

General Faculty

May 7, 2019

MISSOURI
S&T



II. MEMORIAL RESOLUTIONS

II. Memorial Resolutions

- Nord Gale.....Roger Brown

III. APPROVAL OF MINUTES

- > December 4, 2018 General Faculty Meeting
 - <http://registrar.mst.edu/faculty/genfacmeetings>
 - Minutes distributed December 10, 2018



The screenshot shows the Missouri State University (S&T) Registrar's Office website. The header includes the university logo and a navigation menu with links such as Calendars, Catalog Info, Class Offerings, Degree Programs, Joe/SS, Students, Faculty/Staff, Office Info, Useful Links, and More. The main heading is "OFFICE OF THE REGISTRAR", followed by contact information: 103 Parker Hall, 300 W. 13th St., Rolla, MO 65409-0930, phone numbers (573) 341-4181 and (573) 341-4362, and email registrar@mst.edu. A breadcrumb trail reads registrar.mst.edu > faculty > genfacmeetings. The section title "GENERAL FACULTY MEETINGS" is displayed in a large, bold font. Below this, a note states: "Meetings are scheduled at 4:00 p.m. in Butler-Carlton Hall 125 unless noted." A horizontal list of years from 2019-2020 to 2008-2009 is provided. Under the heading "General Faculty Minutes and Agendas for 2019-2020", the following dates are listed: Tuesday, September 3, 2019; Tuesday, December 3, 2019; and Tuesday, May 5, 2020. A large blue arrow points from the left towards the "General Faculty Minutes and Agendas for 2018-2019" section, which lists Tuesday, September 4, 2018, with links for "Meeting Agenda" and "Meeting Minutes".

IV. and V.

IV. Unfinished Business

- None

V. Reports of Standing or Special Committees

- Elections for CommitteesMichael Bruening

VI. NEW BUSINESS

- > Approval of CandidatesDeanne Jackson
- > Recognition of Patent AwardsCostas Tsatsoulis
- > Faculty Excellence Awards.....Daniel Forciniti
- > UM System President's ReportMun Choi
- > Faculty Senate President's Report.....Michael Bruening

VI. NEW BUSINESS

- > Approval of Candidates for Degrees to be Awarded at the May 17-18, 2019, ceremonies



VI. New Business

Recognition of Patent Awards

- > Inventors: Sutapa Barua

Patent No.: 9,918,943

Issue Date: March 27, 2018

Title of Patent: SYSTEMS AND METHODS FOR ENDOTOXIN
REMOVAL FROM FLUIDS

- > Inventor: Nicholas Leventis, Chariklia Sotiriou-Leventis, Abhishek N. Bang

Patent No.: 9,994,516

Issue Date: 06/21/2018

Title of Patent: FLEXIBLE TO RIGID NANOPOROUS POLYURETHANE-
ACRYLATE (PUAC) TYPE MATERIALS FOR STRUCTURAL AND THERMAL
INSULATION APPLICATIONS

VI. New Business

Recognition of Patent Awards

- > Inventors: Klaus Woelk, Rex Gerald, Ming Huang, Lingyu Chi
Patent No.: 10,067,079
Issue Date: 09/04/2018
Title of Patent: SOLID STATE NMR SPECTROSCOPY/IMAGING IN SITU MEASURING DEVICES AND METHODS FOR CALIBRATION AND DETERMINING ONE OR MORE QUANTITATIVE PROPERTIES OF A TARGET SAMPLE
- > Inventor: Joshua Rovey, Steven Berg (no longer at S&T)
Patent No.: 10,180,118
Issue Date: 01/15/2019
Title of Patent: ELECTRICAL/CHEMICAL THRUSTER USING THE SAME MONOPROPELLANT AND METHOD

VI. New Business

Recognition of Patent Awards

- > Inventors: Jagannathan Sarangapani, Eyad Taqiedden (note joint invention with The Boeing Company)

