![The University of Vermont Faculty Senate logo]

Minutes
Monday, March 25, 2019
Memorial Lounge   4:00 – 5:30 p.m.

The meeting was called to order at 4:02 p.m.

Senators in Attendance: 70

Absent: Senators Fletcher (Mechanical Engineering), Bose (Geography), Sherriff (Libraries), Sidiropoulos (Pathology & Laboratory Medicine), Roberts (Romance Languages & Linguistics), Carleton (Theatre)

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1. **Approval of Minutes of the February 25, 2019 meeting**
   Motion: To approve the minutes of the February 25, 2019 meeting as written.
   Vote: 97**% approve**, 0% oppose, 3% abstain

2. **Faculty Senate President's Remarks.** Cathy Paris made the following remarks:
   - External reviewers are at UVM today (3/25) through March 27th for the reaccreditation site visit for the New England Commission on Higher Education (NECHE). Interviews and forums with UVM faculty, staff, and students will help us understand even better our strengths, challenges, and opportunities and guide UVM forward for the next 10 years.
   - The Senate Executive Council approved a request from the Graduate College and the Office of Institutional Research to add an August degree conferral date for both undergraduate and graduate degrees. The late-August conferral date will allow students finishing a professional degree during the summer to sit for licensing exams before the October degree conferral. The Executive Council will confer the degrees on behalf of the Senate in August, and report to the Senate in September.
   - Dr. Jill Tarule will be honored in memorial service at Ira Allen Chapel on Saturday, March 30th at 1:00 p.m. A Resolution in Memoriam will be presented to the Faculty Senate in April.
   - The 12th annual Blackboard Jungle was held last week, and featured many interesting and powerful speakers on a variety of topics.

3. **UVM President's Remarks**. In response to requests from Senators, President Thomas Sullivan reflected on the news that several Vermont colleges are closing, including the College of St. Joseph (Rutland), Southern Vermont College (Bennington), and Green Mountain College (Poultney). There are others in Vermont and the region reporting enrollment and financial challenges, including Vermont Law School, Middlebury College, and Champlain College. President Sullivan provided a summary of the conditions shared by these institutions and 12 common problems they face, including:
   - Inadequate financial resources
   - lack of strategic partners to shore up or continue enrollment
   - unsuccessful campaigns, or inadequate fundraising strategies or completions
   - little or no endowment
   - scale is too small to be efficient
   - too much discounting
   - sharp demographic declines
   - value proposition – quality in product vs. cost
   - challenges and competition from online colleges
   - too dependent on tuition
   - carrying too much debt, leading to accreditation issues
   - rural locations make it hard to attract and retain students

   President Sullivan ended with a quote from a recent op ed in the Chronical of Higher Education regarding the closing of Green Mountain College, "It is a reminder that niche does not trump the fundamentals of sound business practices. The real question is less sexy: Can unconventional schools adopt mundane but solid and proven business practices to sustain themselves? They need the basics: Know the costs of academic programs, make sure revenues cover them, and streamline where possible."

4. **Call for Nominations**. Cathy Paris made a final call for final nominations for the open positions of Faculty Senate Vice President and two (2) members at-large to the Senate Executive Council.
   - **The nominees for member at-large are:**
     - Evan Eyler (Psychiatry, LCOM)
     - Tom Borchert (Religion, CAS)
   - **The nominees for Vice President are:**
     - Andrew Barnaby (English, CAS)
     - Chris Burns (Libraries)
     - Susanmarie Harrington (English, CAS)
     - Mary Louise Kete (English, CAS) – *Professor Kete has withdrawn her name from the ballot.*

5. **Curricular Affairs Committee Report**. Laura Almstead, Chair of the CAC, brought two items to the Senate for consideration. At its meeting on March 7, 2019, the CAC approved the following:

- **CAC Report Out** – Laura Almstead reported three items that were approved by the CAC and do not require a Senate vote. A report from the CAC on these items is attached to these minutes.
  - Uncontested Termination Request: ENSC Major Environmental Chemistry Concentration
  - New Computer Science Concentration in the Secondary Education Major
  - Substantial Revision of the Existing CE Certificate in Gerontology

- A proposal from the College of Education and Social Services (CESS) for a new **Minor in Computer Science Education**. A report from the CAC is attached to these minutes.
  Motion: Laura Almstead moved to approve the minor in Computer Science Education in the College of Education and Social Services.
  Vote: 98% Approve, 0% Oppose, 2% Abstain

6. **Report of the ad-hoc Committee on Senate Policies and Process.** Thomas Borchert presented the final report of the ad-hoc committee. The report is attached to these minutes. Tom Borchert moved that the report be accepted as advice to the Faculty Senate Executive Council. He encouraged senators, in turn, to read meeting materials ahead of time, pay attention to what is going on, and ask questions as we move forward.
   Motion: On behalf of the ad-hoc committee, Thomas Borchert moved that the report be accepted by the Senate as advice to the Faculty Senate Executive Council. The motion was seconded.
   Vote: 88% Approve, 5% Oppose, 7% Abstain

7. **Report on the UVM Financial Situation**. Richard Cate, Vice President for Finance and Treasurer provided an overview of the University Budget, including revenue and expenses, the multi-year strategic financial plan, and budget planning scenarios. Senators were asked to submit questions for VP Cate in advance, and nine questions were received. Each question was summarized on a slide with VP Cate's response to each. The presentation slides are attached to these minutes. Discussion included restrictions on endowment funds, budget cuts to administrative and support center expenses, partnership efforts by Deans to help CAS, and the importance of admission yield rate and retention on the budget.

8. **New Business –** Cathy Paris announced that the topic for the Roundtable Discussion scheduled for the April Senate meeting is being finalized. She anticipates that the focus will be on the value of the humanities and the fine arts to UVM. Suggestions to help refine the discussion topic should be submitted to the Faculty Senate office.

9. **Adjourn**. The meeting adjourned at 5:35 p.m.

MEMO

To: The UVM Faculty Senate

From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair

Date: March 8, 2019

Re: Items approved by the Curricular Affairs Committee that do not require a Faculty Senate vote

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Uncontested Termination Request: ENSC Major Environmental Chemistry Concentration

The directors of the cross-college Environmental Sciences (ENSC) program submitted a request to remove Environmental Chemistry concentration option in the major. All ENSC majors must select a concentration. There are currently nine options: Agriculture and the Environment, Conservation Biology and Biodiversity, Ecological Design, Environmental Analysis and Assessment, Global Environmental and Climate Change, Water Resources, Environmental Biology, Environmental Geology, and Environmental Chemistry. For the past five years, an average of only ~2 students (less than 1% of ENSC majors) have opted to follow the Environmental Chemistry concentration. The directors of the ENSC program believe that this is because students choose to pursue a minor in Chemistry, and are therefore restricted from selecting the Environmental Chemistry concentration. Given this, the directors requested to remove the Environmental Chemistry concertation option. Some of the courses from the Environmental Chemistry concentration will be added to the existing Environmental Analysis and Assessment concentration. *[Note that this change in the Environmental Analysis and Assessment concertation does not require CAC or Faculty Senate approval.]* Letters of support were provided from the deans of all units that participate in the ENSC major – Dean Tom Vogelmann (College of Agriculture and Life Sciences), Dean Bill Falls (College of Arts and Sciences), and Dean Nancy Mathews Rubenstein School of Environment and Natural Resources).

New Computer Science Concentration in the Secondary Education Major

A request for a new Computer Science concentration in the existing Secondary Education major was submitted by the Department of Education in the College of Education and Social Services (CESS). The new concentration developed in collaboration with the Department of Computer Science in the College of Engineering and Mathematical Sciences (CEMS) and the Vermont Agency of Education (VT AOE). All students pursing the existing major in Secondary Education, which leads to a B.S. in Education with Teaching Licensure, choose a content area concentration. The major involves three phases of training, with the first two focused on learners' needs, curriculum, instruction, and assessment. The content concentration (30 to 57) credits is part of the third phase, which also includes a special methods education course in the content area, EDSC 226 Teaching Internship, and EDSC 230 Teaching for Results. Current content concentration options include English, Foreign Language (French, German, Latin, Spanish), Mathematics, Science (Biology, Chemistry, Earth Science, Physics), and Social Studies.

The new Computer Science concentration was developed in response to a recognized disparity between computer science employment opportunities and the computer science learning opportunities available for students in Vermont. Computing represents two-thirds of projected new STEM jobs in the US, however less than 3% of college students earn a degree in computer science, and only 8% of STEM graduates major in Computer Science (https://csedweek.org/resource_kit/blurbs). Vermont's minimal adoption of computer science education standards places it in the bottom tier in the US with nine other states. The proposers indicated that only eight high schools in VT offer an Advanced Placement (AP) Computer Science Principles course and only 26 teachers (>1%) are licensed to teach computer science. Additionally, a recent statewide survey conducted by the VT AOE found that more than 600 teachers in Vermont were interested in furthering their knowledge of computer science via professional learning and coursework. The new Computer Science concentration is part of a joint initiative between CESS, CEMS, and the VT AOE to address these deficiencies and gaps. Letters of support were provided by:

- Michael Giangreco, Interim Chair of the Department of Education
- Scott Thomas, Dean of CESS
- Christian Skalka, Chair of the Department of Computer Science
- Linda Schadler, Dean of CEMS
- Peter Drescher, State Director of Education Technology, VT AOE

Substantial Revision of the Existing CE Certificate in Gerontology

A request to significantly revise the Continuing Education (CE) Certificate in Gerontology was submitted by the Department of Leadership and Developmental Sciences (Human Development and Family Studies Program) in the College of Education and Social Services (CESS). Jacqueline Weinstock will serve as the director of the certificate. Although the certificate has been in existence for more than 20 years, it has not been available to students for the past ten years because several of the required courses have not been regularly offered. This is largely due the departure of faculty involved in teaching the courses. The revisions represent a curricular revitalization and renewed commitment to ensuring courses in the certificate are offered on a regular basis. Letters of support were provided by:

- Lawrence Shelton, HDFS Program Coordinator
- Jane Okech, Chair of the Department of Leadership and Developmental Sciences
- Dale Jaffe, Chair of the Department of Sociology Coordinator of Gerontology Concentration (Sociology majors) and Gerontology Minor (non-Sociology majors)
- Michael LaMantia, Center on Aging Director
- Kieran Killeen, Associate Dean CESS
- Cynthia Belliveau, Dean CDE
- Abby McGowan, Associate Dean CAS
- Jeremy Sibold, Associate DEAN CNHS
- Thomas Vogelmann, Dean CALS
- John Green, Chair of the Department of Psychological Science
- Susan Roche, Chair of the Department of Social Work
- Jeanne Shea, Instructor ANTH 189
- Suzanne Murdock, Instructor HLTH 100
- Patrick Standon, Instructor NH 120

Given the population aging occurring locally and world-wide, and the fact that the demand for professionals trained in gerontology far exceeds the number of professionals qualified to work in the field, this revival is timely. Adults aged 65 and older are expected to comprise over 16.7% of the world's population by 2050. According to the US Census Bureau, in 2017, 18.7% of Vermonters were age 65 or older, making Vermont the second oldest state in the US. Assuming current trends continue, the percentage of older Vermonters is estimated to increase such that by 2032, almost one in four Vermonters will be over 65 (Vermont Agency of Human Services Department of Disabilities, Aging and Independent Living, 2014). The current demand for professionals in gerontology far exceeds the number of people who are prepared to work in this field. The Bureau of Labor Statistics projects that employment in aging-related occupations will grow faster than the projected growth for all occupations overall (EAB, 2016). The Vermont Aging Services Network has indicated that there is a shortage of trained professionals to serve the state's older adults, especially workers in the health care arena. Additionally, adults of all ages are increasingly interested in better understanding aging. Those already in late adulthood seek to better understand the challenges and possibilities of this phase of the life course, while those in earlier stages of adulthood desire to enter and move through later adulthood with appropriate knowledge, perspectives, skills and competencies.

