

Board of Curators Meeting - Public Session

University of Missouri System

St. Pat's A&B, Havener Center, Missouri University of Science and
Technology

Apr 18, 2024 8:00 AM - 12:00 PM CDT

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XIII. Press Conference with Board of Curators Chair and UM President (12 PM, or upon conclusion of the public session)

Location: Turner/Carver Room, Havener Center Dial In Number: 848-999-1066

XIV. LUNCHEON by Invitation or the Board of Curators, President and University of Missouri System Leaders

Time: 12:00 PM Location: St. Pat's C, Havener Center

XV. ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE - EXECUTIVE SESSION (1:15 PM)

Location: Silver and Gold Room, Havener Center The Board of Curators will hold an

executive session of the April 18, 2024 Academic, Student Affairs, Research and Economic Development Committee meeting, pursuant to Sections 610.021(1), 610.021(3) and 610.021(13) RSMo, for consideration of certain confidential or privileged communications with university counsel and personnel items, all as authorized by law and upon approval by resolution of the Academic, Student Affairs, Research and Economic Development Committee.

XVI. AUDIT, COMPLIANCE AND ETHICS COMMITTEE - EXECUTIVE SESSION (1:20

PM)

Location: Silver and Gold Room, Havener Center The Audit, Compliance and Ethics Committee will hold an executive session of the April 18, 2024 meeting, pursuant to Section 610.021(1), 610.021(3), 610.021(12), 610.021(13) and 610.021(17) RSMo, for consideration of certain confidential or privileged communications with university counsel, contract, personnel items and confidential or privileged communications between a public governmental body and its auditor as authorized by law and upon approval by resolution of the Audit, Compliance and Ethics Committee.

XVII. BOARD OF CURATORS MEETING - EXECUTIVE SESSION (1:30 PM, time is

approximate)

Location: Silver and Gold Room, Havener Center The Board of Curators will hold an executive session of the April 18, 2024 meeting, pursuant to Sections 610.021(1), 610.021(2), 610.021(3), 610.021(12) and 610.021(13) RSMo, for consideration of certain confidential or privileged communications with University Counsel, personnel, property, litigation, and contract items, all as authorized by law and upon approval by resolution of the Board of Curators.

Harmon, Cindy S.

From: Dehghani, Mo <mo.dehghani@mst.edu>
Sent: Thursday, March 21, 2024 9:00 AM
To: Harmon, Cindy S.
Subject: Join Us As We Break Ground on a New Era for Applied Research



You're invited!

We're Breaking Ground on a New Era for Applied Research



**Please join us for the groundbreaking
on a major expansion and renovation of the
Engineering Research Lab.**

Thursday, April 18 | 8 a.m.

500 W. 16th St., Rolla Missouri

(located outside in [campus parking lot M36](#), adjacent to the building)

Reception immediately following the groundbreaking



About the project

A new era for applied research at Missouri S&T is underway with a major expansion and renovation of the Engineering Research Lab.

A 33,000-square-foot addition, along with extensive renovations to the existing structure, will create a state-of-the-art complex for applied research.

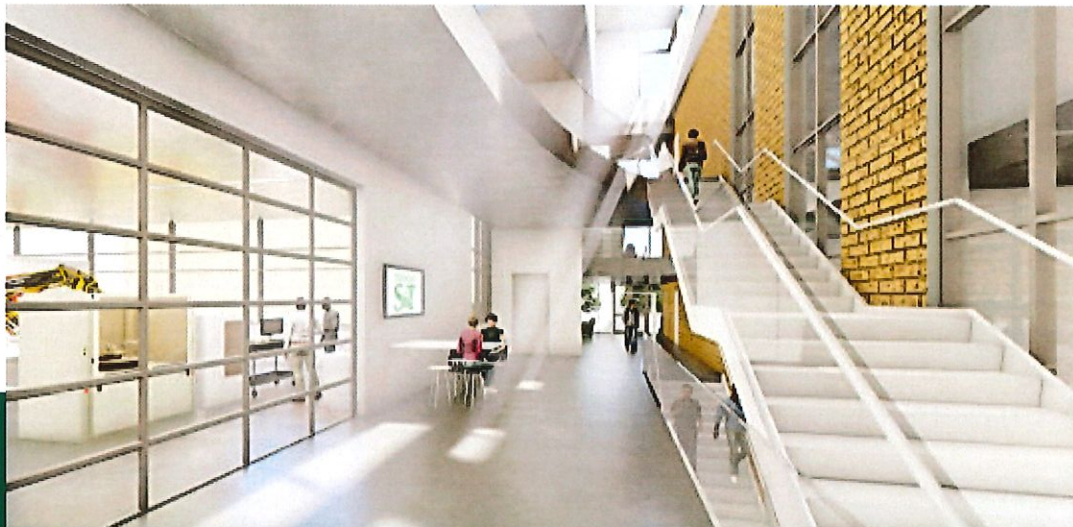
Please join us as we break ground on a significant enhancement showcasing our research expertise.

Parking

Limited parking is available in [campus lot M36](#). Additional parking is accessible in the subsurface parking garage located at 699 Tim Bradley Way.

Questions?

For more information, contact Sarah Jones at jonessarah@mst.edu or 573-341-6359.



Missouri University of Science and Technology

[Missouri S&T Rolla, MO 65409](#)

[573-341-4111](#)

[1-800-522-0938](#)

[Unsubscribe](#) | [View in Browser](#)



SOLVING FOR TOMORROW

UNIVERSITY OF MISSOURI
BOARD CHAIR REPORT

There are no materials for this information item.

PRESIDENT'S REPORT

Mun Y. Choi

Board of Curators Meeting

April 18, 2024



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

Admissions Update

FTC Applicants

04/1/24	2022	2023	2024
MU	19,811	21,078	23,876 (13%)
UMKC	5,259	5,818	6,078 (5%)
S&T	5,930	7,718	7,544 (-2%)
UMSL	3,356	3,985	5,475 (37%)

FTC Accepted

04/1/24	2022	2023	2024
MU	4,879	5,356	6,006 (12%)
UMKC	908	966	972 (1%)
S&T	1,018	1,059	1,188 (12%)
UMSL	287	381	386 (1%)

Admissions Update

Graduate Applicants

4/1/24	2022	2023	2024
MU	3,409	3,518	3,583 (2%)
UMKC	4,114	3,534	2,515 (-29%)
S&T	3,244	5,110	4,780 (-7%)
UMSL	1,878	1,567	1,122 (-28%)

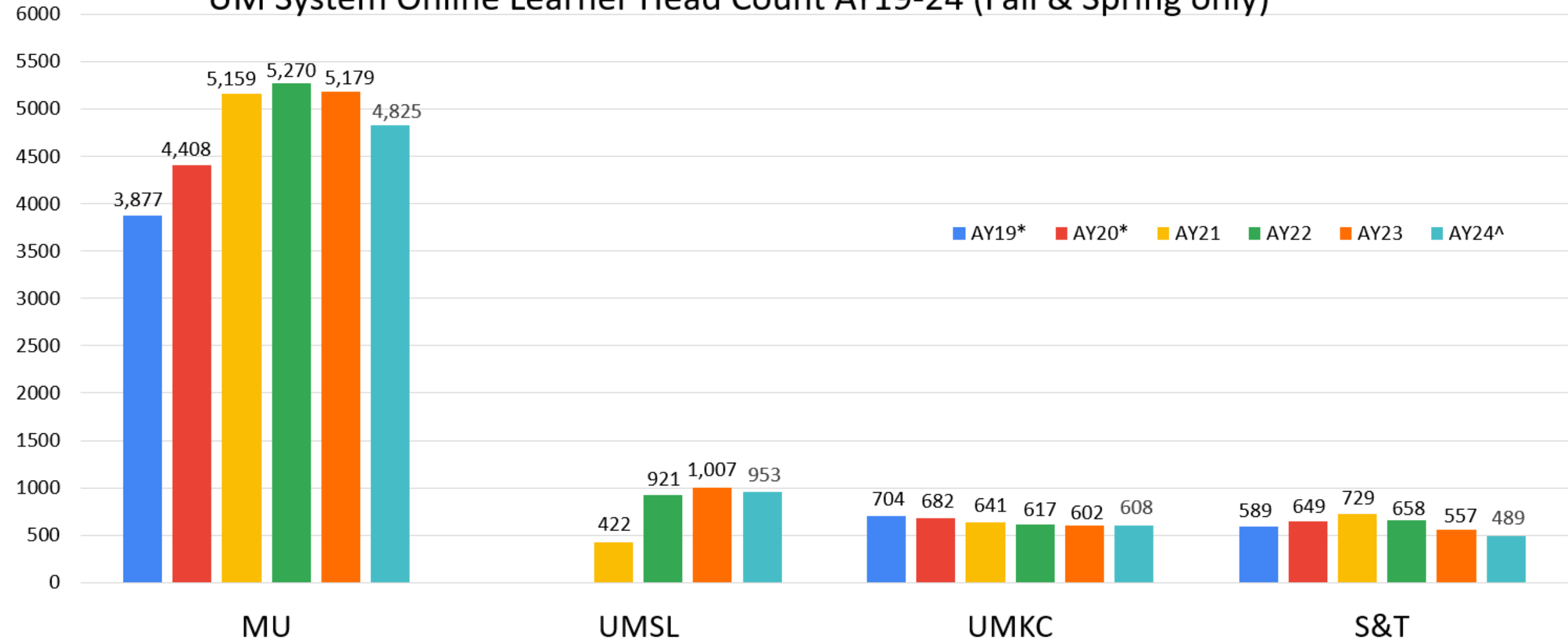
Graduate Admits

4/1/24	2022	2023	2024
MU	1,029	986	948 (-4%)
UMKC	1,428	1,327	1,013 (-24%)
S&T	1,059	1,787	1,391 (-22%)
UMSL	535	618	382 (-38%)