Patent No.: 10,198,605

Issue Date: 02/05/2019

Title of Patent: ULTRA-LIGHTWEIGHT MUTUAL AUTHENTICATION
PROTOCOL WITH SUBSTITUTION OPERATION

- > Inventors: Pourya Shamsi, Mehdi Ferdowsi

Patent No.: 10,224,819

Issue Date: 03/05/2019

Title of Patent: RIPPLE CANCELING IN POWER CONVERSION CIRCUITS

VI. New Business

Recognition of Patent Awards

- > Inventor: Delbert Day, Ali Mohammadkhah
Patent No.: 10,238,772
Issue Date: 03/26/2019
Title of Patent: BIODEGRADABLE COMPOSITE SCAFFOLD FOR REPAIRING DEFECTS IN LOAD BEARING BONES

- > Inventor: Ming Leu, Greg Hilmas, Robert Landers, Amir Ghazanfari, Wenbin Li
Patent No.: 10,250,158
Issue Date: 04/16/2019
Title of Patent: METHOD AND APPARATUS FOR FABRICATING CERAMIC AND METAL COMPONENTS VIA ADDITIVE MANUFACTURING WITH UNIFORM LAYERED RADIATION DRYING

VI. New Business

Recognition of U.S. Software Related Copyright

- > Authors: Hongya Qu, Genda Chen, Tiantian Li
Copyright Registration: TXu 2-122-245
Registration Date: 02/06/2019
Title: Adaptive Wavelet Transform

VI. New Business

Recognition of Foreign Patents

- > Inventors: Reza Zoughi, Tayeb Ghasr, Matthew Kempin
Title of Patent: MICROWAVE AND MILLIMETER WAVE PROBE FOR NON-DESTRUCTIVE MATERIAL CHARACTERIZATION
Countries Issues: Germany, Italy, Great Britain

VI. New Business

2018 Excellence Award Recipients

- > Doug Bristow
 - Mechanical and Aerospace Engineering
- > Richard Dawes
 - Chemistry
- > Xinhua Liang
 - Chemical and Biochemical Engineering
- > Zhaozheng Yin
 - Computer Science

VI. New Business

2018 Achievement Award Recipients

- > Darin Finke
 - Arts, Languages, Philosophy

- > Sheryl Hodges
 - Engineering Management

- > Amardeep Kaur
 - Electrical and Computer Engineering

- > Merilee Krueger
 - Psychological Sciences

VI. New Business

2018 Achievement Award Recipients

- > Jossalyn Larson
 - English and Technical Communication
- > Nicolas Libre
 - Civil, Architectural and Environmental Engineering

VI. New Business

2018 Research Award Recipients

- > Mohamed El-Gawady
 - Civil, Architectural and Environmental Engineering
- > Jonathan Kimball
 - Electrical and Computer Engineering
- > John Myers
 - Civil, Architectural and Environmental Engineering
- > Jonghyun Park
 - Mechanical and Aerospace Engineering

VI. New Business

2018 Research Award Recipients

- > Ulrich Jentschura
 - Physics
- > Julia Medvedeva
 - Physics
- > Fiona Fui-Hoon Nah
 - Business and Information Technology
- > Fateme Rezaei
 - Chemical and Biochemical Engineering

VI. New Business

2018 Service Award Recipients

- > Mark Fitch
 - Civil, Architectural and Environmental Engineering
- > Irina Ivliyeva
 - Arts, Language and Philosophy
- > Sahra Sedigh Sarvestani
 - Electrical and Computer Engineering

VI. New Business

2018 Teaching Award Recipients

- > Amber Henslee
 - Psychological Science
- > Sarah Hercula
 - English and Technical Communications
- > Gary Mueller
 - Mining Engineering
- > Julie Semon
 - Biological Sciences

VI. New Business

2018 Teaching Award Recipients

- > Jeffrey Smith
 - Materials Science and Engineering
- > John Greg Story
 - Physics
- > David Westenberg
 - Biological Sciences

VI. New Business

- > University of Missouri System President's Report
 - Mun Choi

President's Report

*Missouri S&T General Faculty Meeting | May 7,
2019*



President's Award *for Service*

Mark Fitch, Missouri S&T



“Most will never know the effort Mark put forth, nor will they realize the great campus benefit of his even-tempered, honest, and unwavering leadership.”