Many aspects of the CE Certificate in Gerontology remain unchanged including the rationale, learning objectives, target audience, admission requirements, and participating units. The two major objectives for the revision were (1) to update the Certificate in terms of course offerings by matching the requirements and electives with currently available courses and creating one new course to round out the certificate offerings, and (2) to build on current knowledge of best practices in Gerontology Education to inform the certificate design and course offerings. A third objective was to increase the draw of the Certificate to community members by reducing the total number of required credits from 18 to 15, with the corresponding cost and time savings this would offer. Given past enrollments, inquiries about learning opportunities related to aging, and the reduced number of credits, the proposers anticipate an initial enrollment of approximately three to five students.

Previously, the curriculum for the certificate included three required courses and three elective courses. The revised curriculum (see table below) includes three required courses and two elective courses. Students who do not have prior relevant experience working with elders or in the related social services will be required to complete HDFS 190, a three-credit internship experience, as one of their electives. Other students interested in the internship course may be let in with instructor permission. Of the required courses, two remained the same (HDFS/SOC 020 and SOC 120). HDFS 221 is the one new course that was developed for the certificate and will be in the catalog next year. Letters of support were provided by faculty involved in teaching courses in the revised curriculum and/or chairs or deans of the relevant departments or units.

Required Courses		Credits
HDFS/SOC 020	Aging: Change and Adaptation	3
SOC 120	Aging in Modern Society	3
HLTH 100 OR HDFS 221	Biology of Aging Psychology of Aging	3

Elective Courses*		Credits
HDFS 190	Internship	3
HLTH 100 *OR* HDFS 221	Biology of Aging (if not taken as a required course) Psychology of Aging (if not taken as a required course)	3
ANTH 189	Aging in Cross-Cultural Perspective	3
NH 120	Health Care Ethics	3
NFS 143	Nutrition in the Life Cycle	3
SOC 154	Dying, Death & Bereavement	3
SOC 224	Health Care and Aging	3

An approved aging related course in another relevant program may fulfill one elective course requirement.

As noted above, revival of the CE Certificate in Gerontology is timely considering the increasingly aging population, especially in Vermont, and the fact that demand for professionals trained in the field of gerontology exceeds the number of people qualified to fill those positions. The revisions to update the curriculum and the renewed commitment to ensuring that courses in the certificate are offered on a regular basis will help to bring the long dormant certificate back to life.

To: The UVM Faculty Senate
From: Curricular Affairs Committee of the Faculty Senate, Laura Almstead, Chair
Date: March 7, 2019
Re: Approval of a proposal for a new Minor in Computer Science Education submitted the College of Education and Social Services

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At its meeting on March 7, 2019, the Curricular Affairs Committee approved the actions recommended in the following memo.

The Curricular Affairs Committee approved a proposal for a new Minor in Computer Science Education from the Department of Education in the College of Education and Social Services (CESS). The proposed new minor was developed in collaboration with the Department of Computer Science in the College of Engineering and Mathematical Sciences (CEMS). If approved by the Faculty Senate and Board of Trustees, the minor will be offered beginning fall 2019.

Program Description, Rationale, and Justification

The proposed Minor in Computer Science Education (CSE) is designed for students interested in teaching computer science in schools and other settings. The curriculum reflects the important knowledge and skills that computer literate students and teachers will need in order to communicate and interact in today's technological world. All courses in the proposed minor align with the Vermont Agency of Education's (VT AOE's) endorsement standards for teaching computer science and will be offered either though the Department of Computer Science or the Department of Education. Each of the courses includes a focus on the increasing computational thinking and literacy needed in today's schools and/or communities. This focus will enhance the knowledge and experience of both Education majors who are preparing to teach computer science in grades 7-12 and non-Education majors who will work in professions that may require teaching about computational literacy. Upon completion of the proposed minor students will be able to:

- Plan and implement instruction that demonstrates knowledge of computer science principles and practices and allows secondary students to use computer science in problem-solving and decision-making situations.
- Keep current with the use of technology in education and issues related to legal and ethical use of technology resources.
- Design and implement activities which reinforce verbal and written technical communication skills central to computer science.
- Use the basic steps in algorithmic problem-solving to design solutions.
- Use effective management strategies for teaching computer science.
- Use appropriate instructional strategies for teaching computer science.

Of central significance is the collaboration between UVM's Computer Science and Education departments in program design and implementation. This alliance provides an opportunity for innovative programming, rich dialogue, and collaborative teaching and research between faculty in both departments. Additionally, it provides an opportunity for each department to update and expand its curriculum to ensure that all students who graduate with a CSE minor will have a deep understanding of computational thinking and its significance in transforming education, as well as practical and meaningful ways to integrate computer science into their teaching practice. The new CSE minor will build on the legislature's commitment to support programming to increase educational opportunities, particularly for those students who have traditionally been underserved in computer science education and careers. In addition, the creation of the new minor aligns with the state's demonstrated interest in promoting STEM education, a strategic goal of UVM, CESS, CEMS, the VT AOE, business leaders, and the state government.

Evidence for Demand

Computing represents two-thirds of projected new STEM jobs in the US, however less than 3% of college students earn a degree in computer science, and only 8% of STEM graduates major in Computer Science (https://csedweek.org/resource_kit/blurbs). Vermont's minimal adoption of computer science education standards places it in the bottom tier in the US with nine other states. The proposers indicated that only eight high schools in VT offer an Advanced Placement (AP) Computer Science Principles course and only 26 teachers (>1%) are licensed to teach computer science.

Relationship to Existing Programs and Anticipated Impact on Existing Programs

The proposed Computer Science Education minor is similar in content and title to the Computer Science minor. The Computer Science minor offered by CEMS is 18 credits with at least nine credits at the 100-level or above, and allows students to select from any CS course to fulfill these requirements. The proposed CSE minor includes 19 credits with five specified CS courses (two that are at the 100-level) and a course in teaching computer science in secondary schools (EDSC 237). Importantly, the curriculum of the proposed CSE minor is fully aligned with the VT AOE endorsement standards for licensure to teach computer science in Vermont. Students minoring in Computer Science will not be able to enroll in the proposed CSE minor.

Initially, the proposers anticipate a modest enrollment in the proposed minor primarily from students in the secondary education program. As part of the joint efforts by the Education and Computer Science departments, a new concentration in computer science in the Secondary Education major has also been developed. All Secondary Education majors must select a content area (30-57 credits). The proposed CSE minor has fewer computer science credits than the concentration, and thus might be more attractive to students looking to focus in another area, but still gain computer science education skills. The minor may also be of potential interest to other education majors (e.g. Elementary Education) as well students majoring in other areas. All of the existing courses in Computer Science will accommodate the anticipated enrollment in the CSE minor and additional Secondary Education majors that select the Computer Science concentration.

Curriculum

As noted above, completion of the proposed Minor in CSE will require five specifically identified computer science courses that are aligned to VT AOE endorsement standards for computer science licensure and EDSC 237 Teaching Computer Science in Secondary School, a new course developed for the minor. EDSC 237 will be in the catalog next year. The courses are detailed in the table on the following page.

Required Courses (19 credits total)		Credits
CS 008	Intro to Web Site Development	3
CS 021	Computer Programing	3
CS 087	Introduction to Data Science	3
CS 110	Intermediate Programming	4
CS 121	Computer Organization	3
EDSC 237*	Teaching Computer Science in Secondary School	3

*Prerequisite of EDSC 216. This course is taken by Secondary Education majors as part of the curriculum; students in other majors will need to take EDSC 216 prior to taking EDSC 237. Electives for the upper-level CS courses are embedded in the curriculum (e.g. CS 021 is the prerequisite for CS 110).

Majors that will not be eligible to enroll in the minor include Computer Science (BS or BA), Computer Science Information Systems, and Data Science. Teacher education students eligible for licensure in grades 7-12 that complete the minor will be eligible for endorsement in Computer Science Education.

Admission Requirements, Advising, and Assessment
With the exception of the majors indicated above and students in the Computer Science Minor, the proposed Minor in CSE will be open to all UVM undergraduates. A co-advisor model will be adopted whereby students will be assigned an advisor in the Computer Science Department and also an advisor in the Education Department. The proposers believe that this will ensure that students are effectively mentored through the content and pedagogical components of the minor.

The primary assessment will be focused on the culminating capstone project administered during the final course in the CSE minor (EDSC 237 Teaching Computer Science in Secondary School). The coordinator of the CSE minor will collect and analyze scores from the EDSC 237 capstone project to identify strengths, challenges, and emerging patterns that may indicate revision to the capstone project and possibly the minor's course sequence. Other assessments will include data collection on the number of students enrolling in the minor as well as their years of entry and completion. The coordinator will collect and analyze program data to assess overall program viability.

Resource Requirements
Given that five of the six courses for the proposed CSE minor are existing computer science courses, no changes in staff assignments are anticipated for computer science faculty. A faculty member in the Department of Education will need to be assigned to teach EDSC 237 as part of their load or an adjunct will need to be hired.

No new costs are anticipated for the first year. As previously discussed, all computer science courses are currently offered through the Computer Science Department. If there is a great demand for this minor, additional sections of the required courses may need to be added to accommodate the demand. It is anticipated that the first cohort of students enrolled in the minor will not enroll in EDSC 237 until Spring 2020 which will necessitate either a current faculty member teaching this course on load or hiring an adjunct. The cost of this new course could be offset by an enrollment of at least 10 students (in the CSE minor or concentration) enrolled in the methods course.

