

REPORT OF THE JUNE 3, 2018, INFORMATION SESSION

An information session (open session) for the Board of Visitors was held on Sunday, June 3, 2018, from 1:30 to 3:30 p.m. in Room 170 of the Classroom Building at Virginia Tech. There were no action items, and there was no public comment period. The agenda included:

- Tour of the Classroom Building and Integrated Security Education Research Center (ISERC) within by Dr. Ken Smith, Vice Provost for Academic Resource Management, and Dr. David Raymond, Deputy Director of the Information Technology Security Office.
- Presentation on Industry Partnerships and Technology Transfer, Dr. Theresa Mayer, Vice President for Research and Innovation.
- Briefing on the Strategic Plan by Dr. Menah Pratt-Clarke, Vice President of Strategic Affairs and Vice Provost for Inclusion and Diversity.
- Presentation on InclusiveVT May 3 Town Hall meeting by Dr. Menah Pratt-Clarke, Vice President of Strategic Affairs and Vice Provost for Inclusion and Diversity.
- Presentation on Increasing Diversity in Science: Concrete Steps by Dr. Sally Morton, Dean of the College of Science
- Presentation on the Promotion and Tenure Process by Dr. Jack Finney, Vice Provost for Faculty Affairs.
- Constituent Reports
- Update on budget passed by the General Assembly in special session by Mr. Dwight Shelton, Interim Senior Vice President for Operations and Administration.
- Review of the Annual Cycle of BOV Agenda Items by Rector Dennis Treacy.

(Copies of the presentations are filed with the permanent minutes and attached.)

Virginia Tech Board of Visitors Meeting

Information Session

Sunday, June 3, 2018

1:30 - 3:30 p.m.

**The Classroom Building, Room 170
Virginia Tech Campus**

Tour of Classroom Building and Integrated Security Education and Research Center (ISERC)

- Dr. Ken Smith, Vice Provost, Academic Resource Management
- Dr. Kira Gantt, Associate Director of Education and Outreach, Hume Center for Security and Technology

Industry Partnerships and Technology Transfer

- Dr. Theresa Mayer, Vice President for Research and Innovation

Strategic Planning Update

- Dr. Menah Pratt-Clarke, Vice President for Strategic Affairs & Vice Provost for Inclusion and Diversity

InclusiveVT

Summary of May 3 Town Hall Meeting

- Dr. Menah Pratt-Clarke, Vice President of Strategic Affairs & Vice Provost for Inclusion and Diversity

Increasing Diversity in Science: Concrete Steps

- Dr. Sally Morton, Dean, College of Science

The Promotion and Tenure Process

- Dr. Jack Finney, Vice Provost for Faculty Affairs

Constituent Reports

- Mr. Seyi Olusina, Undergraduate Student Representative to the Board
- Mr. Brett Netto, Graduate Student Representative to the Board
- Mr. Robert Sebek, Staff Representative to the Board
- Dr. Hans Robinson, Faculty Representative to the Board

Annual Cycle of BOV Agenda Items

- Mr. Dennis Treacy, BOV Rector

Industry Partnerships and Technology Transfer

Updates, Facts and Figures, Actions | June 2018
Advancement & Research and Innovation

<https://vtnews.vt.edu/articles/2018/03/fog-harp-increases-water-collection-capacity.html>

Discovery



Sponsored Programs
& Philanthropic Gifts



Discovery

... to Market



Sponsored Programs & Philanthropic Gifts



Intellectual Property

University owns all rights on IP discovered under government-funded research

University IP is licensed to:

- Established companies
- University start-up ventures

The terms of the licensing deal include royalty fees and/or equity stakes

Royalty Streams

A percentage of gross or net revenues derived from the use of an asset or a fixed price per unit sold of an item

Equity Streams

A share of the (future) profits on sale of a new venture

Discovery

... to Market

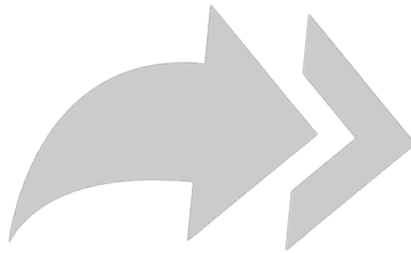
Intellectual Property

For industry-funded programs, the parties generally agree to the rights of any future IP created before the program begins.

Licensing terms typically consider the industry investment in the research:

- Non-exclusive or exclusive
- Royalty or non-royalty bearing
- Restricted field of use or all fields of use

Generally limits the licensing revenue to the university and inventors, and restricts the use of the IP in new ventures.



Technology Commercialization



Sponsored Programs & Philanthropic Gifts



Federal and industry-supported research at Virginia Tech

FY16 Federal Expenditure Rank – 61st

Total	Federal		Total	Federal
1	1	Johns Hopkins U. ^a	2,431,180	2,104,653
5	2	U. Washington, Seattle	1,277,679	946,787
2	3	U. Michigan, Ann Arbor	1,436,448	786,749
9	4	Stanford U.	1,066,269	694,693
3	5	U. Pennsylvania	1,296,429	655,791
63	50	U. Utah	350,212	233,652
72	51	Oregon Health U.	331,524	232,688
71	52	Colorado State U.	331,862	232,108
52	53	U. Cincinnati	430,579	231,817
37	54	Purdue U., West Lafayette	606,302	229,093
46	55	U. South Florida, Tampa	505,965	228,365
45	56	Indiana U., Bloomington	508,766	221,801
44	57	Arizona State U.	518,239	212,396
56	58	U. Virginia, Charlottesville	397,458	210,980
58	59	U. Maryland, Baltimore	393,876	205,988
47	60	North Carolina State U.	489,918	202,336
43	61	Virginia Tech	521,773	195,859
62	62	U. Miami	358,441	195,328
74	63	Carnegie Mellon U.	319,168	190,620
77	64	U. Hawaii, Manoa	304,476	190,336
78	65	Albert Einstein C. of Medicine	300,909	188,521

FY16 Industry Expenditure Rank – 28th

Total	Industry		Total	Industry
10	1	Duke U.	1,055,778	232,793
75	2	SUNY, Polytechnic Institute	316,680	167,935
14	3	MIT	946,159	159,451
22	4	Ohio State U.	818,464	127,731
3	5	U. Pennsylvania	1,296,429	116,812
13	20	Cornell U.	974,199	50,096
42	21	U. Alabama, Birmingham	537,825	50,040
37	22	Purdue U., West Lafayette	606,302	47,810
40	23	Mt. Sinai Medical	540,296	47,474
25	24	Ga Tech	790,706	46,477
27	25	U. California, Davis	741,892	46,166
16	26	Texas A&M	892,718	44,707
5	27	U. Washington, Seattle	1,277,679	43,396
43	28	Virginia Tech	521,773	40,349
33	29	U. Illinois, Urbana-Champaign	625,180	39,355
24	30	U. Florida	791,294	39,263
29	31	Northwestern U.	713,491	38,306
50	32	U. Colorado Denver	443,705	36,608
30	33	U. Southern California	702,866	34,800
31	34	Vanderbilt U.	640,842	34,392
35	35	Emory U.	614,527	34,223

Discovery to Market – a platform for engagement and growth



DISCOVERY TO MARKET

Responsibilities

LINK Center for Advancing Industry Partnerships

- Holistic approach to industry engagement
- Relationship management
- Sponsored programs business terms
- Philanthropic giving
- Strategic concept and proposal development
- Faculty engagement, education, culture

- Patentability assessments and whitespace analysis
- Patent filings, prosecution, maintenance
- Agreement administration and management
- Accounting and fund distribution

Intellectual Property Management
 within a VT affiliated corporation

LINK – the essentials

- Founded in Summer 2017 as a Presidential Priority
- Partnership between Research, Advancement, Colleges, Institutes
- Replaced Corporate and Foundation Relations and selected staff in Research and Innovation
- Recruited Executive Director, Dr. Brandy Salmon, with 20+ years of business development and innovation management experience
- Center has been staffed with Director, two Associate Directors, and two Project Coordinators
- Key operations are underway and team is supporting full range of industry engagement activities



LINK

Industry partnership highlights at Virginia Tech



As member of selected group of universities, Virginia Tech excels as a Ford Alliance Partner, continuing to win numerous sponsored research programs as part of competitive award process.



<https://media.ford.com/content/fordmedia/fna/us/en/news/2017/09/13/ford-virginia-tech-autonomous-vehicle-human-testing.html>





One of the largest companies producing farm equipment globally, Mahindra Group, joins the Virginia Tech Corporate Research Center to become its largest internationally headquartered tenant and begins comprehensive sponsored research partnership with Virginia Tech.





Block.one donated \$3M to support a new curricula to enhance blockchain programming skills. The first step in what we hope will be a comprehensive partnership and platform for blockchain education and research.





Qualcomm maintains its support for Think-a-bit Labs, which has touched ~5000 students and teachers, primarily from underserved and underrepresented communities in the D.C. area since its inception in 2016. The Labs are a model for pathway programs supported through industry-university partnership.



Tech Transfer is important to Virginia Tech

01 —
Faculty and student
recruitment and retention

02 —
Value creation and
knowledge dissemination

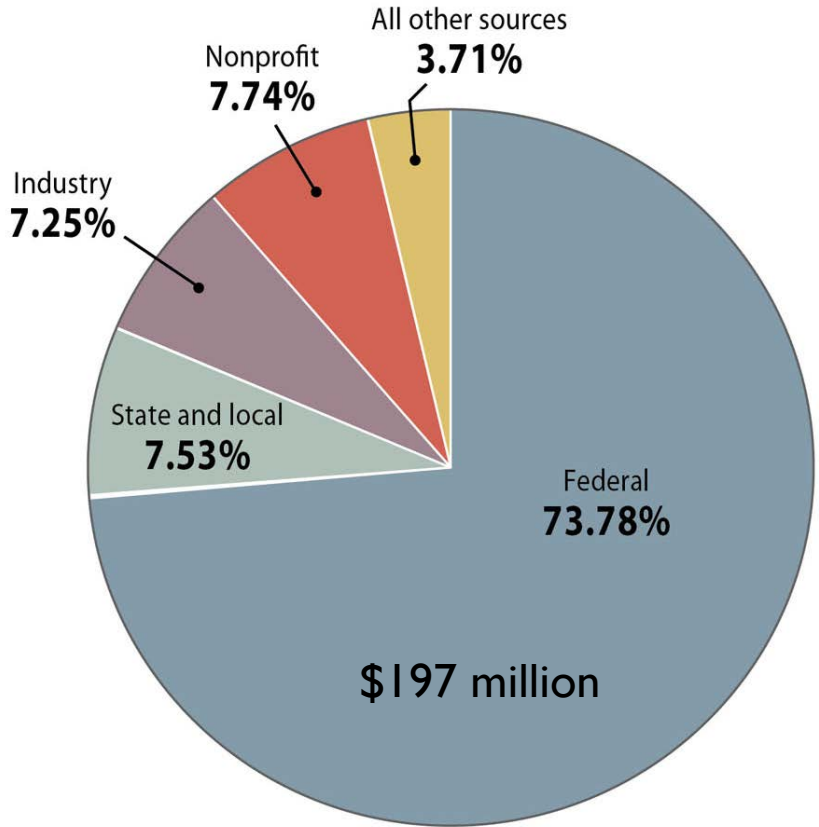
03 —
Entrepreneurial
initiatives and culture

04 —
Bayh-Dole Act to protect
and promote IP created
with federal funding

05 —
Economic development
and public good

06 —
Commitments to the
community and the
Commonwealth

Bayh-Dole Act requires universities that accept federal dollars to provide technology transfer support



“Perhaps the most inspired piece of legislation to be enacted in America over the past half-century.” - Economist, 2002

- ### Non-profits including Universities
- Elect to retain title to innovations developed under federally funded research
 - Promote use of inventions
 - **File patents on inventions they intend to own**
 - Give licensing preferences to small business
- ### Federal Government
- Retains non-exclusive license to practice
 - Retains march-in rights

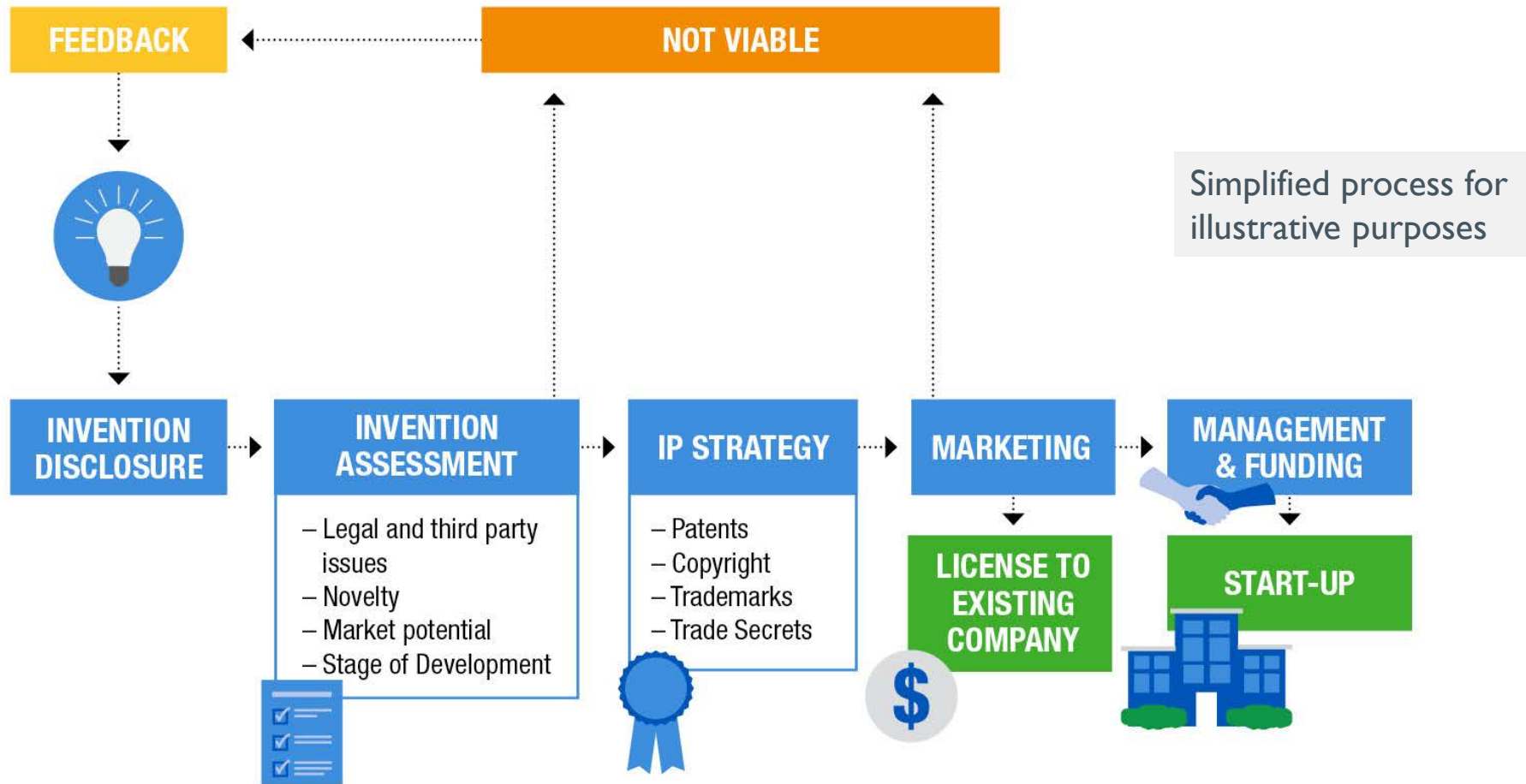
Virginia Tech is committed to supporting economic development and impact in the Commonwealth and beyond

“One of the things that is important to me and to Tim Sands is we don't want VTC to be the end game. We are the catalyst for innovation, entrepreneurship and economic growth for this region. That's where we see the end game as more a continued growth and change, and real excitement to grow the economy.”

-- Carilion CEO Nancy Agee, Roanoke Times, October 2017

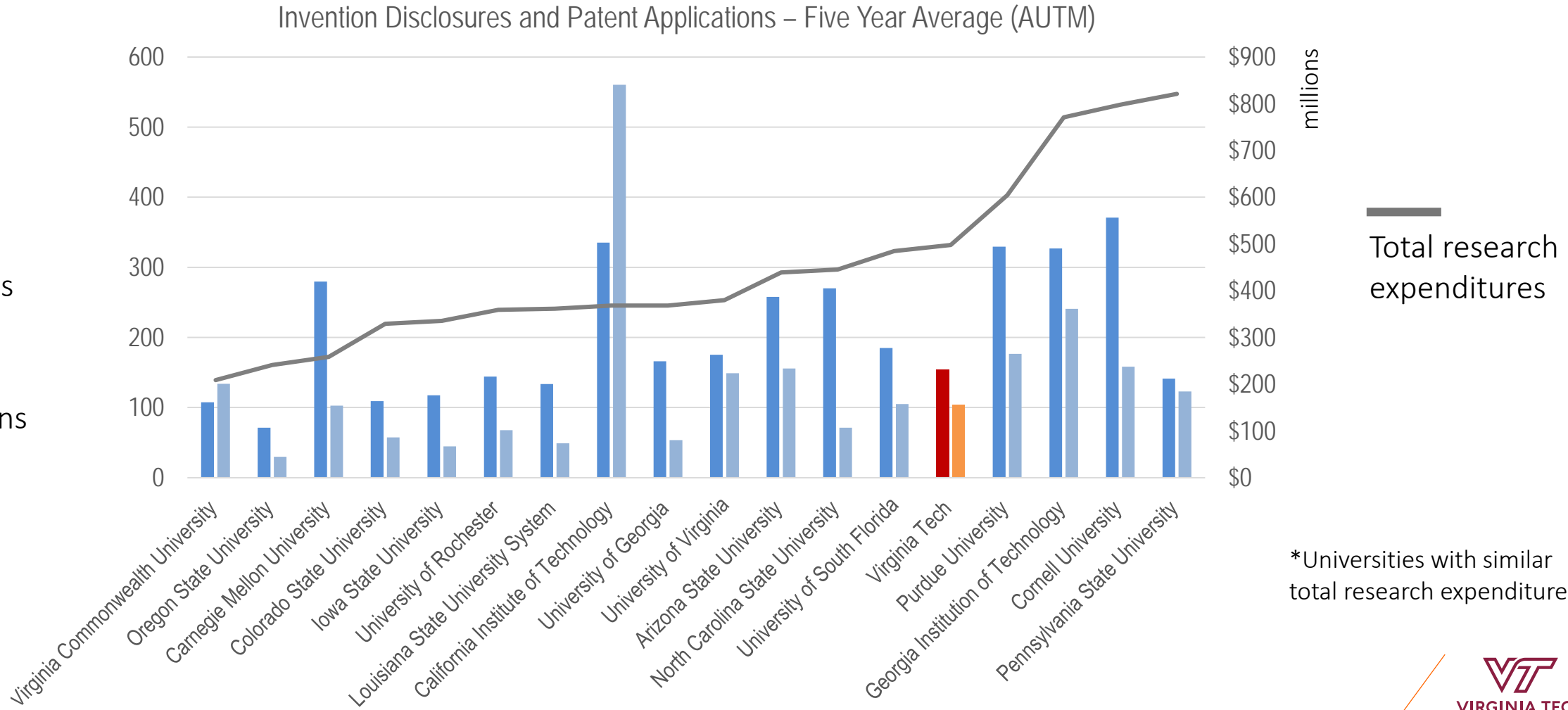


An effective and efficient intellectual property and marketing strategy is essential for successful technology commercialization efforts



Virginia Tech's disclosure of technologies and patent applications relative to others illustrates the pipeline

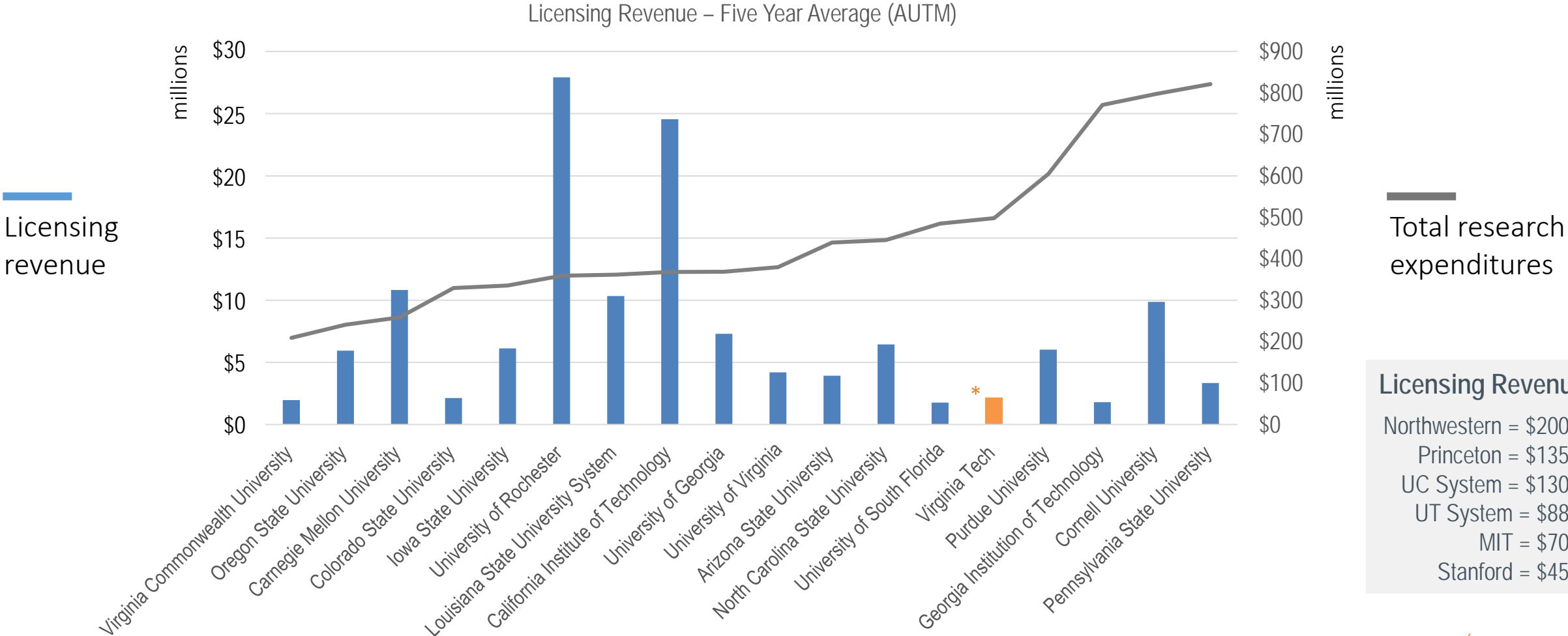
Invention disclosures
Patent applications