—Dr. Joel G. Burken

Chair and Curators' Professor of Civil,
Architectural and Environmental Engineering,
Missouri S&T

Congratulations, Dr. Fitch!



Research & Creative Works



Research Proposals (Total Value)

4/1/19	July 2017 – March 2018	July 2018 – March 2019	Increase/ Decrease	2023 Target %
MU	\$710.9M	\$899.9M	+26.6%	100%
UMKC	\$179.6M	\$136.4M	-24.0%	50%
S&T	\$140.0M	\$139.1M	-0.7%	50%
UMSL	\$61.5M	\$52.4M	-14.8%	50%



Research Awards (Total Value)

4/1/19	July 2017 – March 2018	July 2018 – March 2019	Increase/ Decrease	2023 Target %
MU	\$170.1M	\$202.5M	+19.0%	100%
UMKC	\$37.6M	\$30.4M	-19.2%	50%
S&T	\$27.6M	\$32.1M	+16.3%	50%
UMSL	\$27.1M	\$25.5M	-5.8%	50%



Research Expenditures (Total Value)

4/1/19	July 2017 – March 2018	July 2018 – March 2019	Increase/ Decrease	2023 Target %
MU	\$147.7M	\$149.1M	+0.9%	100%
UMKC	\$20.0M	\$25.0M	+25.1%	50%
S&T	\$23.2M	\$22.7M	-2.1%	50%
UMSL	\$16.1M	\$17.8M	+10.3%	50%



Student Success



Enrollment Management Update: Freshmen Applicants

5/6/19	Total 2019	Total 2018	Increase/ Decrease
MU	19,896	18,993	+4.8%
UMKC	5,469	5,946	-8.0%
S&T	5,002	4,284	+16.8%
UMSL	3,396	3,340	+1.7%



Enrollment Management Update: Freshmen Admits

5/6/19	Fall 2019 Admits	Fall 2018 Admits	Increase/ Decrease
MU	16,038	14,626	+9.7%
UMKC	3,389	3,381	+0.2%
S&T	3,948	3,572	+10.5%
UMSL	1,759	1,734	+0.9%



Enrollment Management Update: Freshmen Accepted (with Deposits)

5/6/19	Fall 2019 Accepted	Fall 2018 Accepted	Increase/ Decrease
MU	5,494	4,661	+17.9%
UMKC	1,088	1,197 Fall 20 th day census enrolled	N/A
S&T	1,134	1,334 Fall 20 th day census enrolled	N/A
UMSL	347	351	-1.1%



6-Year Graduation Rates

(59% Nat'l Average) – Ga Tech at 84%, Temple at 71%

10/1/18	2016	2017	2018	2023 Target
MU	68%	68%	69%	74%
UMKC	49%	48%	49%	60%
S&T	64%	64%	63%	70%
UMSL	53%	56%	52%	65%



4-Year Graduation Rates

(36% National Average) – CSOM at 46%, Temple at 41%

10/1/18	2016	2017	2018
MU	46%	48%	50%
UMKC	23%	23%	27%
S&T	23%	23%	24%
UMSL	32%	32%	34%



Philanthropy: Annual Giving

4/1/19	July 2017 – March 2018	July 2018 – March 2019	Increase/ Decrease	2023 Target %
MU	\$114.6M	\$136.0M	+18.7%	100%
UMKC	\$27.1M	\$33.2M	+22.5%	50%
S&T	\$27.9M	\$30.2M	+8.1%	50%
UMSL	\$18.4M	\$21.3M	+15.9%	50%

