sector partners in the same space with unique shared infrastructure and world-class talent, innovating and learning together within a transdisciplinary theme

VT-MI^{X} CoLabs – *long-term objectives*

- Reinvent the engaged metropolitan research university based on cross-sector partnerships, community engagement, experiential learning, professional education, and growth of the economy through innovation.
- Create unique and vibrant transdisciplinary environments for teaching, learning, discovery and innovation that will attract top talent worldwide.
- Catalyze new sectors for growth to diversify the economy of the urban and metropolitan regions of Virginia and the National Capital Region.

Opportunity in the NCR

- Research intensity in the NCR is well below the levels of other vibrant metropolitan regions
- Only $130M in R&D expenditures in northern VA

Region	DC Metro	Research Triangle NC	Boston MA	Bay Area CA
GDP ($B)	491.1	120.2	396.6	666.9
R&D ($B)	1.21	2.47	2.45	2.98
% of GDP	0.25	2.06	0.62	0.45

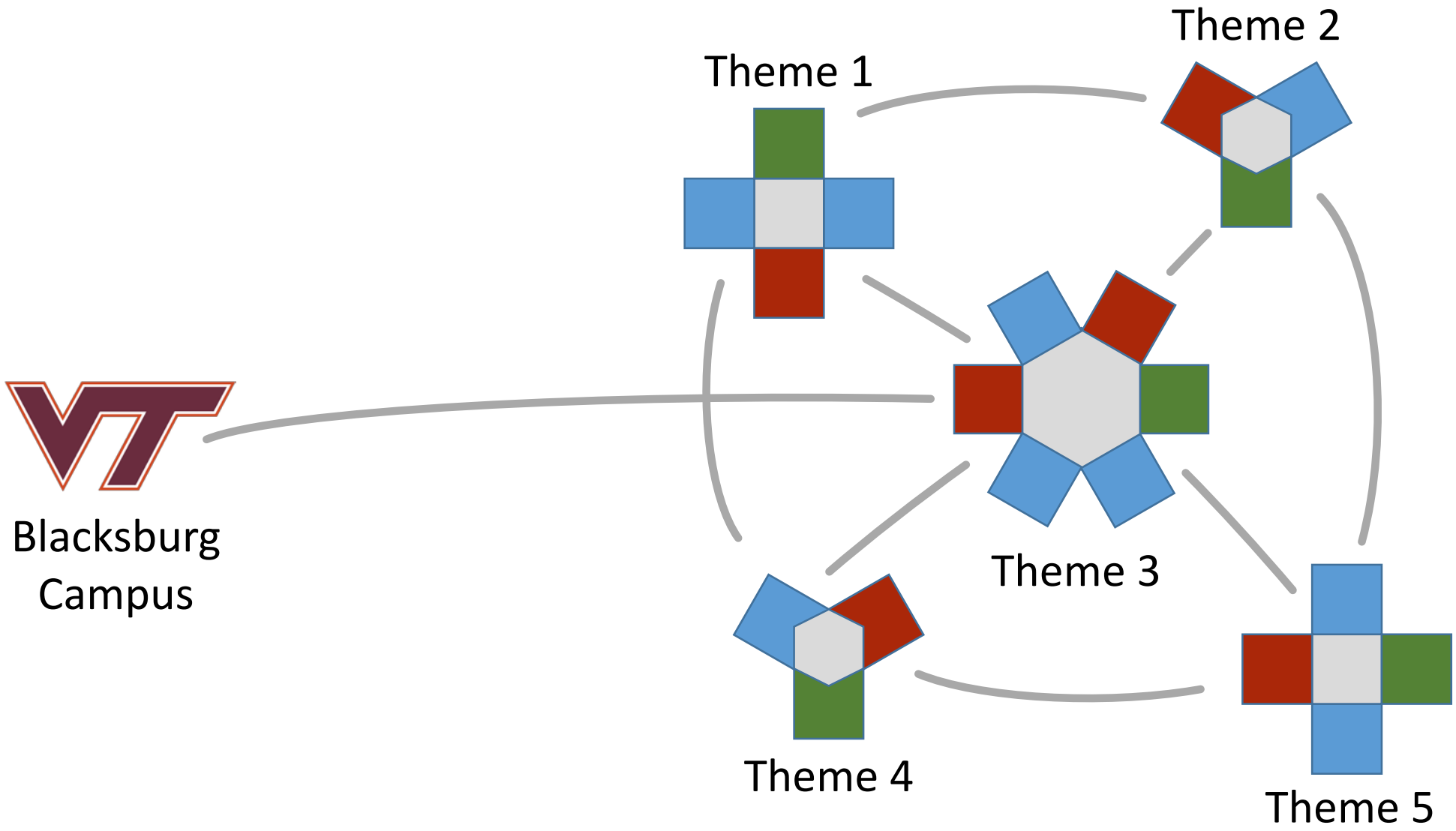
VT-MI^{X} CoLab *characteristics*

- Shared tools, space, and resources that no single partner could acquire or support alone.
- Critical mass of talent and resources.
- Open flexible design that ensures frequent interaction between partners and people, with attached proprietary space as needed.
- Located at a nexus of talent and activity in the CoLab theme.
- Mutual agreement on intellectual property and cost sharing.