*Universities with similar total research expenditures



Virginia Tech's licensing revenue provides one measure of value creation



* ~50% of current licensing revenue is from the small grain breeding program



Virginia Tech's portfolio of non-agriculture agreements illustrate prior decisions and trade-offs



Industry Affiliate Programs offer pre-competitive research and technology development to industry partners

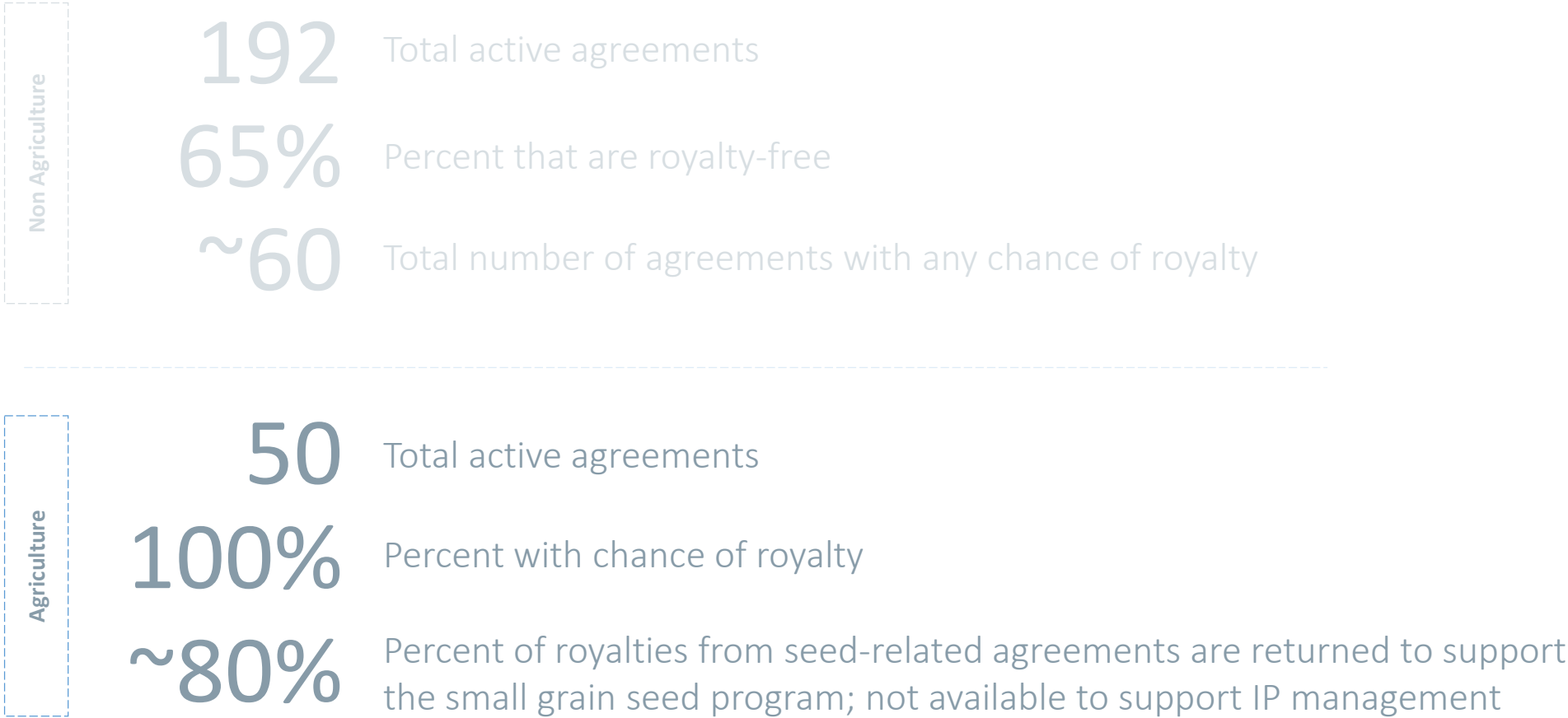


- Established in 1998 as an NSF-funded Engineering Research Center, the Center for Power Electronics Systems (CPES) is now a Virginia Tech Industry Affiliate Program
- 80+ members pay dues in exchange for non-exclusive royalty free licenses to IP, which is supported by membership dues
- The large patent estate (50+ awarded patents) includes technologies that can be found in virtually every mobile device and many other notable inventions

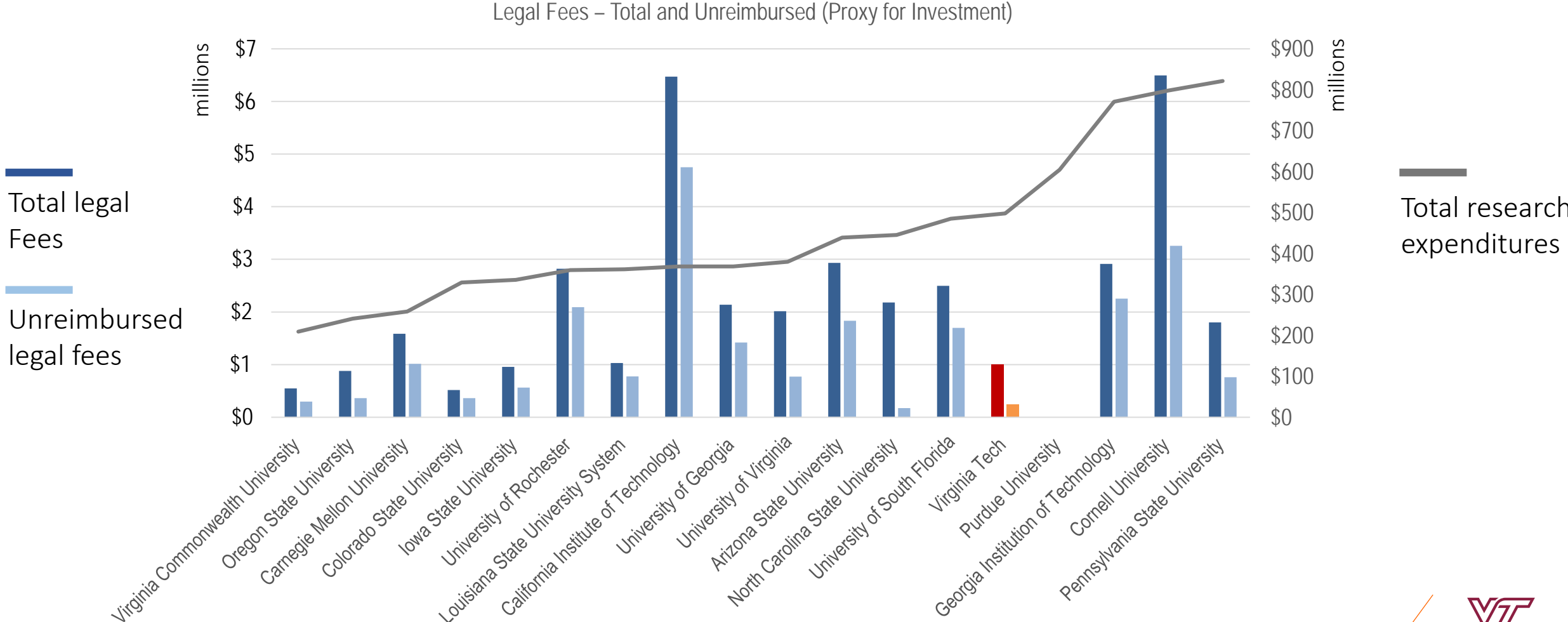
80+ Industry Members

form the CPES Industry Affiliate Program with annual membership dues between \$25K - \$50K

The seed-related agriculture portfolio illustrates (a) impacts of decisions on future investment and (b) areas of strength



Unreimbursed legal fees serve as a proxy for investment



Discovery to Market – a platform for engagement and growth



DISCOVERY TO MARKET

Responsibilities

LINK *Center for Advancing Industry Partnerships*

- Holistic approach to industry engagement
- Relationships with industry contacts
- Sponsored program business terms
- Philanthropic giving
- Strategic concept and proposal development
- Faculty engagement, education, culture

LAUNCH *Center for New Ventures*

- Support for entrepreneurs and start-ups
- Relationships with angel and venture investors
- Proof-of-Concept grant (with VRIC)
- Entrepreneur-in-Residence (EIR) program
- Alumni and community engagement
- Technology showcases and marketing

- Patentability assessments and whitespace analysis
- Patent filings, prosecution, maintenance
- Agreement administration and management
- Accounting and fund distribution

Intellectual Property Management
within a VT affiliated corporation

Ongoing efforts are driving enhancements to technology transfer and commercialization at Virginia Tech

1

Integrate tech transfer function with other Virginia Tech teams, including industry partnerships, new ventures, sponsored programs, colleges, and institutes.

2

Create an affiliation agreement and funding model that aligns with university goals.

3

Move beyond risk averse culture focused on administrative functions and process to one that values innovation and growth.

4

Refocus away from late-stage agreement management to proactive identification of market needs, partners, applications, and engagement.

5

Identify funding to support technology commercialization efforts and start-ups.



Strategic Planning Update

Menah Pratt-Clarke
Vice President for Strategic Affairs

Strategic Planning Process Update
June 2018



The Big Picture:

*Developing the
Process and
Framework*

- ❑ **Information gathering and collaboration.**
 - January – April 2018 Retreats, committee meetings, collaboration with university units.
- ❑ **Develop mission, vision, core values and objectives.**
 - March 2018 – Draft mission, vision, core values and objectives, develop communication strategy, workgroups and university presentations to subcommittees.
- ❑ **Campus engagement and communication.**
 - April and May 2018 – Engage and inform campus of the strategic planning process.

Committee Presentations and Discussions (January to May)

- Metrics In Academia (Ron Fricker)
- HUME (Charles Clancy)
- Rankings and Metrics Indicators (James Harder, Mallory Miller)
- Destination Areas (Marcia Davitt)
- PIBB (Jeff Earley)
- Research (Theresa Mayer)
- Biocomplexity Institute (Chris Barrett)
- Institute for Society Culture and Environment (Karen Roberto)
- Virginia Tech Transportation Institute (Tim Dingus)
- Institutional Research (Roxanne Gile, Abhay Joshi)
- Financial Resource Metrics (Savita Sharma)
- Institute for Creativity Arts and Technology (Ben Knapp)
- Academic Affairs Metrics (Ken Smith)
- Auxiliary Budget Process (Tim Hodge)
- FRALIN (Dennis Dean)
- Assessment and SACS Accreditation (Jaime Williams, Bethany Bodo)
- Institute for Critical Technology and Applied Science (Stefan Duma)



Campus Engagement Activities

April thru May 2018



Commission on
Administrative and
Professional Faculty
Affairs

Department Heads
Executive
Committee

Commission on
Student Affairs

Graduate Student
Affairs

Student Government
Association

University
Council

Town Halls

Faculty Senate

Staff Senate

Commission on
Outreach and
International Affairs

Commission on
Undergraduate
Studies and Policies

Commission on
University Support

Commission on
Graduate Studies and
Policies

President's Council
Meeting



Alumni

Commission On Staff
Polices and Affairs

Commission on
Research

Commission on
Faculty Affairs

NCR Senior
Management Team

NCR Academic
Faculty and Program
Directors

Division of
IT

Council of College
Deans

Commission on Equal
Opportunity and Diversity

VTCRI
(Roanoke)

Draft Vision

*An inspirational and aspirational statement of
what we want to become*



Virginia Tech positively
transforms lives and communities
and inspires the world in the spirit
of its motto, *Ut Prosim*
(That I May Serve).

Draft Mission

How the vision will be achieved



As a comprehensive global public land grant university, Virginia Tech positively transforms lives and communities in the spirit of its motto, *Ut Prosim*, by creating, conveying, and applying knowledge, technology, and experiences within the Commonwealth of Virginia and throughout the world.

Draft Strategic Objectives

The key principles that support the vision and mission



Land Grant Experience

hing and learning, research and discovery,
n areas of the Commonwealth of Virginia, the

nation through economic development,
ication, and lifelong learning opportunities.

on, discovery, innovation, and the creative
Commonwealth of Virginia, the nation, and the

Promote the institutional and individual commitment to community, diversity, and inclusion in accordance with the Principles of Community and InclusiveVT.

Draft Strategic Objectives

The key principles that support the vision and mission

Student Success

...e teaching and learning and holistic
...o-curricular experiences, to be
...aged, and equipped to be of service

... , innovative, and collaborative

... ize the talents and influence of

virginia tech admin.

Draft Strategic Objectives

The key principles that support the vision and mission

Financial Sustainability

Identify and manage new, diverse, and sustainable and robust financial management strategies.

Campus of the Future

Create and sustain an infrastructure (physical and digital) that provides dynamic learning and discovery through a technology-enhanced, data-enabled network of campuses.

Continuous Planning and Assessment

Integrate continuous planning, evaluation, and organizational capacity for agile, flexible, and operational effectiveness.

Draft Core Values

The foundation for the vision, mission, and strategic objectives

cores our commitment to service
ms.

S.

diverse ideas, peoples, and
of individuals in order to contribute
world's communities.

able educational opportunities for
student with its land-grant mission.

Draft Core Values

The foundation for the vision, mission, and strategic objectives

Collaboration.

We value collaboration and the collective approaches and perspectives to address challenges.

Mutual Respect and Open Expression.

We support and promote open expression and mutual respect.

Ethics and Integrity.

We expect the university and its members to uphold the highest standards of integrity and ethical behavior, both personally and professionally.

Draft Core Values

The foundation for the vision, mission, and strategic objectives

Lifelong Learning.

We value lifelong learning and inquiry for personal growth and to promote the well-being of society to enhance society.

Discovery and Innovation.

We value research, innovation, and the pursuit of knowledge.

Freedom of Inquiry and Academic Integrity.

We value freedom of inquiry and an environment of intellectual excellence.

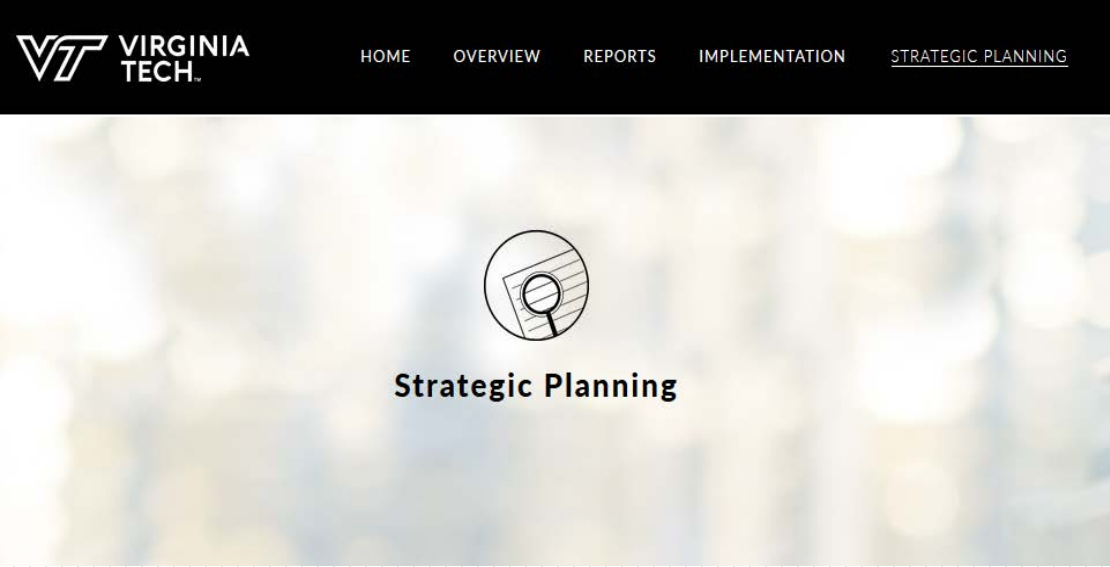
Continuous Evaluation.

We value continuous evaluation and improvement to meet the needs and institutional objectives.

Summer Work Plan

- Refine and revise vision, missions, values, and objectives
- Develop white paper on metrics and rankings
- Begin to identify high-level goals for strategic objectives

Questions



Virginia Tech

BOV Update from May 3, 2018 Town
Hall on Diversity

Tim Sands, President

Menah Pratt-Clarke,
Vice President for Strategic Affairs
Vice Provost for Inclusion and Diversity

Inclusion and Diversity at Virginia Tech

Where we've been, Where we're going, How we're making a
difference

The national conversation on diversity



InclusiveVT: Institutional and individual commitment to *Ut Prosim* in the spirit of community, diversity, and excellence. (May, 2016)

Diversity Strategic Goals:

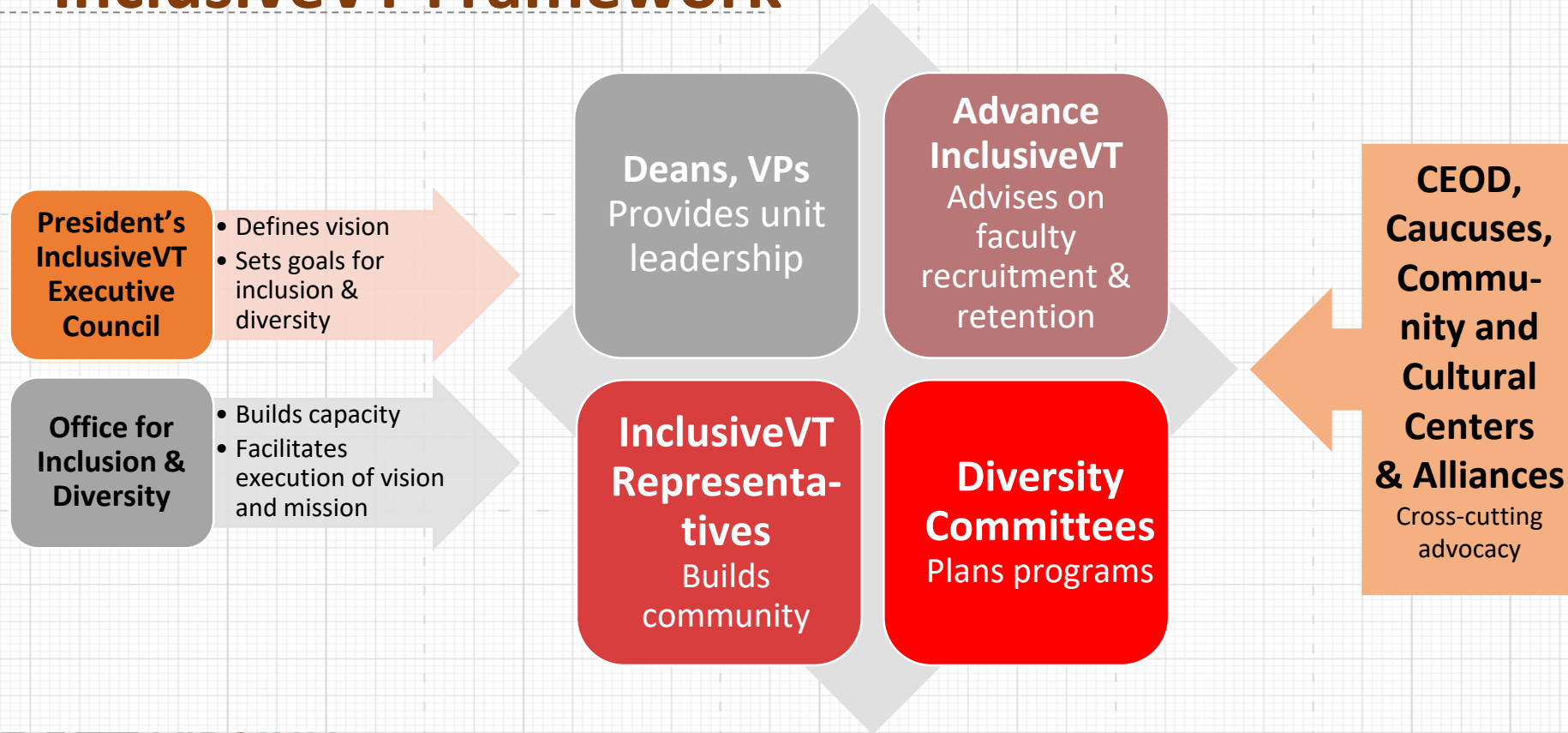
- Institutionalizing structures that promote sustainable transformation
- Increasing faculty, staff, and student diversity
- Ensuring a welcoming, affirming, safe, and accessible campus climate
- Preparing students for service through an understanding of issues of identity, the human condition, and life chances.

Impact Overviews

Institutionalizing structures that promote sustainable transformation



InclusiveVT Framework



■ Diversity Strategic Planning (2017-2018)

Attachment U

Accelerating Diversity Outcomes

16

Sr. Mgmt.
Areas

2

Vice Provost
Areas

40

Academic
depts.