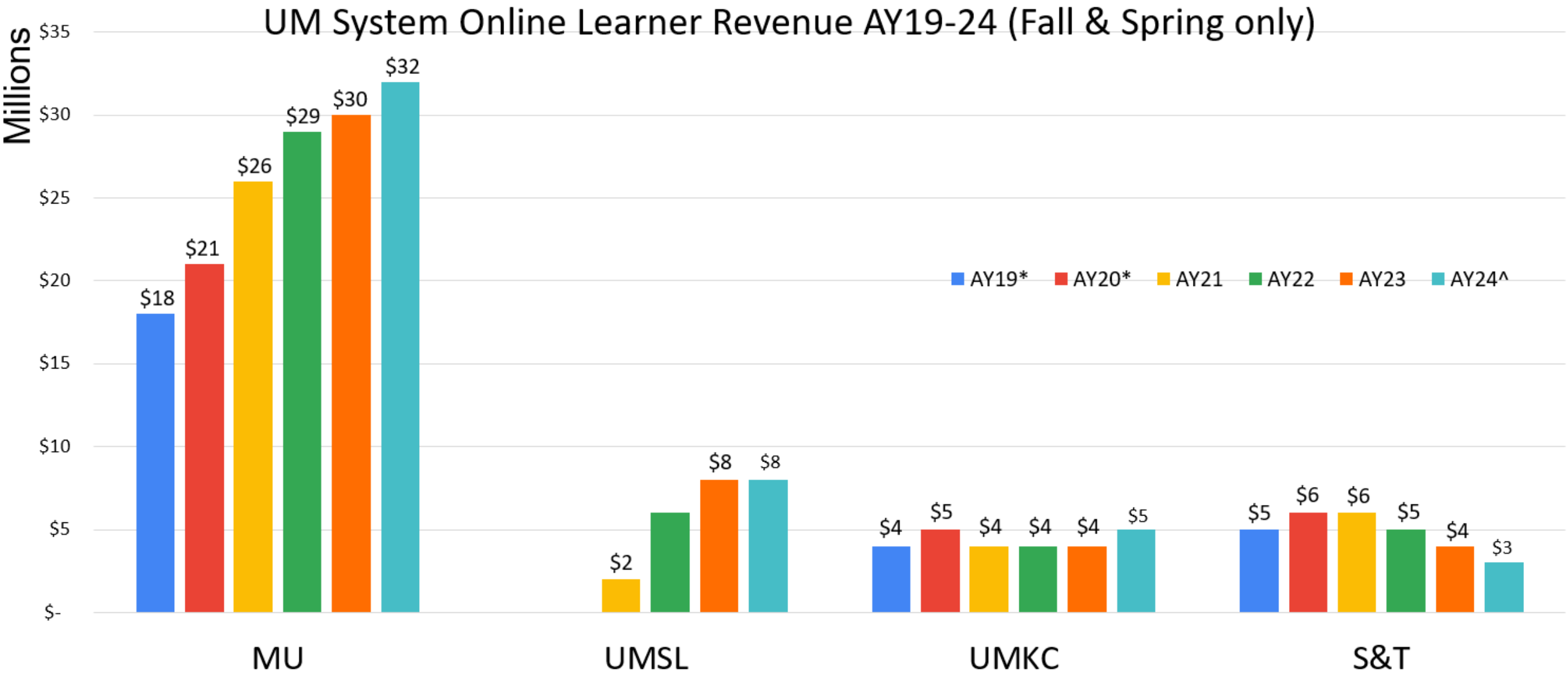
Online Student Headcount

Missouri Online Headcount

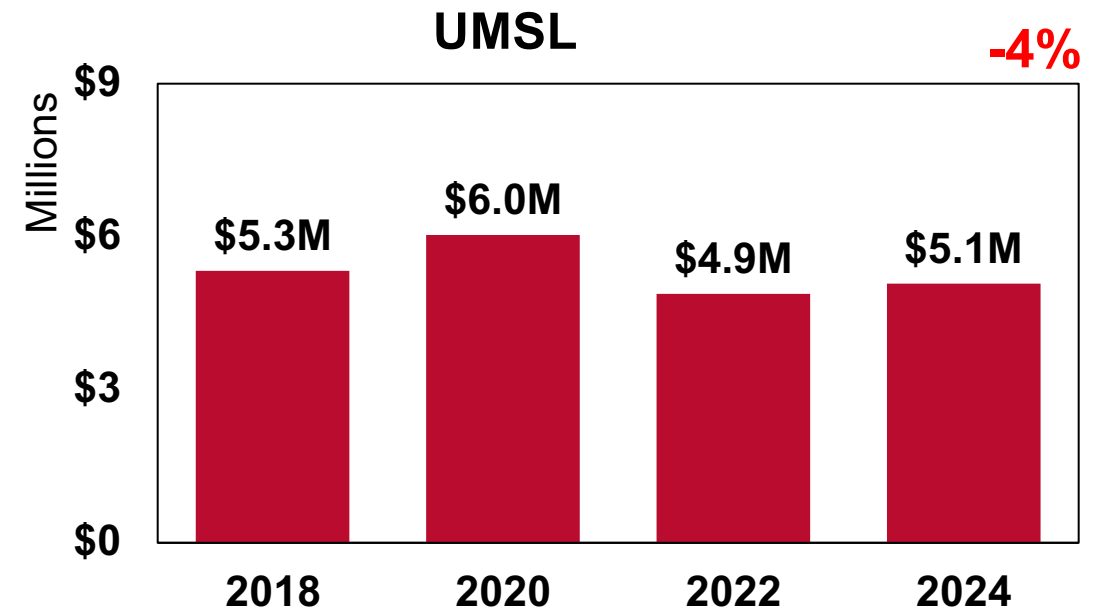
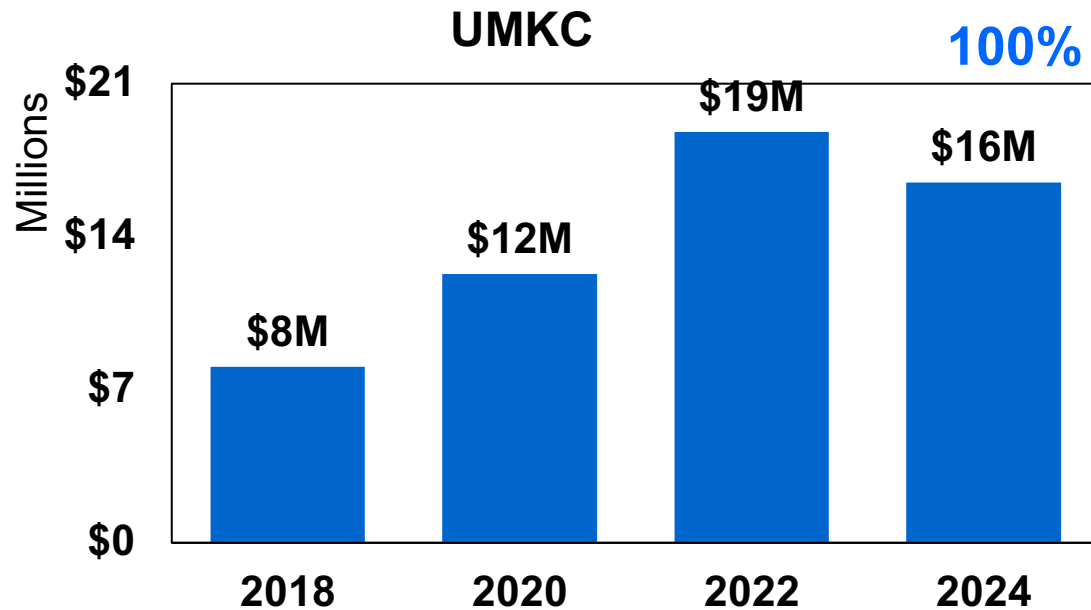
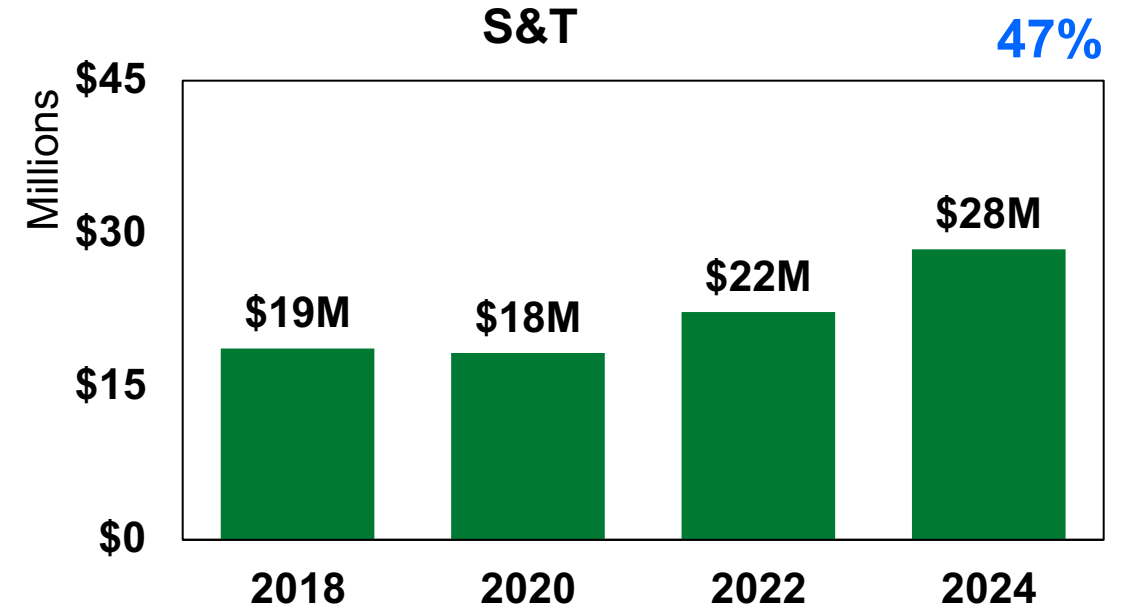
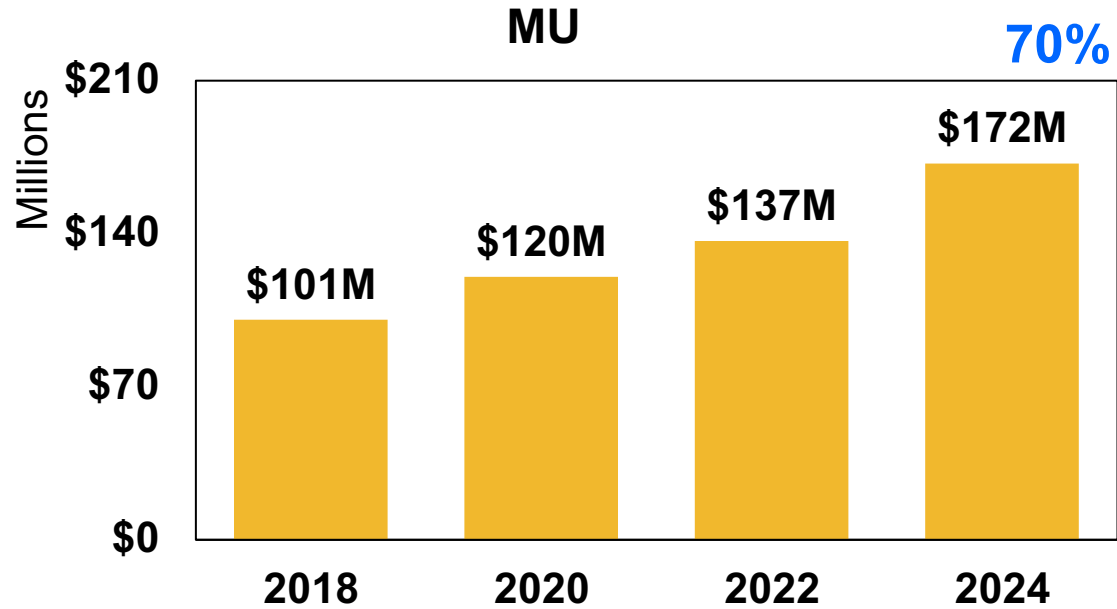
UM System Online Learner Head Count AY19-24 (Fall & Spring only)



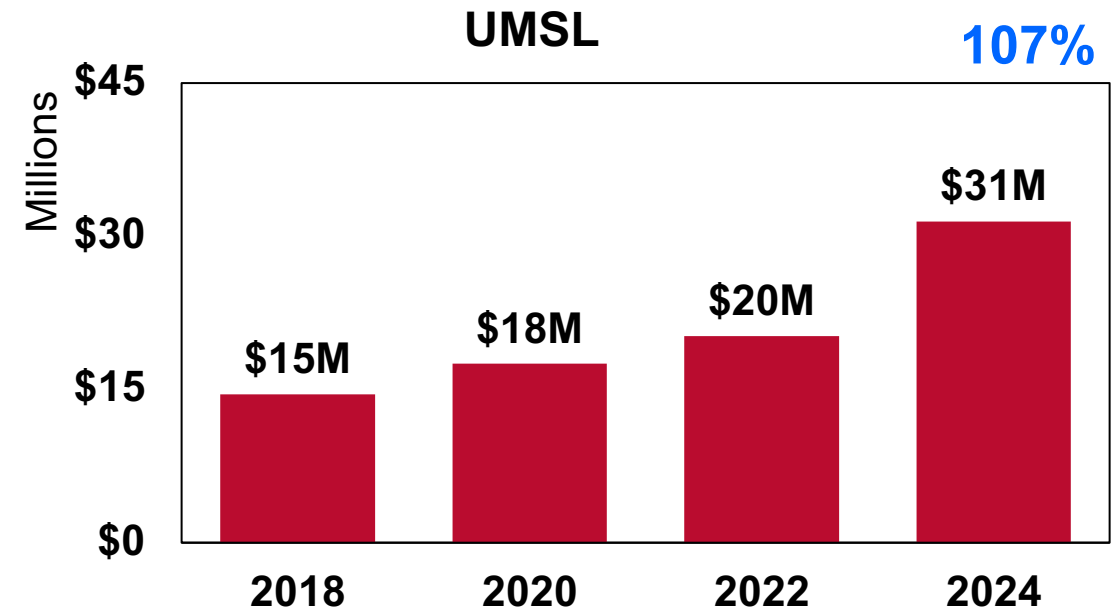
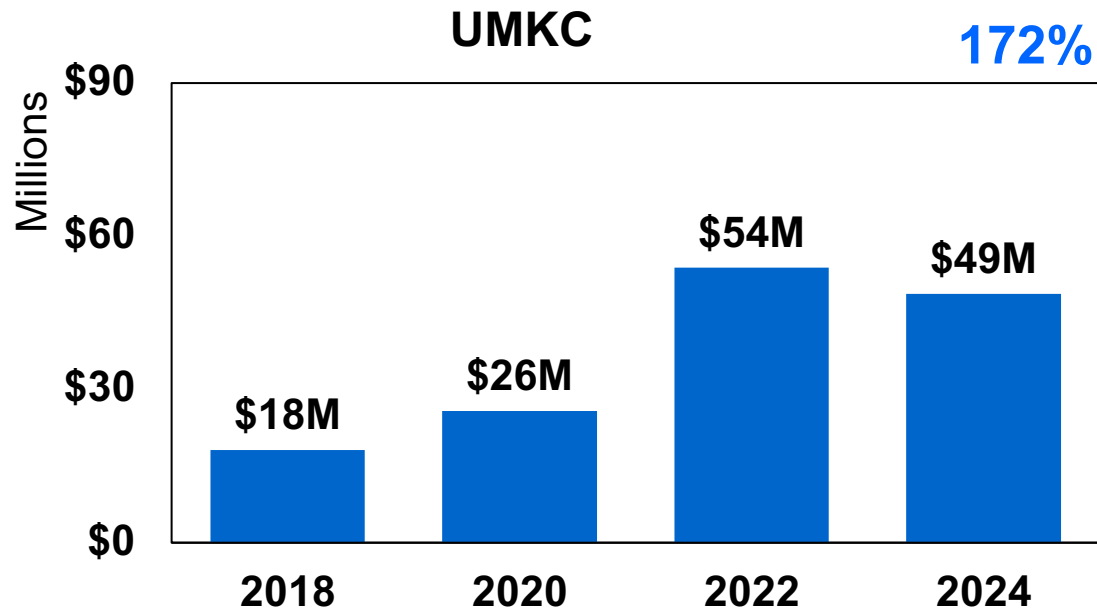
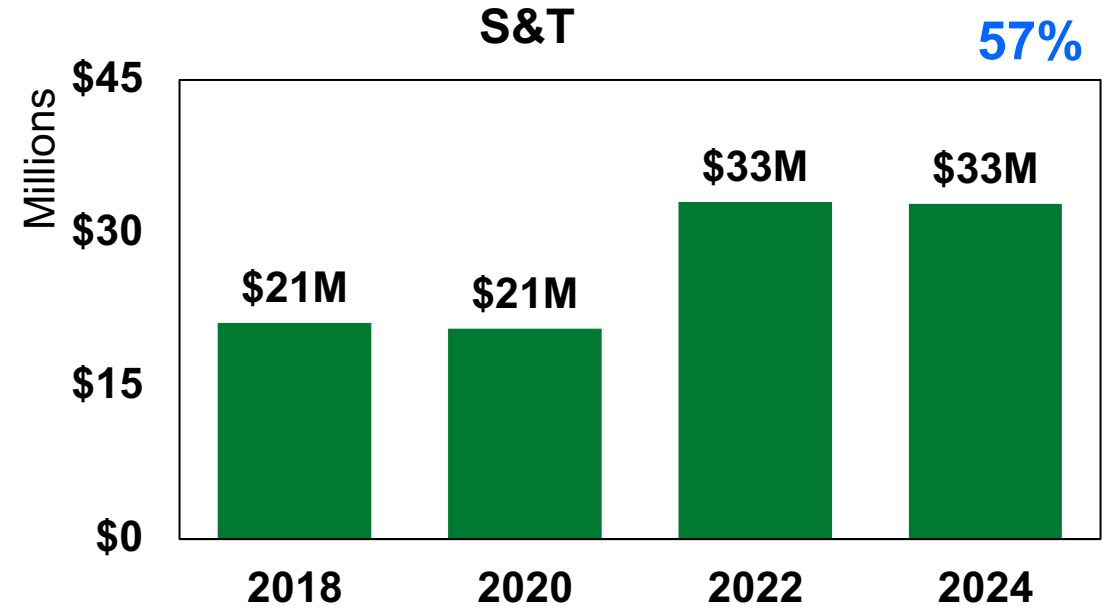
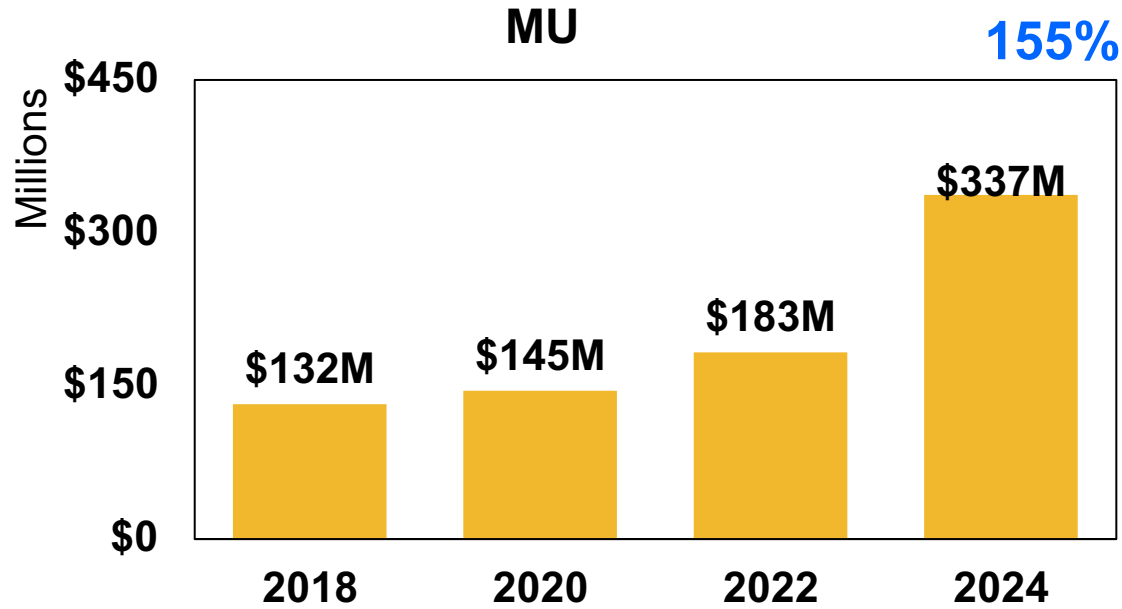
Online Learner Revenue AY19-24