- At least one agency or industry partner with the possibility of additional academic partners.
- Professional education for partners, integrated teaching and research for VT graduate students, and experiential learning for VT undergraduates based in Blacksburg

VT-MI^X CoLab *network*

- A typical CoLab nucleates in an incubator (e.g. Virginia Tech's Glebe Rd. building in Arlington).
- CoLabs occupy dedicated facilities in neighborhoods/districts of high activity when they approach critical mass (partners and people)
- CoLabs are connected virtually - and in some cases, physically - to leverage critical and unique resources that cannot be duplicated for each CoLab.
- The VT-MI^X CoLab Network is connected virtually and physically (via dedicated transportation links) to Virginia Tech's main campus in Blacksburg.

VT-MI^{X} CoLab *network*



VT-MI^{X} CoLab *creation*

- Some CoLabs may grow organically out of an incubator.
- Others may be created at critical mass by agreement of partners.
- Still others may be initiated through a governmental or philanthropic RFP process, kick-started with a major gift or grant.

Questions?

- Does this concept make sense? Could you explain it to a fellow passenger on a short flight?
- Is Virginia Tech (with the BOV) ready to experiment with a CoLab?
- In the long term, each CoLab would need sustainable revenue sources, but to launch, considerable capital would be required. Will that revenue come from philanthropy, partners, or governments (or all of the above)?
- …