Compositional Diversity

Increasing faculty, staff, and student diversity

Project 2022

Fall 2017

13% URM
30% URM/USS

Fall 2022

25% URM
40% URM/USS

- Fall census of entering undergraduate class, including first-year and transfer students
- URM = UnderRepresented Minority
- USS = UnderServed Students (First-generation & Pell)
- URM/USS not double-counted

■ New Leadership (2017)

Increase in
underrepresented and
underserved applications

Admissions restructuring,
non-cognitive factors,
pipeline programs, life
experiences, leadership,
overcoming obstacles



Luisa Havens, Vice Provost



Juan Espinoza,
Associate VP

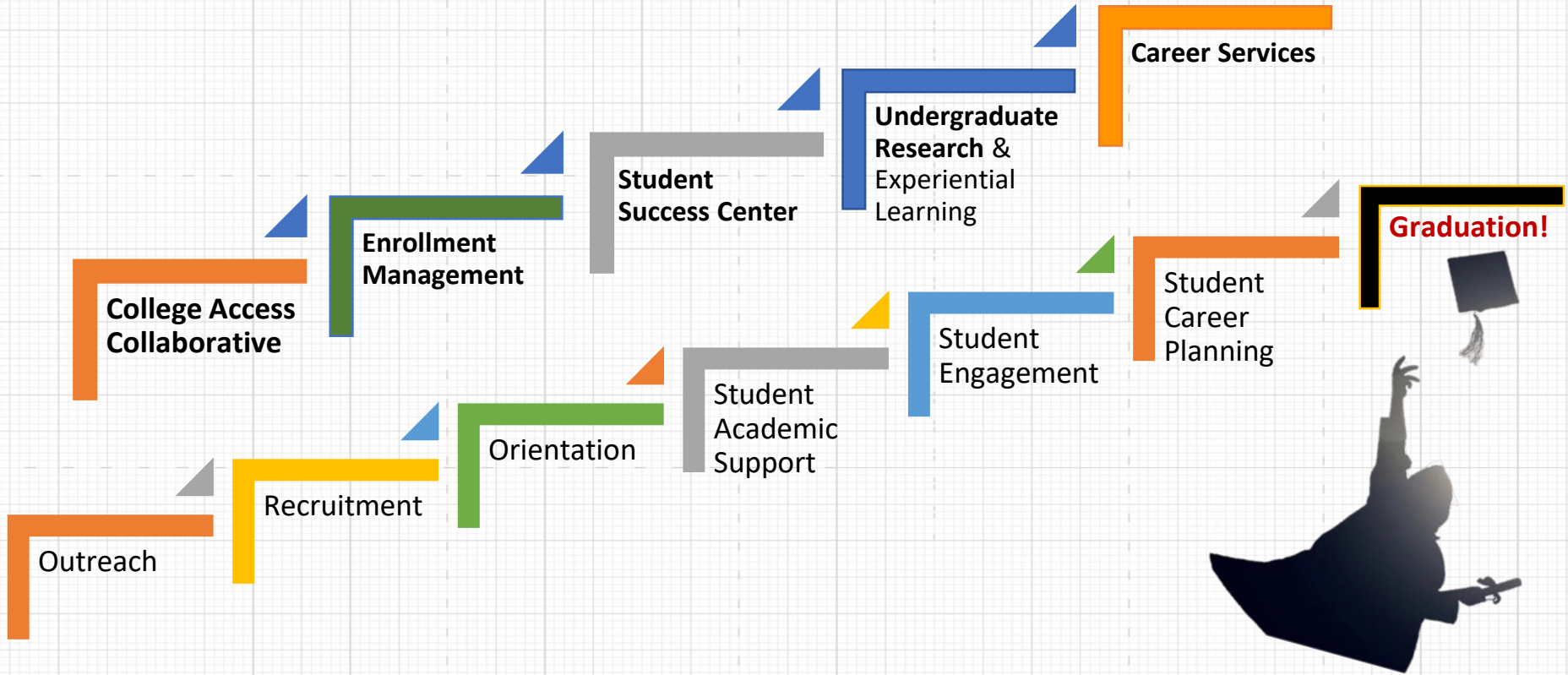


Alphonso Garrett,
Director, Diversity

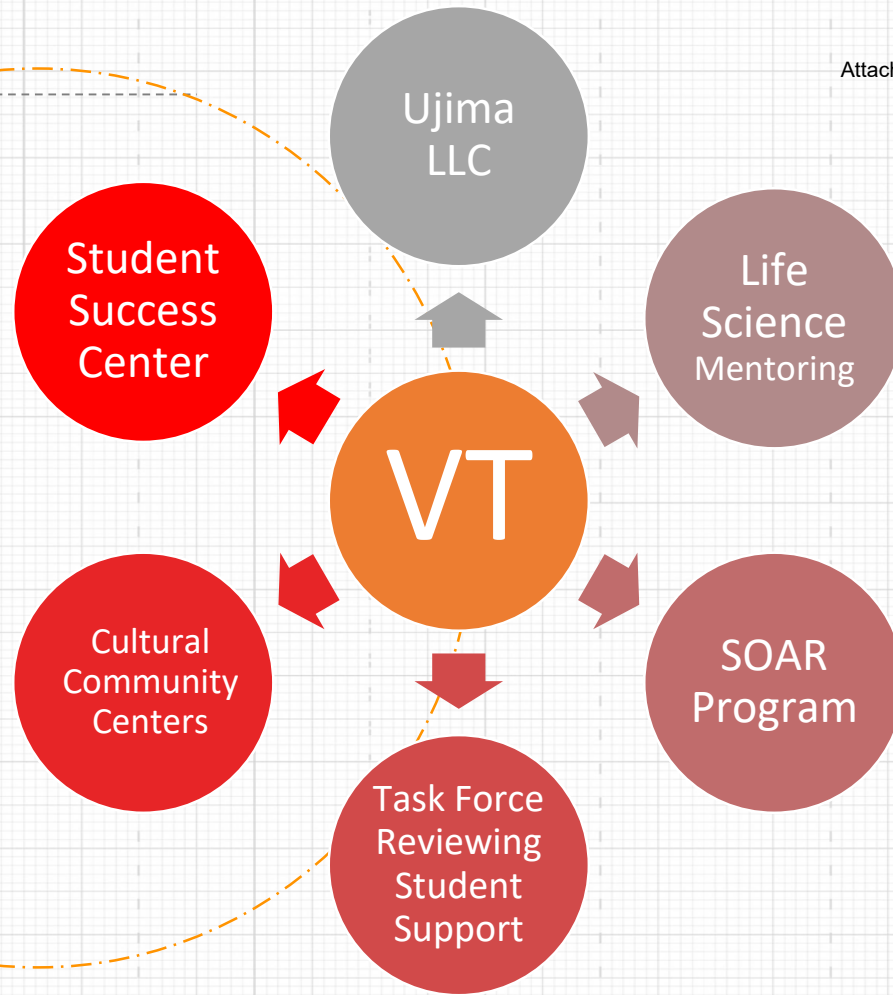
Enrollment Management Outreach Programs

- **Hispanic College Institute Pre-College Program**
- **Native American Pre-College Outreach**
- **College Access Collaborative Summer Programs**
- **Black College Institute Pre-College Program**

Student Success Flow

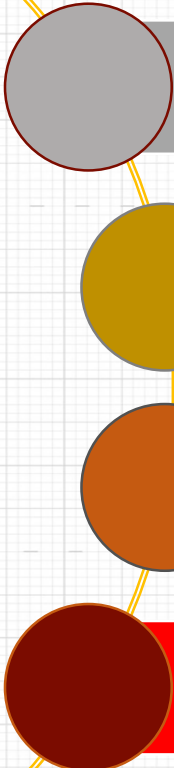


Initiatives Benefitting Students



Retention Support

Attachment U



FINANCIAL AID AND SCHOLARSHIPS (Beyond Boundaries, InclusiveVT Excellence Fund)

TUTORING / MENTORING (Cultural Community Centers, Student Success Center)

SOAR (Student Opportunity and Achievement Resources)

The Commonwealth of Scholars (Academic Excellence)

Faculty Hiring

- Target of Talent
- Future Faculty Fellows
- Advance InclusiveVT
- Diversity Search Advocates

Actions

DiversityEdu
For Faculty Searches

• **75%**
completion

• **30**
Underrepresented hires
anticipated

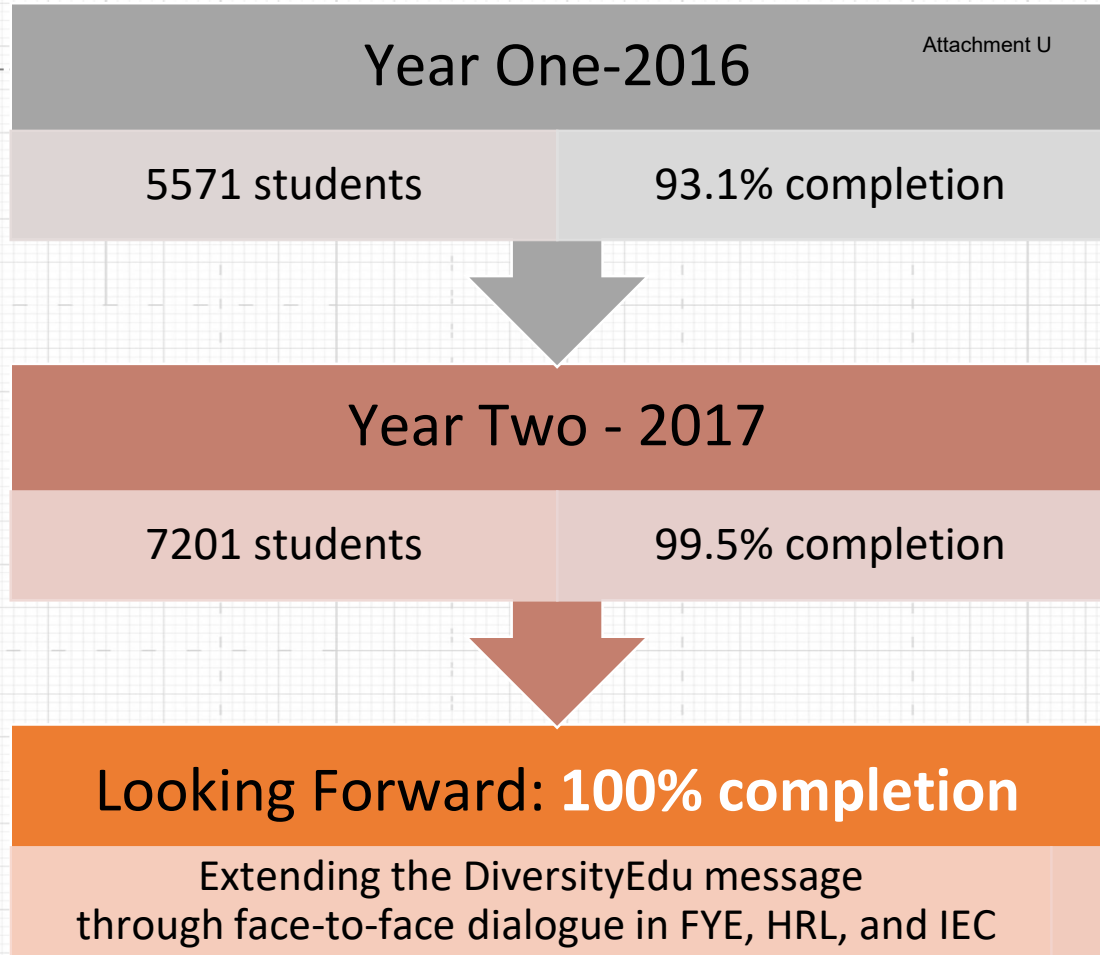
2017-18

Education and Training Overview

Ensuring a welcoming, affirming, safe, and accessible
campus climate

■ DiversityEdu

Providing a common knowledge and basic foundation around diversity and inclusion consistent with Ut Prosim and the Principles of Community.



■ Strategic Diversity Education:

Tied to the InclusiveVT mission and goals:

- transformational infrastructure,
- compositional diversity,
- campus climate,
- the academic mission.

Tier One: “Inclusion Edu”
(all employees)

Tier Two: Diversity Awareness
+ Inclusive Pedagogy
(open enrollment)

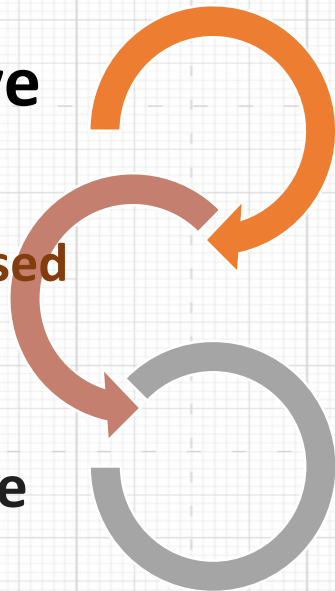
Tier Three: Capacity Building +
Inclusive Excellence
(targeted cohorts)

■ Diversity Programming

Generative

Mission-focused

Responsive



2015
Reading
Groups



2016
Unfinished
Conversations



2017
Diversity
Infrastructure



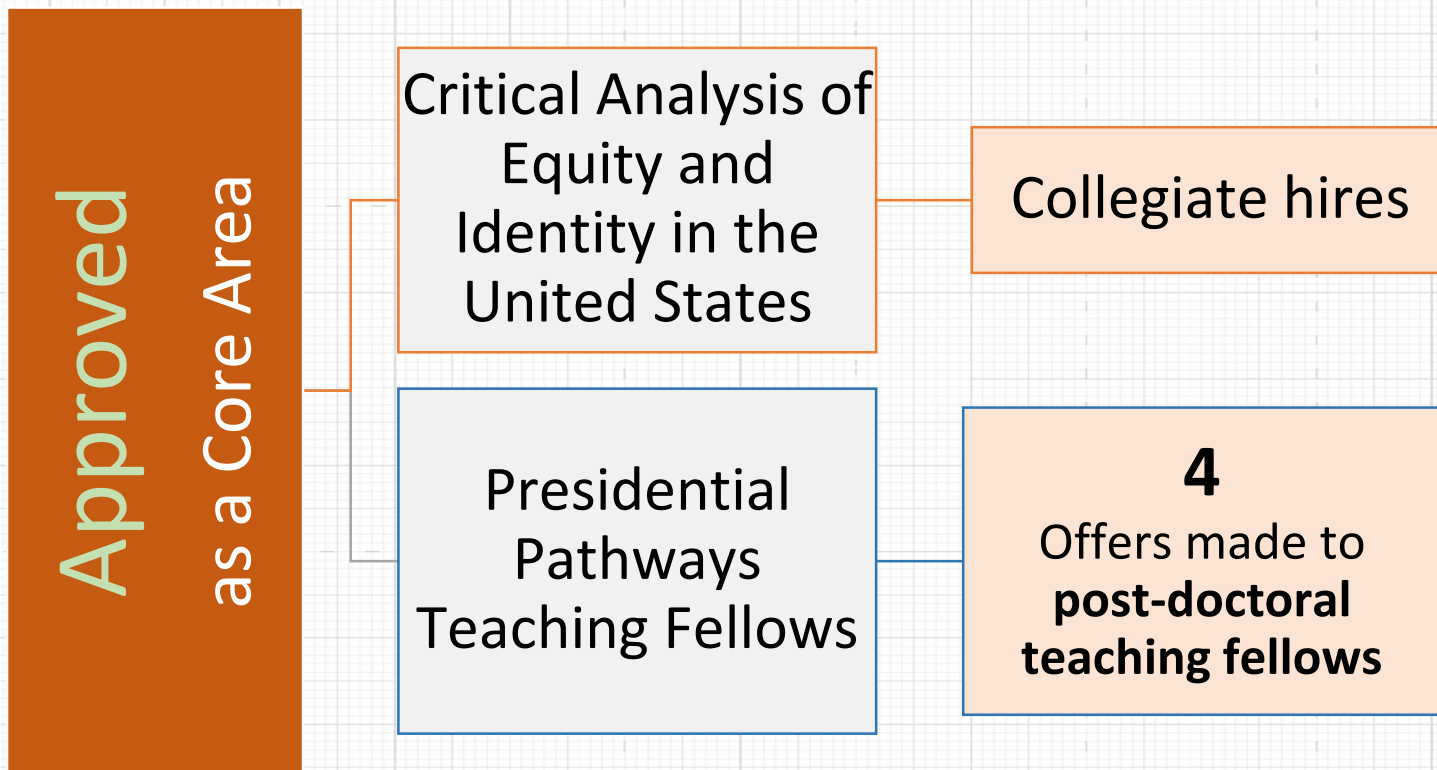
2018
Courageous
Conversations



Impact on the Academic Mission

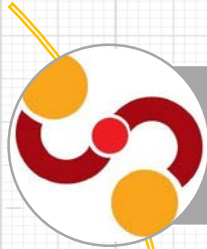
Preparing students for service through an understanding of issues of identity, the human condition, and life chances.

■ Pathways: General Education at VT



■ Beyond General Education

Attachment U



**UJIMA Living Learning Community
(Africana Studies Program)**



**Required component in graduate student
and professional student education**



**Equity and Social Disparity in the Human
Condition Strategic Growth Area**

What's Next

- Integration of diversity into university strategic planning framework
- Focusing on capacity-building around diversity competency
- Continuing faculty diversity recruitment momentum and focusing on retention
- Developing comprehensive strategies for student success
- College/Unit Accountability with Diversity Plans

Increasing Diversity in Science: Concrete Steps

- Consensus
- Leadership
- Commitment
- Implementation



Sally C. Morton, Dean



COLLEGE OF SCIENCE

“Who we are, where we come from, and what we’ve experienced influence the way we perceive issues and solve problems. I think the most diverse group will produce the best product.”

Tim Cook, CEO, Apple



Consensus: The College of Science Values Diversity

Equitable

Essential

Pragmatic



Leadership

Michel Pleimling has been named Director of Inclusion and Diversity for the College of Science, with a mission of helping create a faculty, student body, and community that is diverse and welcoming.



“We know that new challenges require new thinking and continued innovation. That’s why embracing diversity and inclusion is not just a nice-to-have, but rather a business priority.”

-Mary Barra, CEO, General Motors



Our Initial Focus: Increasing Faculty Diversity

The College committed philosophically, procedurally, and financially to increasing the number of under-represented minority faculty.



Our Ongoing Commitment

Faculty
Students
Staff
Education
Pipeline

AdvanceVT
InclusiveVT

College
Diversity
Committee

Departmental
Committees



Women In The Sciences

Our Initial State: Fall 2016

298 Instructional Faculty

- Biological Sciences
- Chemistry
- Economics
- Geosciences
- School of Neuroscience
- Academy of Integrated Science
- Mathematics
- Physics
- Psychology
- Statistics

Faculty Characteristics	Number and Percent (Fall 2016)
Women	92 (31%)
<hr/>	
White	232 (78%)
Asian	49 (16%)
Hispanic	10 (3%)
African American	5 (2%)
American Indian or Alaska Native	2 (1%)

Science's Current State

Doctorates earned by African Americans in the U.S. in 2016	Number and Percent (NSF Survey of earned Doctorates)
Psychology	233 (6.9%)
Chemistry	65 (4.1%)
Mathematics or Statistics	36 (3.8%)
Economics	18 (3.5%)
Geosciences	10 (1.2%)

66 African American women received a PhD in Physics in the U.S. between 1972 and 2012. During that time, 22,172 white men did.

Implementation: Creative Approaches



Institutionalizing our structure to promote sustainable transformation

- Committing College hiring lines
- Bridging post-docs
- Fellowships and scholarships
- Outreach

Attachment U
“We will make progress every year towards building a more diverse workforce and creating opportunities at every level of the company for all of Microsoft's employees.”

-Satya Nadella, CEO, Microsoft



Projected Results Fall 2018

Projected increases in Tenured,
Tenure-track and Collegiate
Faculty:

13 women

2 African Americans

2 Hispanics



Virginia Tech Town Hall on Diversity

May 3, 2018

Tim Sands, President

Menah Pratt-Clarke,
Vice President for Strategic Affairs
Vice Provost for Inclusion and Diversity

The national conversation on diversity



Inclusion and Diversity at Virginia Tech

Where we've been, Where we're going, How we're making a difference

Virginia Tech Diversity Champion, 2016-2018



VT VIRGINIA TECH.

2016 DIVERSITY CHAMPION

TIM SANDS

Tim Sands, PhD, has served as president of the Virginia Polytechnic Institute and State University (Virginia Tech) since 2014. A scientist, researcher, and innovator, Sands has dedicated much of his career to enhancing the impact of research and discovery in public education. A prolific inventor, he has published more than 200 papers and conference proceedings and has been named 20 patents in electronic and computational materials and devices. He is a fellow of the Institute of Electrical and Electronics Engineers, the Materials Research Society, and the National Academy of Inventors.

As president of Virginia Tech, Sands has focused on creating a detailed and ambitious vision for Virginia Tech's future that places a special emphasis on diversity and progressiveness. He has worked to create an inclusive, "Beyond Boundaries," strategic plan that includes a variety of diversity-related initiatives. For example, it outlines specific guidelines for the "Strategic Student," such as being service-minded and gaining diverse life experiences.

Under his plan, the initiative "Inclusivity" encompasses a range of activities to increase accessibility and to create a campus community more reflective of the outside world. For example, the Beyond Boundaries program aims to make class more accessible for underserved, high-achieving high school students. Through the program, dozens of donors have created scholarships matched by the university. As of fall 2017, 30 freshmen were awarded as Beyond Boundaries Scholars.

In addition to these new programs, Sands has also identified a list of broader, transformative social directions for Virginia Tech. These include diversifying offerings and services to support the increased demand for interdisciplinary study, increasing Virginia Tech's workforce leadership in addressing global challenges, and leveraging new technologies so students can more easily share their international experiences with each other.