FYTD Total R&D Expenditures



FYTD Total Sponsored Expenditures



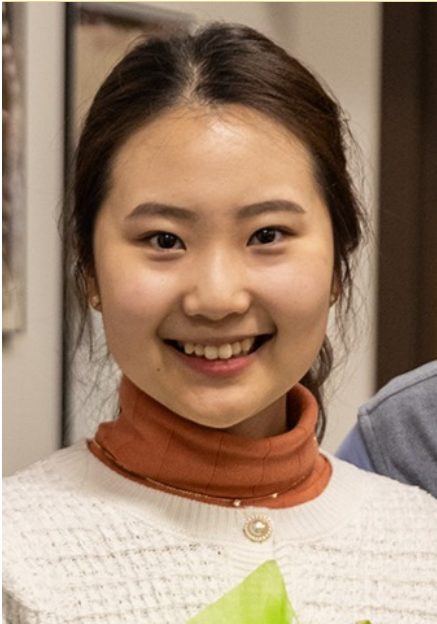
Student Success Highlights



UMSL

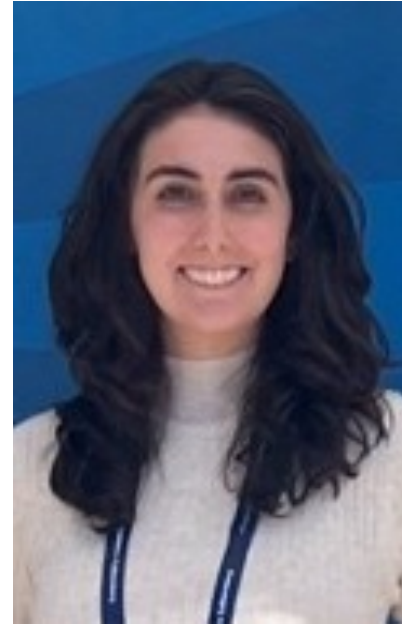
Hannah Bollig
Optometry

Received the Dr. Frank D. Fontana Memorial Scholarship from the Heart of America Eye Care Congress.



Jenny Park
Biological Sciences/Psychology

2024 recipient of the Mark Twain Fellowship



MISSOURI
S&T

Emily Doddemeade
Aerospace Engineering

Managed a student team that now has a satellite in orbit as part of NASA's Undergraduate Student Instrument Project

Faculty Success Highlights



UMSL

Michael Murray

Communication and Media

Received the 2024 Broadcast Education Association Lifetime Achievement Award in Scholarship.



UMKC

Clancy Martin

Humanities and Social Sciences

Awarded the University of Missouri System Thomas Jefferson Award



John Middleton

College of Veterinary Medicine

Received 2024 Award of Excellence for Contribution to Mastitis Prevention and Control from National Mastitis Council



**MISSOURI
S&T**

Rui Bo

Electrical & Computer Engineering

Received the NSF's Faculty Early Career Development (CAREER) Program Award

S&T Major Grant



Training and Equipment for Advanced Manufacturing Workforce Development Training Program

PI: Dr. Richard Billo, *Distinguished Professor, Mechanical and Aerospace Engineering; Director, Kummer Institute Center for Advanced Manufacturing; Director, Missouri Protoplex*

\$3M

Sponsor: US Department of Labor

Missouri Protoplex at S&T will deliver new experiential learning workshops to current and future workers in the advanced engineering and metal forming fields.



S&T Major Grant



ASCENT 002 - Understanding Changes in Aviation Emissions due to SAF with New Combustor Engine Technology

PI: Dr. Philip Whitefield, *Chancellors' Professor Emeritus of Chemistry; Director, Center of Excellence*

Co-PIs: Dr. Klaus Woelk, *Associate Dean for Academic Affairs, College of Arts, Sciences, and Education; Associate Professor, Dept. of Chemistry; Director, Institute for Applied NMR Spectroscopy*

\$2.5M

Sponsor: US Department of Transportation

This project will test the viability of sustainable aviation fuels through emissions measurements in commercial aircraft.

MU Major Grant



Bioengineering Probiotic Bacterium Contrast Agents for Monitoring of Inflammation Using Multispectral Optoacoustic Tomography

PI: Dr. Jorge Gomez-Gutierrez, *Associate Professor, Pediatrics; NextGen Precision Health Investigator*

Co-I: Aaron Ericsson, *Assistant Professor, Veterinary Pathobiology; Director, Metagenomics Center*; Dr. Yezaz Ahmed Ghouri; Dr. Adrienne Ohler, *Associate Extension Professor, Applied Social Sciences*; Esma Yolcu, *Professor, Pediatrics and Molecular Microbiology and Immunology; NextGen Precision Health Investigator*

\$2M

Sponsor: National Institutes of Health

This research will develop the first probiotic bacterial-based contrast agent to monitor inflammation using a non-invasive imaging technology.

MU Major Grant



Novel Mechanisms Underlying Abdominal Aortic Aneurysm Progression

PI: Dr. Shiyou Chen, *Division Chief, Surgical Research; Professor, Surgery; W. Alton Jones Distinguished Chair, Surgery*

\$2M

Sponsor: National Institutes of Health

This study will establish novel mechanisms regulating smooth muscle cell necroptosis and adventitial protective responses, which are likely to advance our understanding of the abdominal aortic aneurysm progression and dissection, leading to novel strategies for treatment.



UMKC Major Grant



DESE Missouri Supports for Early Childhood Administrators (MO-SECA) 2024

PI: Dr. Michael Abel, *Associate Director, Institute for Human Development; Director, Early Childhood Innovation Center*

\$3.2M

Sponsor: MO Department of Elementary and Secondary Education

The Early Childhood Innovation Center will work with the DESE Office of Childhood to provide innovative training and coaching for early childhood administrators.



UMSL Major Grant

UMSL

Geoscience and Artificial Intelligence Application (GAIA) Lab

PI: Dr. Sonya Bahar, *Professor, Physics and Astronomy; Director, Center for Neurodynamics*

\$2M

Sponsor: The Ohio State University; National Geospatial-Intelligence Agency

UMSL's Department of Mathematics, Physics, Astronomy and Statistics will provide research and educational support to the NGA's Office of Geomatics.



UM Leadership Appointments



Ben Canlas
*UM Vice President of
Information Technology
and MU Chief Information
Officer*



Chad Higgins
*UM System Chief
Engagement Officer &
Vice Chancellor for
Extension & Engagement*



Nancy Hatch
*Assistant Vice Chancellor for
Advancement Services and
Alumni Relations*



Alexander Norbash
Dean, School of Medicine



Kaitlin Woody
*Assistant Vice Chancellor
of Alumni Relations and
Annual Giving*



Jill Wood
*Executive Director for Human
Resources and Chief Human
Resources Officer*



Shelly Farnan
Chief Wellness Officer



————— University of Missouri System —————

No. 1

Recommended Action - 2025 Board of Curators Meeting Calendar

It was recommended by Chair Wenneker, endorsed by President Choi, moved by Curator _____ and seconded by Curator _____, that the proposed 2025 Board of Curators meeting calendar be approved as follows:

PROPOSED 2025 BOARD OF CURATORS MEETING CALENDAR

<u>DAY(S)</u>	<u>DATE(S)</u>	<u>LOCATION</u>
Thursday	February 6	UM – Columbia
Thursday	April 24	Missouri S&T
Thursday	June 26	TBD
Thursday	September 11	UM – Kansas City
Thursday	November 20	UM – St. Louis

Roll call vote: YES NO

Curator Blitz
Curator Brncic
Curator Fry
Curator Graves
Curator Holloway
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

Proposed 2025 Board of Curators Meeting Calendar

Last meeting: November 20, 2024 (UMSL)

Day	Date	Location	Host	Material Due to BOC Office	Material Distribution to the Board
Thursday	February 6 (Health Affairs Jan 30)	Columbia	MU	January 22	January 24
Thursday	April 24 (Health Affairs April 17)	Rolla	Missouri S&T	April 9	April 11
Thursday	June 26 (Health Affairs Wed, June 18)	TBD	Board of Curators & President	June 11	June 13
Thursday	September 11 (Health Affairs Sept 4)	Kansas City	UMKC	August 27	August 29
Thursday	November 20 (Health Affairs Nov 13)	St. Louis	UMSL	November 5	November 7

Revised State Statutes

Regular meetings of board.

RSMo 172.110. There shall be two regular meetings of said board of curators in each year, to be holden in the university edifice or in the town of Columbia. The annual meeting shall be held on the third Tuesday in December and the semiannual meeting on the Tuesday preceding the first Thursday in June, unless different days shall be fixed upon by said board.

University of Missouri Collected Rules and Regulations

UM CR&R 10.030 Board Bylaws

C. Article III The Board of Curators

1. Meetings

- a. Annual meeting -- The regular meeting of the Board held during the month of May or June, as scheduled by the Board of Curators of each year, shall be deemed to be the annual meeting of the Board of Curators, and shall be held on such date in May or June as is fixed by the Board.

April 18, 2024

- b. Regular meetings -- The Board may hold regular meetings at a time and place to be fixed by the Board. The time and place of a regular meeting may be changed by order of the Board.

REVIEW CONSENT AGENDA

There are no materials for this information item.

Consent A

Recommended Action - Minutes, February 8, 2024 Board of Curators Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the February 8, 2024 Board of Curators meeting be approved as presented.

Roll call vote:	YES	NO
-----------------	-----	----

Curator Blitz		
Curator Brncic		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Layman		
Curator Sinquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

April 18 2024

OPEN – CONSENT – A-1

Consent B

Recommended Action - Minutes, February 8, 2024 Board of Curators Committee Meetings

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the February 8, 2024 Board of Curators committee meetings be approved as presented.

Roll call vote: YES NO

- Curator Blitz
- Curator Brncic
- Curator Fry
- Curator Graves
- Curator Holloway
- Curator Layman
- Curator Sinquefield
- Curator Wenneker
- Curator Williams

The motion _____.

Consent C

Recommended Action - Minutes, February 28, 2024 Board of Curators Mizzou Intercollegiate Athletics Special Committee Meeting Minutes

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the February 28, 2024 Board of Curators Mizzou Intercollegiate Athletics Special Committee meeting be approved as presented.

Roll call vote: YES NO

Curator Blitz
Curator Brncic
Curator Fry
Curator Graves
Curator Holloway
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

April 18, 2024

OPEN – CONSENT – C-1

Consent D

Recommended Action - Minutes, March 11, 2024 Board of Curators Special Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the March 11, 2024 Board of Curators Special Meeting be approved as presented.