Evidence of Support

Letters of support were provided by Deans Linda Schadler (CEMS) and Scott Thomas (CESS), Chairs Christopher Skalka (CS) and Michael Giangreco (Department of Education), and Peter Drescher, State Director of Education Technology with the VT AOE.

Summary

There is a distinct disparity between computer science employment opportunities and the computer science learning opportunities available for students in Vermont. The proposed Minor in Computer Science Education along with the recently developed Computer Science concentration in the Secondary Education major are part of a joint initiative between CESS, CEMS, and the VT AOE to address deficiencies and gaps in the educational opportunities in computer science in Vermont. This collaboration leverages strengths in both the Department of Education and the Department of Computer Science to provide a valuable opportunity for UVM students. Students that complete the proposed minor will be well positioned to educate the next generation of computer science teachers (grades 7-12) in Vermont and across New England that will encourage and support diverse groups of students as they become computer science literate and consider computer science careers.

Proposal: The ad-hoc committee to review the processes and procedures of the Faculty Senate submits its report to the Faculty Senate. Senators are asked to vote to accept the report, which will be submitted as advice to the Faculty Senate Executive Council.

Background: This ad-hoc committee was formed in Fall 2017 and officially charged by Faculty Senate President Cathy Paris to broadly examine Faculty Senate process and procedures and make recommendations that would support increased faculty engagement in Senate operations. Towards this end, we surveyed members of the Faculty Senate and met with individuals that currently (or historically) have played leadership roles in the Senate's leadership, both at the full Senate and in its various Standing Committees. From these efforts, two major and inter-related themes emerged as underlying barriers to Senator engagement:

1) Information relevant to senate meetings is not always disseminated in the most efficient manner, resulting in the majority of the meetings being consumed by "report out" or informational agenda items rather than true discussion/debate.

2) An implicit cultural expectation that items under Senate consideration should be expediently voted on and/or approved without being given ample time for discussion and debate.

As a result of our analysis of the Faculty Senate survey results, our individual meetings with various Faculty Senate stakeholders, and internal discussions, this ad-hoc committee has outlined below a number of explicit proposals that are intended to improve both efficiency and engagement of Faculty Senate membership. These items are being presented to the Senate body for consideration and vote.

Faculty Senate Meeting Procedures and Engagement Proposal

1. Establish a New Senator Orientation open to new and existing faculty on an RSVP basis.

2. Limit presentations by administrative offices or committees to those items for which Senate input or vote is required. When informational presentations are necessary (i.e., not requiring a vote), provide context and mark on agenda as "Report out."

3. "Report out" agenda items, such as committee reports that do not require Senate action, should be disseminated electronically and not put on the formal agenda unless otherwise proposed for discussion by the Senate floor.
    a) Limit standing agenda items such as an address by the President or Provost to times when we have a specific concern we wish for them to address, or alternatively when they have a matter to discuss with the Senate.
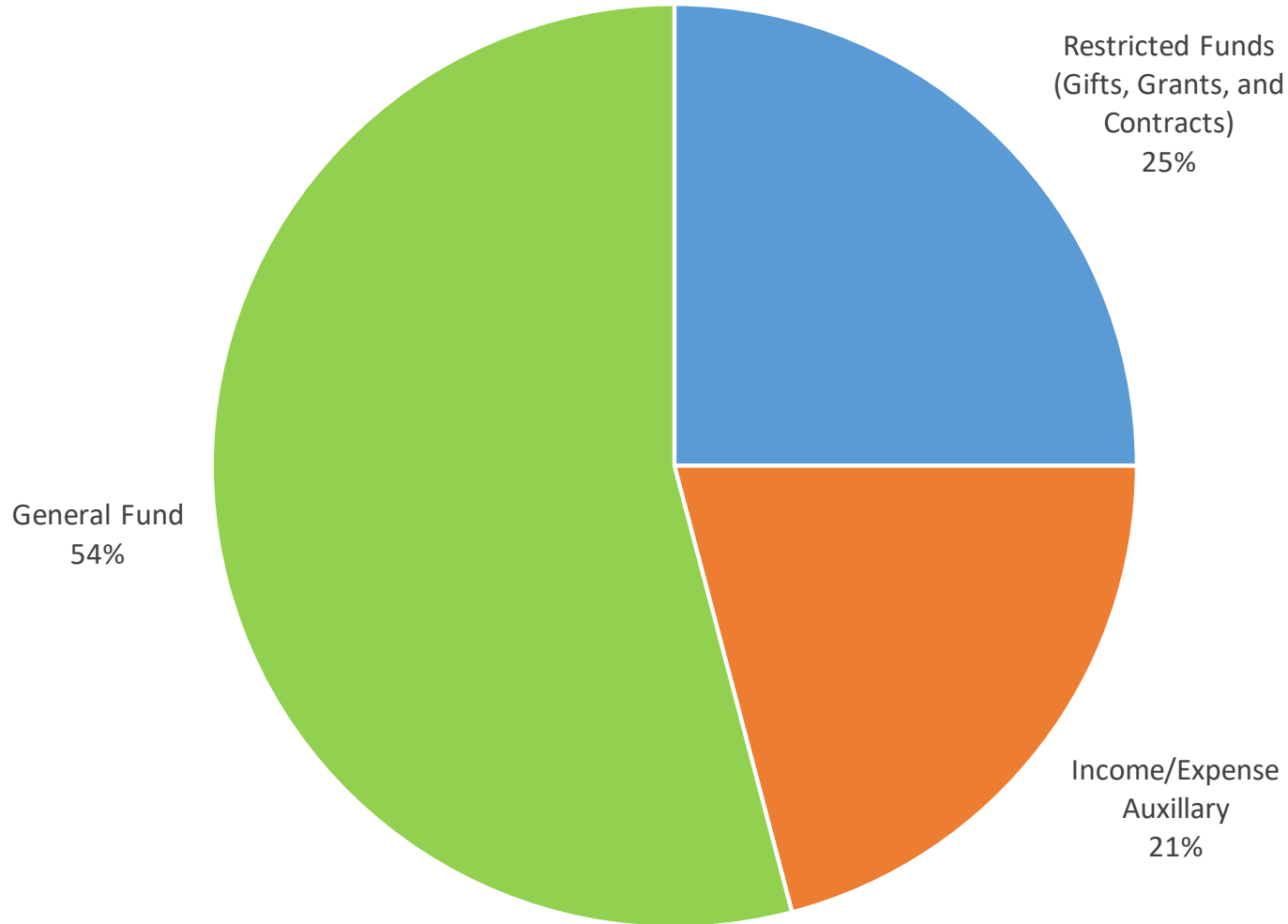
4. Provide sufficient time for discussion before a vote takes place. Ideally issues should be discussed at one meeting and brought to the Senate for a vote the next meeting.

5. Provide a brief, dedicated "New Business" time slot on each agenda to appear early in the agenda as opposed to the end.

6. Standing committee representatives should be invited at least once a year to generate discussion on current committee-related issues that may benefit from broader participation/brainstorming from the senate floor and to answer questions. These are not to be "progress reports," which can be handled and viewed electronically.
   a) At least once a semester, the FPPC provide the Senate membership with a presentation about the budgetary matters relevant to the Senate.

7. At least once a year, we request an open forum where the President and Provost would field questions from the Senate floor.