SCHOLARLY ACHIEVEMENTS

- Institute of Electrical and Electronics Engineers Fellow
- Author of 200+ papers and conference proceedings
- Holds 20 patents in electronic and nanoelectronic materials and devices

Member of the Board of Trustees, Virginia Tech

Office of Inclusion and Diversity Team in 2016

Attachment U



Office for Inclusion and Diversity Team in 2018

Attachment U



Office for Inclusion and Diversity

Vision:

A just and inclusive
society

Mission:

To serve as a
catalyst for
capacity building
through
InclusiveVT

InclusiveVT: Institutional and individual commitment to *Ut Prosim* in the spirit of community, diversity, and excellence. (May, 2016)

Diversity Strategic Goals:

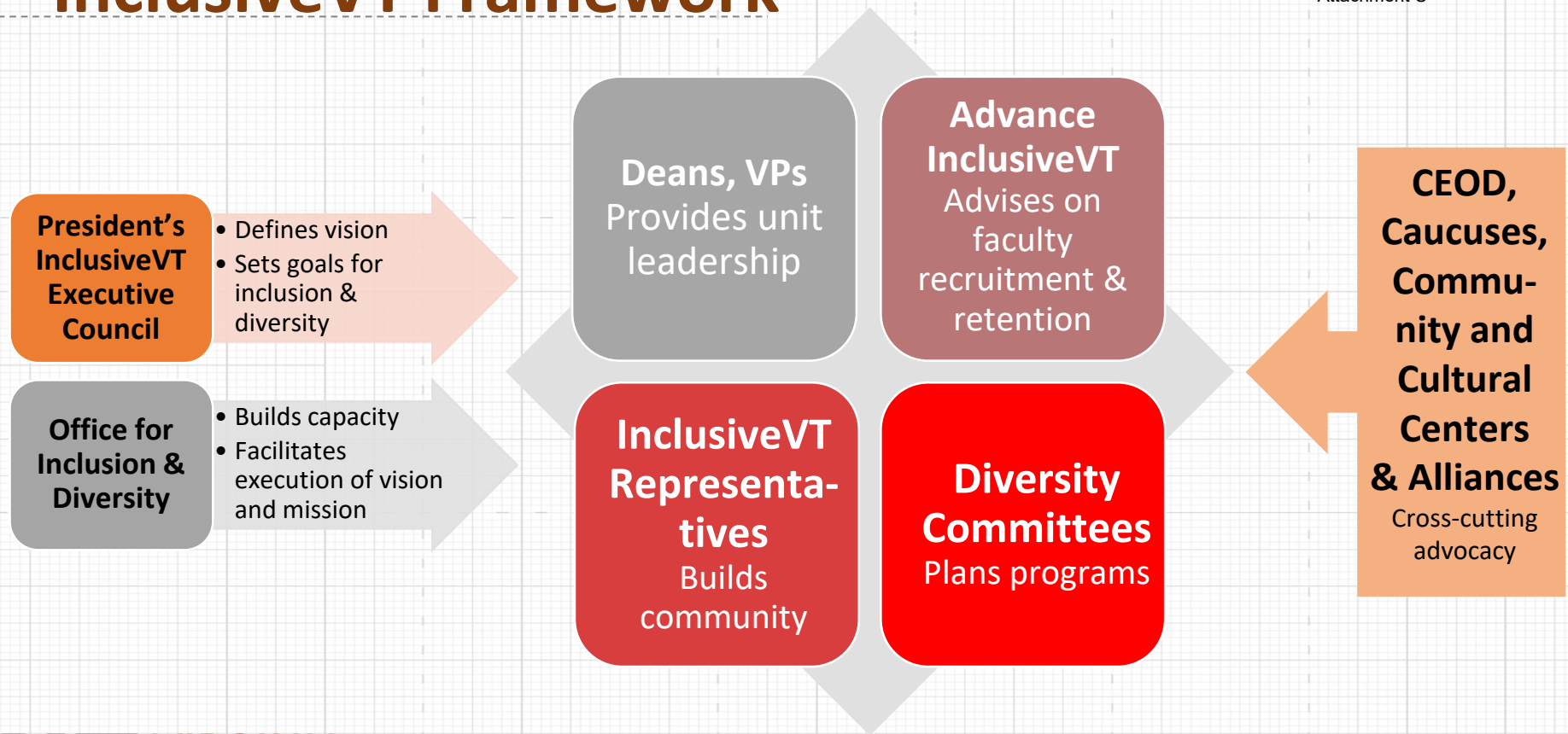
- Institutionalizing structures that promote sustainable transformation
- Increasing faculty, staff, and student diversity
- Ensuring a welcoming, affirming, safe, and accessible campus climate
- Preparing students for service through an understanding of issues of identity, the human condition, and life chances.

Impact Overviews

Institutionalizing structures that promote sustainable transformation



InclusiveVT Framework



■ Diversity Strategic Planning (2017-2018)

Attachment U

Accelerating Diversity Outcomes

16

Sr. Mgmt.
Areas

2

Vice Provost
Areas

40

Academic
depts.

■ Governance

Attachment U

Commission on Equal Opportunity and Diversity

Advises
President's
InclusiveVT
Executive
Council

Recommends
policies to
University
Council

F17
Letter in
response to
White
supremacy

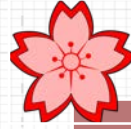
S18
Letter on the
state of our
Principles of
Community

■ Caucuses



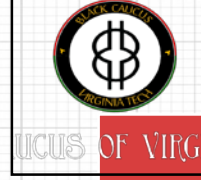
American Indian and Indigenous

- Pow Wow
- Tribal Relations
- Indigenous People's Day



Asian / Asian American Caucus

Reviewing goals, objectives, vision



Black Caucus

- Student support
- Faculty concerns
- Staff concerns



Disability Alliance and Caucus

- Master Planning & Access
- Web accessibility

■ Caucuses



LGBTQ+ Caucus

- LGBTQ+ Climate Survey
- Outreach
- Education



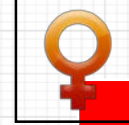
Hispanic / Latinx Caucus

- Support for DACA students
- Latinx Symposium Plans



Veteran's Caucus

- Veteran's Conference
- VetZone Support
- Advocacy for transitional support
- Admissions



Women's Caucus

- Four dialogues
- Gender@VT
- Short, medium, long-term goals

Compositional Diversity

Increasing faculty, staff, and student diversity

Project 2022

Fall 2017

13% URM
30% URM/USS

Fall 2022

25% URM
40% URM/USS

- Fall census of entering undergraduate class, including first-year and transfer students
- URM = UnderRepresented Minority
- USS = UnderServed Students (First-generation & Pell)
- URM/USS not double-counted

■ New Leadership (2017)

24% increase in Black student applications in year one!

Admissions restructuring, non-cognitive factors, pipeline programs, life experiences, leadership, overcoming obstacles



Luisa Havens, Vice Provost



Juan Espinoza,
Associate VP



Alphonso Garrett,
Director, Diversity

Enrollment Management Outreach Programs

- **Hispanic College Institute Pre-College Program**
- **Native American Pre-College Outreach**
- **College Access Collaborative Summer Programs**
- **Black College Institute Pre-College Program**

Black College Institute Pre-College Program

- Academic enrichment program
- High achieving, academically curious rising high school juniors and seniors
- Engages all academic colleges

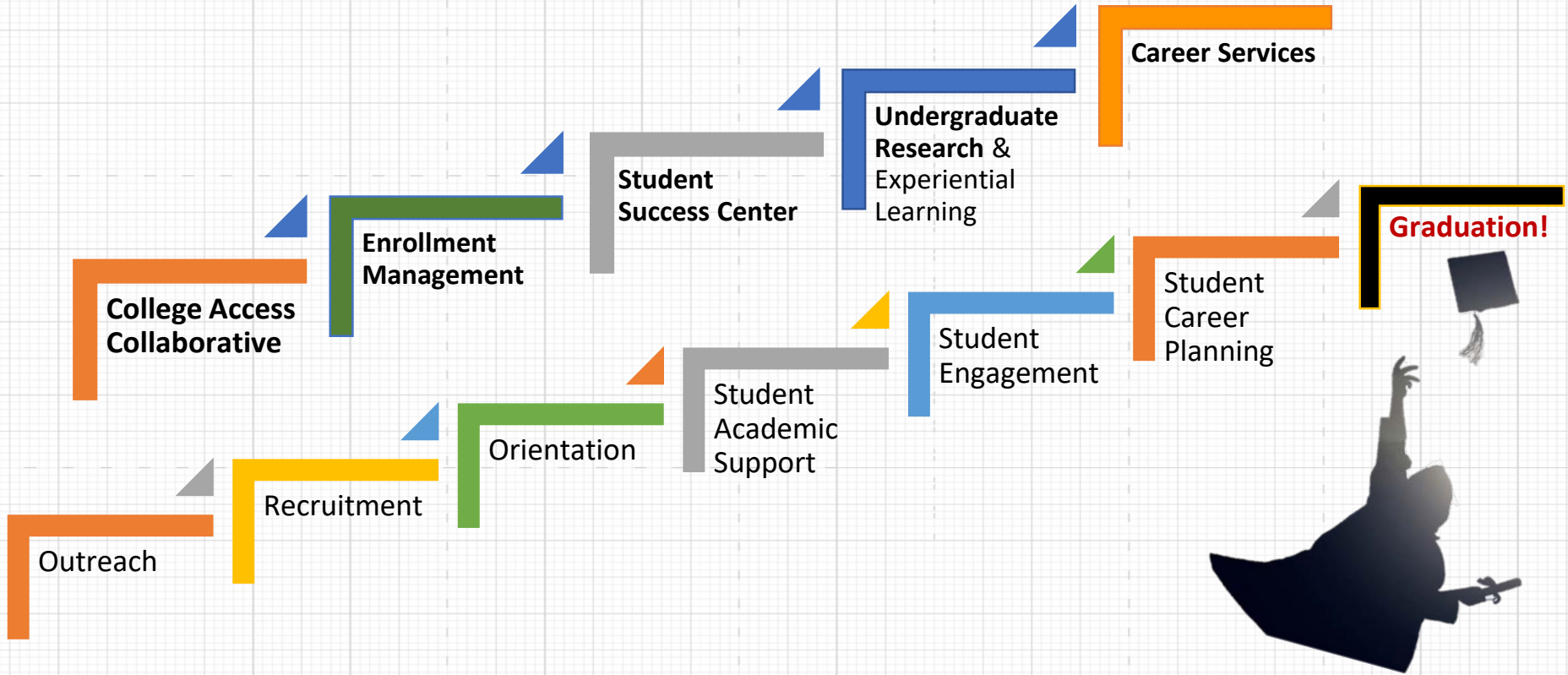


**600+ applicants for
2018!**

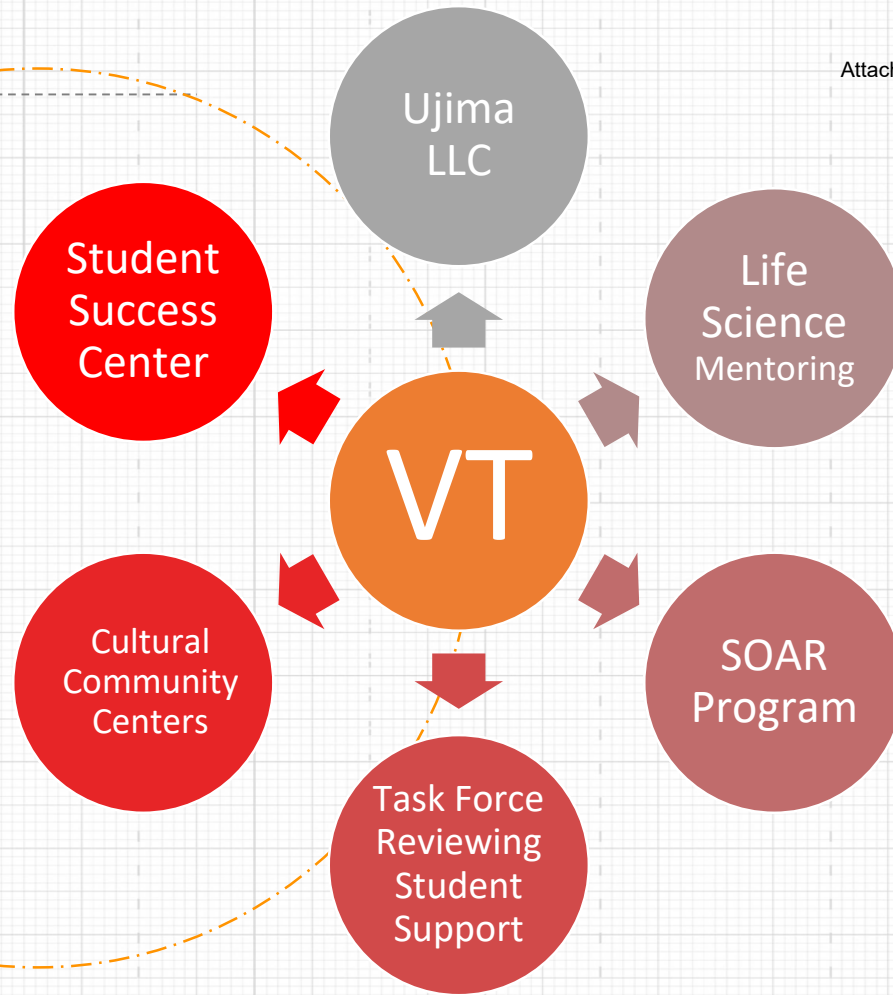
(60 applicants for 2017)



Student Success Flow

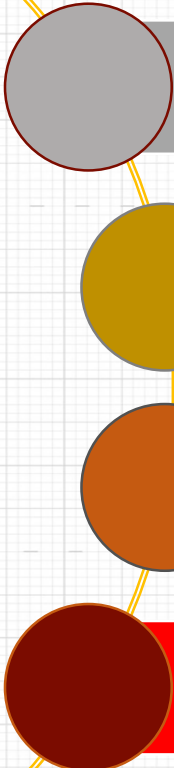


Initiatives Benefitting Students



Retention Support

Attachment U



FINANCIAL AID AND SCHOLARSHIPS (Beyond Boundaries, InclusiveVT Excellence Fund)

TUTORING / MENTORING (Cultural Community Centers, Student Success Center)

SOAR (Student Opportunity and Achievement Resources)

The Commonwealth of Scholars (Academic Excellence)

Cultural and Community Centers

Creating conditions
for student success.

Developing the
cultural competence
of every Virginia Tech
student.

Yolanda Avent



Rhonda Rogers



Joseph Frazier
Attachment U



Veronica Montes



Luis Garay

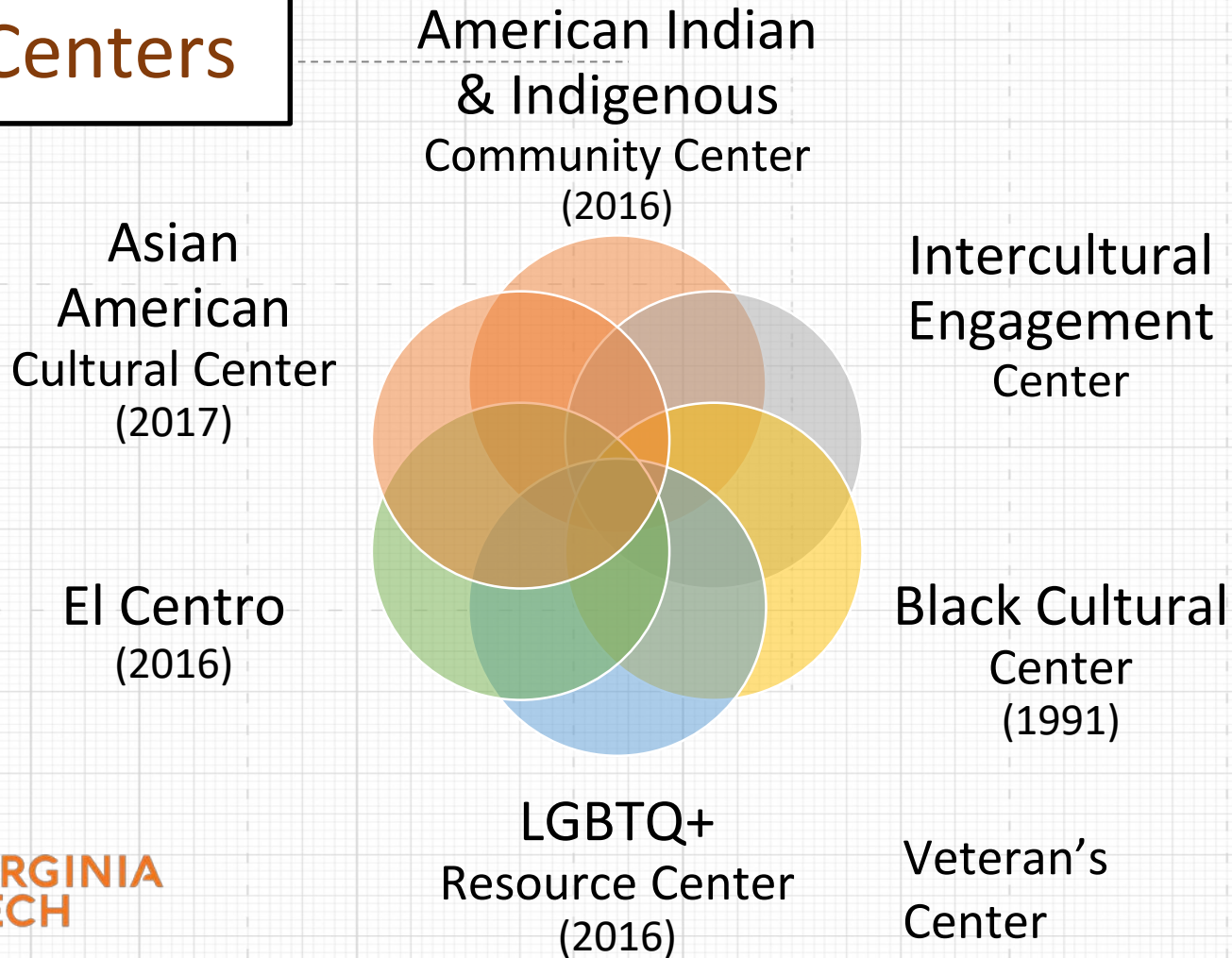


Kimberly Williams



Advocacy
Advising
Awareness

The Centers



Cultural Achievement Ceremonies

Attachment U

Aliyah

American
Indian &
Indigenous

Asian
American

Donning of
the Kente

Gesta Latina

International

Lavender

Muslim

Students in
Recovery

Veterans

Faculty Hiring

- Target of Talent
- Future Faculty Fellows
- Advance InclusiveVT
- Diversity Search Advocates

Actions

DiversityEdu
For Faculty Searches

• **75%**
completion

• **30**
Underrepresented hires
anticipated

2017-18

Enhancing Faculty Diversity

Attachment U

PIBB

- Partnership for Incentive Based Budget
- Annual reporting by colleges and vice presidents
- Budget allocations for success
- Faculty Success Scorecard with diversity metrics

Cluster Hires

- Cluster ads and search committees
- Committees → diversity advocates & Advance InclusiveVT representatives

Advance VT

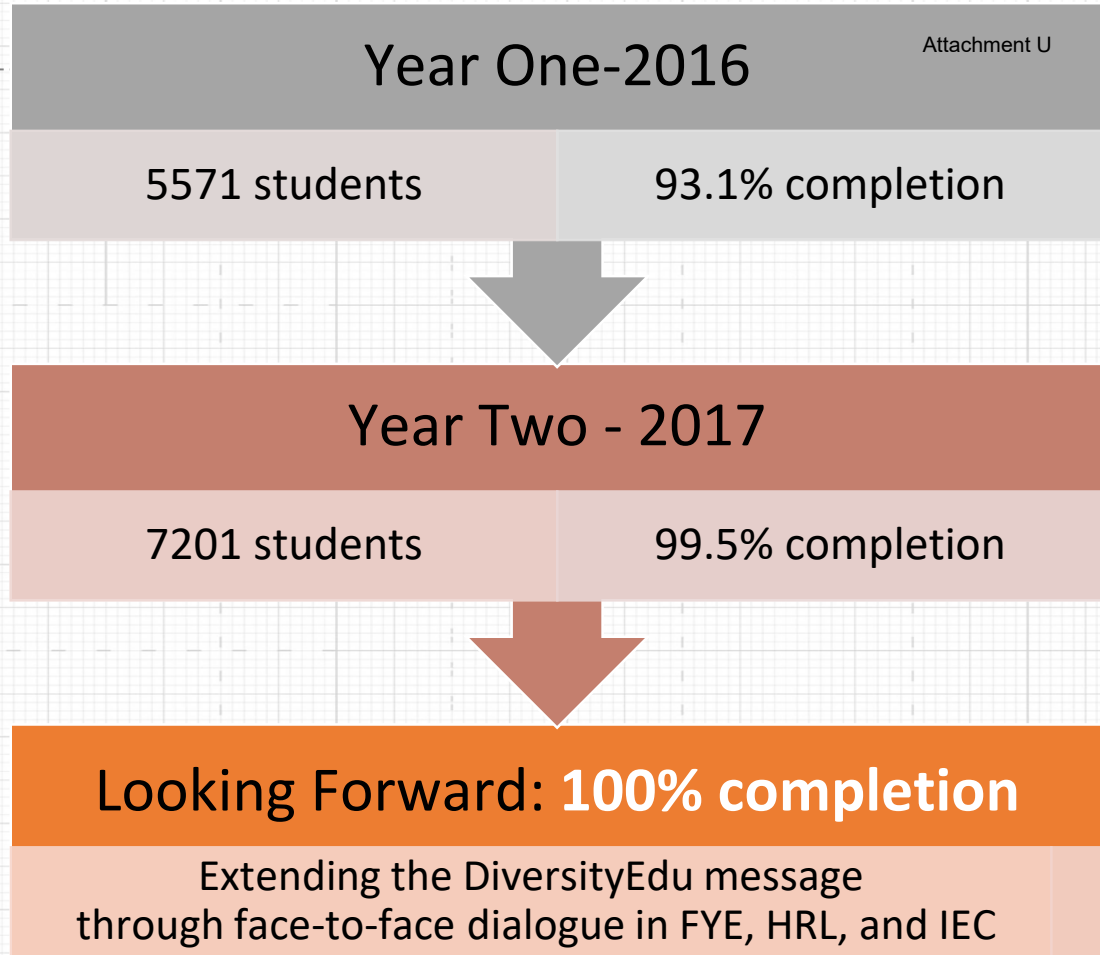
- Continued workshops & faculty programs promoting recruitment and retention

Education and Training Overview

Ensuring a welcoming, affirming, safe, and accessible
campus climate

■ DiversityEdu

Providing a common knowledge and basic foundation around diversity and inclusion consistent with Ut Prosim and the Principles of Community.