Roll call vote: YES NO

Curator Blitz
Curator Brncic
Curator Fry
Curator Graves
Curator Holloway
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

April 18, 2024

Consent E

Recommended Action - Minutes, March 21-22, 2024 Board of Curators Retreat

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the March 21-22, 2024 Board of Curators Retreat be approved as presented.

Roll call vote:	YES	NO
-----------------	-----	----

Curator Blitz
Curator Brncic
Curator Fry
Curator Graves
Curator Holloway
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

April 18, 2024

Consent F

Recommended Action – Approval of Degrees, Spring Semester 2024, for all universities

It was recommended by the Chancellors, endorsed by President of the University of Missouri Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator _____, seconded by Curator _____ that the following action be approved:

that the action of the President of the University of Missouri in awarding degrees and certificates to candidates recommended by the various faculties and committees of the four University of Missouri System campuses who fulfill the requirements for such degrees and certificates at the end of the Spring Semester 2024, shall be approved, and that the lists of said students who have been awarded degrees and certificates be included in the records of the meeting.

Roll call vote of Board:

YES

NO

Curator Blitz

Curator Brncic

Curator Fry

Curator Graves

Curator Holloway

Curator Layman

Curator Sinquefield

Curator Wenneker

Curator Williams

The motion_____.

Spinal Cord Injuries and Congenital or Acquired Disease Processes Research Program

The 91st General Assembly enacted legislation (HB 218 and HB 302, 2001) to provide support for a program of research projects that promote and advance knowledge in the areas of spinal cord injuries and congenital or acquired disease processes. As part of this legislation, there was created in the state treasury a “Spinal Cord Injury Fund” from which annual appropriations are to be made for the use of the Board of Curators of the University of Missouri. The primary source of money for this fund is a surcharge of two dollars levied on certain costs in criminal cases including violations of any county ordinance or any violation of criminal or traffic laws of the state.

The research grants funded by these appropriations are to be awarded by the Board of Curators to investigators who are affiliated with a public or private educational, health care, voluntary health association or research institution, based on the recommendations of an Advisory Board appointed by the Board of Curators for this purpose. Individual awards (\$50,000 per year) shall expire at the end of one year. The objective of the grants is to obtain preliminary data to test hypotheses and to enable investigators to develop subsequent competitive applications for long-term funding from other sources. The research projects are to be conducted in Missouri.

“Congenital” spinal cord abnormalities include birth defects affecting the spinal cord such as spina bifida. In addition to traumatic injuries to the spinal cord that lead to paralysis, “acquired” abnormalities could include Friedreich’s ataxia, which manifests itself in teenage years and appears to run in families, and paralysis due to multiple sclerosis, polio, etc. Approximately 450,000 people in the United States have sustained traumatic spinal cord injuries (SCI), with approximately 11,000 new cases of SCI in the US every year. The majority (78%) of SCI victims are males. Most of the injuries result from motor vehicle accidents (50%), falls (24%), violence (11%), or sports injuries (9%).

The action requested of the Board is to approve funding for eight research proposals approved by the Spinal Cord Injury Advisory Board.

April 18, 2024

Consent G

Recommended Action - Spinal Cord Injuries and Congenital or Acquired Disease
Processes Research Program Proposals

It was recommended by Vice Chancellor for Research and Economic Development, Thomas Spencer, Ph.D., endorsed by President Mun Y. Choi, recommended by the Academic, Student Affairs and Research and Economic Development Committee, moved by Curator _____, and seconded by Curator _____, that the following action be approved:

that the research proposals approved by the Spinal Cord Injuries Research Program Advisory Board be approved as presented on the following pages.

Roll call vote of the Committee: YES NO

Curator Blitz
Curator Graves
Curator Sinquefield
Curator Williams

The motion _____.

Roll call vote of the Board: YES NO

Curator Blitz
Curator Brncic
Curator Fry
Curator Graves
Curator Holloway
Curator Layman
Curator Sinquefield
Curator Weneker
Curator Williams

The motion _____.

April 18, 2024

**SPINAL CORD INJURIES AND CONGENITAL OR ACQUIRED DISEASE
PROCESSES RESEARCH PROGRAM**

*PROPOSALS RECOMMENDED FOR FUNDING
2024*

- I. Rebalancing neuroendocrine regulation for cardiovascular recovery after spinal cord injury

Shaoping Hou, PhD
Associate Professor, Pathology & Anatomical Sciences
University of Missouri

Total funding recommended \$50,000

- II. Effects of Whole-body Electrical Muscle Stimulation Exercise on Spinal Motoneuronal Activation in Older Adults

Kristina Kelly, BS, EdM, MS, DPT
Assistant Research Professor, Physical Medicine & Rehabilitation
University of Missouri

Total funding recommended \$50,000

- III. Spinal Motor Neurons: The Weak Link in Alzheimer's Disease-Related Physical Decline

Nathan Kerr, PhD
Postdoctoral Fellow, Physical Medicine & Rehabilitation
University of Missouri

Total funding recommended \$50,000

- IV. Interrogating Two Culprits: Unraveling the Relationship Between Abnormal Motor Unit Activity and Corticospinal Tract Hyperexcitability in Amyotrophic Lateral Sclerosis

Arsh Ketabfroush, MD
Postdoctoral Fellow, NextGen Precision Health
University of Missouri

Total funding recommended \$50,000

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V. Investigating A Potential Novel ALS Therapy Using ACMSD Inhibitor

Samuel Lundt, PhD
Postdoctoral Fellow, Dalton Cardiovascular Research Center
University of Missouri

Total funding recommended \$43,467

VI. Characterization of Pathology in Sural Nerves and Pelvic Limb Muscle Spindles in a Canine SOD1-ALS Model

Brandie Morgan-Jack, PhD
Assistant Research Professor, Ophthalmology
University of Missouri

Total funding recommended \$50,000

VII. Impact of shRNA-hNEFL gene therapy for CMT2E in the axonal morphology and macrophages' transcriptome

Dennis Perez-Lopez, BS
Graduate Student, Molecular Microbiology & Immunology
University of Missouri

Total funding recommended \$50,000

VIII. Neuro-ophthalmic biomarkers in a canine model of amyotrophic lateral sclerosis

Rebecca Whiting, PhD
Assistant Professor, Ophthalmology
University of Missouri

Total funding recommended \$50,000

I. ABSTRACT:

Shaoping Hou, PhD

Rebalancing neuroendocrine regulation for cardiovascular recovery after spinal cord injury

Cardiovascular dysfunction is one of the leading causes of morbidity and mortality among patients with spinal cord injury (SCI). Though alterations in blood pressure and heart rate are due mainly to structural damage to descending autonomic pathways, it was demonstrated that regulation by the renin-angiotensin system (RAS), another mechanism that aids in the maintenance of blood pressure, is augmented after SCI, which supposedly contributes to autonomic dysreflexia and impaired baroreceptor sensitivity. There is a gap in knowledge as to what role this system plays in hemodynamic regulation following SCI. When we previously transplanted brainstem-derived fetal neural cells into the injured rat spinal cord, it enhanced neuronal control leading to partial cardiovascular recovery. However, the extent of control via the RAS remained inappropriately high that is associated with compromised baroreceptor reflex. In line with this, transplantation of fetal neural cells plus RAS inhibition will create a new neuro-endocrine homeostasis for cardiovascular recovery. In Aim 1, we will use rats with complete SCI and pharmacological interventions to study potential temporal alterations in RAS regulation of cardiovascular dysfunction, including resting blood pressure and heart rate, autonomic dysreflexia, and baroreflex. In Aim 2, we will transplant fetal neurons into the lesion site of the crushed spinal cord to reconnect neural circuits. Meanwhile, the RAS inhibitor losartan will be continuously delivered to suppress hormonal regulation. After 8 weeks, cardiovascular functional recovery will be assessed. The results will hold strong translational potential to enhance the quality of life in patients with SCI.

II. ABSTRACT:

Kristina Kelly, BS, EdM, MS, DPT

Effects of Whole-body Electrical Muscle Stimulation Exercise on Spinal Motoneuronal Activation in Older Adults

There are 54 million adults aged 65+ in the U.S. today and this number is predicted to grow to 80 million in 20 years. Age-related loss of muscle strength is a major factor in loss of independence, contributing to the \$1.2 trillion in personal healthcare spending for older adults each year. The amount of force a muscle produces depends on effective activation of neurons in the spinal cord. These spinal neurons degenerate with age. Finding a way to delay or prevent degeneration could help older adults maintain physical function, including walking, climbing stairs, and rising from chairs, which become major reasons older adults struggle to stay in their homes. Resistance exercise with weights is recommended for older adults to stay strong but results vary widely. We believe this is because they cannot voluntarily activate spinal neurons enough to maximize exercise benefits. In this study, we will have 12 older adults complete a 4-week exercise program with electrical muscle stimulation to overcome insufficient spinal neuron activation. We think this approach will have an impact on spinal neuron functioning and overall physical functioning, both of which

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we will measure using noninvasive techniques in our lab. Armed with the results from this pilot study, we will plan a larger and longer study in older adults to prove the effects of stimulated exercise on spinal neurons. We will additionally apply what we learn from older adults to people with more quickly progressing spinal neuron degeneration who may also benefit from a stimulated exercise approach.

III. ABSTRACT:

Nathan Kerr, PhD

Spinal Motor Neurons: The Weak Link in Alzheimer's Disease-Related Physical Decline

Alzheimer's Disease (AD) is the fifth leading cause of death in older adults, expected to quadruple by 2050, with recent studies highlighting signs of motor dysfunction and weakness preceding AD diagnosis. However, how and why motor dysfunction occurs prior to cognitive impairment is currently unknown. Our recently collected preliminary data suggests the cause of motor dysfunction in preclinical AD lies within the spinal cord, likely due to changes in spinal excitability in response to AD pathology. Therefore, the goal of this proposal is to assess spinal excitability and motor physiology and function across cognitively presymptomatic AD in a mouse model of familial AD (5XFAD). This will be done in conjunction with motor neuron transcriptome analysis at key timepoints to identify molecular mechanisms involved in the loss of spinal excitability and subsequent motor dysfunction and physical decline. While AD may not be viewed as a spinal cord disease, there is considerable evidence demonstrating the presence of AD pathology throughout the spinal cord adding support to the hypothesis that in-depth study of spinal motor neurons will reveal mechanisms involved in declining motor function in AD. Importantly, motor dysfunction is a major contributor to falls and fractures, loss of quality of life, and morbidity and mortality in patients with AD. Therefore, we aim to implicate the spinal cord in AD-related motor dysfunction with the ultimate goal of developing novel approaches designed to enhance motor neuron function, prevent physical decline in AD, and improve quality of life.

IV. ABSTRACT:

Arsh Ketabfroush, MD

Interrogating Two Culprits: Unraveling the Relationship Between Abnormal Motor Unit Activity and Corticospinal Tract Hyperexcitability in Amyotrophic Lateral Sclerosis

This research project aims to understand Amyotrophic Lateral Sclerosis (ALS) better by investigating how muscle activity and nerve function are related in the disease. ALS is a devastating condition that causes progressive muscle weakness and paralysis, ultimately leading to death. Diagnosing ALS early is challenging, delaying treatment and making it harder for patients to access potential therapies. To address this issue, our study will use advanced techniques to analyze muscle activity and nerve function in ALS patients. We will examine changes in nerve and muscle activity using decomposition electromyography (dEMG) and changes in motor part of the brain and spinal cord excitability using threshold-tracking transcranial magnetic stimulation (TTTMS). By studying these relationships

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together for the first time, we aim to identify new biomarkers that can aid in earlier diagnosis and more accurate monitoring of ALS progression. This research project aligns with the objectives of the SCIDRP by seeking to improve our understanding of ALS and develop better diagnostic and monitoring tools. By identifying new biomarkers, we hope to provide clinicians with the means to diagnose ALS earlier and initiate treatment sooner, ultimately improving outcomes for patients. Additionally, involving both ALS patients and healthy individuals in our study will contribute valuable insights into ALS mechanisms and potentially inform the development of new treatments. Overall, our research has the potential to make a significant impact on the lives of ALS patients and their families.

V. ABSTRACT:

Samuel Lundt, PhD

Investigating A Potential Novel ALS Therapy Using ACMSD Inhibitor

Amyotrophic lateral sclerosis (ALS) is a fatal neurodegenerative disease caused by degenerating of motor neurons of the brain and spinal cord. ALS is characterized by skeletal muscle denervation, progressive paralysis, and death. Spinal cord motor neurons and neuromuscular junctions (NMJs) are impaired early during ALS progression. Nicotinamide adenine dinucleotide (NAD⁺) is one of the most abundant metabolites in the body. NAD⁺ is utilized by hundreds of cellular pathways including cellular energy metabolism, DNA repair, and oxidative stress. In mammalian cells, NAD⁺ is generated by three different pathways: the kynurenine pathway, the Preiss-Handler pathway, or the NAD⁺ salvage pathway. The NAD⁺ salvage pathway is responsible for the majority of NAD⁺ production and the kynurenine pathway generates the next most. Two critical enzymes are NAMPT, the rate limiting enzyme in the NAD⁺ salvage pathway, and ACMSD, an enzyme late in the kynurenine pathway whose activity can remove an intermediate metabolite and limit NAD⁺ production. NAD⁺ levels are reduced in ALS mice spinal cords. We found that supplementing the diets of ALS mice with NMN, the product of NAMPT activity, delayed motor impairments and improved NMJ function. We also found that expression of NAMPT and other NAD⁺ salvage pathway enzymes were reduced but ACMSD expression was increased in ALS mice spinal cords, suggesting that multiple pathways for NAD⁺ biosynthesis are impaired. As such, increasing NAD⁺ levels may require treatments targeting multiple NAD⁺ biosynthesis pathways. Utilizing ACMSD inhibition in combination with NMN supplementation is a potential novel therapy for ALS.