Eyal Amiel, CNHS
Thomas Borchert, CAS
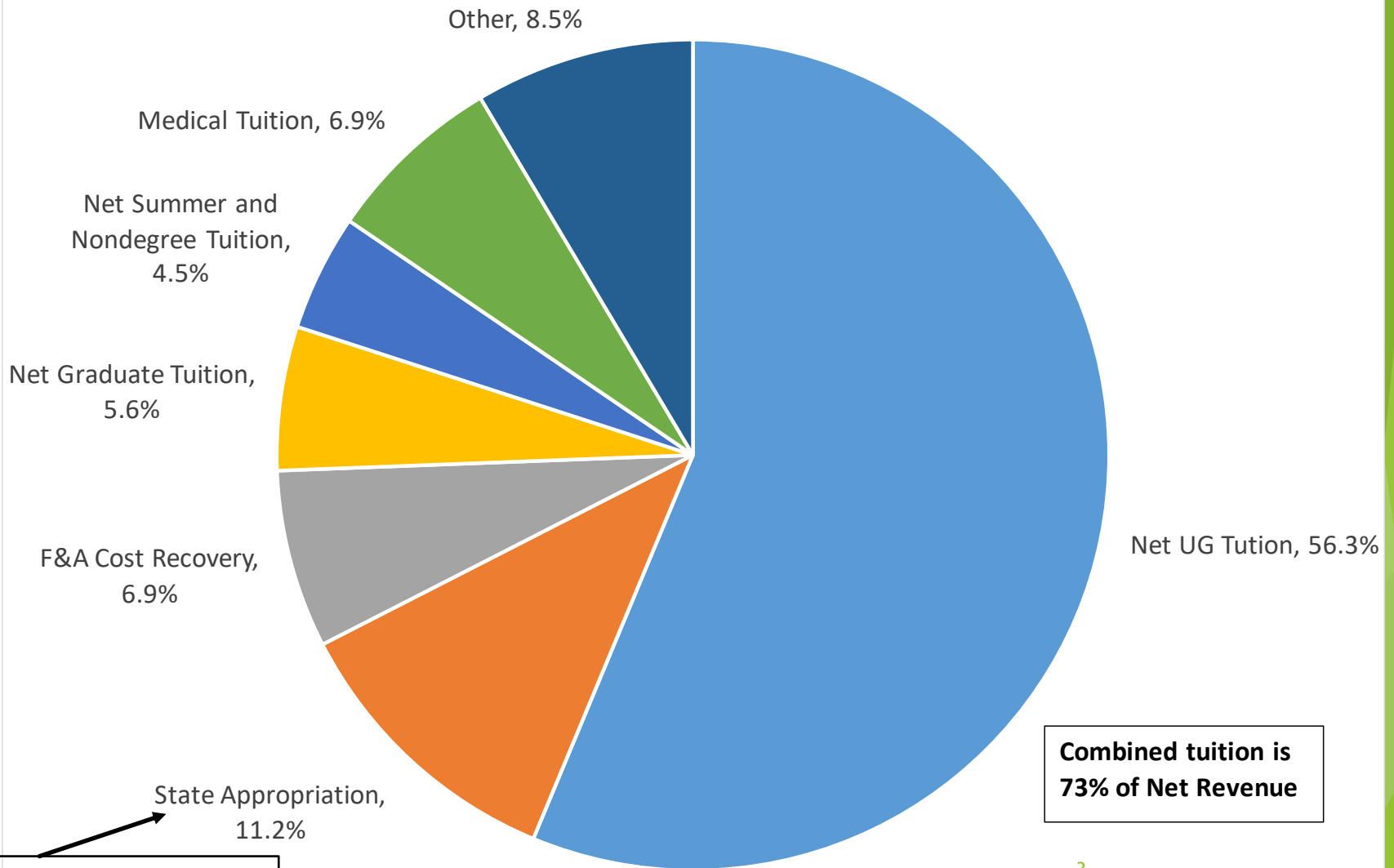Chris Callahan, CALS/Extension
Julie Roberts, CAS
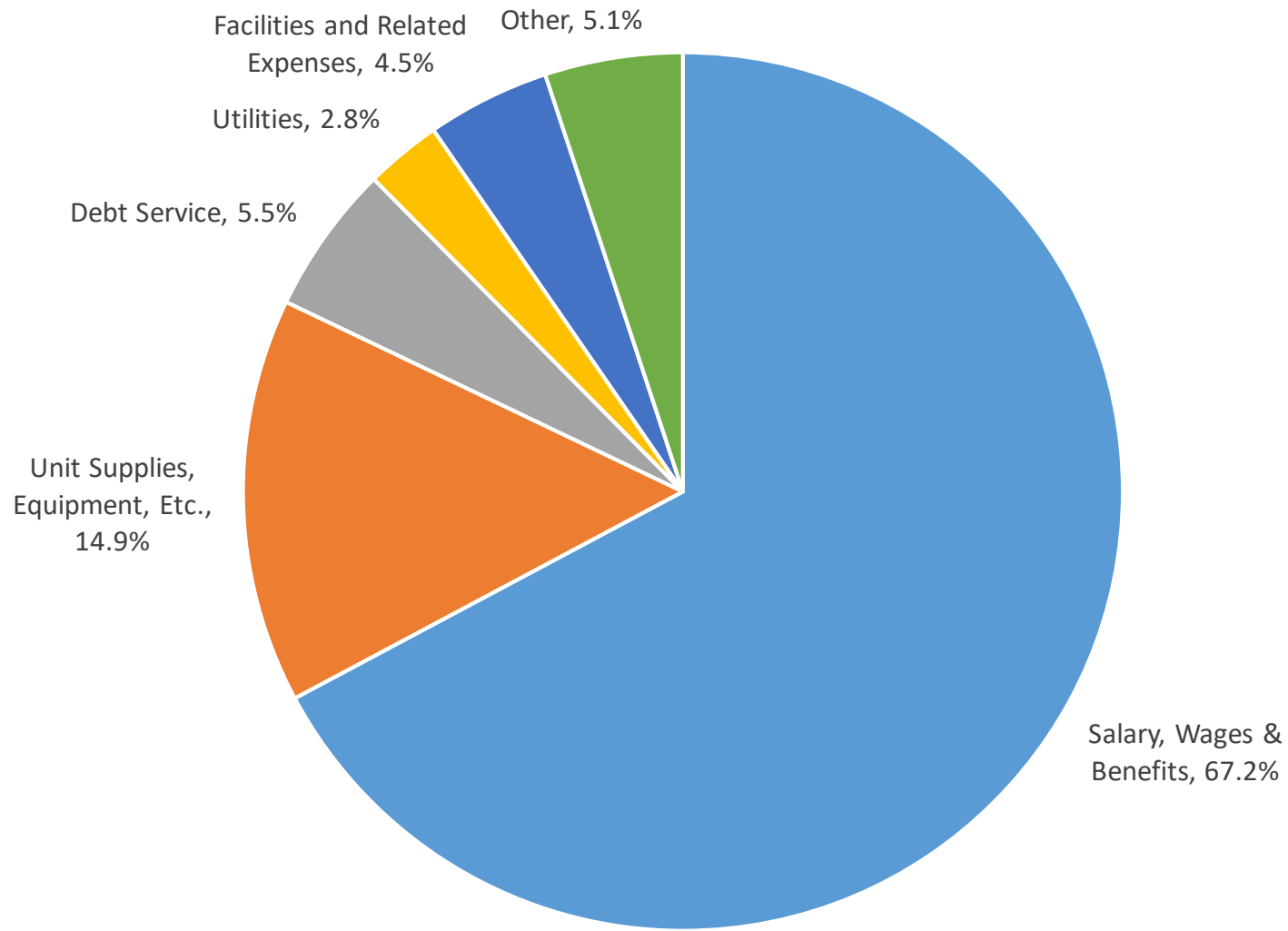
Faculty Senate Budget Presentation

March 25, 2019

FY 2019 Total Operating Budget: $683 million

Restricted Funds (Gifts, Grants, and Contracts) 25%

Income/Expense Auxillary 21%

General Fund 54%

2

FY 2019 General Fund Revenue

Other, 8.5%

Medical Tuition, 6.9%

Net Summer and Nondegree Tuition, 4.5%

Net Graduate Tuition, 5.6%

F&A Cost Recovery, 6.9%

Net UG Tution, 56.3%

State Appropriation, 11.2%

Combined tuition is 73% of Net Revenue

52% - Aid for VT Students
24% - Agriculture
24% - College of Medicine

3

FY 2019 General Fund Expenses

Facilities and Related Expenses, 4.5%

Other, 5.1%

Utilities, 2.8%

Debt Service, 5.5%

Unit Supplies, Equipment, Etc., 14.9%

Salary, Wages & Benefits, 67.2%
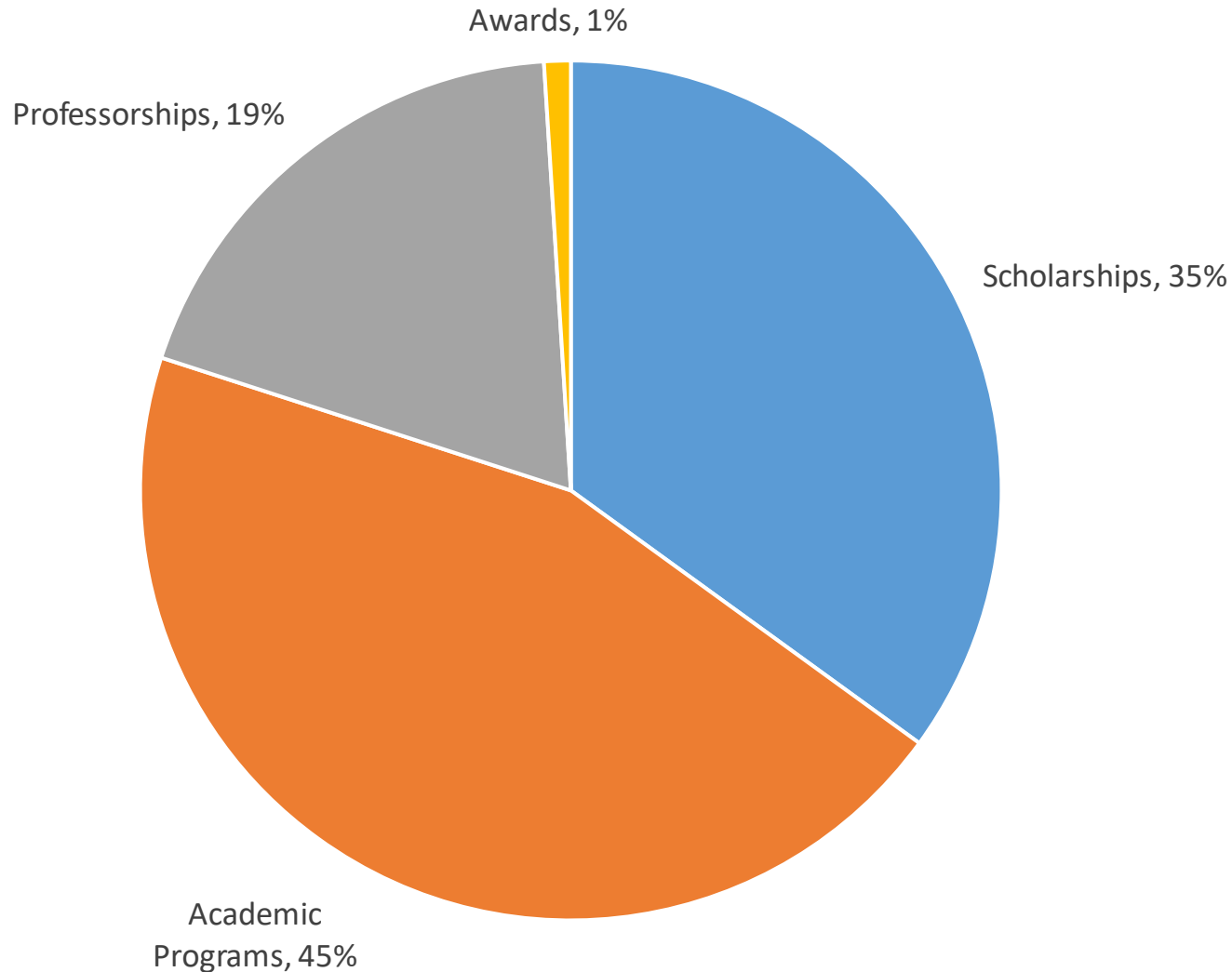
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FY 2019 General Fund Gross Expenses
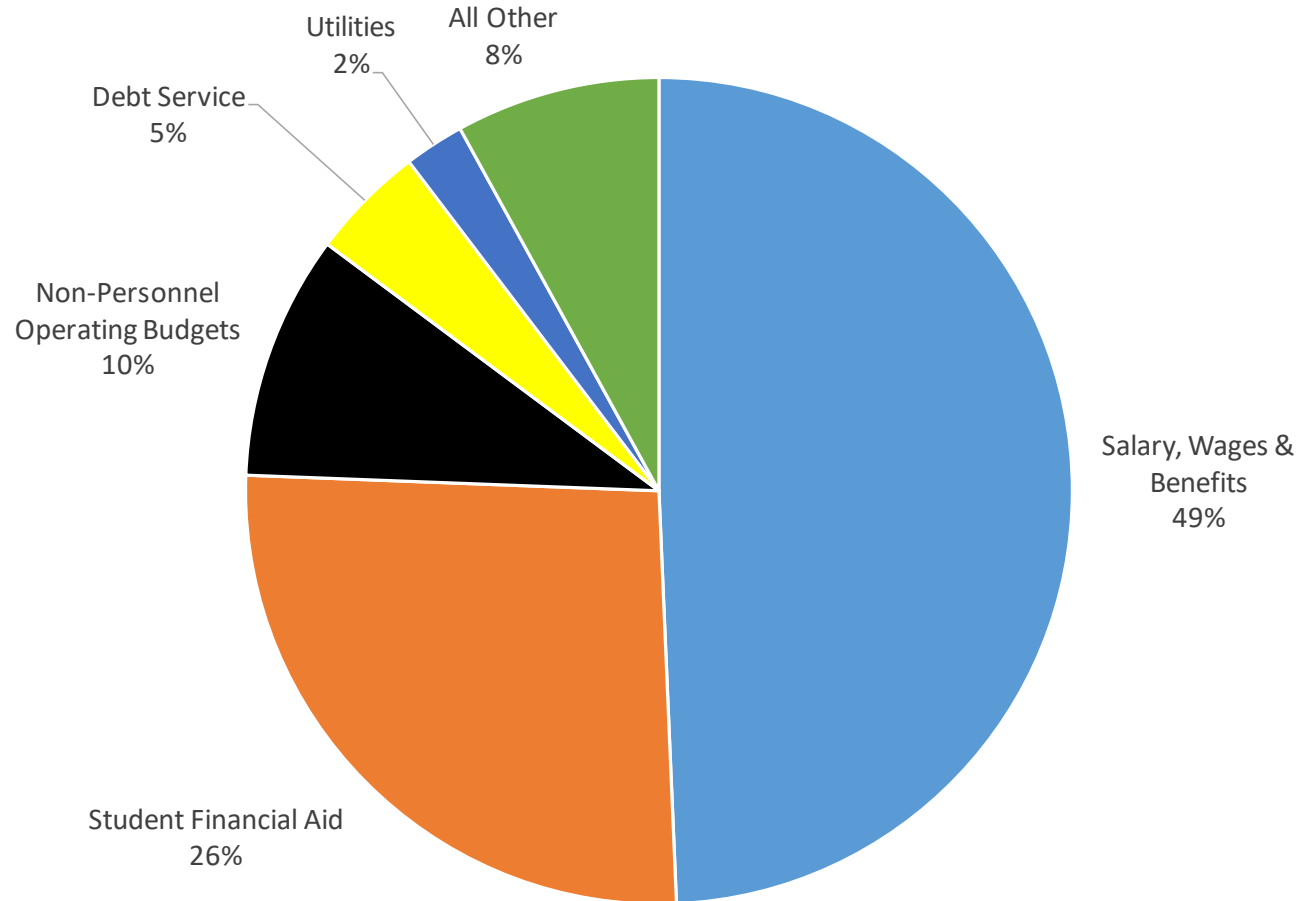
FY 2018 Endowment Spending: $19 million