■ Diversity Development



■ Strategic Diversity Education:

Tied to the InclusiveVT mission and goals:

- transformational infrastructure,
- compositional diversity,
- campus climate,
- the academic mission.

Tier One: “Inclusion Edu”
(all employees)

Tier Two: Diversity Awareness
+ Inclusive Pedagogy
(open enrollment)

Tier Three: Capacity Building +
Inclusive Excellence
(targeted cohorts)

■ Inclusive Pedagogy



Since 2015:
**Advancing inclusion in the
teaching - learning domains.**

- Partnering with NLI & CIDER
- Cohorts in CALS, SOVA, COS, English

Currently 2017-2018:
HHMI
Inclusive Excellence

- STEM-focused
- 5 cohorts / 5 years
- **15** departments to be impacted in three colleges

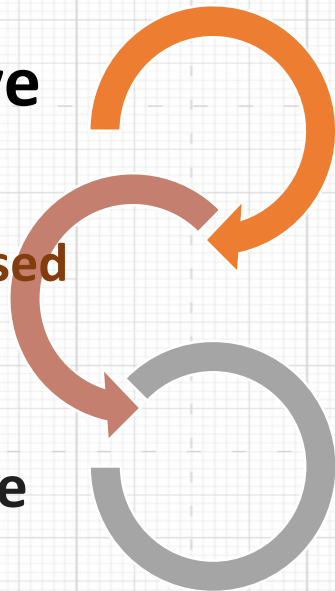
Moving forward→ **Double** faculty participation through open enrollment.

■ Diversity Programming

Generative

Mission-focused

Responsive



2015
Reading
Groups



2016
Unfinished
Conversations



2017
Diversity
Infrastructure



2018
Courageous
Conversations



Faculty Women of Color in the Academy National Conference

Attachment U

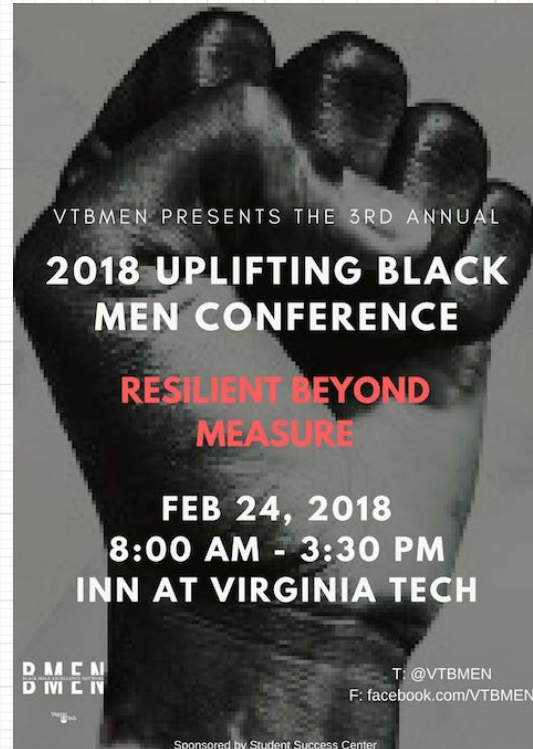


400+ women from **35**
institutions came to Virginia
Tech to **Connect**
Support
Empower
In April 2017, 2018.

Uplifting Black Men Conference

February 2016, 2017, 2018

Attachment U

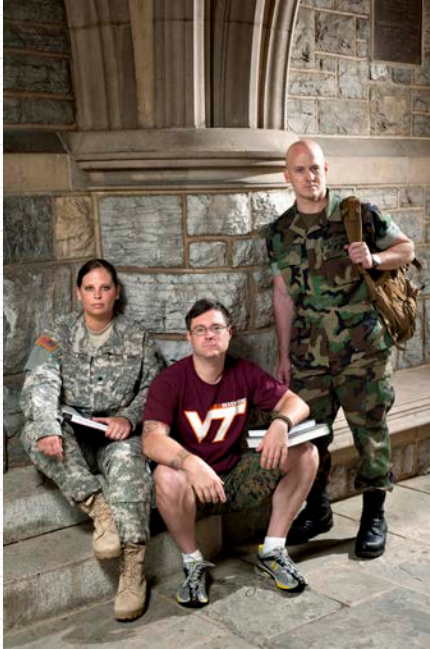


LGBTQ Programming

- Coffee & Tea with the LGBTQ+C - last Tuesday of every month
- LGBTQ+ History Month - October 1 to October 31, 2017
- LGBTQ+ Resource Center Open House - January 22, 2018
- Creating Change Conference - January 24 to January 28, 2018
- Pride Week 2018 - April 1 to April 7, 2018



Veteran Awareness

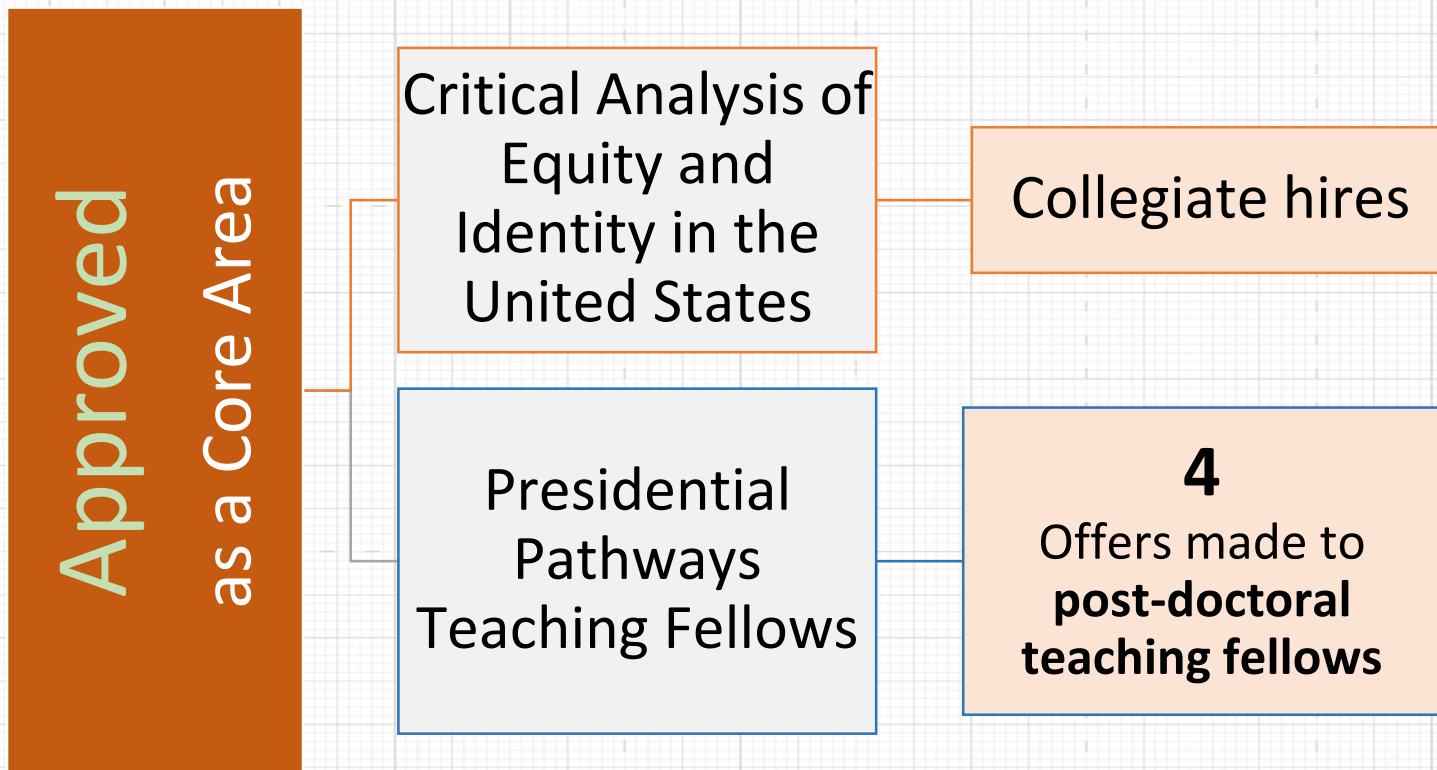


- Nearly 200 veterans are enrolled at Tech - tackling the unique challenges that veterans can face on a college campus.
- Seeking recognition as Military Friendly School

Impact on the Academic Mission

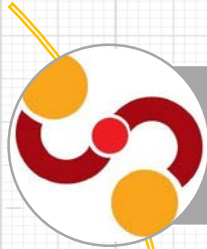
Preparing students for service through an understanding of issues of identity, the human condition, and life chances.

■ Pathways: General Education at VT



■ Beyond General Education

Attachment U



**UJIMA Living Learning Community
(Africana Studies Program)**



**Faculty Fellows in
Cultural and Community Centers**



**Equity and Social Disparity in the Human
Condition Strategic Growth Area**

Equity and Social Disparity in the Human Condition

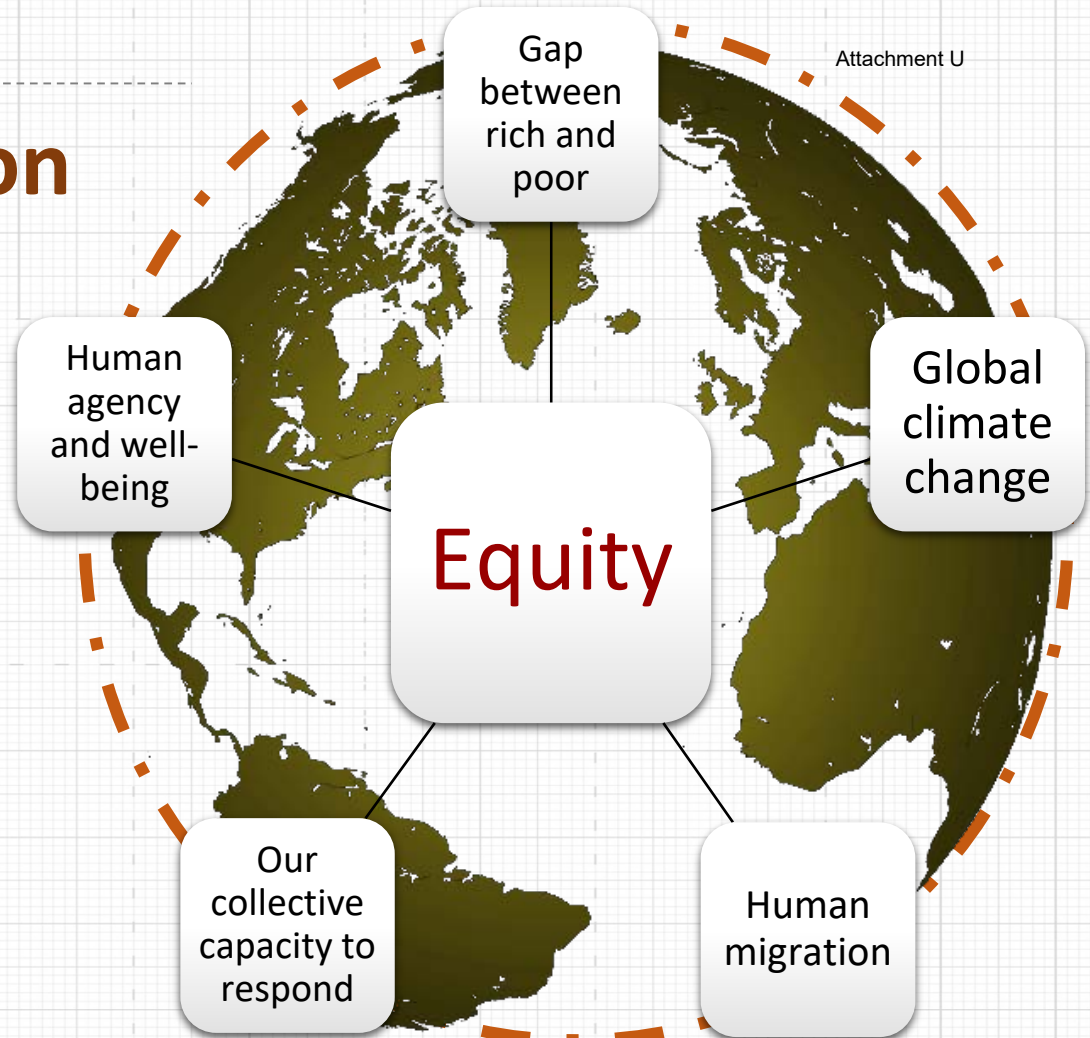
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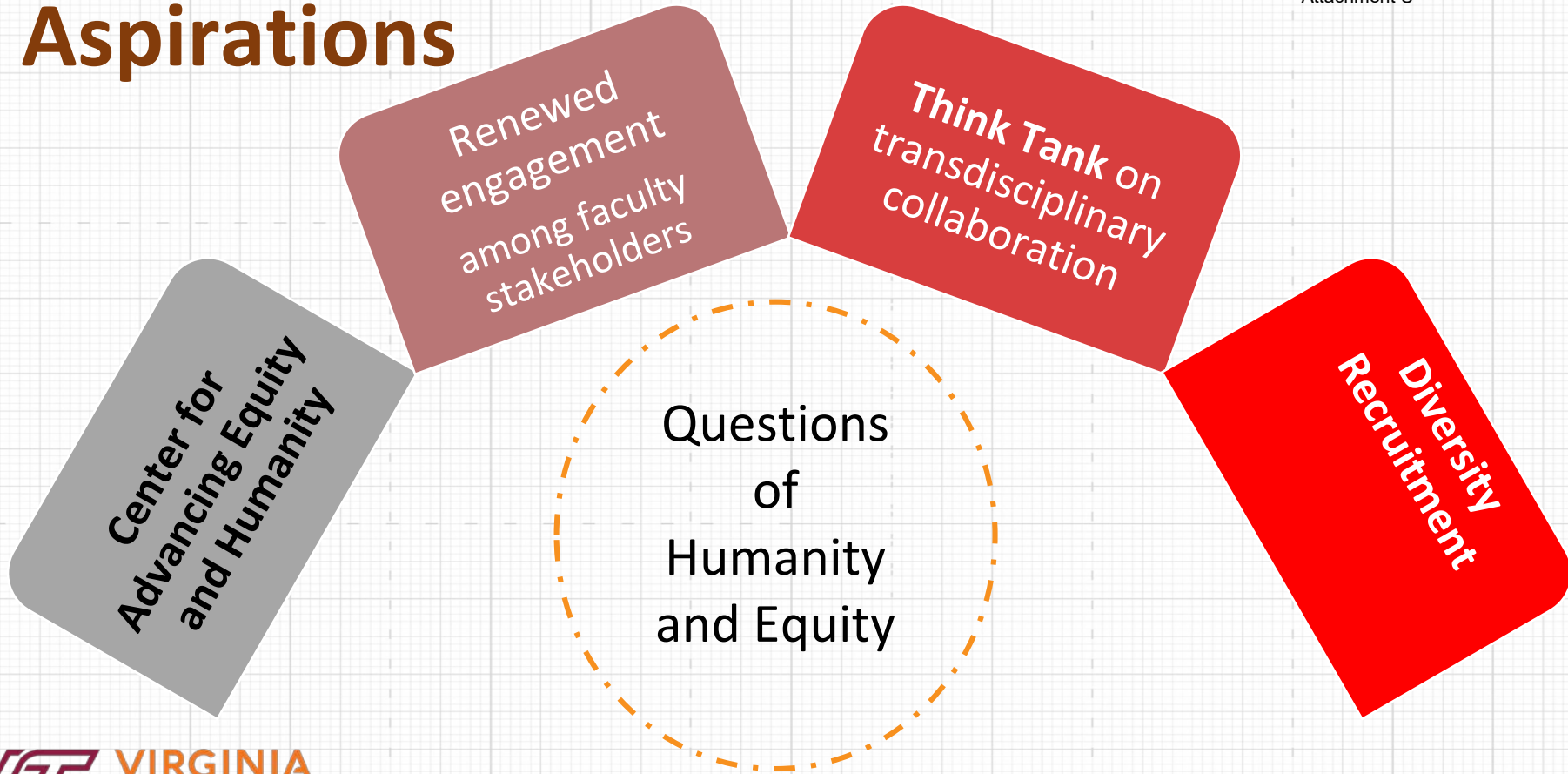
Advancing the Human Condition Symposium

November 27-28, 2018

Attachment U



Aspirations



The Challenges Ahead

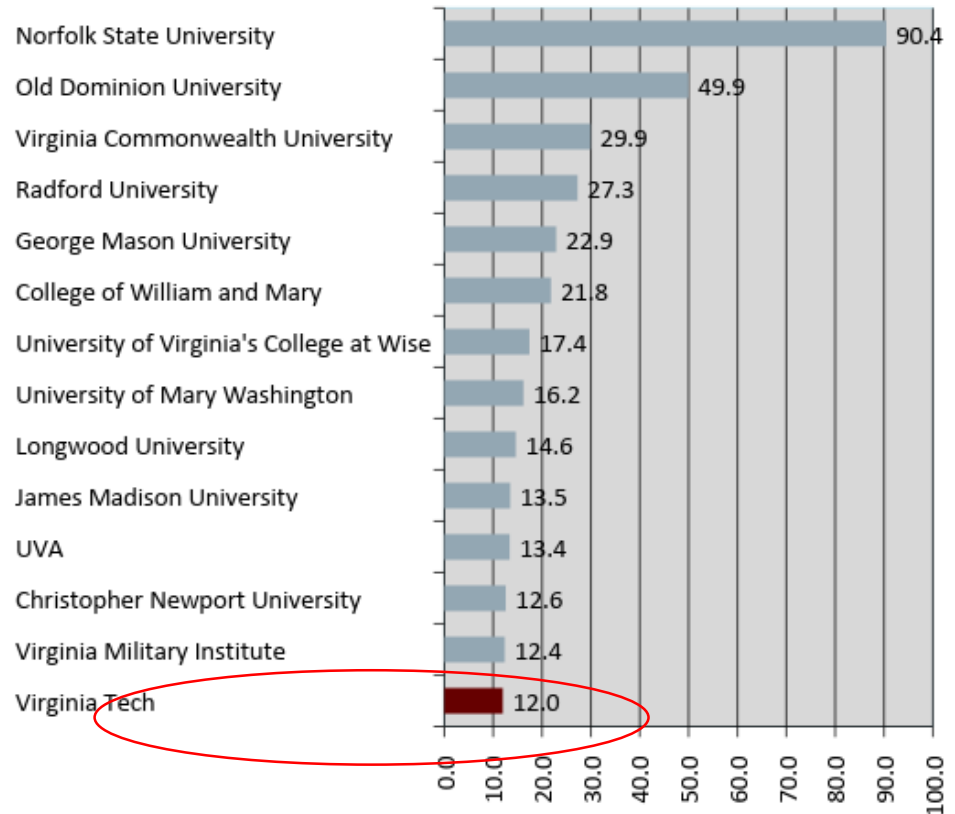
Responding locally to the national conversation
Building a future of inclusion

Becoming a better choice

- Since 1987: incremental increases (**0.25%**) in underrepresented enrollment.
- **What needs to happen to meet our 2022 goal?**
- How do we become a destination for underrepresented youth in Virginia?



Attachment U
% of Total Enrollment by College/University



Being more courageous

- How do we have the **hard conversations** needed to fulfill our aspirations?



Building our InclusiveVT community

- Are we prepared to respond to national conversations on diversity and inclusion—especially when those conversations occur in our community?