VI. ABSTRACT:

Brandie Morgan-Jack, PhD

Characterization of Pathology in Sural Nerves and Pelvic Limb Muscle Spindles in a Canine SOD1-ALS Model

Amyotrophic lateral sclerosis (ALS) is a fatal disease that causes dysfunction of cells in the brain, spinal cord, and muscles, resulting in progressive loss of motor functions. Recent studies

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have indicated that dysfunction in sensory neurons also play a role in ALS disease progression, warranting further investigations into their contributions. This study uses a dog model of ALS, canine degenerative myelopathy (DM), because dogs with DM display a similar disease progression to some forms of human ALS and can be evaluated at different disease stages. The first clinical signs of DM include weakness and sensory defects in the hindlimbs. The goal of this study is to evaluate sensory nerves and sensory structures in hind limb muscle from non-DM control dogs and dogs with early and late-stage DM to gain a better understanding of early sensory changes that correspond to clinical signs. A better understanding of the pathologic progression in early stages of DM involving the sensory neuronal pathways will help identify therapeutic targets for DM and human ALS.

VII. ABSTRACT:

Dennis Perez-Lopez, BS

Impact of shRNA-hNEFL gene therapy for CMT2E in the axonal morphology and macrophages' transcriptome

Charcot-Marie-Tooth 2 (CMT2) disease is associated with axonal dysfunction and the deterioration of axonal connections and communication with muscles. CMT2E disease is a slowly developing yet unrelentingly progressive axonopathy. To date, no effective therapeutics have been approved for CMT2E. To advance the development of therapeutics and to better understand the underlying biology of disease development, we generated Nefl^{+/E396K} and Nefl^{E396K/E396K} mice. The E396K mice present an early and severe phenotype consistent with the CMT2E patients, making this ideal for the evaluation of therapeutics. A gene therapy vector has been generated and being delivered to the CMT2E mice to revert the phenotype. Furthermore, it is imperative to understand how this therapy is working towards the improvement of the axonal function and rescue of the inflammation present in the skeletal muscle of the mice. This proposal will further investigate at what level the axonal structure is failing to develop, the contribution of skeletal muscles macrophages to disease progression, and the potential of a gene therapy vector to rescue disease phenotype.

VIII. ABSTRACT:

Rebecca Whiting, PhD

Neuro-ophthalmic biomarkers in a canine model of amyotrophic lateral sclerosis

Development of treatments for neurological diseases such as amyotrophic lateral sclerosis (ALS) would be greatly enhanced by the identification of biomarkers of disease progression that can be collected non-invasively. ALS is the most common group of adult-onset motor neuron diseases, but variation in how the disease progresses in each person is a major obstacle to the development of effective therapies. Biomarkers that are specific to each form of ALS could greatly strengthen the ability to develop new therapies. In addition to the hallmark motor symptoms, ocular abnormalities occur in some ALS patients. Most notably, deficits have been found in neurons of the retina. Studies have also found that disease-related protein changes in the fluid surrounding the central nervous system also occur in tear fluid

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from the eye. Since tears can be easily collected, this fluid holds promise as a source of information about ALS disease progression. This study will look at novel biomarkers of disease in dogs with degenerative myelopathy (DM), a naturally-occurring canine form ALS which closely mimics the disease progression of patients with upper motor neuron-onset ALS. We will collect biofluid samples (tears, blood, CSF) and data on neuron structure and function in the retina of DM-affected dogs. Data from dogs with DM will be compared to data from dogs of similar age without neurological disease to identify which measures best reflect DM-related changes. Biomarkers that can also be used in ALS patients would significantly strengthen the process of developing new therapeutics for this disease.

Naming Opportunity
Engineering Research Lab Renovation and Addition – Applied Research Center
Missouri S&T

Pursuant to CRR 110.080, naming of buildings and exterior areas requires Board approval. Missouri University of Science and Technology requests approval to rename the “Engineering Research Lab” (ERL) on St. Patrick’s Lane in Rolla, Missouri, to the "Applied Research Center" (ARC) in recognition of our strategic initiative to advance research and innovation.

The Applied Research Center will feature state-of-the-art facilities, including a 33,000-square-foot addition and extensive renovations to support the complex and interdisciplinary nature of modern applied research. This renaming reflects the facility's evolution from a traditional laboratory setting to a hub of innovation, partnership, and discovery, aligning with Missouri S&T's commitment to fostering a collaborative and inclusive research environment.

This complex is an integral part of our continuous efforts to enhance Missouri S&T's research capabilities and infrastructure. The new name will embody the forward-thinking and applied research initiatives that are the hallmark of Missouri S&T's contribution to the world of science and technology.

The dedication of our campus community and supporters to this project exemplifies the very best of Missouri S&T, and it is with great pride that we propose this renaming to honor the collective efforts and future trajectory of our institution.

UM System President and MU Chancellor Mun Y. Choi and Chancellor Dehghani are in support of this naming.

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No. H

Recommended Action - Renaming of Engineering Research Lab to Applied Research Center located at Missouri S&T

It was recommended by Chancellor Dehghani, endorsed President Choi, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

To rename the Engineering Research Lab (ERL) as the Applied Research Center (ARC), Missouri S&T

Roll call vote Finance Committee YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

Curator Blitz
Curator Brncic
Curator Fry
Curator Graves
Curator Holloway
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

BOARD ACTION TO APPROVE
A RESOLUTION TO AMEND SCHOLARSHIPS WITH AUTOMATIC RENEWABILITY
CLAUSES
AT UNIVERSITY OF MISSOURI-ST. LOUIS

Executive Summary

UM System Internal audit identified a considerable number (283 of 623) of UMSL's available scholarships, were not awarded for FY22. Three (3) management action plans were instituted at UMSL to address the issue.

As part of this process, UMSL has identified approximately 160 scholarships which contain automatic renewal for four years for students (Auto Renewal Clause). While originally intended to promote and support the making of awards, the Auto Renewal clause has become an impediment to awarding consistency and timeliness of awards at UMSL. The uncertainty of whether a student will or return or not can extend past the calendar deadline for awarding to other new or transfer students, resulting in a one-year gap in making awards in such cases.

The Board has reserved discretion to modify the terms of certain scholarship agreements to better carry out the original purpose of the fund.

The UMSL Chancellor has requested passage of this Resolution, which would amend such agreements by removing the Auto Renewal Clause from UMSL scholarship agreements.

This Resolution would not affect any scholarship agreements at any universities other than UMSL.

A RESOLUTION TO AMEND SCHOLARSHIPS WITH AUTOMATIC RENEWABILITY CLAUSES AT UNIVERSITY OF MISSOURI-ST. LOUIS

WHEREAS, according to University of Missouri System Audit dated December 9, 2022, in FY 22 at the University of Missouri – St. Louis (“UMSL”) 283 of 623 or 45% of the available annual and endowed scholarships (“Scholarships”) were not awarded.

WHEREAS, three management action plans were agreed to as a result of the audit, one of which was an agreement by the UMSL Director of Student Financial Services (“SFS”) and the UMSL Vice Chancellor of University Advancement (“Advancement”) to review the Scholarships and update or clarify restrictive or limiting criteria with donors as needed and when possible, with an overall due date of June 1, 2024.

WHEREAS, as part of this process UMSL SFS and UMSL Advancement have identified approximately 160 Scholarships which contain the following language or words of similar effect: *“this scholarship shall be renewable for four years as long as the scholarship recipient continues to qualify ...”* (“Renewal Clause”).

WHEREAS, the Renewal Clause, while originally intended to promote and facilitate the making of awards, has become an impediment to awarding consistency and timeliness of award notifications. The uncertainty of whether a student will return or not can extend past the calendar deadline for awarding to other new or transfer students, resulting in a one-year gap in making of awards in such cases.

WHEREAS, certain Scholarships bear the following clause, or similar derivations of the following clause, which permits amendment of such Scholarships by the Board of Curators (“Board Amendment Clause”):

Realizing that the human mind cannot predict the circumstances of the future, the Board of Curators is hereby authorized to change the terms and conditions for the handling of this fund, if, in its judgment, it becomes advisable to do so in order to better carry out the original purpose and intent of the fund.

NOW THEREFORE, be it Resolved by the Board of Curators as follows:

1. Findings. The Board of Curators, in its judgment, deems it advisable to amend the terms and conditions of all UMSL Scholarships containing a Renewal Clause.

2. Amendment of Endowment and Gift Agreements. For all UMSL Scholarships which contain a Renewal Clause, and which contain a Board Amendment Clause, all Renewal Clauses are hereby deemed to be amended and removed, with all remaining portions of the applicable Scholarship agreement to remain in force and unaffected thereby, and to be administered in accordance with such remaining portions only for all future awards. A copy of this Board Action should be attached to each applicable Scholarship agreement.

3. Further Authority. The President, the Executive Vice President for Finance and Operations and Chief Financial Officer (EVP), UMSL SFS and UMSL Advancement, and the General Counsel or their designees, as well as each officer or employee of the University charged with awarding or administering the amended Scholarships are hereby authorized and directed to, take such further action and execute and deliver such other documents and instruments as may be necessary or desirable to carry out and comply with the intent of this Board Action, and to carry out, comply with and perform the duties of the University with respect to the amended Scholarships.

4. Severability. The sections, paragraphs, sentences, clauses and phrases of this Board Action shall be severable. In the event that any such section, paragraph, sentence, clause or phrase of this Resolution is found by a court of competent jurisdiction to be invalid, the remaining portions of this Resolution are valid, unless the court finds the valid portions of the Board Action are so essential to and inseparably connected with and dependent upon the void portion that it cannot be presumed that the University has enacted the valid portions without the void ones, or unless the court finds that the valid portions, standing alone, are incomplete and are incapable of being executed in accordance with the legislative intent.

5. Governing Law. This Board Action shall be governed exclusively by and construed in accordance with the applicable laws of the State of Missouri.

6. Effective Date. This Board Action shall take effect and be in full force immediately after its adoption by the Board of Curators.

No. I

Recommended Action -

It was recommended by Chancellor Sobolik, endorsed by President Choi, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

The adoption of a resolution attached hereto and incorporated herein, captioned as follows:

A RESOLUTION TO AMEND SCHOLARSHIPS WITH AUTOMATIC RENEWABILITY CLAUSES AT UNIVERSITY OF MISSOURI-ST. LOUIS

Roll call vote Finance Committee: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

Curator Blitz
Curator Brncic
Curator Fry
Curator Graves
Curator Holloway
Curator Layman
Curator Sinquefield
Curator Weneker
Curator Williams

No. J

Recommended Action - Amendments to CRR 10.030, Board Bylaws

It was recommended by the Governance, Compensation and Human Resources Committee moved by Curator _____, and seconded by Curator _____, that the following action be approved:

Collected Rules and Regulations 10.030, Board Bylaws be amended as indicated in the attached documents:

Roll call vote of the Committee:	YES	NO
Curator Fry		
Curator Layman		
Curator Wenneker		

The motion _____.

Roll call vote of the Board:	YES	NO
Curator Blitz		
Curator Brncic		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Layman		
Curator Siquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

Collected Rules and Regulations
Administration
Chapter 10: Board of Curators

REDLINE

10.030 Board Bylaws

As adopted the 7th day of November, 1969, in place of Bylaws adopted November 12, 1965, and amended January 19, 1968, and amended November 8, 1968; see also 172.100 RSMo. (1969); Amended Bd. Min. 12-14-79; Amended Bd. Min. 12-7-90; Amended Bd. Min. 7-15-94; Amended Bd. Min. 5-23-96; Amended Bd. Min. 9-26-97; Amended Bd. Min. 5-17-02; Amended Bd. Min 5-31-02; Amended Bd. Min. 11/21/02, Amended Bd. Min. 4/8/05, Amended Bd. Min. 7/21/06, Amended Bd. Min. 10/6/06, Amended Bd. Min. 4/6/07, Amended Bd. Min. 11-29-07, Amended Bd. Min. 6-11-10, Amended Bd. Min. 12-10-10, Amended Bd. Min. 2-1-13; Amended Bd. Min. 12-7-17; Amended Bd. Min. 5-17-22; **Amended 4-18-24.**

A. Article I Definitions

For purposes of these bylaws the following definitions shall apply:

0. **University** -- The term "University" or "University of Missouri" shall refer to the institution, in all of its parts, persons, property and relationships wherever situated, owned, operated, controlled, managed or otherwise regulated under the supervision or direction of The Curators of the University of Missouri or the Board of Curators of the University of Missouri.
1. **The Curators of the University of Missouri** -- The term "The Curators of the University of Missouri" shall refer to the corporate entity, of which the Board of Curators is the governing body.
2. **The Board of Curators of the University of Missouri** -- The term "Board of Curators of the University of Missouri," "Board of Curators," or "Board" shall refer to the governing board of The Curators of the University of Missouri, and shall be composed of the Curators duly appointed and qualified as provided by law.
3. **The Executive Committee of the Board of Curators of the University of Missouri** -- The term "Executive Committee of the Board of Curators of the University of Missouri" or "Executive Committee" shall refer to that committee of the Board of Curators appointed to act for and on behalf of the Board of Curators when such Board of Curators is not in session. Such Executive Committee shall be deemed to be the Executive Board and Executive Committee as heretofore known.
4. **The Site of the University of Missouri** -- The term "site" of the University of Missouri shall be deemed to include each and every campus of the University; any real estate owned by the University, and wherever located and any other land or building in the possession or under the control of the University, whether owned, leased, rented, held under purchase contract, or owned by others for the use and benefit of the University, during any and all times that such land or buildings, or parts thereof may be under the actual control and in the actual possession of the University.
5. **Chair of the Board** -- The term "Chair of the Board," "Chair," "Chairman," "Chairwoman," or "Board Chair" shall refer to the Curator who is the duly elected or acting Chair of the Board of Curators. The individual so elected shall also be deemed

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to be serving as President of the Board of Curators within the meaning of statutory section 172.090 and all other sections of Chapter 172 of the Revised Statutes of Missouri, and shall be authorized to execute on behalf of the Board of Curators of the University of Missouri and The Curators of the University of Missouri, a public entity, all documents as President of the Board or Chair of the Board as deemed appropriate, and hereinafter as may be referred to as "Chair," "Chairman," "Chairwoman," or "Board Chair."