6

Multi-year Strategic Financial Planning

Assumptions for Baseline Scenario FY 2020-2025

Revenue

▶ Flat undergraduate enrollments: 10,385 UG's*

▶ 3.0% annual gross tuition increase

  ▶ 1.5% annual net tuition increase

▶ 20% cumulative growth in Non-degree, Graduate, Summer enrollments

Expenses

▶ 2.0% annual salary increases

▶ No change in the number of faculty and staff

Capital Projects

▶ No additional investments in deferred maintenance after FY 2020

▶ No increase in debt

▶ No new capital projects

Fall/Spring average; projected FY 2019 F/S average is 10,365.

Evaluation of Baseline and Alternative Scenarios

Financial Ratios

▶ We evaluated the baseline and the alternative scenarios against **financial ratios** used by rating agencies, creditors, benefactors, parents, peers, board members, and the administration.

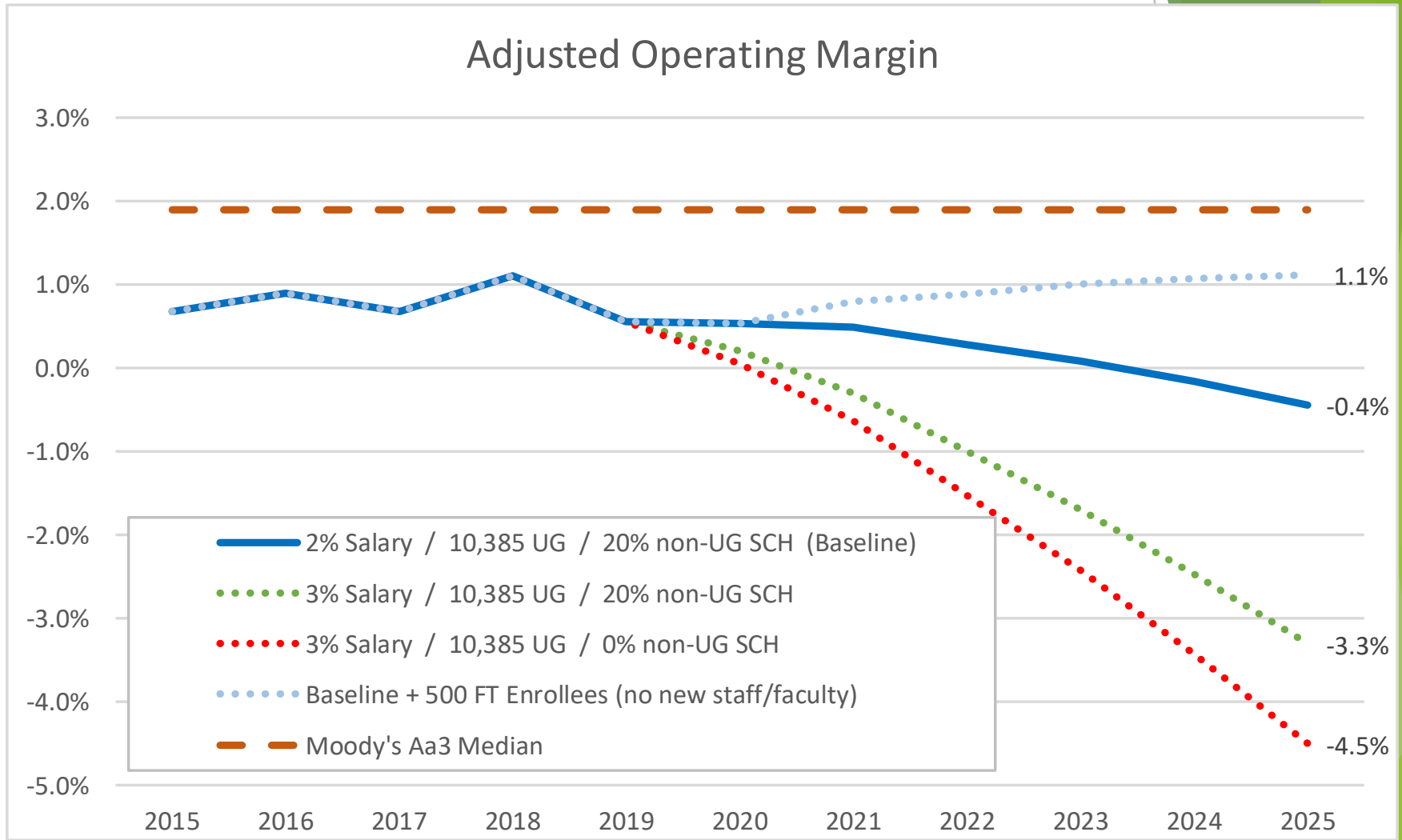   ▶ Adjusted Operating Margin: Are we living within our means?

Cumulative Budget Reductions

▶ We also evaluated the baseline and alternative scenarios to estimate the **Cumulative Budget Reductions** needed when expense growth exceeds revenue growth.

   ▶ The **Cumulative Budget Reduction** is the sum of the budget reductions between FY 2020 and FY 2025 that would be required to ensure a balanced budget, and ensure that our Operating Margin stays within acceptable ranges.

Financial Ratios (FY 2020 – FY 2025)

Impact of Salaries and Enrollments
Adjusted Operating Margin

Adjusted Operating Margin

Legend:
- 2% Salary / 10,385 UG / 20% non-UG SCH (Baseline)
- 3% Salary / 10,385 UG / 20% non-UG SCH
- 3% Salary / 10,385 UG / 0% non-UG SCH
- Baseline + 500 FT Enrollees (no new staff/faculty)
- Moody's Aa3 Median

End-point labels: 1.1%, -0.4%, -3.3%, -4.5%

Years: 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025

Impact of Salaries and Enrollments
Cumulative Budget Reductions

Cumulative Budget Reductions

Legend:
- 2% Salary / 10,385 UG / 20% non-UG SCH (Baseline)
- 3% Salary / 10,385 UG / 20% non-UG SCH
- 3% Salary / 10,385 UG / 0% non-UG SCH
- Baseline + 500 FT Enrollees (no new staff/faculty)