Open Conversation and Dialogue

Virginia Tech Town Hall on Diversity Data Overview

**TIM SANDS, PRESIDENT
MENAHER PRATT-CLARKE, VICE
PRESIDENT FOR STRATEGIC AFFAIRS
AND VICE PROVOST FOR INCLUSION
AND DIVERSITY MAY 3, 2018**

Data Overview

- High School Students in Virginia Diversity Data
- VT Undergraduate Student Enrollment Data
- VT Retention/Graduation Data
- VT Graduate Student Enrollment Data
- VT Faculty Diversity Data
- VT Staff Diversity Data

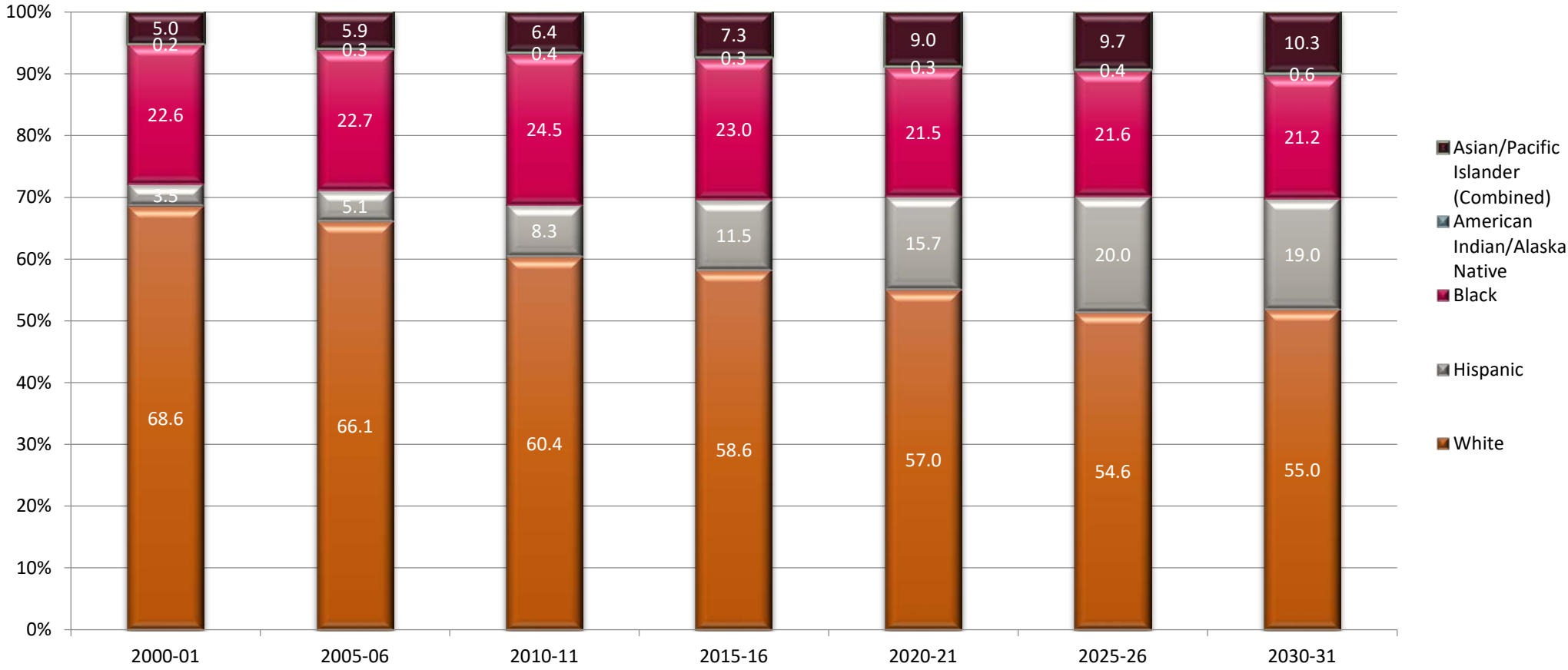


*High School
Graduates*

Increasing Diversity Among Virginia's High School Graduates

- Over the next 15 years, the diversity of Virginia's high school graduates is expected to increase dramatically.
- Data projections from the Western Interstate Commission for Higher Education (WICHE) through the year 2032 suggest that Virginia's underrepresented minorities high school graduates will increase from 34% in 2017-18 to 40.5% in 2032.

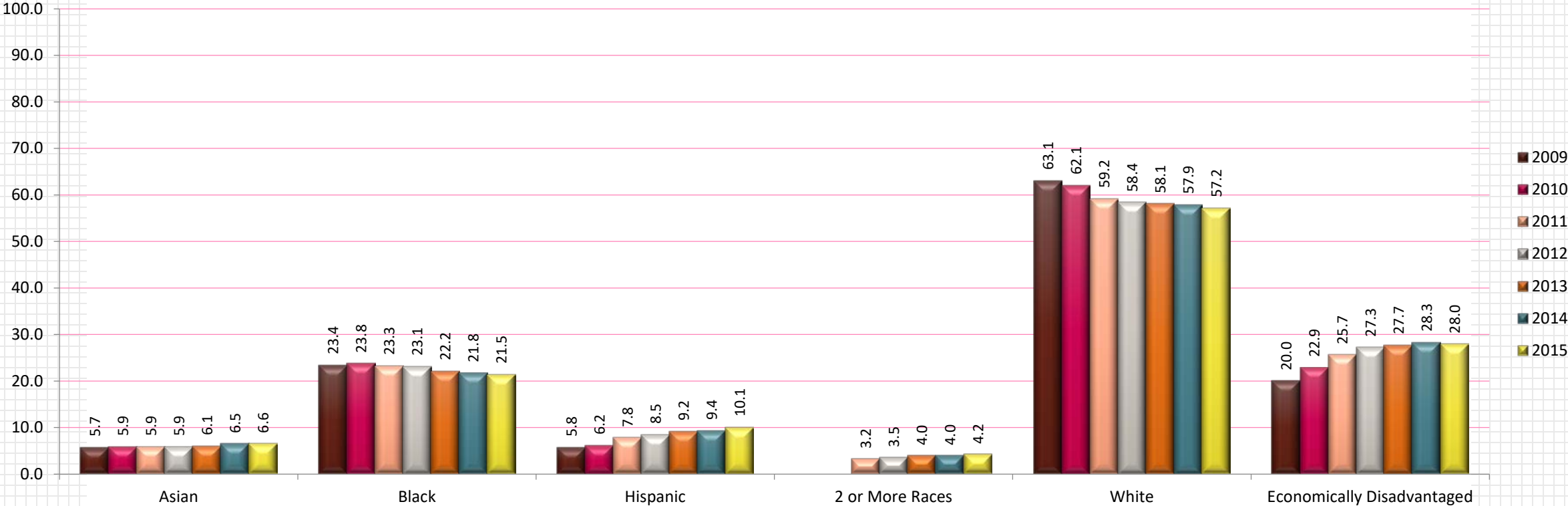
Virginia High School Graduates, Race/Ethnicity Projections Through 2030



Source: Western Interstate Commission for Higher Education (WICHE)

Virginia High School Graduates, Race/Ethnicity and Economic Status, % of Total, 2009-2015

The number of underrepresented and economically disadvantaged high school graduates has increased steadily since 2009.



Note: American Indian and Native Hawaiian constitute less than 0.5% of Virginia High School graduates
Source: Virginia Department of Education



Notes: Virginia High School Graduates

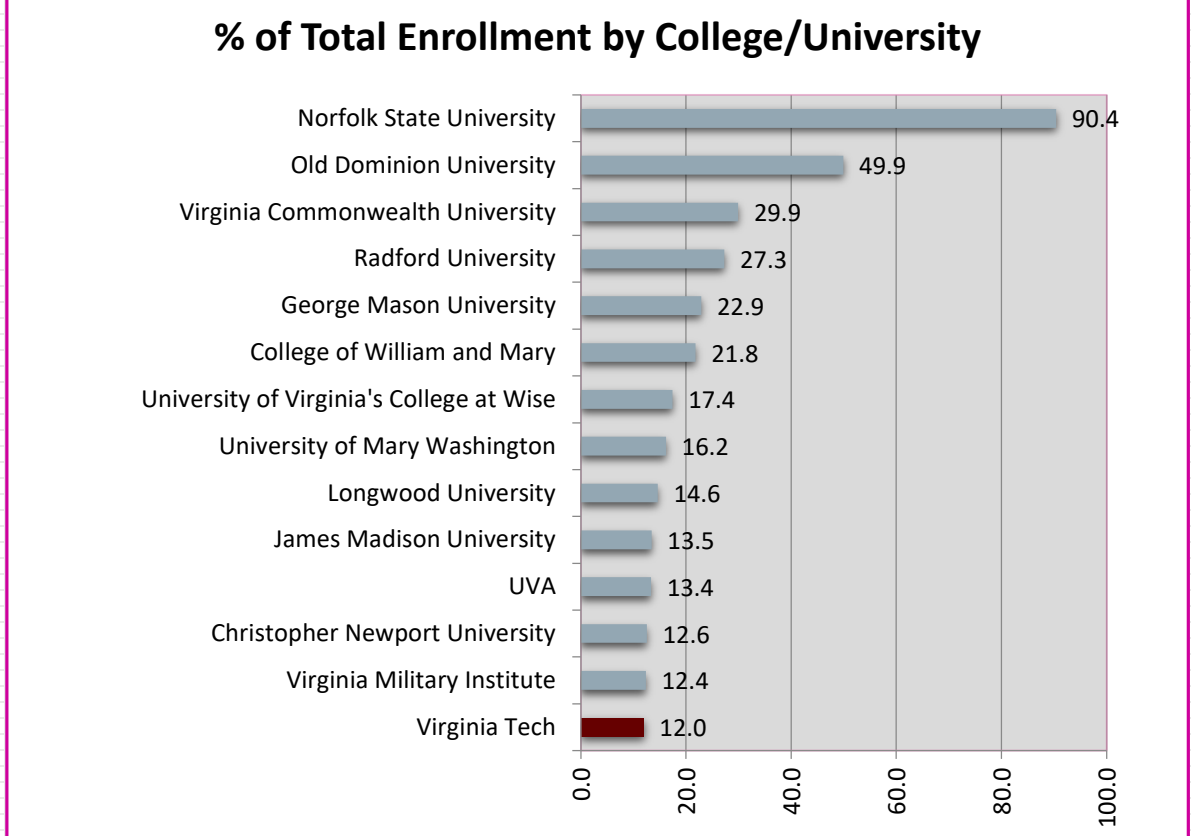
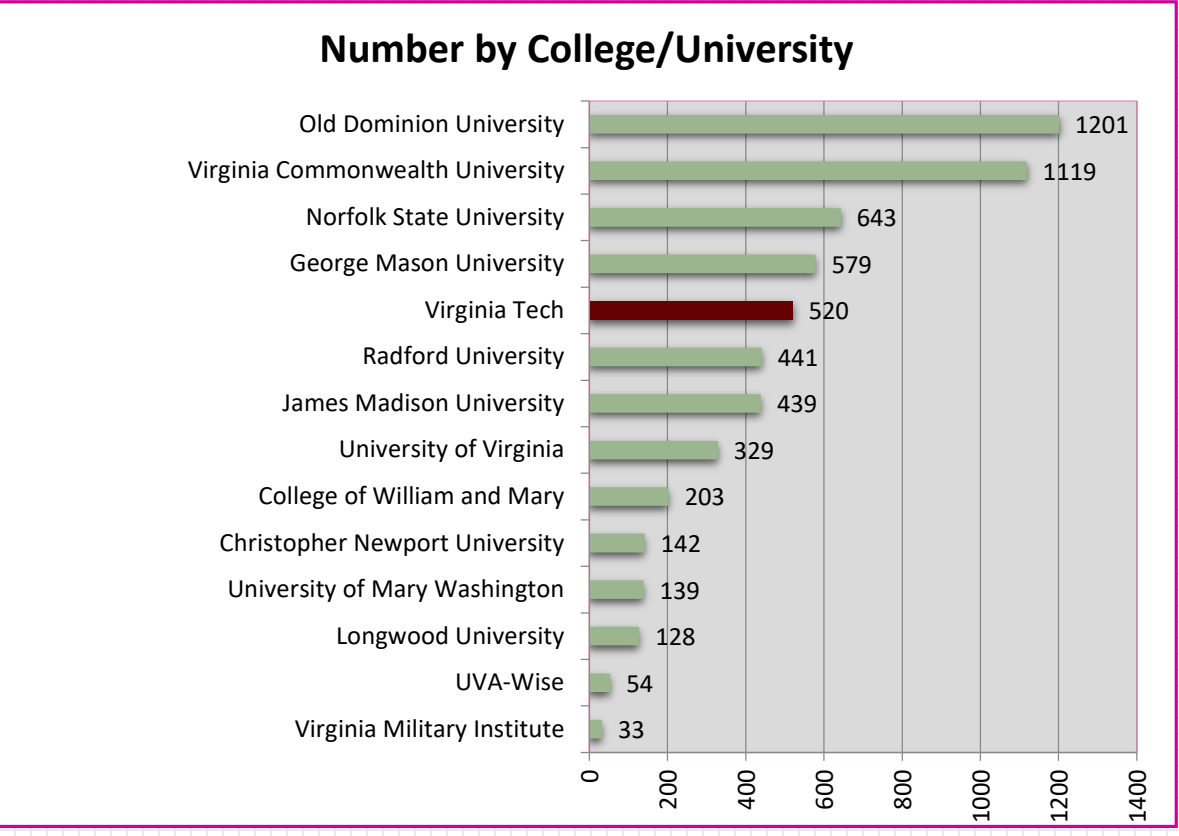
- Source: Knocking at the Door. Western Interstate Commission for Higher Education (WICHE). <http://knocking.wiche.edu>.
- Race Ethnicity categories include: American Indian/Alaska Native, Asian/Pacific Islander (Combined), Black, Hispanic (Alone or Any Race) and White,
- Underrepresented race/ethnicity includes American Indian/Alaska Native, Black, and Hispanic.
- WICHE data combines Native Hawaiian/Pacific Islander with Asian; however, in 2002 the US Department of Education separated these two categories. Virginia Tech includes Native Hawaiian/Pacific Islander as underrepresented.

- Source: Virginia Department of Education. (2015). State Fiscal Stabilization Fund Indicator (C)(11) Report, Four Year Graduation Rate, all divisions and schools reporting. https://p1pe.doe.virginia.gov/postsec_public/postsec.do?dowhat=LOAD_REPORT_C11.
- Not yet updated for 2016
- For Virginia Department of Education, enrollment in a four-year public institution is measured as the number of students who enroll 16 months of earning a federally recognized high school diploma.
- VDOE defines a student as economically disadvantaged if the student:
 - is eligible for Free/Reduced Meals,
 - receives TANF, or
 - is eligible for Medicaid:
http://www.doe.virginia.gov/info_management/data_collection/student_record_collection/data_definitions.shtml#disadvantaged
- Race Ethnicity categories include: American Indian, Asian, Black, Hispanic, Native Hawaiian, White, 2 or More
- Underrepresented race/ethnicity includes American Indian, Black, Hispanic, and Native Hawaiian.
- Two or more races includes all race/ethnicity categories except Hispanic. Not all of these students are underrepresented. (Two or more races was not collected by VDOE prior to 2011).

- Hispanic includes students who are Hispanic/Latino of any race.

****Underrepresented In-State First-Time Freshmen who Enrolled in Four-Year Public Institutions, 2016-17**

In 2016-17, 12% of Virginia Tech's freshman enrollees were underrepresented Virginia high school graduates.



Source: State Council of Higher Education for Virginia (SCHEV)

Notes: State Council of Higher Education for Virginia (SCHEV) Comparison Data

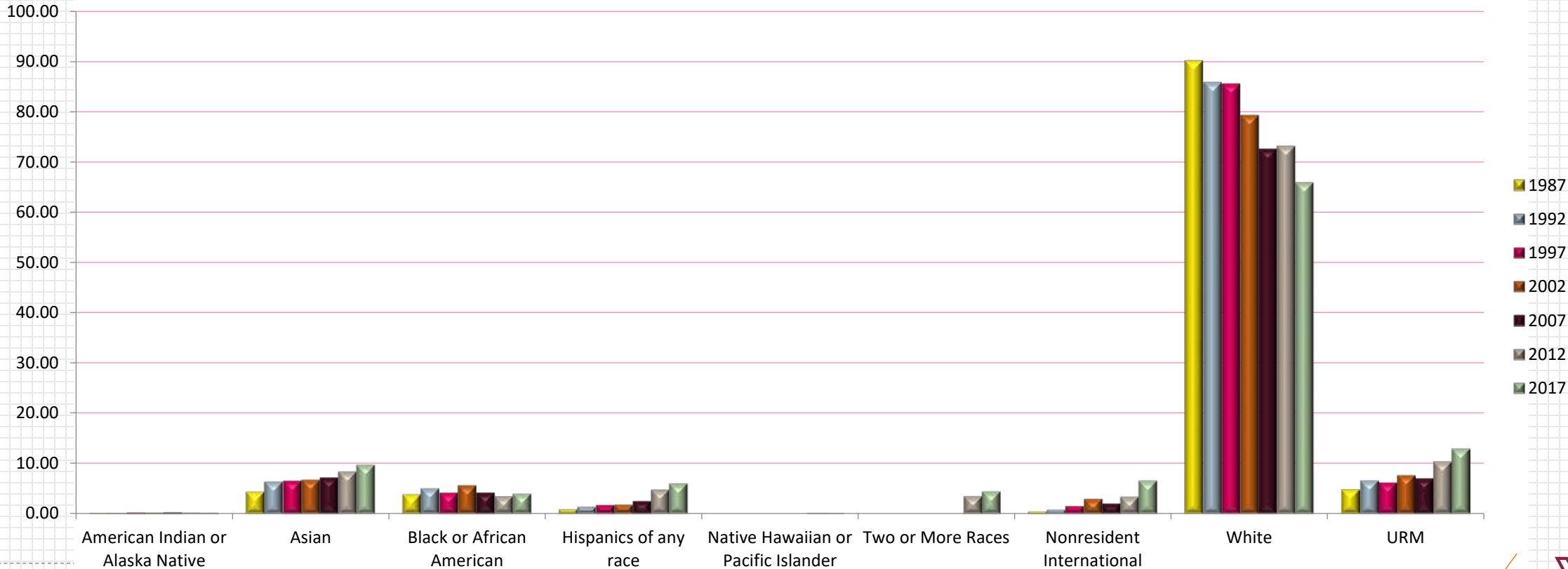
- Source: SCHEV report E12R: Fall Headcount by Domicile/Race-Ethnicity of New Undergraduates. http://research.schev.edu/enrollment/E12R_Report.asp
- Underrepresented includes Black/African American, American Indian, and Hispanic.
 - SCHEV data combines Native Hawaiian/Pacific Islander with Asian; however, in 2002 the US Department of Education separated these two categories. Virginia Tech includes Native Hawaiian/Pacific Islander as underrepresented.
 - Hispanic includes people of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
 - Multi-race students are excluded from this analysis as the breakout by race/ethnicity is not included in SCHEV data.
- Virginia State reported majority of new students as "Unknown" race/ethnicity in 2016-17. For the purposes of this analysis, Virginia State is excluded from the chart.
- For SCHEV, enrollment in a four-year public institution is measured as the number of students who enroll as first-time freshmen in a given year.



*Undergraduate
Students*

Undergraduate Students, % Enrollment by Race/Ethnicity, 1987-2017

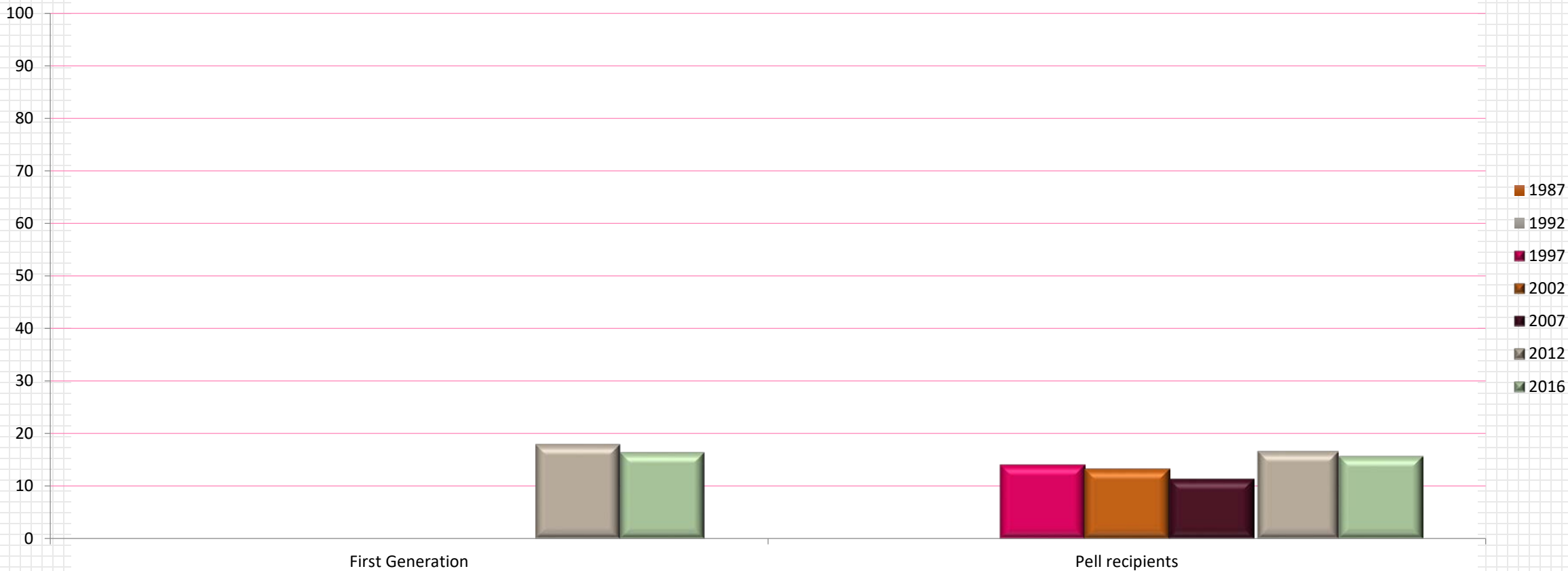
Since 1987, Virginia Tech's enrollment of underrepresented students has increased from 4.9% to 12.5%, at a rate of 0.25% per year.