6. **President of the University** -- The term "President of the University" or "President" shall refer to the duly appointed or acting President of the University, and who shall be the chief executive and academic officer of the University.
7. **Campus** -- The term "campus" shall refer to an academic or administrative subdivision of the University as established by the Board of Curators.
8. **Appointments** -- The appointments of all officers and employees of the University, although made for administrative or fiscal purposes for a specific term, may be terminated by the Board of Curators at any time at the pleasure of the Board of Curators. Notwithstanding any rule, regulation or policy of the University to the contrary, all such appointments are subject to the right of the Board of Curators to adjust salaries and benefits, on a prospective basis only, at any time during the indefinite term or continuous appointment of all officers and employees of the University provided that: (a) such adjustments shall be for the shortest period of time and in the smallest increments consistent with those that the Board deems necessary; (b) adjustments shall be across the board on an equitable basis to all similarly situated University officers and employees and shall not be used to single out any given faculty, staff or administrator to be the subject of such adjustments; and (c) the foregoing shall not be deemed to abolish or abridge any right of academic personnel to academic freedom or any right under the tenure regulations of the University except as to any perceived right, express or implied, to salary level and/or benefits under said regulations or appointment papers.

B. Article II The Board Authority and Responsibilities

Board Duties and Responsibilities -- Pursuant to the Constitution and the Revised Statutes of the State of Missouri, the governance of The Curators of the University of Missouri, a body politic, the corporate entity sometimes referred to as the University of Missouri, is ultimately vested in the Board of Curators. As such, the Board may do the following:

- a. Determine and periodically review the University's mission and purposes, not inconsistent with state constitutional and/or statutory provisions.
- b. Appoint the President, who shall be the University's chief executive officer, and set appropriate terms of employment, including compensation.
- c. Support the President and annually assess his or her performance based on mutually agreed-upon goals and other criteria.
- d. Determine broad policy guiding the appointment of all faculty members and employees, on the recommendation of the President, and consistent with its other policies and regulations adopted by the Board.

- e. Review and approve proposed changes in the University’s academic programs and other major enterprises consistent with the University’s mission, plans, and financial resources.
 - f. Approve the annual budget and tuition and fees, regularly monitor the University’s financial condition, and establish policy guidelines affecting all institutional assets, including investments and the physical plant.
 - g. Contribute financially to the University’s fund-raising goals, participate actively in strategies to secure sources of support, and authorize University officers to accept gifts or bequests subject to Board policy guidelines.
 - h. Adopt bylaws, rules, and regulations for the government of its members, and University officers, agents, and employees, and require adherence to such rules, including, but not limited to, those pertaining to governance and ethics and conflict of interest.
 - i. Determine the University’s structure and major academic programs and services needed for the successful conduct of its mission and purposes.
 - j. Grant diplomas and confer degrees based upon the recommendation of the President and faculty.
 - k. Serve actively as advocates for the University in appropriate matters of public policy in consultation with the President and other responsible parties, as the Board shall determine.
 - l. Periodically assess its own performance, in order to set an example for the University community and to seek ways to strengthen its effectiveness as a governing body.
 - m. Exercise such other authority as from time to time it deems appropriate not inconsistent with the applicable laws and regulations of the United States of America and applicable laws and regulations of the State of Missouri.
2. **Curator Duties and Responsibilities** -- Recognizing the significance of serving on the Board of Curators of the University of Missouri, each Board member shall adhere to the following principles:
- a. To remember that no individual Board member has legal standing or authority to act on behalf of the Board or the University. Only the full Board as a governing body is vested with such authority, though the Board Chair ordinarily is entitled to “speak for” the Board, and the President is entitled to “speak for” the University consistent with Board policies and actions.
 - b. To devote time to learn how the University’s mission and multiple purposes are met – its uniqueness, strengths, and needs.
 - c. To become familiar with, committed to, and abide by the Board’s responsibilities and policies, as set forth in the bylaws and rules and regulations adopted by the Board and the applicable laws of the State of Missouri.
 - d. To accept and defend academic freedom and the practice of collaboration governance as fundamental characteristics of good University governance.

- e. To assist the Board in its efforts to balance its responsibilities in serving its broad public trust with advocacy for the University's needs to fulfill its mission and purposes.
- f. To adhere to and comply with policies adopted from time to time pertaining to governance and ethics and conflict of interest, including timely filing of all required public disclosures.

C. Article III The Board of Curators

1. Meetings

- a. **Annual meeting** -- The regular meeting of the Board held during the month of May or June of each year as scheduled by the Board, shall be deemed to be the annual meeting of the Board, and shall be held on such date in May or June as is fixed by the Board.
- b. **Regular meetings** -- The Board may hold regular meetings at a time and place to be fixed by the Board. The time and place of a regular meeting may be changed by order of the Board.
- c. **Special meetings** -- A special meeting of the Board may be called at any time by the Chair of the Board, or in case of his/her absence, disability, or refusal to act, by the joint action of three Curators. At least 24 hours notice of the time and place of each such meeting shall be given by letter, facsimile transmission, email or telegram mailed or sent to each Curator at his/her address on file with the Secretary. Such notice to a particular Curator may be waived by the Curator in writing and shall be deemed waived by the Curator by attendance at the special meeting. Only those subjects specified in the call for a special meeting will be considered at such special meeting except by unanimous consent of all Board members, whether present or not, and consistent with applicable law.
- d. **Adjourned meetings** -- Adjourned meetings may be ordered and held by the Board at such time and place as may be agreed upon.
- e. **Meeting Agenda** -- The agenda and order of items on the agenda for all meetings of the Board, including those identified in subparagraphs a, b, c and d above, shall be established jointly by the Board Chair and the President of the University ~~with the concurrence of the Board Chair~~. The Board Chair, any committee of the Board, with the assistance and advice of the University officer staffing the respective committee, or any three members of the Board acting together, may place items on the agenda. Any Curator or General Officer may recommend items for the agenda subject to approval by the Board Chair. The agenda shall be developed and notice thereof made public in compliance with the applicable laws of the State of Missouri and current and future policy and regulations adopted by the Board.
- f. **Consent Agenda** -- Items shown on the established agenda for a meeting of the Board may be placed upon a consent agenda whereby all items placed thereon are approved by summary action of the

Board. Items may be placed on the consent agenda by the President of the University, the Chair of the Board, or the Chairperson of any committee of the Board electing to place such item on the consent agenda; provided the same is accomplished no less than one hour prior to the convening of the meeting of the Board, and the Secretary to the Board shall present such consent agenda to the members of the Board no later than immediately prior to the convening of the meeting; and further provided that any member of the Board of Curators may remove any item from the consent agenda by notifying the Chair of the Board of the election to remove the item at any time prior to a vote being taken on that item. The consent agenda requires approval by a vote of a majority of the Board for passage and adoption of each item on the consent agenda.

- g. **Conduct of Meeting** – The Board may conduct any meeting by conference telephone call or other communication equipment by means with which all persons participating in the meeting can communicate with each other. Only members of the Board, the President and those individuals recognized by the Chair or President may address the Board at any meeting of the Board.
- h. **Executive Session (Closed Session)** – When the Board or any committee of the Board meets in executive session (sometimes referred to as closed session), all matters discussed in that session are to be considered as confidential, except that such information can be shared with absent Board members or University officers, agents or employees who need to know. Actions taken in executive session shall be released to the public if required by the provisions of the Sunshine Law contained in Chapter 610 of the Revised Statutes of Missouri or Board rules contained in Section 10.060 of the Collected Rules and Regulations of the University of Missouri entitled Board and Committee Meetings.

2. **Attendance Policy**

- a. If a member of the Board is found by unanimous vote of the other Curators to have failed to attend without good cause two consecutive regular meetings of the Board in any calendar year, then the office of such Curator shall be vacant.
- b. If a vacancy shall occur by death, resignation, or from any other cause, the Chair of the Board shall notify the Governor within thirty days of such vacancy.

3. **Officers of the Board**

- a. **Chair of the Board** -- The Board shall choose from its own membership at the last regular meeting of the Board in each calendar year to take office on January 1 of the next year, a Chair of the Board who shall hold office for a term of one year or until his/her successor takes office. The Chair shall serve as presiding officer of

the Board and shall carry out such duties as may be delegated to him/her by the Board. The individual elected to serve as Chair of the Board shall be deemed as having been elected to serve as President of the Board within the meaning of the statutory provisions of the State of Missouri, all as referred to in the definitions contained in Article I of these bylaws.

- b. **Vice Chair of the Board** -- The Board shall choose from its own membership at the last regular meeting of the Board in each calendar year to take office on January 1 of the next year, a Vice Chair of the Board who shall hold office for a term of one year or until his/her successor takes office. The Vice Chair shall carry out the duties of the Chair in his/her absence or inability for any reason to serve, and hereinafter may be referred to as "Vice Chair," "Vice Chairman," "Vice Chairwoman" or "Board Vice Chair." The individual elected as Vice Chair shall be deemed as having been elected to serve as Vice-President of the Board of Curators within the meaning of the statutory provisions of the State of Missouri.
- c. **Secretary** -- The Board shall appoint a Secretary of the Board of Curators to serve at the pleasure of the Board. The Secretary shall keep the minutes of the meetings of the Board and the Executive Committee, shall be the official custodian of the seal and all records of the Board, and shall have such other duties as may be from time to time fixed by the Board. The Board may appoint and define the duties of such assistant secretaries of the Board as it deems desirable.
- d. **General Counsel** -- The General Counsel shall be the chief legal officer of the University, shall be appointed by the Board to serve at the pleasure of the Board, and shall have such duties and responsibilities as may be assigned by the Board. The General Counsel shall serve as parliamentarian for meetings of the Board, unless a different individual is appointed to serve as parliamentarian by the Chair of the Board.
- e. Any vacancy in any office of the Board caused by any reason may be filled by the Board for the unexpired term.

4. **Committees**

- a. **Executive Committee** -- The Chair of the Board, subject to approval of the Board, shall appoint from the Board an Executive Committee of three members, and may fill vacancies at any time. The Chair of the Board shall serve as one of the three Executive Committee members and as the Chair of the Executive Committee. Such Executive Committee members shall hold office until their successors have been duly appointed. The Executive Committee, when the Board is not in session, shall have the powers of the Board to take such action as the Executive Committee may deem to the best interest of the University; provided, however, that such action shall be in accord with the provisions of these bylaws, and not in conflict

with the standing rules and regulations of the Board. A complete record of all actions of the Executive Committee shall be kept by the Secretary of the Board, and a copy of such record shall be submitted to each member of the Board monthly and in advance of the next regular meeting of the Board. Actions of the Executive Committee may be ratified, approved, or modified at the next regular meeting of the Board, but any modification thereof shall be prospective only. If, at its next regular meeting, the Board takes no action on an Executive Committee action, the record of which was submitted to the Board prior to that regular meeting, such action shall be deemed ratified by the Board. The vote of any members on any question coming before the Executive Committee may be taken in person, by telephone, telegraph, facsimile transmission, email or letter. Concurrence of three members shall constitute action of the Executive Committee. The Executive Committee shall be entitled to take such action as deemed necessary under the provisions of Section 172.230 and other provisions of the Revised Statutes of the State of Missouri, as amended.

- b. **Other Committees** -- The Chair of the Board may appoint subject to approval of the Board other standing or special committees of the Board from time to time and delegate to such committees such authority as the Board may deem appropriate to carry out the objects of such committees. Membership on such committees need not be limited to members of the Board.
5. **Quorum** -- Five members of the Board of Curators shall constitute a quorum for the transaction of any and all business of the Board. Except as otherwise provided by these bylaws, a majority of the members of any committee of the Board shall constitute a quorum for the transaction of any and all business of the committee at any committee meeting held in conjunction with a meeting of the Board. All members of any committee of the Board shall constitute a quorum for the transaction of any and all business of any committee at any committee meeting which is not held in conjunction with a meeting of the Board.
6. **Action by Majority** -- Any action by the Board or any committee may be taken by the majority vote of the members present at any meeting of the Board or a committee when a quorum is present, unless otherwise specifically herein provided.
7. **Recording Vote** -- The Secretary of the Board shall keep the minutes of the meetings of the Board of Curators and committees in which shall be recorded the vote on all motions or resolutions coming before said Board or committee. Roll call votes shall be taken when required by law and voice votes shall be taken on all other matters. When taking a voice vote, curators will be requested to cast their vote orally indicating whether they favor, oppose or abstain from the motion or resolution. When the results of a voice vote indicate that the vote is not unanimous of all curators

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voting and abstaining, a roll call vote on the matter shall immediately follow.

8. **Delegation of Authority** -- So much of the authority of the Board as it may deem necessary may be delegated to such officers and employees or to committees appointed by the Board provided such delegation of powers shall be given by recorded Board action.