End values (2025): 13.4%, 10.9%, 7.4%, 3.6%
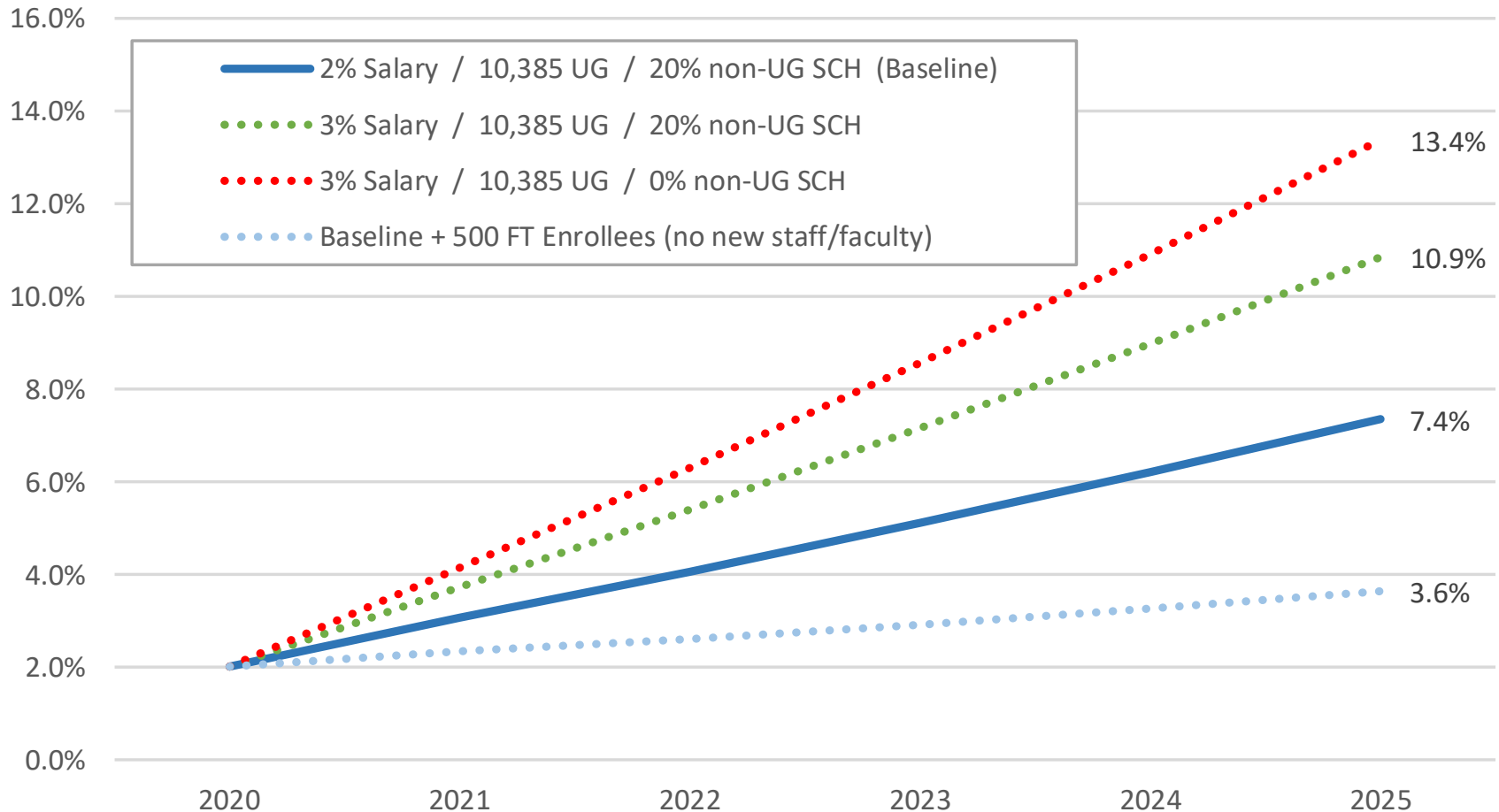
Summary of Cumulative Budget Reductions

Baseline	Budget Reductions FY20-FY25	
2% Salaries / 10,385 UG's / 20% Growth in Non-UG /	-7.4%	-$22m

Changes from Baseline	Additional Budget Reductions	
Salaries at 3%	-3.5%	-$11m
Annual growth of 100 FT admits/year (Grad,ND,Summer,UG)* (in addition to 20% cumulative growth in non-UG's)	+3.5%	$11m
Annual growth in retention of 100 FT UG's/year*	+3.5%	$11m
Salaries at 1%	+3.5%	$11m

No new faculty or staff

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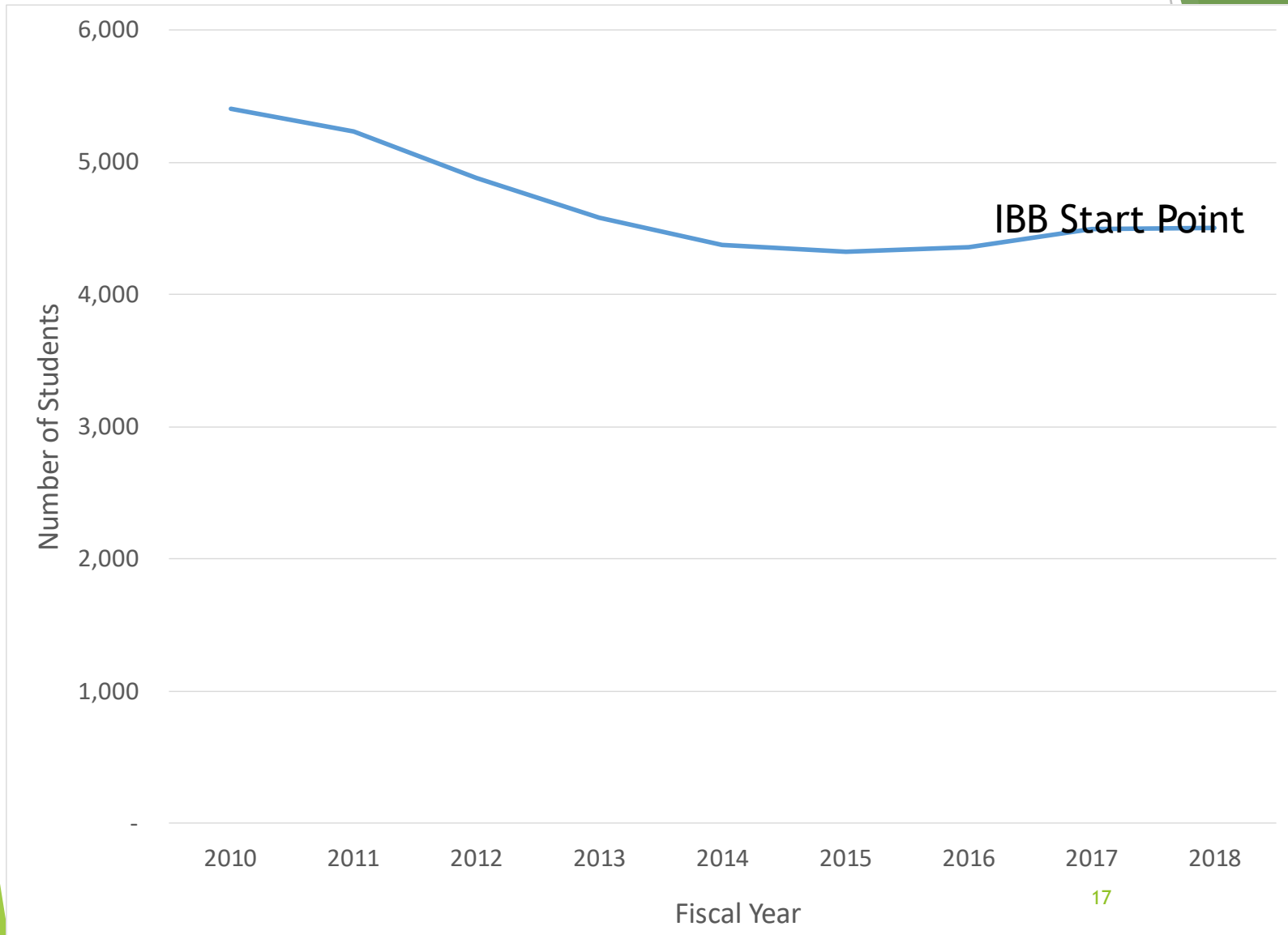# Growth in Cost of Debt Service vs. Salaries and Benefits
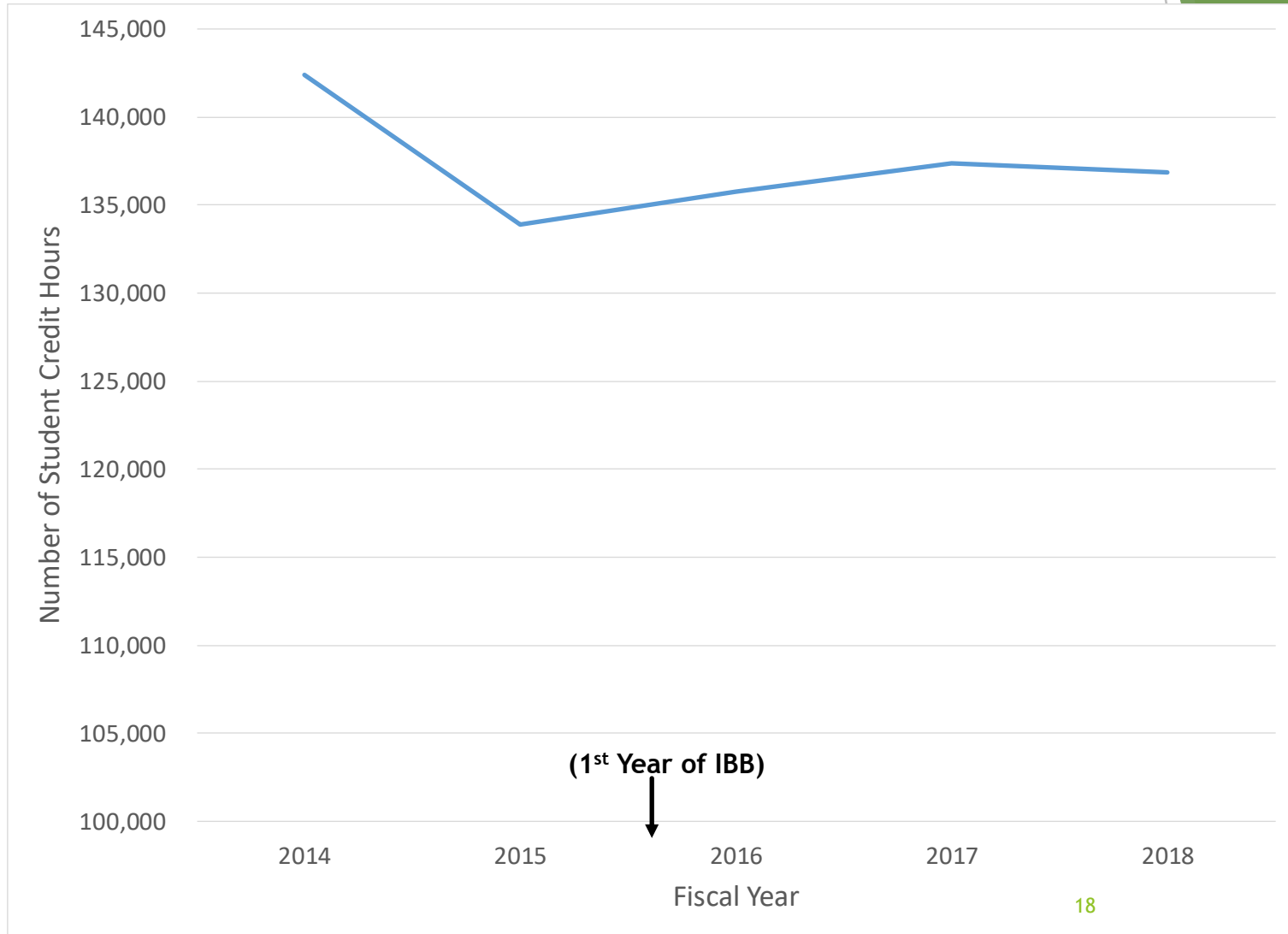