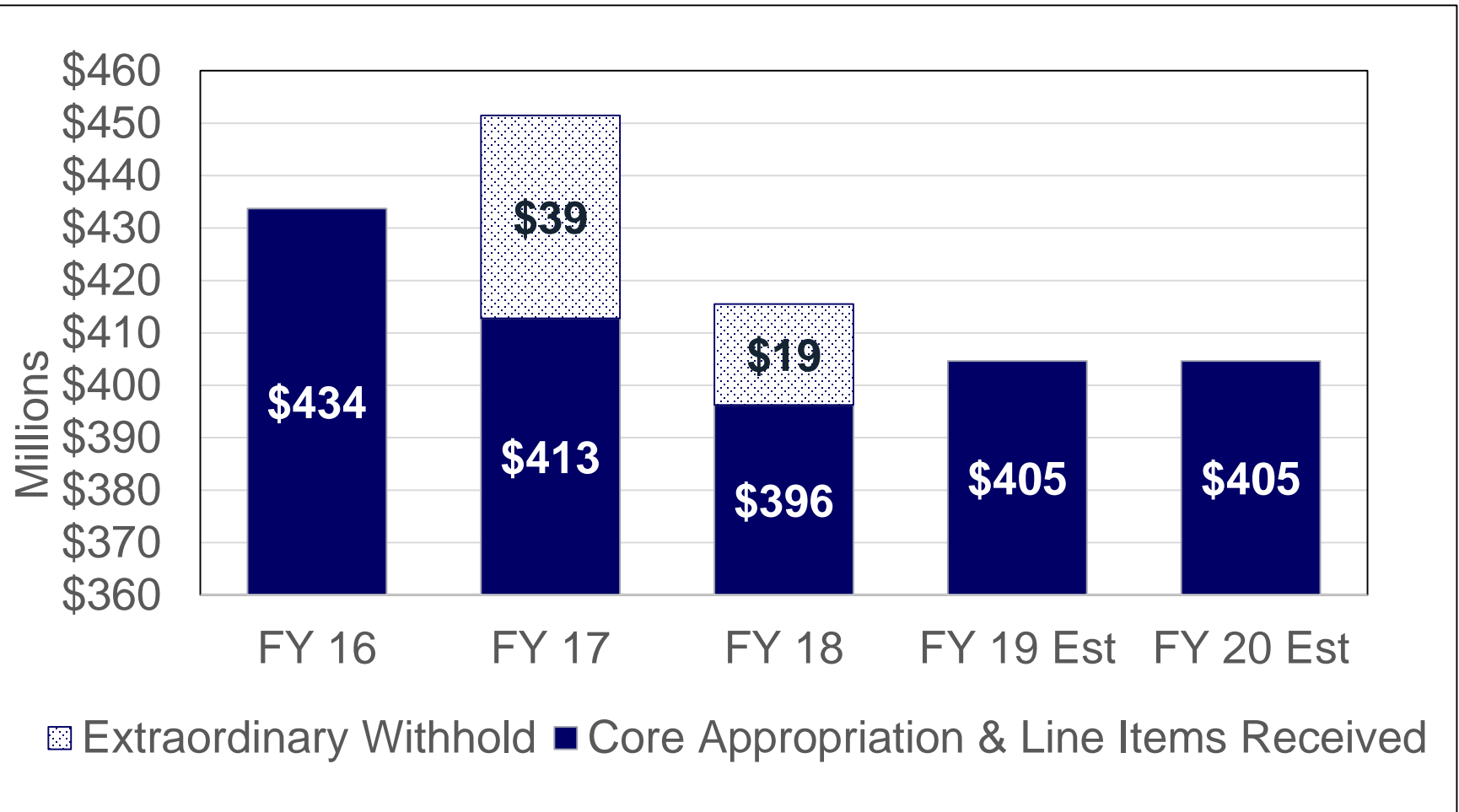


FY 20 Appropriations

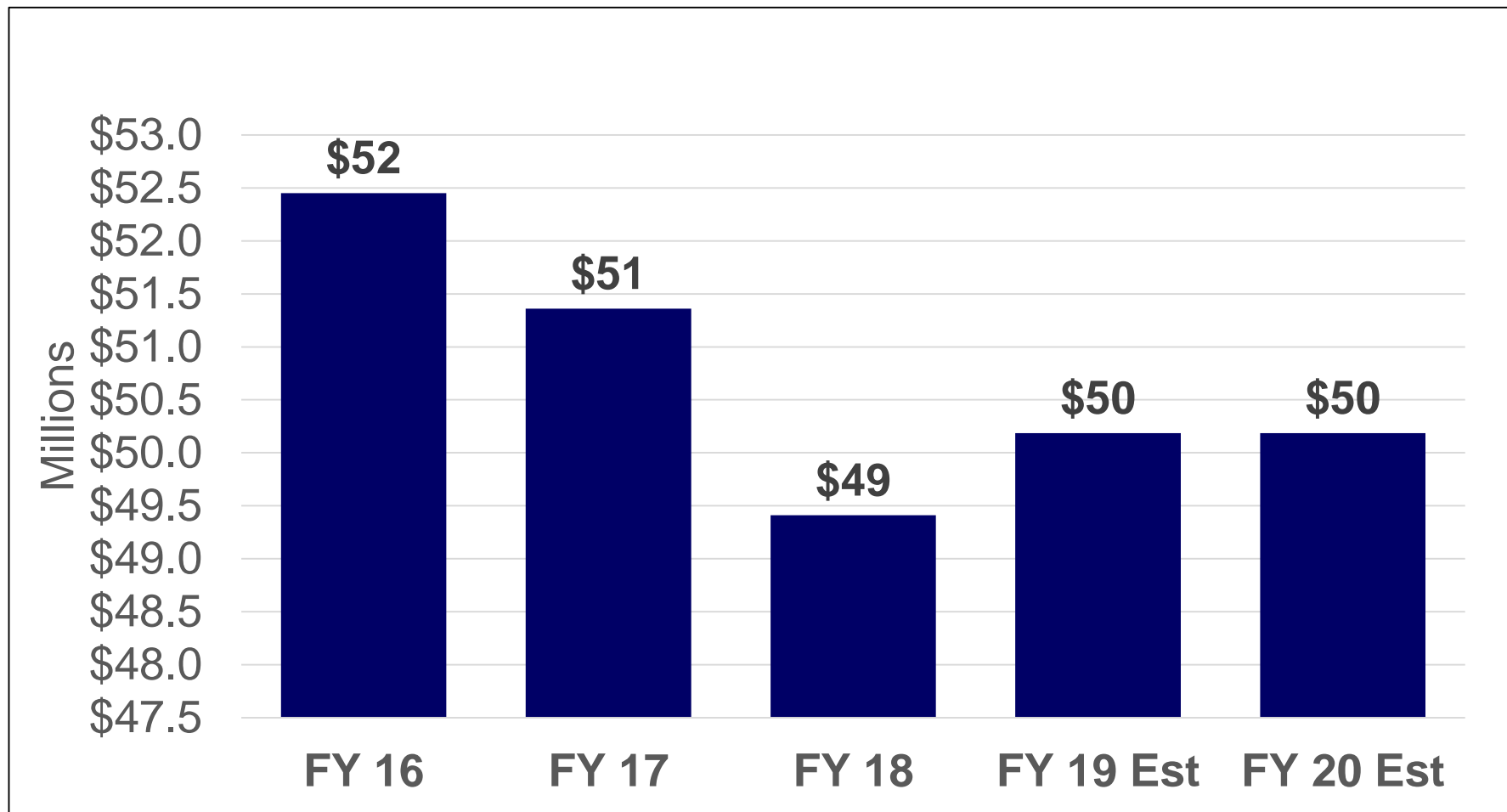


- **Priorities:**
 - Continuance of Core at \$404.6 million
 - Precision Medicine Initiative - \$3 million recommended by House; \$10 million recommended by Senate
- **Risks:**
 - State revenues are under pressure