Board of Visitors Annual Retreat
August 19, 2017

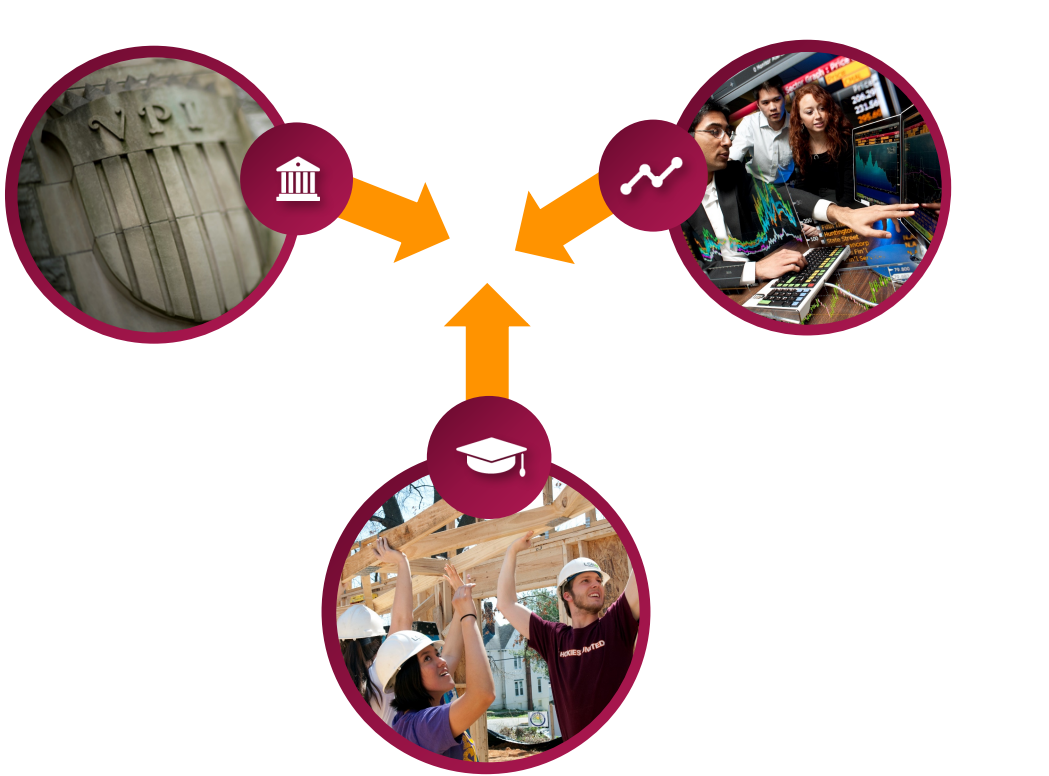
The "VT-Shaped" Student Experience

Thanassis Rikakis
Executive Vice President and Provost

Rachel Holloway
Vice Provost for Undergraduate Academic Affairs

Tracy Vosburgh
Senior Associate Vice President for University Relations

The “VT-Shaped” Student Experience



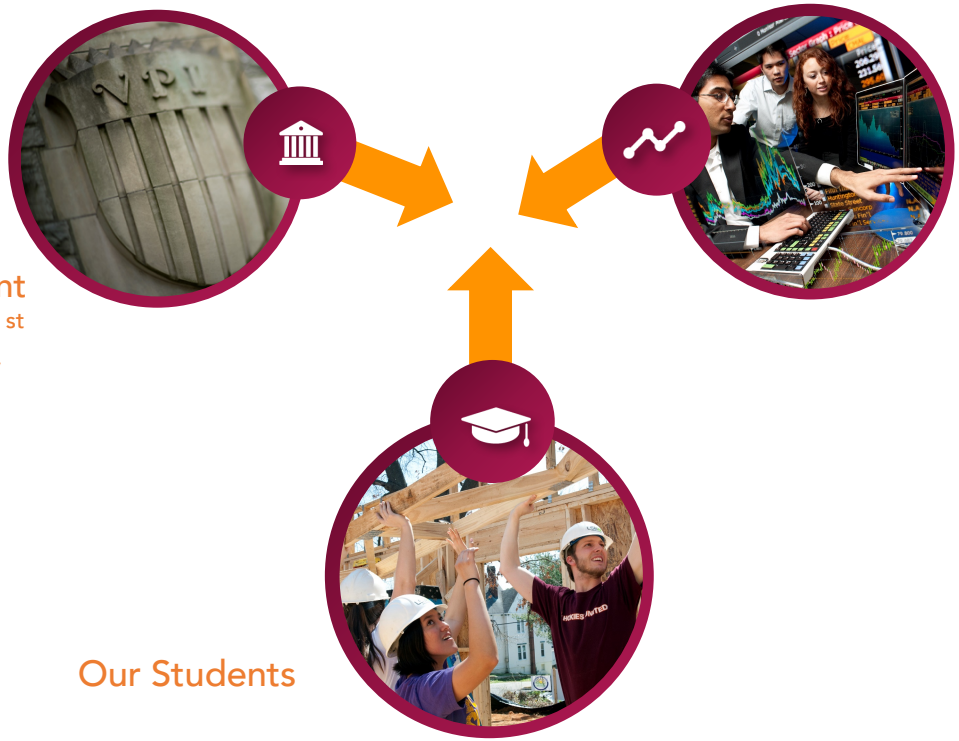
The “VT-Shaped” Student Experience

Land Grant for the 21st Century

Workforce and Market Forces

Our Students

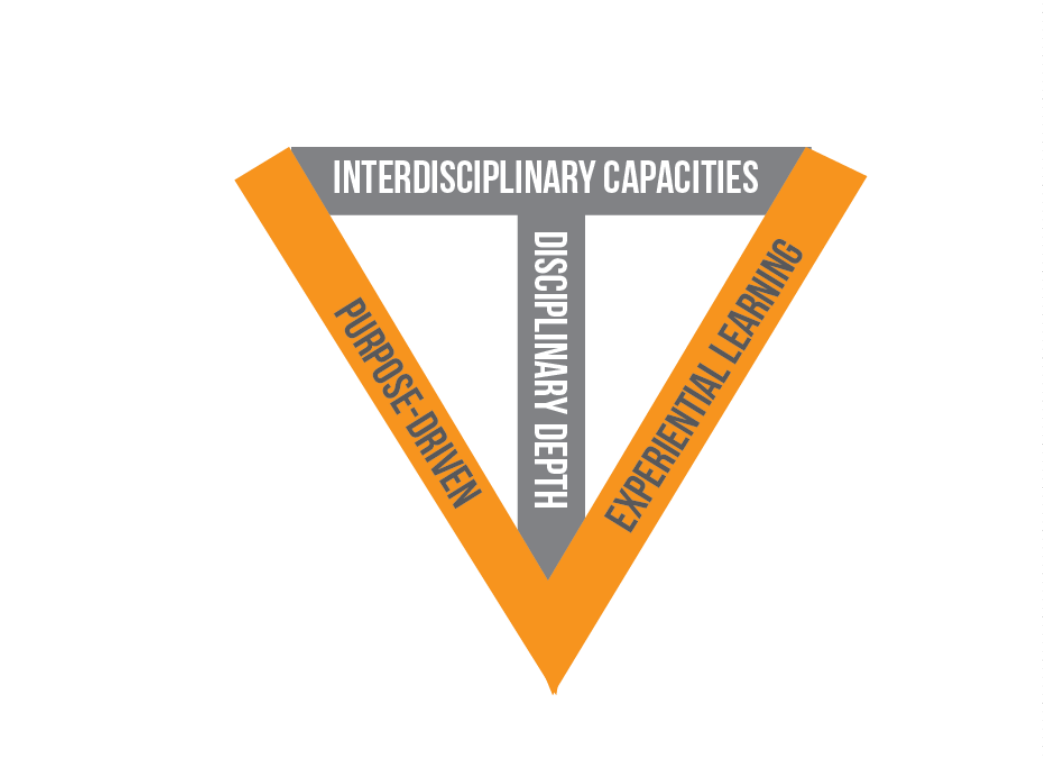
The “VT-Shaped” Student Experience



The “VT-Shaped” Student Experience

- Intentional
- Integrated
- Interdisciplinary
- Inclusive
- Adaptive

The “VT-Shaped” Student Experience



The “VT-Shaped” Student Experience

General Education and Interdisciplinary Curricula

The “VT-Shaped” Student Experience

General Education and Interdisciplinary Curricula

Curricular and Co-Curricular Experiences

where leading in class becomes leading in the world

Nneoma Nwankwo
p. 15

where leading in class becomes leading in the world

Nneoma Nwankwo
p. 15

Chris Eyestone
p. 35

where advocacy saves lives

Amina Rahimi
p. 39

where advocacy saves lives

Amina Rahimi
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Maggie Carolan
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where advocacy saves lives

Amina Rahimi
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Hyperloop team
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Maggie Carolan
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