*Projected
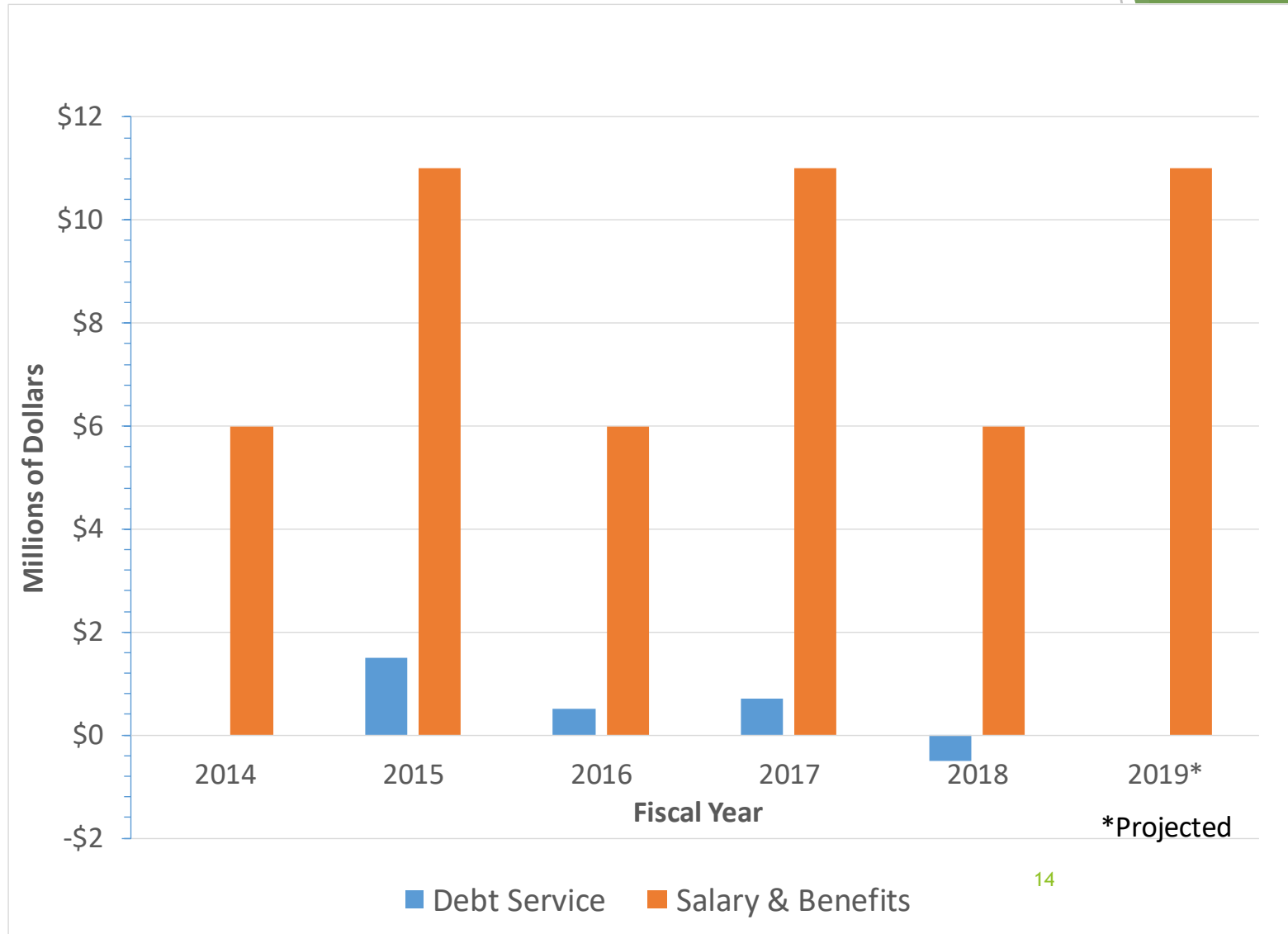
What These Figures Tell Us

▶ A 3.0% annual tuition increase is not adequate to balance the budget without applying other strategies.

▶ Revenue growth each year, via multiple strategies, will continue to be essential to balancing the budget.

▶ Without enhanced revenue, salary increases must be constrained.

▶ Every effort must be made to become more efficient and eliminate redundancies.

▶ Retention will be even more important in an era of limited capacity to grow enrollment.

College of Arts and Sciences Data

CAS Undergraduate Enrollment

IBB Start Point

Number of Students (y-axis): -, 1,000, 2,000, 3,000, 4,000, 5,000, 6,000

Fiscal Year (x-axis): 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018

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CAS Undergraduate Student Credit Hours Taught

Number of Student Credit Hours (y-axis): 100,000 – 145,000

Fiscal Year (x-axis): 2014, 2015, 2016, 2017, 2018

(1st Year of IBB) ↓ (between 2015 and 2016)

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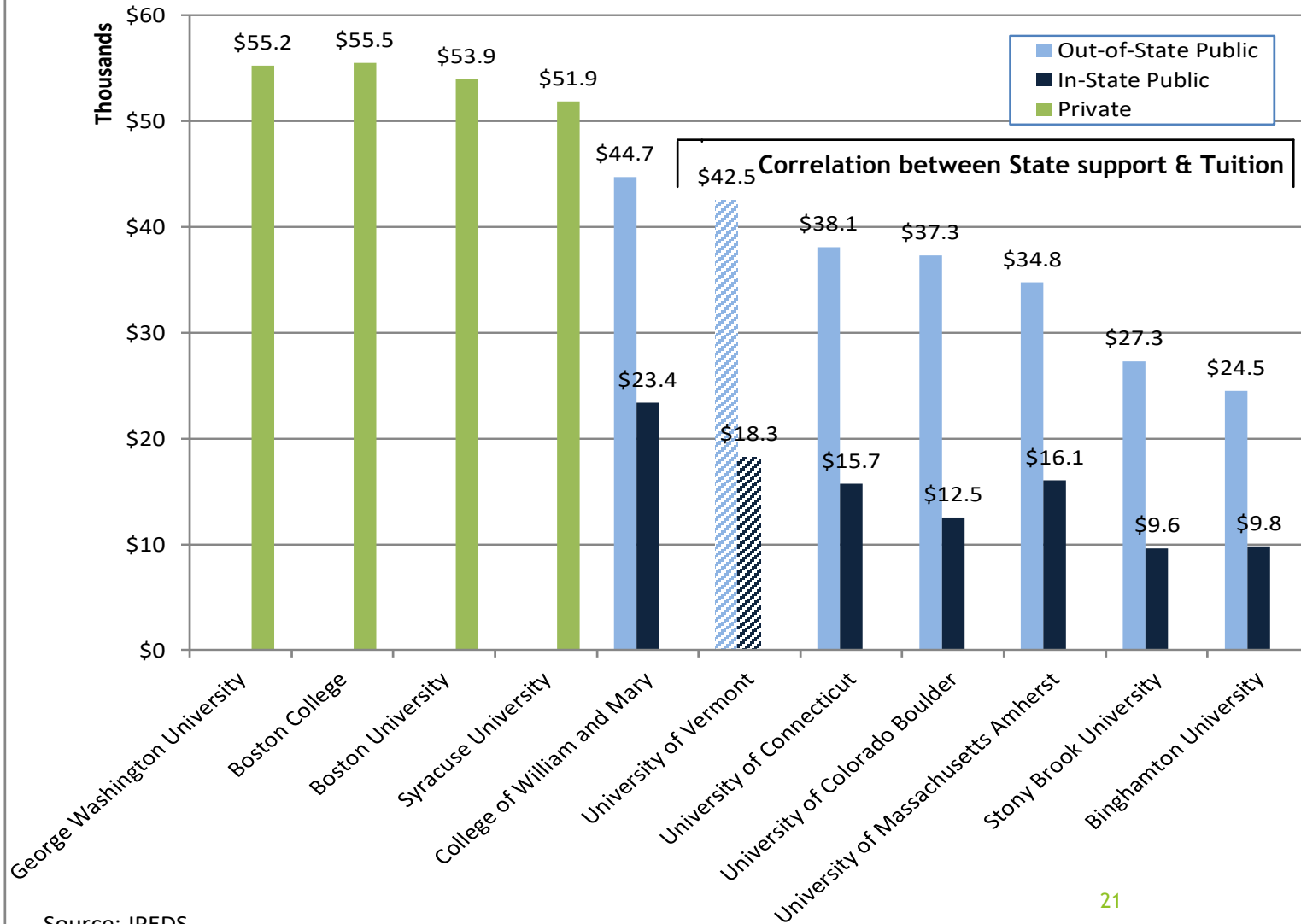# CAS Student Credit Hours vs. Enrollment