D. Article IV Organization of the University

1. President of the University

- a. The President of the University shall be the chief executive and academic officer of the University. The President shall have direct charge of, and be directly responsible to the Board for the operation of the University.
- b. The President shall, so far as his/her duties may permit, attend all meetings of the Board and of the Executive Committee, but he/she may be excused at any time.
- c. He/she shall, at each regular meeting of the Board, report upon the progress, condition and needs of the University, and recommend such measures as in his/her judgment will promote the University's interests.
- d. The President of the University, as the chief academic officer of the University, shall be responsible to the Board for the academic programs of the University; procurement of staff; the establishment and maintenance of separate schools, colleges and departments of instruction within the University; the relationships and coordination of educational activities between campuses, special divisions and units; and the planning, development and carrying out of all research projects.
- e. The President, as the chief academic officer of the University, shall have the right to preside and vote at any faculty meeting. He/she shall appoint all non-Board committees of the University, unless otherwise provided by the Board.
- f. Any University Rules and Regulations, Executive Orders and Executive Guidelines of the President or delegations of general authority shall be filed with the Secretary of the Board and unless otherwise specified, shall be effective from the time of such filing until changed, modified or repealed by the President or by the Board.
- g. The President of the University will establish policies for intercollegiate athletics in compliance with the rules and regulations of applicable regional or national athletic conferences or associations, so long as these rules and regulations are not in conflict with policies, rules or regulations of the Board. The President will report periodically to the Board of Curators on the intercollegiate athletic programs.

2. Campuses of the University

- a. **General**
 - (1) Campuses of the University of Missouri shall be established by the Board. Each campus shall be a unit of the University.
 - (2) Campus chancellors, provosts and other officers as may be specifically designated by the Board shall be appointed by the Board upon recommendation of the President.
 - b. **Individual Campuses** -- Until otherwise provided by the Board, there are the following campuses of the University (to include their respective sites, academic programs, and administrative staff as now constituted):
 - (1) University of Missouri-Columbia;
 - (2) Missouri University of Science and Technology;
 - (3) University of Missouri-Kansas City; and
 - (4) University of Missouri-St. Louis.
3. **University System Units** -- University System units may be created to carry out such functions as may be assigned them by the President of the University. These units shall be under the direct supervision of the President, but shall perform their functions in consultation and cooperation with the chief administrative officer of each campus as to their activities and programs on the respective campuses.

E. **Article V Academic Staff**

1. Until further order of the President or the Board, the colleges, schools and other departments with offices of deans or department directors as presently established and degrees as presently offered shall be continued.
2. Faculties may organize to carry out the responsibilities and functions which may be delegated to them. The form of any such organization and any amendments or modifications thereto shall be presented through the President to the Board for its approval before becoming effective. Notwithstanding any language to the contrary set forth anywhere else in the Collected Rules and Regulations, any and all changes to undergraduate admissions standards shall be subject to formal review and approval by the Board of Curators before becoming effective.

F. **Article VI Students**

1. A **student** at the University shall be any person who is registered in or pursuing any educational program of the University.
 - a. Temporary interruptions of registration between academic periods of the University shall not necessarily terminate student status.
 - b. Such students are subject to classifications, as may be established from time to time by the Board or the President, and shall be subject to such rules, regulations and restrictions as may now be established or hereafter from time to time established by the Board or the President.
2. **Delegation of Administration**

- a. The Board of Curators hereby delegates to the President of the University the responsibility for administering policies pertaining to the conduct of students and student organizations at the University as such conduct relates to the lawful mission, process or function of the University.
 - (1) The President may issue University Rules and Regulations and may authorize campus rules and regulations to be adopted, issued and published implementing Board Rules and Regulations establishing standards of conduct and to provide for administration of University and campus regulations.
 - (2) Failure to adopt such rules and regulations, however, shall not relieve any student or student organizations of the obligation to adhere to Board Rules and Regulations establishing general standards of student conduct.
- b. University or campus rules, regulations and procedures as herein authorized shall be in accordance with the Board Rules and Regulations and shall provide for prompt consideration and disposition of alleged violation of such University or campus rules and regulations; provided, however, that such procedures shall be in accordance with basic standards of fairness and shall be simple and appropriate to the nature of the case, and shall provide for notice and a hearing.
- 3. Until changed, modified or repealed, the provisions of the present Board Rules and Regulations relating to students which are not inconsistent with the provisions of these bylaws shall be considered to be in force.

G. Article VII Board Rules and Regulations

- 1. Any action by the Board establishing policy or methods of procedure, administrative, business, academic, or otherwise, shall be known as "Board Rules and Regulations."
- 2. Board Rules and Regulations may be adopted by the Board, or may be amended or repealed, in whole or in part, at any meeting of the Board.
- 3. All policies and procedures falling within the definition of Board Rules and Regulations as herein defined, and in existence upon the date of the adoption of these bylaws, shall be a part of the Board Rules and Regulations.
- 4. Board Rules and Regulations shall be effective upon adoption by the Board unless a different effective date be fixed by the Board.
- 5. The Secretary of the Board shall keep all Board Rules and Regulations on file in his or her office, and may publish Board Rules and Regulations from time to time.
- 6. In the absence of an applicable bylaw, the Board shall be guided by Roberts Rules of Order, particularly those rules relating to Boards.

H. Article VIII Amendment of Bylaws

1. New bylaws may be adopted, and bylaws may be amended or repealed, at any meeting of the Board, but no such action shall be taken unless notice of such proposed adoption, amendment, or repeal shall have been given at a previous meeting or notice in writing of the proposed change shall have been served upon each member of the Board at least thirty days in advance of the final vote upon such change; provided, however, that by consent of each member, regardless of whether present at the meeting of the Board, the requirements for such notice may be waived at any time. Any provisions of these bylaws, with the exclusion of this Section 10.030H.1 pertaining to the amendment of bylaws, may be suspended in connection with the consideration of a matter before the Board by an affirmative vote of not less than 2/3 of the members of the Board in attendance at the meeting where such suspension is being considered.

I. Article IX Adoption of Bylaws

1. These bylaws shall be and become effective on the 1st day of July, 2010. All former bylaws of the Board are hereby repealed.
2. These bylaws, as adopted and from time to time amended, shall be known and cited as Board Bylaws of 2010.

**Collected Rules and Regulations
Administration
Chapter 10: Board of Curators**

CLEAN

10.030 Board Bylaws

As adopted the 7th day of November, 1969, in place of Bylaws adopted November 12, 1965, and amended January 19, 1968, and amended November 8, 1968; see also 172.100 RSMo. (1969); Amended Bd. Min. 12-14-79; Amended Bd. Min. 12-7-90; Amended Bd. Min. 7-15-94; Amended Bd. Min. 5-23-96; Amended Bd. Min. 9-26-97; Amended Bd. Min. 5-17-02; Amended Bd. Min 5-31-02; Amended Bd. Min. 11/21/02, Amended Bd. Min. 4/8/05, Amended Bd. Min. 7/21/06, Amended Bd. Min. 10/6/06, Amended Bd. Min. 4/6/07, Amended Bd. Min. 11-29-07, Amended Bd. Min. 6-11-10, Amended Bd. Min. 12-10-10, Amended Bd. Min. 2-1-13; Amended Bd. Min. 12-7-17; Amended Bd. Min. 5-17-22; Amended 4-18-24.

A. Article I Definitions

For purposes of these bylaws the following definitions shall apply:

0. **University** -- The term "University" or "University of Missouri" shall refer to the institution, in all of its parts, persons, property and relationships wherever situated, owned, operated, controlled, managed or otherwise regulated under the supervision or direction of The Curators of the University of Missouri or the Board of Curators of the University of Missouri.
1. **The Curators of the University of Missouri** -- The term "The Curators of the University of Missouri" shall refer to the corporate entity, of which the Board of Curators is the governing body.
2. **The Board of Curators of the University of Missouri** -- The term "Board of Curators of the University of Missouri," "Board of Curators," or "Board" shall refer to the governing board of The Curators of the University of Missouri, and shall be composed of the Curators duly appointed and qualified as provided by law.
3. **The Executive Committee of the Board of Curators of the University of Missouri** -- The term "Executive Committee of the Board of Curators of the University of Missouri" or "Executive Committee" shall refer to that committee of the Board of Curators appointed to act for and on behalf of the Board of Curators when such Board of Curators is not in session. Such Executive Committee shall be deemed to be the Executive Board and Executive Committee as heretofore known.
4. **The Site of the University of Missouri** -- The term "site" of the University of Missouri shall be deemed to include each and every campus of the University; any real estate owned by the University, and wherever located and any other land or building in the possession or under the control of the University, whether owned, leased, rented, held under purchase contract, or owned by others for the use and benefit of the University, during any and all times that such land or buildings, or parts thereof may be under the actual control and in the actual possession of the University.
5. **Chair of the Board** -- The term "Chair of the Board," "Chair," "Chairman," "Chairwoman," or "Board Chair" shall refer to the Curator who is the duly elected or acting Chair of the Board of Curators. The individual so elected shall also be deemed

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to be serving as President of the Board of Curators within the meaning of statutory section 172.090 and all other sections of Chapter 172 of the Revised Statutes of Missouri, and shall be authorized to execute on behalf of the Board of Curators of the University of Missouri and The Curators of the University of Missouri, a public entity, all documents as President of the Board or Chair of the Board as deemed appropriate, and hereinafter as may be referred to as "Chair," "Chairman," "Chairwoman," or "Board Chair."

6. **President of the University** -- The term "President of the University" or "President" shall refer to the duly appointed or acting President of the University, and who shall be the chief executive and academic officer of the University.
7. **Campus** -- The term "campus" shall refer to an academic or administrative subdivision of the University as established by the Board of Curators.
8. **Appointments** -- The appointments of all officers and employees of the University, although made for administrative or fiscal purposes for a specific term, may be terminated by the Board of Curators at any time at the pleasure of the Board of Curators. Notwithstanding any rule, regulation or policy of the University to the contrary, all such appointments are subject to the right of the Board of Curators to adjust salaries and benefits, on a prospective basis only, at any time during the indefinite term or continuous appointment of all officers and employees of the University provided that: (a) such adjustments shall be for the shortest period of time and in the smallest increments consistent with those that the Board deems necessary; (b) adjustments shall be across the board on an equitable basis to all similarly situated University officers and employees and shall not be used to single out any given faculty, staff or administrator to be the subject of such adjustments; and (c) the foregoing shall not be deemed to abolish or abridge any right of academic personnel to academic freedom or any right under the tenure regulations of the University except as to any perceived right, express or implied, to salary level and/or benefits under said regulations or appointment papers.

B. Article II The Board Authority and Responsibilities

Board Duties and Responsibilities -- Pursuant to the Constitution and the Revised Statutes of the State of Missouri, the governance of The Curators of the University of Missouri, a body politic, the corporate entity sometimes referred to as the University of Missouri, is ultimately vested in the Board of Curators. As such, the Board may do the following:

- a. Determine and periodically review the University's mission and purposes, not inconsistent with state constitutional and/or statutory provisions.
- b. Appoint the President, who shall be the University's chief executive officer, and set appropriate terms of employment, including compensation.
- c. Support the President and annually assess his or her performance based on mutually agreed-upon goals and other criteria.
- d. Determine broad policy guiding the appointment of all faculty members and employees, on the recommendation of the President, and consistent with its other policies and regulations adopted by the Board.

- e. Review and approve proposed changes in the University’s academic programs and other major enterprises consistent with the University’s mission, plans, and financial resources.
 - f. Approve the annual budget and tuition and fees, regularly monitor the University’s financial condition, and establish policy guidelines affecting all institutional assets, including investments and the physical plant.
 - g. Contribute financially to the University’s fund-raising goals, participate actively in strategies to secure sources of support, and authorize University officers to accept gifts or bequests subject to Board policy guidelines.
 - h. Adopt bylaws, rules, and regulations for the government of its members, and University officers, agents, and employees, and require adherence to such rules, including, but not limited to, those pertaining to governance and ethics and conflict of interest.
 - i. Determine the University’s structure and major academic programs and services needed for the successful conduct of its mission and purposes.
 - j. Grant diplomas and confer degrees based upon the recommendation of the President and faculty.
 - k. Serve actively as advocates for the University in appropriate matters of public policy in consultation with the President and other responsible parties, as the Board shall determine.
 - l. Periodically assess its own performance, in order to set an example for the University community and to seek ways to strengthen its effectiveness as a governing body.
 - m. Exercise such other authority as from time to time it deems appropriate not inconsistent with the applicable laws and regulations of the United States of America and applicable laws and regulations of the State of Missouri.
2. **Curator Duties and Responsibilities** -- Recognizing the significance of serving on the Board of Curators of the University of Missouri, each Board member shall adhere to the following principles:
- a. To remember that no individual Board member has legal standing or authority to act on behalf of the Board or the University. Only the full Board as a governing body is vested with such authority, though the Board Chair ordinarily is entitled to “speak for” the Board, and the President is entitled to “speak for” the University consistent with Board policies and actions.
 - b. To devote time to learn how the University’s mission and multiple purposes are met – its uniqueness, strengths, and needs.
 - c. To become familiar with, committed to, and abide by the Board’s responsibilities and policies, as set forth in the bylaws and rules and regulations adopted by the Board and the applicable laws of the State of Missouri.
 - d. To accept and defend academic freedom and the practice of collaboration governance as fundamental characteristics of good University governance.

- e. To assist the Board in its efforts to balance its responsibilities in serving its broad public trust with advocacy for the University's needs to fulfill its mission and purposes.
- f. To adhere to and comply with policies adopted from time to time pertaining to governance and ethics and conflict of interest, including timely filing of all required public disclosures.