UM System Core & Line Item Appropriations Received



Missouri S&T Core & Line Item Appropriations Received



2017 Faculty Salary Comparisons

Chronicle of Higher Education

	Full Professor	Associate Professor	Assistant Professor
S&T	\$125,465 (34 out of 105)	\$83,090 (66 out of 105)	\$74,493 (56 out of 105)
UMKC	\$108,020 (69 out of 105)	\$78,163 (82 out of 105)	\$71,554 (76 out of 105)
UMSL	\$100,186 (87 out of 105)	\$70,500 (96 out of 105)	\$64,249 (94 out of 105)
MU	\$120,414 (106 out of 115)	\$78,073 (113 out of 115)	\$70,039 (113 out of 115)







2017 Staff Salary Comparisons

Chronicle of Higher Education

	Manage- ment	Business/ Finance	Comp/ Engin Support	Office/Admin Support
S&T	\$83,597 (97 out of 104)	\$47,213 (100 out of 104)	\$49,982 (94 out of 104)	\$31,298 (99 out of 104)
UMKC	\$93,431 (86 out of 104)	\$52,247 (84 out of 104)	\$53,259 (89 out of 104)	\$34,465 (83 out of 104)
UMSL	\$88,361 (92 out of 104)	\$50,778 (89 out of 104)	\$57,703 (77 out of 104)	\$35,997 (75 out of 104)
MU	\$89,490 (110 out of 115)	\$52,228 (103 out of 115)	\$50,364 (112 out of 115)	\$34,413 (112 out of 115)