19
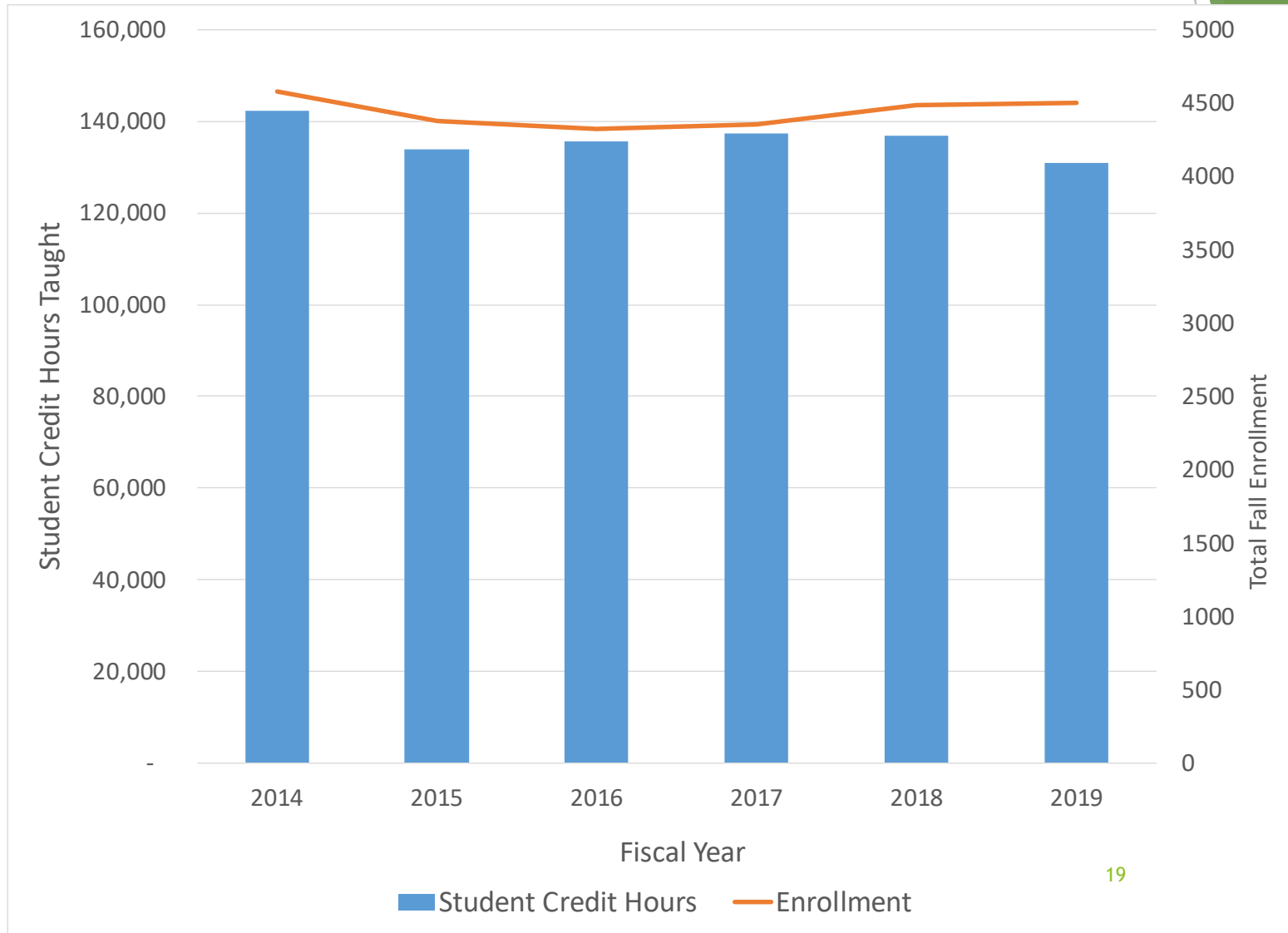
Tuition Pricing Challenge

Comparator Tuition & Fees
2018-2019 Academic Year

Source: IPEDS

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Faculty Questions

If the University has enough money to build the Multipurpose Center, does it not have enough to take care of the CAS deficit?

- ❏ *The debt service (mortgage) for the Multipurpose Center is being funded by donor gifts and a dedicated student recreation fee, not the general fund budget that funds CAS, state appropriation funds, or tuition dollars.*

- ❏ *The University does not have significant amounts of unrestricted recurring budget capacity – one-time money will not solve the CAS budget situation.*

- ❏ *We need to find a way to generate more revenue so that the University can continue to have robust course offerings in the liberal arts.*

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How differently would revenue be generated if it were distributed according to the net revenue generated by each individual student (e.g. in-state vs. out-of-state and net after financial aid)?

Explanation of rationale for blended rate (volatility and increased cost of tracking on semester basis)

Is there a way to track excellence across individual schools and colleges?

Arguably yes, but comparing excellence across disciplines is difficult; normally accomplished via peer review.
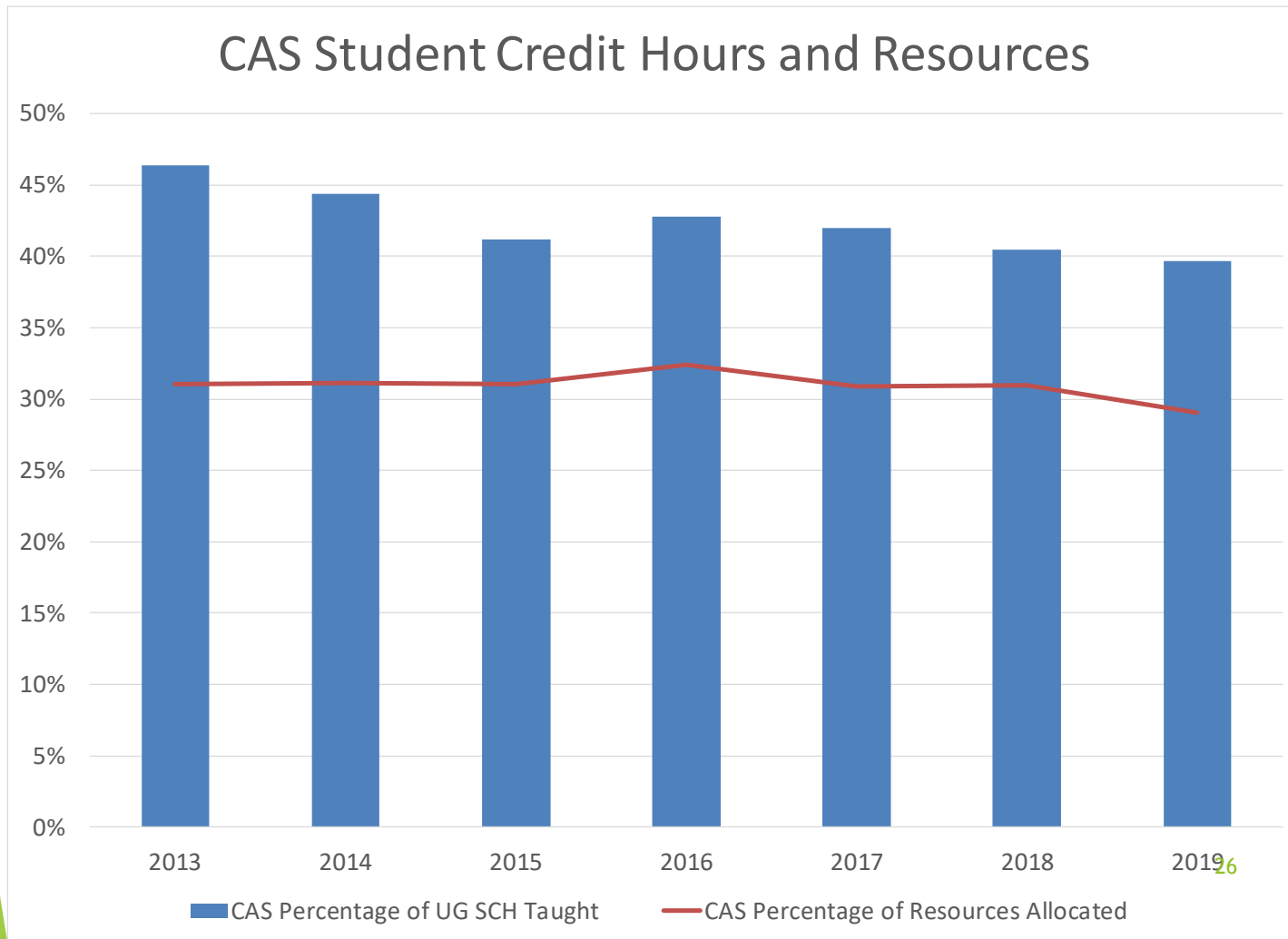
Does the University have a long-term strategy going forward to keep the University's books balanced?

Yes, we have to continue to adjust our strategies considering changing student demographics, a flat state appropriation of only 3.0% of the operating budget, actions by Washington that have limited international enrollment, and our high tuition rate.

- ❑ *We need to:*
  - ✓ *Expand and diversify revenue beyond residential undergraduate tuition.*
  - ✓ *Enhance positive recruitment efforts, including involving more faculty.*
  - ✓ *Increase retention in each college/school.*
  - ✓ *Eliminate redundancies and inefficiencies at all levels to hold down costs.*

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What did resource allocations look like pre-IBB and now?

CAS Student Credit Hours and Resources

Legend:
- CAS Percentage of UG SCH Taught (blue bars)
- CAS Percentage of Resources Allocated (red line)

Can we lower the admissions bar on academic qualifications in CAS just a bit so as to help close the budget gap?

*No, the admit rate for CAS students is already high. Most of the FY 19 enrollment challenge is due to a reduction in the number of returning students rather than FTFY – **retention is critical to reversing this trend***.

	Admits				Waitlist		
	Avg. HS GPA	SATC	ACT	Admit Rate	Avg. HS GPA	SATC	ACT
CALS	3.7	1286	29.3	66%	3.2	1120	24.8
RSENR	3.7	1306	29.8	73%	3.2	1160	25.1
CAS	3.7	1315	30.3	71%	3.1	1168	25.7
GSB	3.6	1280	29.2	57%	3.1	1167	26.7
CEMS	3.7	1350	30.8	73%	3.1	1204	26.7
CESS	3.6	1237	28.3	59%	3.1	1090	23.6
NHS	3.8	1261	28.5	55%	3.3	1150	24.8
Total:	3.7	1306	30.0	67%	3.2	1159	25.6

Are fundraising priorities such that CAS is not getting its fair share of the $550 million?

Donors determine what will be funded with their gifts, not the administration; thus there can be no "reallocation" of the gift proceeds under the law.

CAS has been allocated a proportionate share of Foundation personnel resources.

The fact sheet described the $50 million that had been allocated to CAS in the past; although more than $500 million has been "committed", some of the money will not be received until some point in the future.

How do the recent investments in STEM directly align with UVM strategic goals? Are there plans to shift these types of investments into the College of Arts and Sciences

The STEM Center and research conducted and programs offered there are critical components of the Strategic Action Plan.

The focus on STEM is also directly linked to two goals:

- ❑ *"Promoting Academic Excellence and Cultivating Talent"*

- ❑ *"Identifying Necessary Investments to Ensure a Bright Future"*

40% of the STEM center is dedicated to and occupied by CAS faculty for research and teaching.

Has incentive based budgeting had a disproportionate financial impact on any College(s) in the University? What is the amount of undergraduate student tuition dollars brought in by each college over the last 10 years?

Percentage of Undergraduate Revenue Generated by Units							
Fiscal Year	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
CALS	9.6%	10.0%	10.4%	12.6%	12.9%	13.0%	12.9%
CAS	51.8%	48.7%	45.6%	47.9%	48.3%	47.9%	46.7%
CEMS	12.5%	13.4%	14.8%	16.3%	16.9%	18.4%	18.8%
CESS	6.9%	6.7%	6.7%	8.2%	8.3%	8.2%	8.5%
CNHS	5.5%	5.7%	5.8%	7.7%	8.0%	8.4%	8.8%
GSB	4.8%	4.7%	5.5%	5.6%	6.1%	6.7%	6.8%
Interdisciplinary	1.0%	1.3%	3.1%	3.0%	3.3%	3.3%	3.3%
LCOM	2.5%	2.3%	2.5%	3.5%	4.2%	5.1%	5.0%
RSENR	5.4%	4.9%	5.3%	6.3%	6.4%	6.8%	6.6%

* Programs offered outside primary academic units not included

Other Central Support for CAS

- $12 million for student scholarships
- $61 million for capital projects
- $13 million for academic support
- $3.0 million for faculty chairs and professorships
- $2.0 million for facility improvements
- $2.0 million for faculty startups

Other Questions?