Source: Institutional Research and Effectiveness, Fall census



****Undergraduate Students, % Enrollment for Pell Recipients and First Generation Students, 1997-2017**



Source: Institutional Research and Effectiveness, Fall census. First generation student data not collected prior to 2006



Project 2022 Goals: 40% by 2022

- By 2022, Virginia Tech projects a goal of:
 - 25% underrepresented minority students
 - 40% total (underserved and underrepresented students)

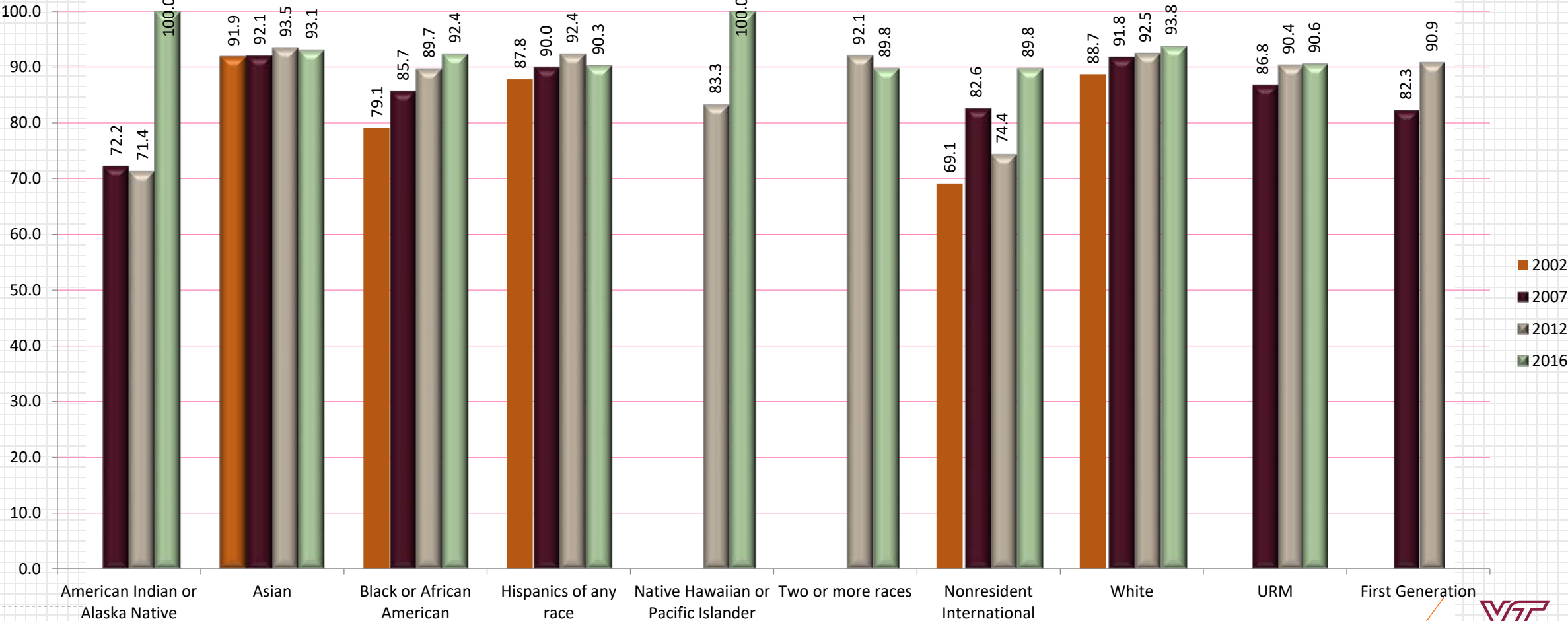
Notes: Underrepresented and Underserved Undergraduate Students

- Source: Virginia Tech Institutional Research and Effectiveness data request, September 30 of each year.
- Underrepresented Minorities (URM) include students who self-identify in whole or in part as:
 - American Indian or Alaska Native,
 - Black or African American,
 - Hispanics of any race, or
 - Native Hawaiian or Other Pacific Islander.
 - If a student self-identifies as two or more races, they are counted as an underrepresented minority, unless the two races chosen are White + Asian.
- The options of Native Hawaiian or Other Pacific Islander and Two or More Races were introduced into the student data in 2009.
- For the purposes of this presentation, nonresident international is used to indicate the category nonresident alien, based upon recommendations from the InclusiveVT evaluation report (Depauw, 2015). The term nonresident alien is defined as “a person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely”(http://ir.vt.edu/about/glossary.html#nra).
- First generation student data collected starting in 2006
- National Center for Educational Statistics race/ethnicity definitions are used, unless otherwise indicated (<https://nces.ed.gov/ipeds/Section/definitions>).
- Pell-eligible data – data prior to 2010 available through Enrollment Management
 - Income data by quintile for 2001-2013 is available in the report, **Student Costs in Higher Education: Focus on Virginia Tech**, Spring – Summer 2015. See also Figures 12-15 reflecting retention by income quintile



*Undergraduate
Retention*

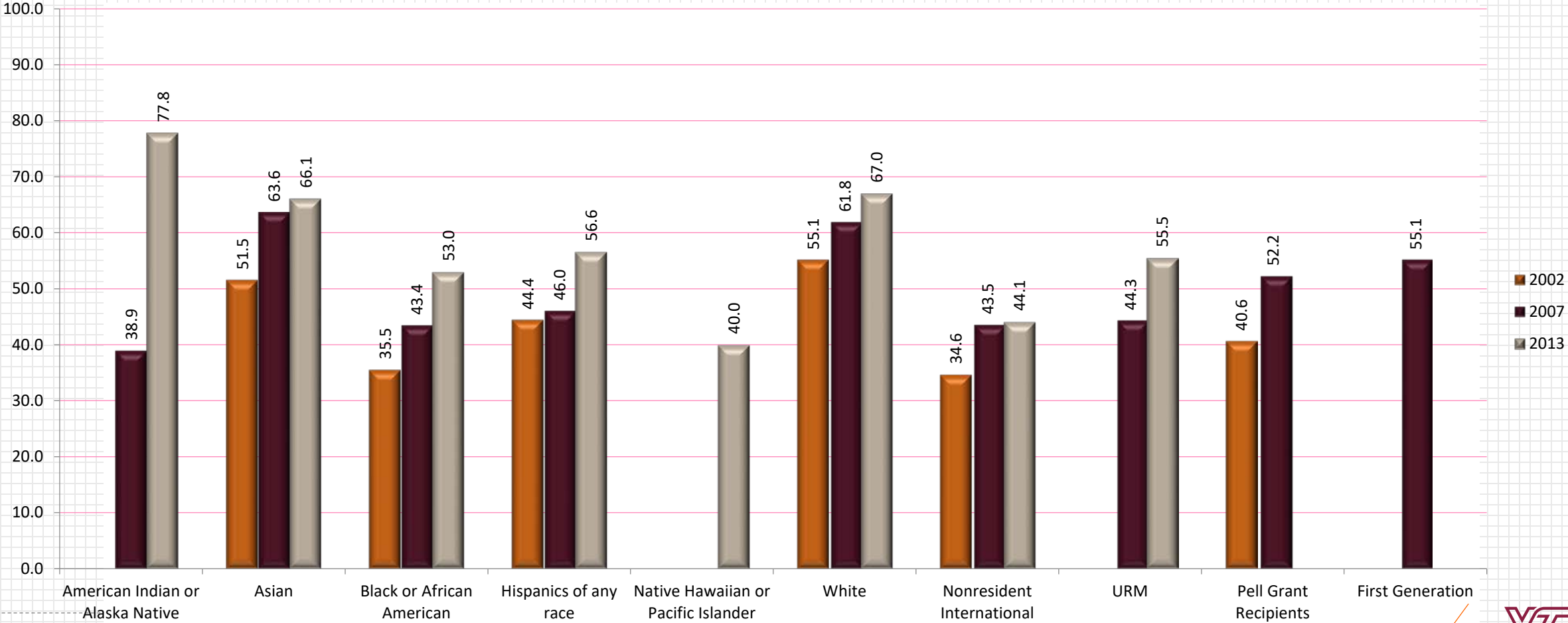
****Virginia Tech Undergraduate Students, % Continued to 2nd Year, 2002-16**



Source: Institutional Research and Effectiveness, Fall census



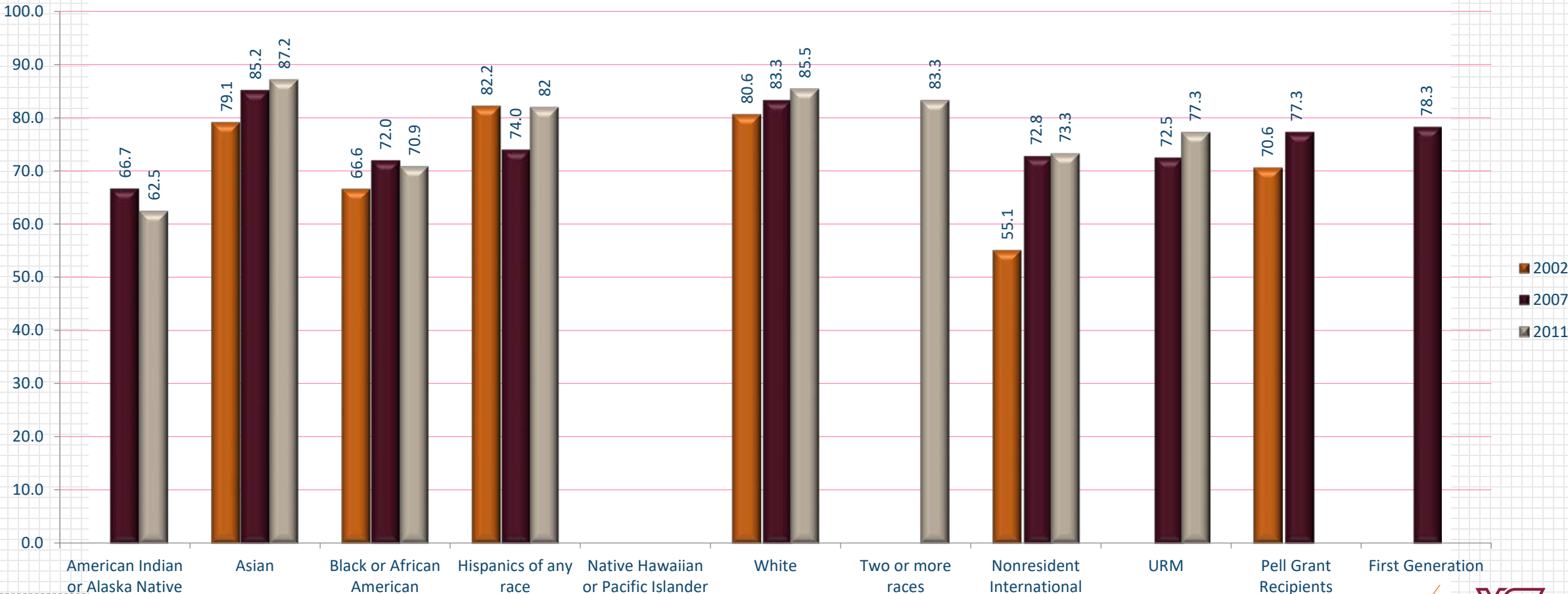
***Virginia Tech Undergraduate Students, 4 Year Graduation Rate, 2002-13*



Source: Institutional Research and Effectiveness, Fall census



**Virginia Tech Undergraduate Students, 6 Year Graduation Rate, 2002-11



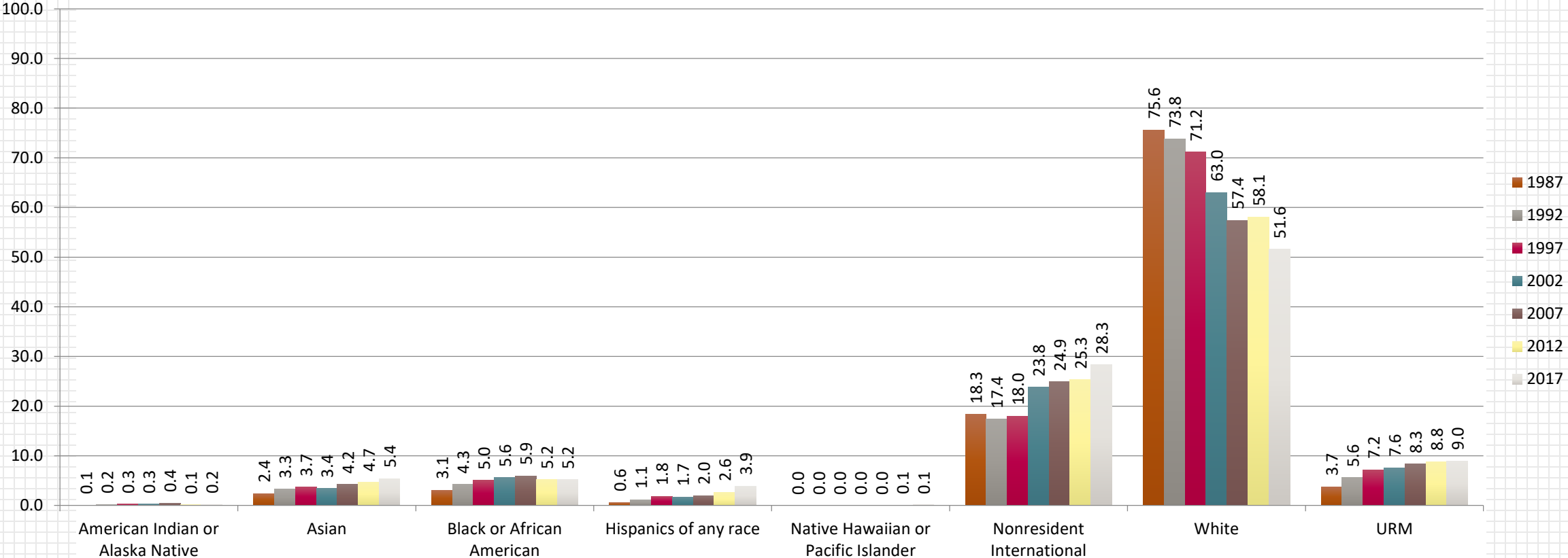
Source: Institutional Research and Effectiveness, Fall census





*Graduate
Students*

Graduate/Professional Student Enrollment by Race/Ethnicity, 1987-2017



Source: Institutional Research and Effectiveness, Fall census



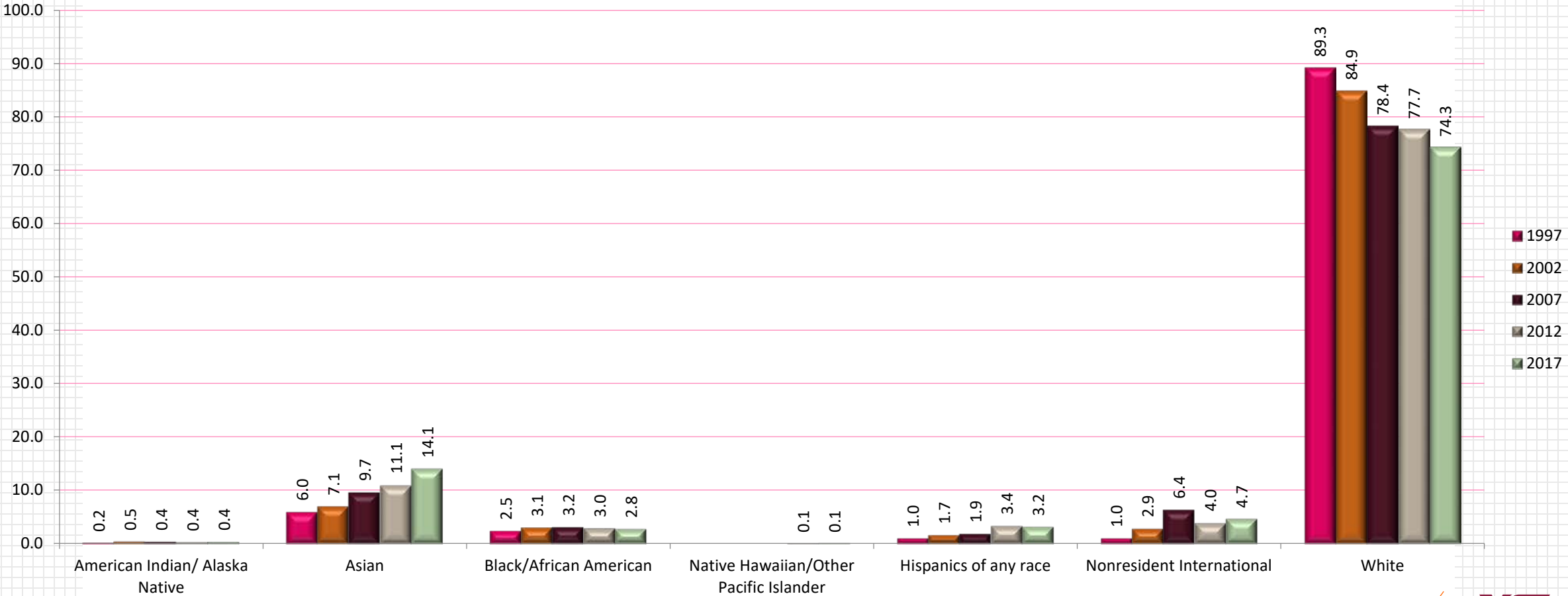
NOTES: Graduate Student Data

- Source: Virginia Tech Institutional Research and Effectiveness Diversity Strategic Plan data request, September 30 of each year.
- Underrepresented Minorities include students who self-identify in whole or in part as:
 - American Indian or Alaska Native,
 - Black or African American,
 - Hispanics of any race, or
 - Native Hawaiian or Other Pacific Islander.
 - If a student self-identifies as two or more races, they are counted as an underrepresented minority, unless the two races chosen are White + Asian.
- The options of Native Hawaiian or Other Pacific Islander and Two or More Races were introduced into the data in 2009.
- For the purposes of this presentation, nonresident international is used to indicate the category nonresident alien, based upon recommendations from the InclusiveVT evaluation report (Depauw, 2015). The term nonresident alien is defined as “a person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely”(http://ir.vt.edu/about/glossary.html#nra).



*Tenured/Tenure
Track Faculty*

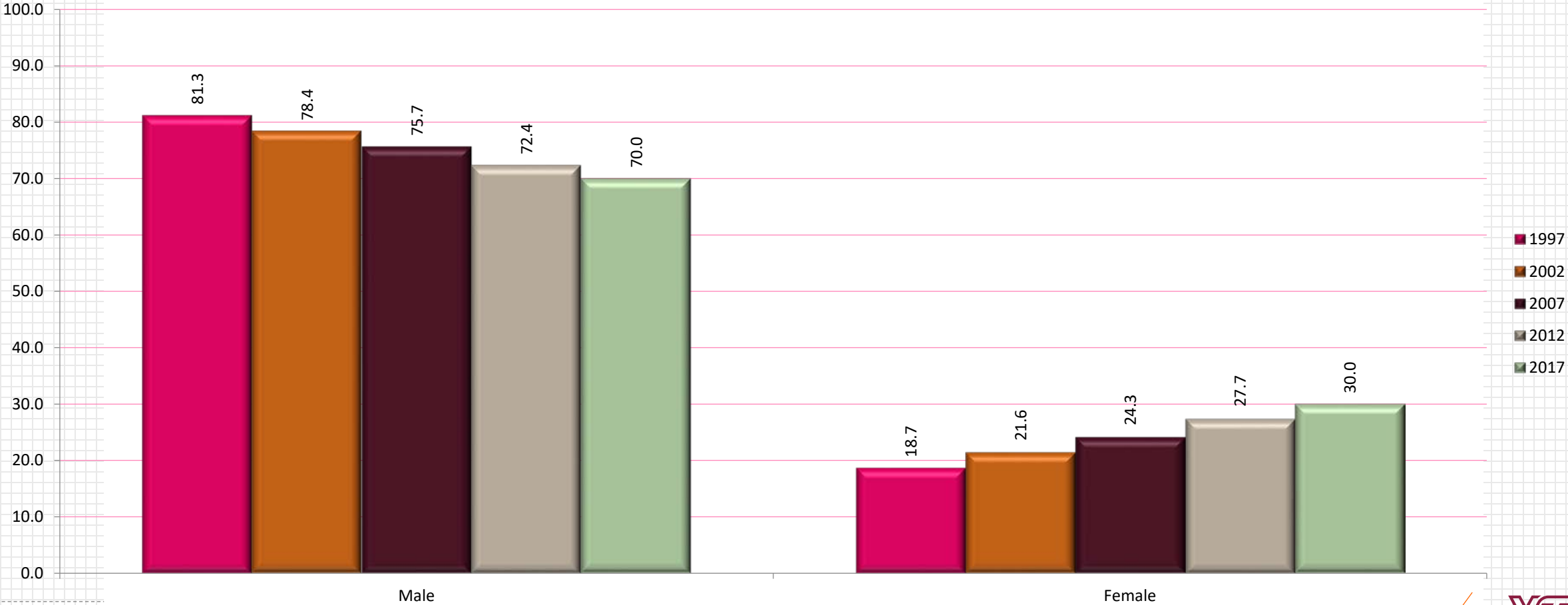
Tenured/Tenure Track Faculty, % by Race/Ethnicity, 1997-2017