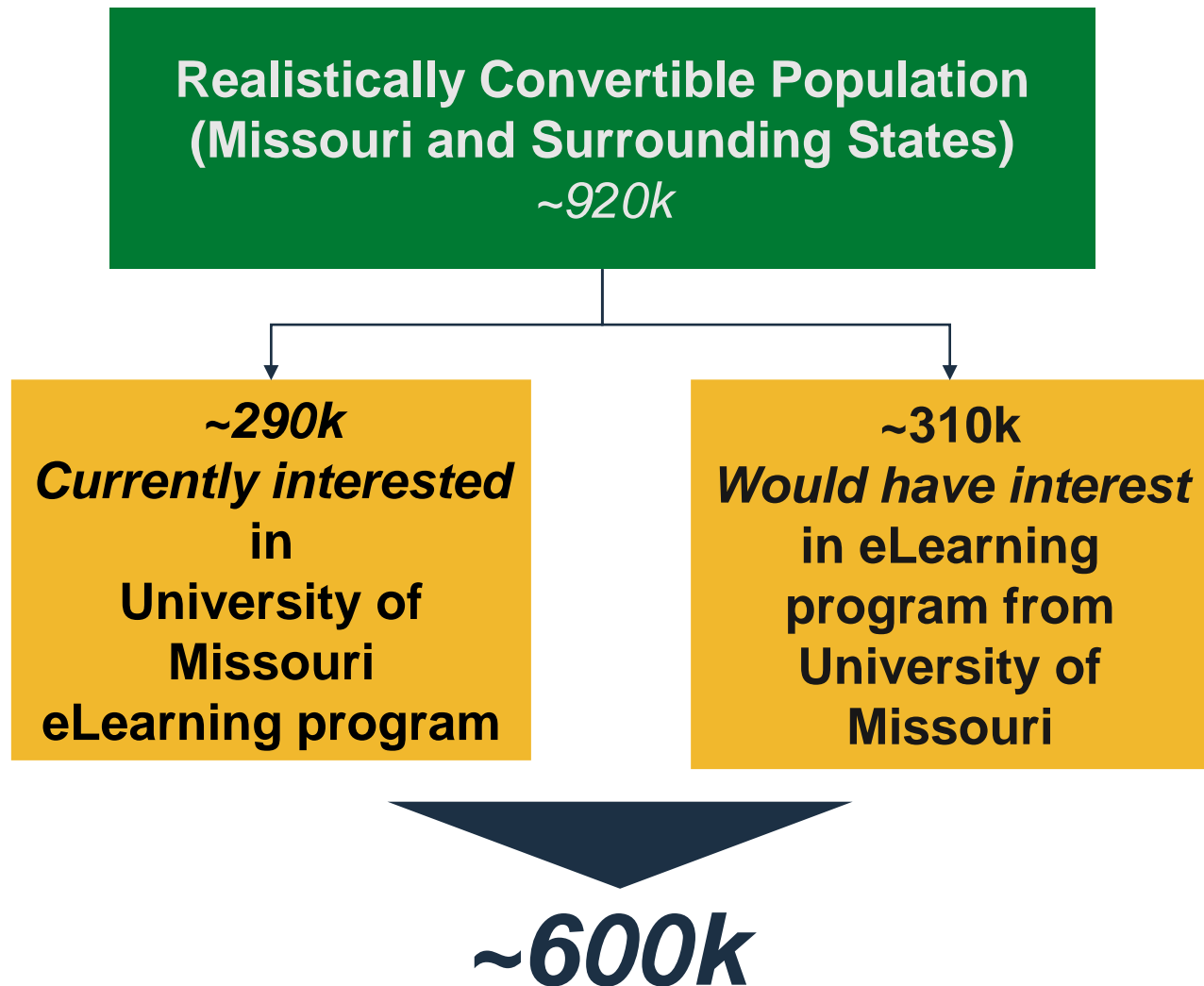
eLearning Update - Program Vision

Characteristic	Initial Perspectives
1  Scope, Scale and Timing	UM target: 25k incremental enrollments in 5 years from its eLearning program
2  Geographic Focus	1 st focus: students in Missouri and surrounding states, but national recognition as a quality eLearning provider
3  Population Focus	To achieve incremental enrollments, target adult eLearners wanting degrees and certificates
4  Degrees Offered	Expand undergraduate degrees and certificate offerings; pursue “low-hanging fruit” like graduate programs in high-demand fields



eLearning Update – Converting Students

**UM System
campuses need
to convert ~4%
of prospective
students with
an interest in
their
eLearning
programs to
achieve 25k
enrollments**



President's Report

*Missouri S&T General Faculty Meeting | May 7,
2019*



VI. New Business

- > Faculty Senate President's Report
 - Michael Bruening



Faculty Senate

Faculty Senate President's Report

Dr. Michael Bruening, Faculty Senate President



Faculty Senate

Faculty Senate Referrals/Committee Action

- > Actions accomplished this year:
 - Revised procedure for NTT promotions (Personnel Committee)
 - Addition of a fall break, starting 2020 (Public Occasions)
 - Faculty reviews of Provost and Deans (Administrative Review): Results to be presented at June 13 senate meeting
 - Vigorous debate on plus/minus grading (Academic Freedom and Standards)
 - Feedback memo on revised Department Chairs CRR



Faculty Senate

Faculty Senate Referrals/Committee Action

- > Actions accomplished this year:
 - Department Creation/Realignment Policy Proposal (ad hoc committee)
 - Creation of Certificates policy (Campus Curricula)
 - Resolution on the Invention Assignment Agreement (Intellectual Property and Tech Transfer)
 - Continuous updates and work of CCC, Budgetary Affairs, and other committees



Faculty Senate

Continuing Discussions

- > Bylaws Revision, to be continued in fall semester
- > Department Chair search process, to be discussed at June senate meeting
- > Graduate Student Tuition Waivers and Policy II-26 Committee



Faculty Senate

Committee Elections

- > Faculty Senate Officers for 2019-2020:
 - Steven Corns, President
 - Michael Bruening, Past-President
 - Richard Dawes, President-Elect
 - Stephen Raper, Parliamentarian
 - Kelly Homan, Secretary
- > Full committee lists for next year to be distributed before the end of May



Faculty Senate

Upcoming Policy Discussions

- > Policy Revision Proposals, when announced, please provide feedback via open forums or <https://policy.mst.edu/>:
 - III-27, Distribution of Sponsored Research Indirect Recovery
 - III-25, Fixed Price Residuals
 - Department Creation/Realignment
 - And possibly II-26, Externally Funded Graduate Assistantships

VII. and VIII.

- > VII. Announcements
- > VIII. Adjournment