Source: Institutional Research and Effectiveness, Fall census



Tenured/Tenure Track Faculty, % by Gender, 1997-2017

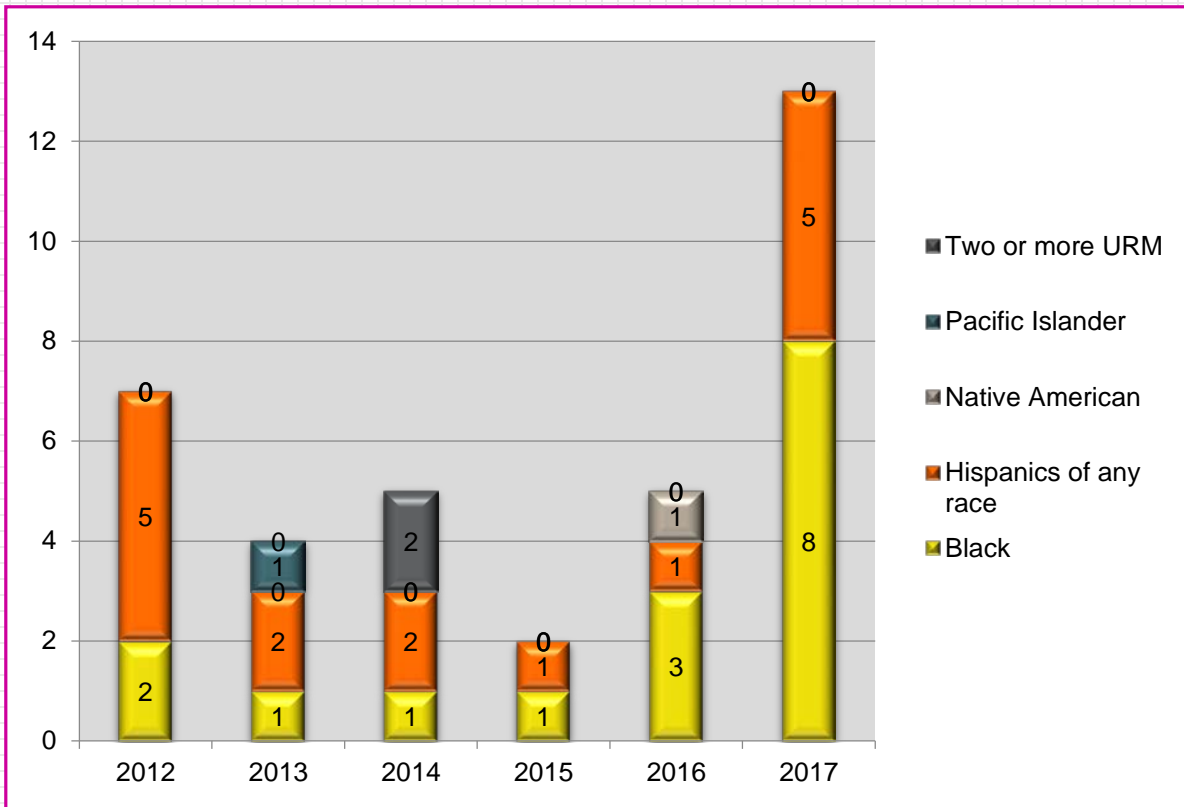


Source: Institutional Research and Effectiveness, Fall census

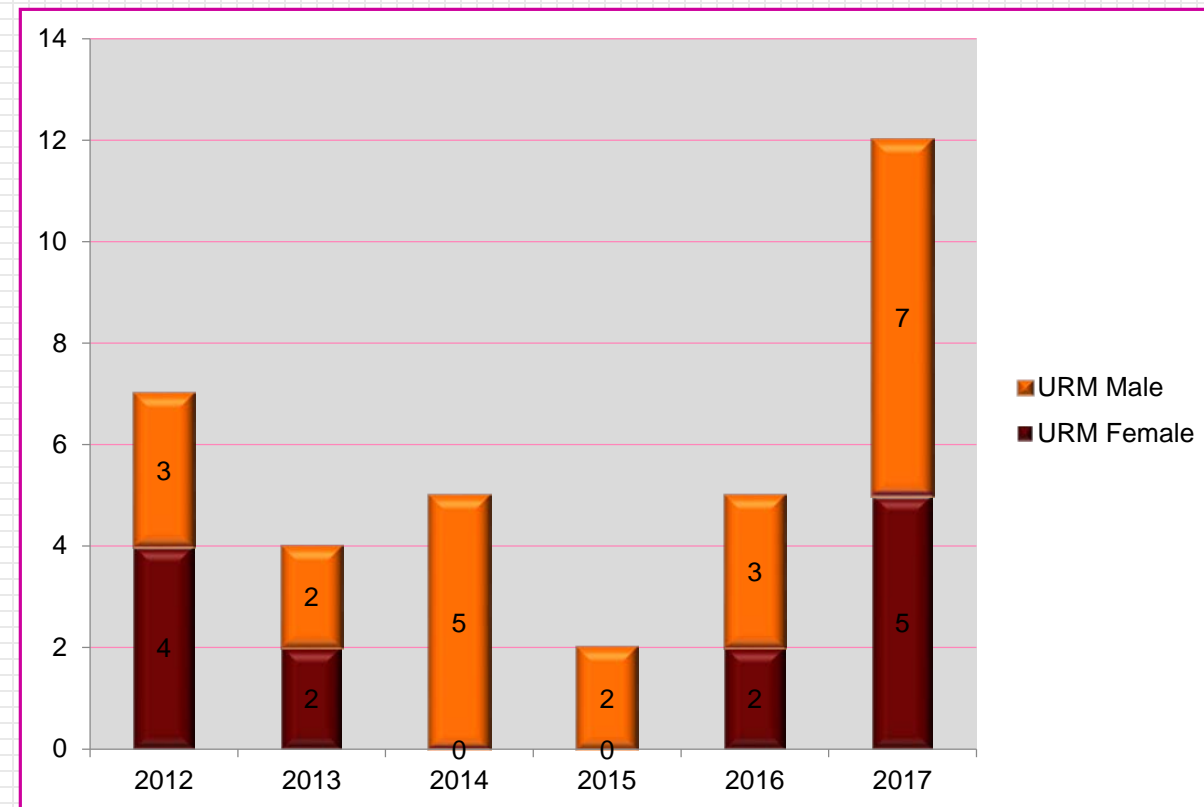


New Tenured/Tenure Track Faculty Hires, 2012-17, 2018 Projected

By Race/Ethnicity



By Gender



Note: 30 new underrepresented hires expected for 2017-18!

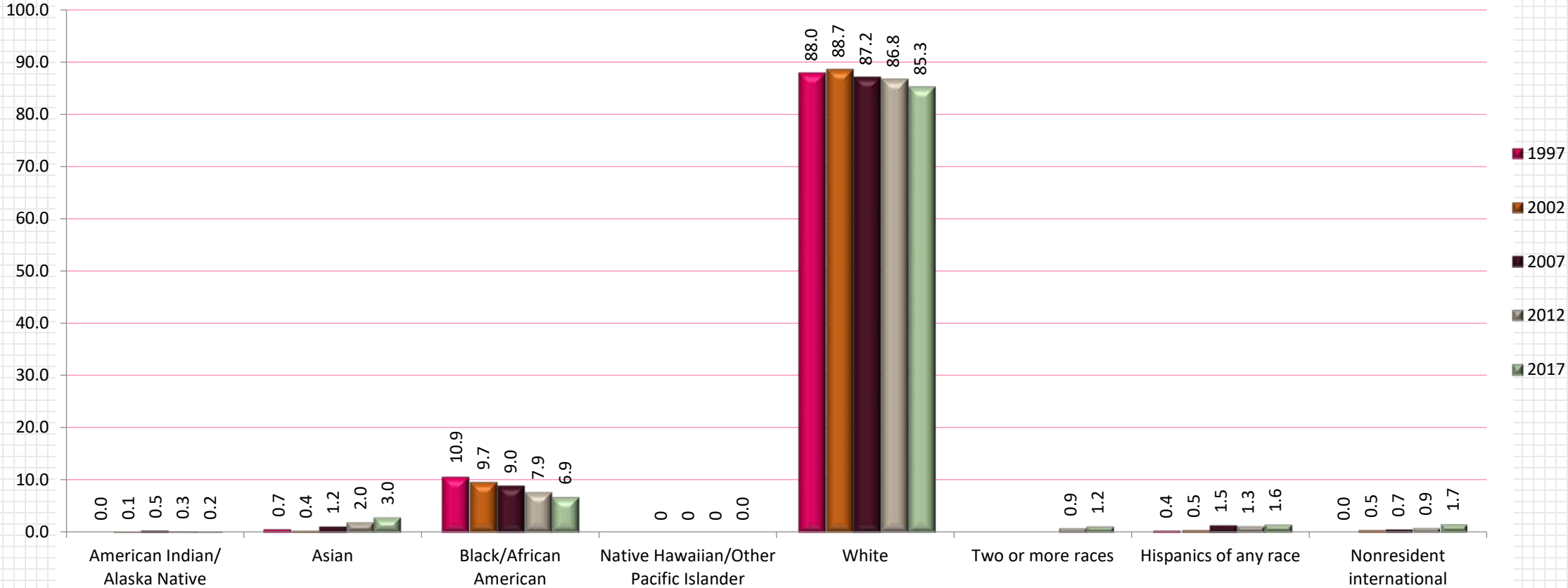
NOTES: Tenured/Tenure Track Faculty Data

- Source: Virginia Tech Institutional Research and Effectiveness Diversity Strategic Plan data request, employee census as of September 30 of each year.
- Additional faculty data available from 1988-1997 through the National Center for Educational Statistics, <https://nces.ed.gov>.
- Nonresident International tenured/tenure track faculty comprise primarily Assistant Professors. Many Associate and Full have achieved resident international status by time of promotion.
 - For the purposes of this presentation, nonresident international is used to indicate the category nonresident alien, based upon recommendations from the InclusiveVT evaluation report (Depauw, 2015). The term nonresident alien is defined as “a person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely”(http://ir.vt.edu/about/glossary.html#nra).
- Faculty hires for the coming academic year typically have a hire date of August 10.



*Academic
Professional
Faculty/Staff*

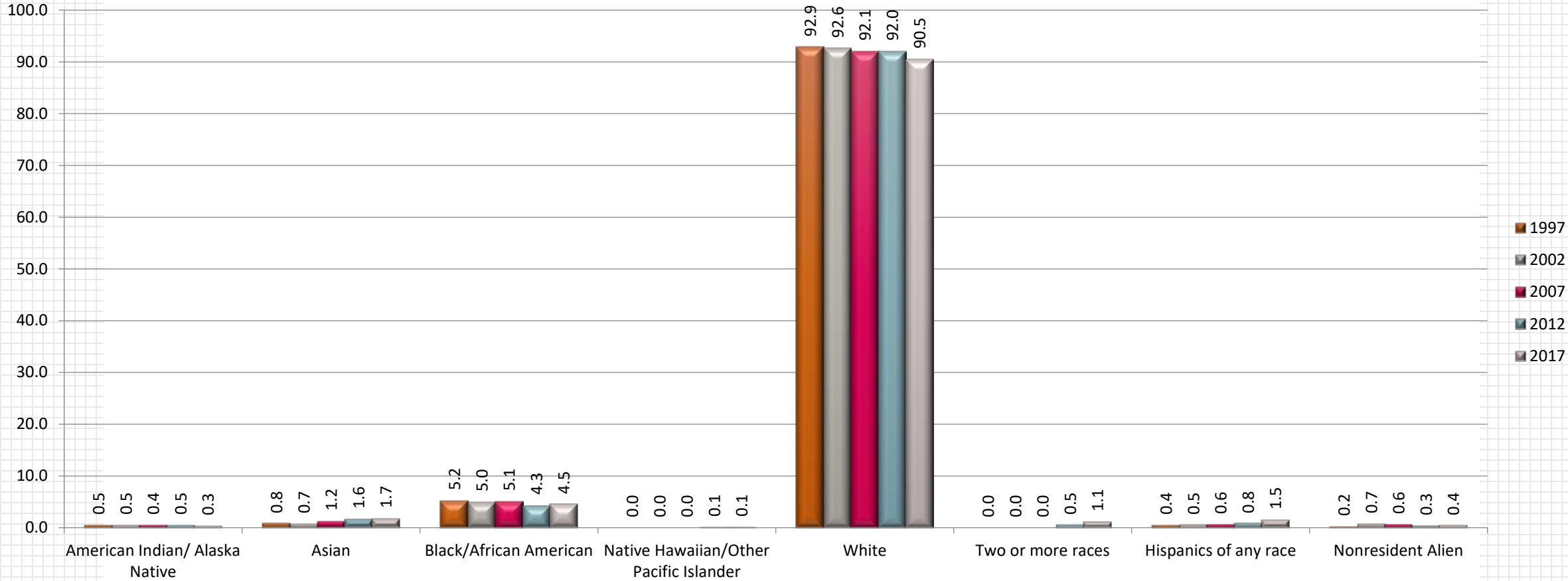
Administrative/Professional Faculty, % by Race/Ethnicity, 1997-2017



Source: Institutional Research and Effectiveness, Fall census



Staff, % by Race/Ethnicity, 1997-2017



Source: Institutional Research and Effectiveness, Fall census



NOTES: AP and Staff Data

- Source: Virginia Tech Institutional Research and Effectiveness Diversity Strategic Plan data request, September 30 of each year.
- Source: Virginia Tech Institutional Research and Effectiveness,
<https://irweb.ir.vt.edu/webtest/FacultyStaffGenderEthnicity.aspx> .
- Additional faculty data available from 1988-1997 through the National Center for Educational Statistics,
<https://nces.ed.gov>.

Special thanks to:

- Virginia Tech Institutional Research and Effectiveness
 - Roxanne Gile
 - Dennis Catley
 - Kacy Lawrence
 - Janice McBee
- Office for Inclusion and Diversity
 - Marcy Schnitzer
 - Linwood Moore

CV

The Promotion and Tenure Process

CV

JACK W. FINNEY

VICE PROVOST FOR FACULTY AFFAIRS

BOV INFORMATION SESSION, JUNE 3, 2018



VIRGINIA TECH™

Faculty Ranks

Assistant Professor

- Responsibilities in teaching; research, scholarship, or creative achievements; and outreach and professional service; six year probationary period

Associate Professor

- Accomplishments in an appropriate combination of outstanding teaching; research, scholarship, or creative achievements; and outreach and professional service

Professor

- National or international recognition and excellence in research, scholarship, or creative achievement

Tenured | Collegiate | Clinical | Practice | Research

Tenure and Continued Appointment

Tenure

- Tenure is awarded when the community of scholars has judged the candidate to have met the teaching, research, and/or service expectations of the discipline, college, and university.

Continued Appointment

- Continued appointment is a parallel tenure status for library and extension faculty who demonstrate excellent service to Virginia Tech and continued professional growth and engagement.

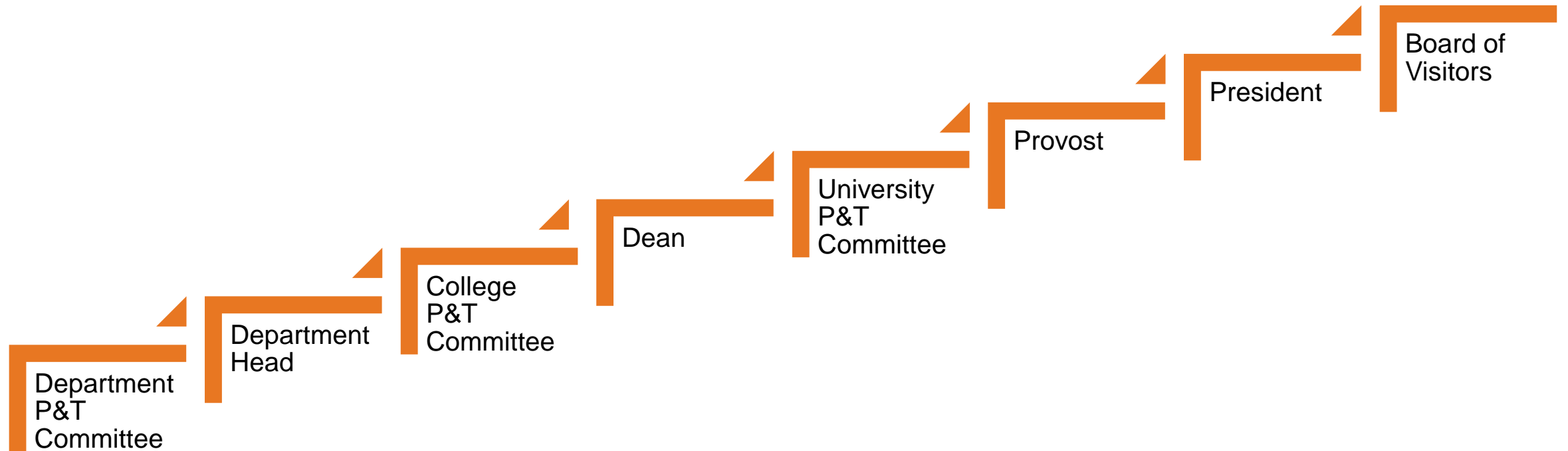
Tenure and continued appointment ensure academic freedom in research and teaching.

Promotion & Tenure Dossier

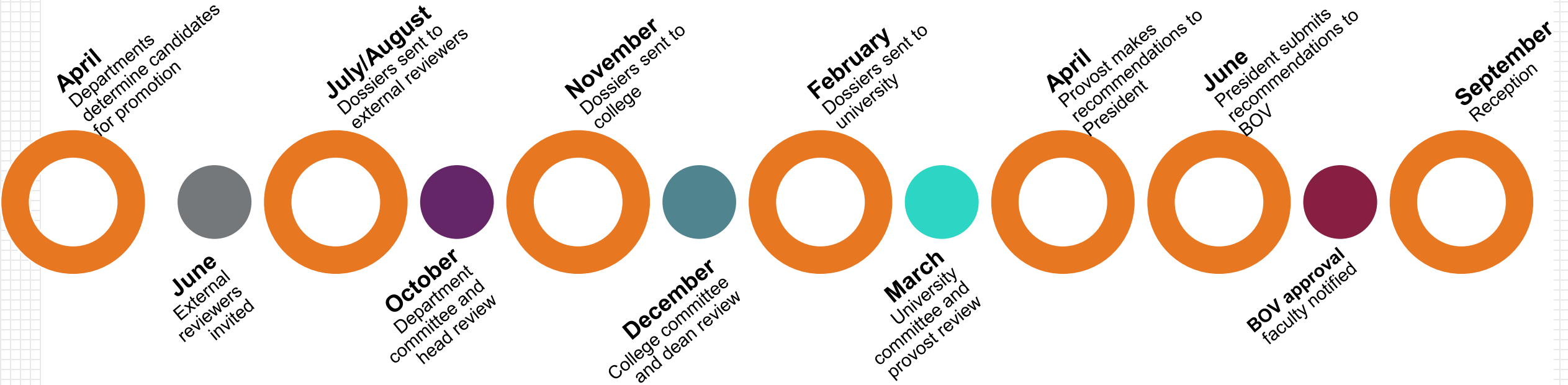
- I. Executive Summary
- II. Recommendation Letters (internal and external)
- III. Candidate's Statement
- IV. Teaching and Advising Effectiveness
- V. Research and Creative Activities
- VI. International & Professional Service and Other Outreach & Extension Activities
- VII. University Service
- VIII. Work Under Review or In Progress
- IX. Other Pertinent Activities

Evaluation Process for Promotion & Tenure

Attachment U



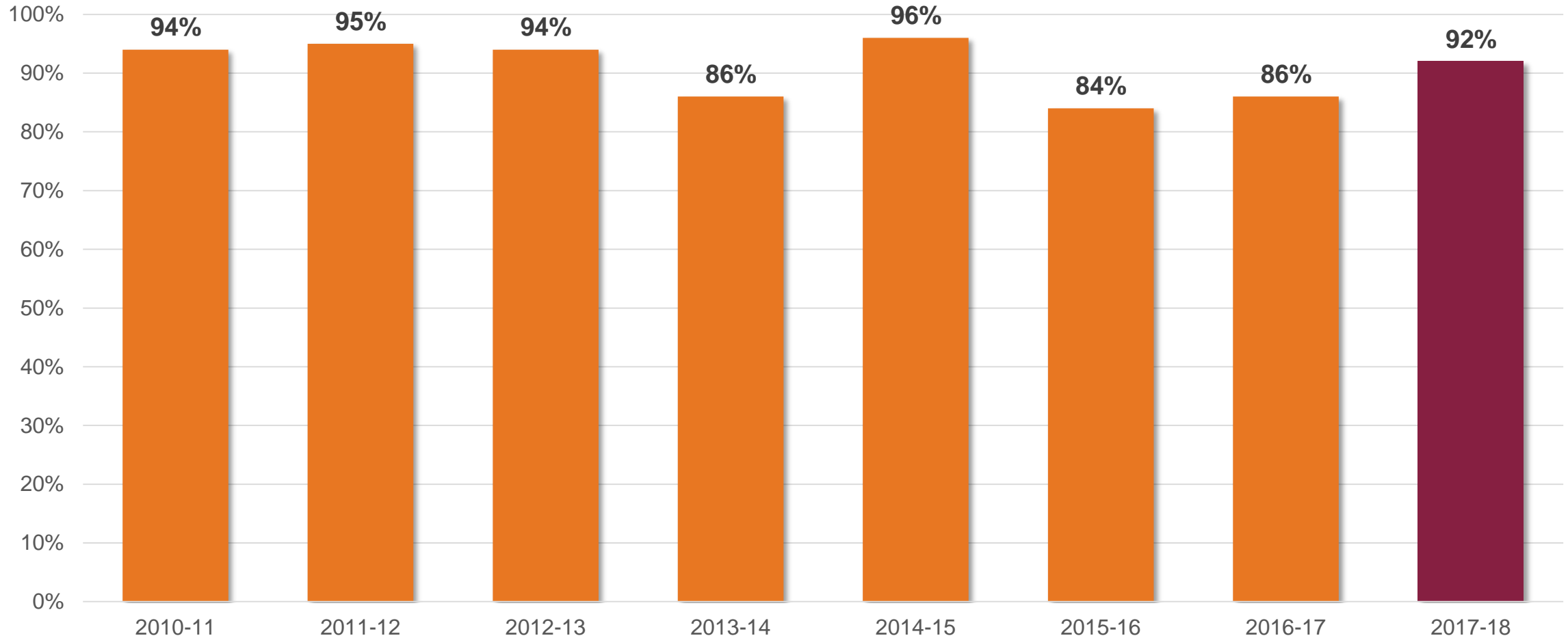
Promotion & Tenure Schedule



Promotion & Tenure Policies & Practices

- Six-year probationary period
- 2nd and 4th year reviews of progress
- Extend the tenure clock policy
- Non-mandatory promotion to associate with tenure
- Mentoring for assistant professors
- Mentoring for associate professors
- Written expectations and standards
- Workshops on the promotion process
 - P&T committee members and heads
 - Promotion to professor
 - College committees and faculty

Promotion & Tenure Success, 2010-2018



Questions?