C. Article III The Board of Curators

1. Meetings

- a. **Annual meeting** -- The regular meeting of the Board held during the month of May or June of each year as scheduled by the Board, shall be deemed to be the annual meeting of the Board, and shall be held on such date in May or June as is fixed by the Board.
- b. **Regular meetings** -- The Board may hold regular meetings at a time and place to be fixed by the Board. The time and place of a regular meeting may be changed by order of the Board.
- c. **Special meetings** -- A special meeting of the Board may be called at any time by the Chair of the Board, or in case of his/her absence, disability, or refusal to act, by the joint action of three Curators. At least 24 hours notice of the time and place of each such meeting shall be given by letter, facsimile transmission, email or telegram mailed or sent to each Curator at his/her address on file with the Secretary. Such notice to a particular Curator may be waived by the Curator in writing and shall be deemed waived by the Curator by attendance at the special meeting. Only those subjects specified in the call for a special meeting will be considered at such special meeting except by unanimous consent of all Board members, whether present or not, and consistent with applicable law.
- d. **Adjourned meetings** -- Adjourned meetings may be ordered and held by the Board at such time and place as may be agreed upon.
- e. **Meeting Agenda** -- The agenda and order of items on the agenda for all meetings of the Board, including those identified in subparagraphs a, b, c and d above, shall be established jointly by the Board Chair and the President of the University. The Board Chair, any committee of the Board, with the assistance and advice of the University officer staffing the respective committee, or any three members of the Board acting together, may place items on the agenda. Any Curator or General Officer may recommend items for the agenda subject to approval by the Board Chair. The agenda shall be developed and notice thereof made public in compliance with the applicable laws of the State of Missouri and current and future policy and regulations adopted by the Board.
- f. **Consent Agenda** -- Items shown on the established agenda for a meeting of the Board may be placed upon a consent agenda whereby all items placed thereon are approved by summary action of the Board. Items may be placed on the consent agenda by the President

of the University, the Chair of the Board, or the Chairperson of any committee of the Board electing to place such item on the consent agenda; provided the same is accomplished no less than one hour prior to the convening of the meeting of the Board, and the Secretary to the Board shall present such consent agenda to the members of the Board no later than immediately prior to the convening of the meeting; and further provided that any member of the Board of Curators may remove any item from the consent agenda by notifying the Chair of the Board of the election to remove the item at any time prior to a vote being taken on that item. The consent agenda requires approval by a vote of a majority of the Board for passage and adoption of each item on the consent agenda.

- g. **Conduct of Meeting** – The Board may conduct any meeting by conference telephone call or other communication equipment by means with which all persons participating in the meeting can communicate with each other. Only members of the Board, the President and those individuals recognized by the Chair or President may address the Board at any meeting of the Board.
- h. **Executive Session (Closed Session)** – When the Board or any committee of the Board meets in executive session (sometimes referred to as closed session), all matters discussed in that session are to be considered as confidential, except that such information can be shared with absent Board members or University officers, agents or employees who need to know. Actions taken in executive session shall be released to the public if required by the provisions of the Sunshine Law contained in Chapter 610 of the Revised Statutes of Missouri or Board rules contained in Section 10.060 of the Collected Rules and Regulations of the University of Missouri entitled Board and Committee Meetings.

2. Attendance Policy

- a. If a member of the Board is found by unanimous vote of the other Curators to have failed to attend without good cause two consecutive regular meetings of the Board in any calendar year, then the office of such Curator shall be vacant.
- b. If a vacancy shall occur by death, resignation, or from any other cause, the Chair of the Board shall notify the Governor within thirty days of such vacancy.

3. Officers of the Board

- a. **Chair of the Board** -- The Board shall choose from its own membership at the last regular meeting of the Board in each calendar year to take office on January 1 of the next year, a Chair of the Board who shall hold office for a term of one year or until his/her successor takes office. The Chair shall serve as presiding officer of the Board and shall carry out such duties as may be delegated to

him/her by the Board. The individual elected to serve as Chair of the Board shall be deemed as having been elected to serve as President of the Board within the meaning of the statutory provisions of the State of Missouri, all as referred to in the definitions contained in Article I of these bylaws.

- b. **Vice Chair of the Board** -- The Board shall choose from its own membership at the last regular meeting of the Board in each calendar year to take office on January 1 of the next year, a Vice Chair of the Board who shall hold office for a term of one year or until his/her successor takes office. The Vice Chair shall carry out the duties of the Chair in his/her absence or inability for any reason to serve, and hereinafter may be referred to as "Vice Chair," "Vice Chairman," "Vice Chairwoman" or "Board Vice Chair." The individual elected as Vice Chair shall be deemed as having been elected to serve as Vice-President of the Board of Curators within the meaning of the statutory provisions of the State of Missouri.
- c. **Secretary** -- The Board shall appoint a Secretary of the Board of Curators to serve at the pleasure of the Board. The Secretary shall keep the minutes of the meetings of the Board and the Executive Committee, shall be the official custodian of the seal and all records of the Board, and shall have such other duties as may be from time to time fixed by the Board. The Board may appoint and define the duties of such assistant secretaries of the Board as it deems desirable.
- d. **General Counsel** -- The General Counsel shall be the chief legal officer of the University, shall be appointed by the Board to serve at the pleasure of the Board, and shall have such duties and responsibilities as may be assigned by the Board. The General Counsel shall serve as parliamentarian for meetings of the Board, unless a different individual is appointed to serve as parliamentarian by the Chair of the Board.
- e. Any vacancy in any office of the Board caused by any reason may be filled by the Board for the unexpired term.

4. **Committees**

- a. **Executive Committee** -- The Chair of the Board, subject to approval of the Board, shall appoint from the Board an Executive Committee of three members, and may fill vacancies at any time. The Chair of the Board shall serve as one of the three Executive Committee members and as the Chair of the Executive Committee. Such Executive Committee members shall hold office until their successors have been duly appointed. The Executive Committee, when the Board is not in session, shall have the powers of the Board to take such action as the Executive Committee may deem to be in the best interest of the University; provided, however, that such action shall be in accord with the provisions of these bylaws, and not in conflict with the standing rules and regulations of the Board. A complete

record of all actions of the Executive Committee shall be kept by the Secretary of the Board, and a copy of such record shall be submitted to each member of the Board monthly and in advance of the next regular meeting of the Board. Actions of the Executive Committee may be ratified, approved, or modified at the next regular meeting of the Board, but any modification thereof shall be prospective only. If, at its next regular meeting, the Board takes no action on an Executive Committee action, the record of which was submitted to the Board prior to that regular meeting, such action shall be deemed ratified by the Board. The vote of any members on any question coming before the Executive Committee may be taken in person, by telephone, telegraph, facsimile transmission, email or letter. Concurrence of three members shall constitute action of the Executive Committee. The Executive Committee shall be entitled to take such action as deemed necessary under the provisions of Section 172.230 and other provisions of the Revised Statutes of the State of Missouri, as amended.

- b. **Other Committees** -- The Chair of the Board may appoint subject to approval of the Board other standing or special committees of the Board from time to time and delegate to such committees such authority as the Board may deem appropriate to carry out the objects of such committees. Membership on such committees need not be limited to members of the Board.
5. **Quorum** -- Five members of the Board of Curators shall constitute a quorum for the transaction of any and all business of the Board. Except as otherwise provided by these bylaws, a majority of the members of any committee of the Board shall constitute a quorum for the transaction of any and all business of the committee at any committee meeting held in conjunction with a meeting of the Board. All members of any committee of the Board shall constitute a quorum for the transaction of any and all business of any committee at any committee meeting which is not held in conjunction with a meeting of the Board.
6. **Action by Majority** -- Any action by the Board or any committee may be taken by the majority vote of the members present at any meeting of the Board or a committee when a quorum is present, unless otherwise specifically herein provided.
7. **Recording Vote** -- The Secretary of the Board shall keep the minutes of the meetings of the Board of Curators and committees in which shall be recorded the vote on all motions or resolutions coming before said Board or committee. Roll call votes shall be taken when required by law and voice votes shall be taken on all other matters. When taking a voice vote, curators will be requested to cast their vote orally indicating whether they favor, oppose or abstain from the motion or resolution. When the results of a voice vote indicate that the vote is not unanimous of all curators

voting and abstaining, a roll call vote on the matter shall immediately follow.

8. **Delegation of Authority** -- So much of the authority of the Board as it may deem necessary may be delegated to such officers and employees or to committees appointed by the Board provided such delegation of powers shall be given by recorded Board action.

D. **Article IV Organization of the University**

1. **President of the University**

- a. The President of the University shall be the chief executive and academic officer of the University. The President shall have direct charge of, and be directly responsible to the Board for the operation of the University.
- b. The President shall, so far as his/her duties may permit, attend all meetings of the Board and of the Executive Committee, but he/she may be excused at any time.
- c. He/she shall, at each regular meeting of the Board, report upon the progress, condition and needs of the University, and recommend such measures as in his/her judgment will promote the University's interests.
- d. The President of the University, as the chief academic officer of the University, shall be responsible to the Board for the academic programs of the University; procurement of staff; the establishment and maintenance of separate schools, colleges and departments of instruction within the University; the relationships and coordination of educational activities between campuses, special divisions and units; and the planning, development and carrying out of all research projects.
- e. The President, as the chief academic officer of the University, shall have the right to preside and vote at any faculty meeting. He/she shall appoint all non-Board committees of the University, unless otherwise provided by the Board.
- f. Any University Rules and Regulations, Executive Orders and Executive Guidelines of the President or delegations of general authority shall be filed with the Secretary of the Board and unless otherwise specified, shall be effective from the time of such filing until changed, modified or repealed by the President or by the Board.
- g. The President of the University will establish policies for intercollegiate athletics in compliance with the rules and regulations of applicable regional or national athletic conferences or associations, so long as these rules and regulations are not in conflict with policies, rules or regulations of the Board. The President will report periodically to the Board of Curators on the intercollegiate athletic programs.

2. **Campuses of the University**

- a. **General**
 - (1) Campuses of the University of Missouri shall be established by the Board. Each campus shall be a unit of the University.
 - (2) Campus chancellors, provosts and other officers as may be specifically designated by the Board shall be appointed by the Board upon recommendation of the President.
 - b. **Individual Campuses** -- Until otherwise provided by the Board, there are the following campuses of the University (to include their respective sites, academic programs, and administrative staff as now constituted):
 - (1) University of Missouri-Columbia;
 - (2) Missouri University of Science and Technology;
 - (3) University of Missouri-Kansas City; and
 - (4) University of Missouri-St. Louis.
3. **University System Units** -- University System units may be created to carry out such functions as may be assigned them by the President of the University. These units shall be under the direct supervision of the President, but shall perform their functions in consultation and cooperation with the chief administrative officer of each campus as to their activities and programs on the respective campuses.

E. Article V Academic Staff

1. Until further order of the President or the Board, the colleges, schools and other departments with offices of deans or department directors as presently established and degrees as presently offered shall be continued.
2. Faculties may organize to carry out the responsibilities and functions which may be delegated to them. The form of any such organization and any amendments or modifications thereto shall be presented through the President to the Board for its approval before becoming effective. Notwithstanding any language to the contrary set forth anywhere else in the Collected Rules and Regulations, any and all changes to undergraduate admissions standards shall be subject to formal review and approval by the Board of Curators before becoming effective.

F. Article VI Students

1. A **student** at the University shall be any person who is registered in or pursuing any educational program of the University.
 - a. Temporary interruptions of registration between academic periods of the University shall not necessarily terminate student status.
 - b. Such students are subject to classifications, as may be established from time to time by the Board or the President, and shall be subject to such rules, regulations and restrictions as may now be established or hereafter from time to time established by the Board or the President.
2. **Delegation of Administration**

- a. The Board of Curators hereby delegates to the President of the University the responsibility for administering policies pertaining to the conduct of students and student organizations at the University as such conduct relates to the lawful mission, process or function of the University.
 - (1) The President may issue University Rules and Regulations and may authorize campus rules and regulations to be adopted, issued and published implementing Board Rules and Regulations establishing standards of conduct and to provide for administration of University and campus regulations.
 - (2) Failure to adopt such rules and regulations, however, shall not relieve any student or student organizations of the obligation to adhere to Board Rules and Regulations establishing general standards of student conduct.
- b. University or campus rules, regulations and procedures as herein authorized shall be in accordance with the Board Rules and Regulations and shall provide for prompt consideration and disposition of alleged violation of such University or campus rules and regulations; provided, however, that such procedures shall be in accordance with basic standards of fairness and shall be simple and appropriate to the nature of the case, and shall provide for notice and a hearing.
- 3. Until changed, modified or repealed, the provisions of the present Board Rules and Regulations relating to students which are not inconsistent with the provisions of these bylaws shall be considered to be in force.

G. Article VII Board Rules and Regulations

- 1. Any action by the Board establishing policy or methods of procedure, administrative, business, academic, or otherwise, shall be known as "Board Rules and Regulations."
- 2. Board Rules and Regulations may be adopted by the Board, or may be amended or repealed, in whole or in part, at any meeting of the Board.
- 3. All policies and procedures falling within the definition of Board Rules and Regulations as herein defined, and in existence upon the date of the adoption of these bylaws, shall be a part of the Board Rules and Regulations.
- 4. Board Rules and Regulations shall be effective upon adoption by the Board unless a different effective date be fixed by the Board.
- 5. The Secretary of the Board shall keep all Board Rules and Regulations on file in his or her office, and may publish Board Rules and Regulations from time to time.
- 6. In the absence of an applicable bylaw, the Board shall be guided by Roberts Rules of Order, particularly those rules relating to Boards.

H. Article VIII Amendment of Bylaws

1. New bylaws may be adopted, and bylaws may be amended or repealed, at any meeting of the Board, but no such action shall be taken unless notice of such proposed adoption, amendment, or repeal shall have been given at a previous meeting or notice in writing of the proposed change shall have been served upon each member of the Board at least thirty days in advance of the final vote upon such change; provided, however, that by consent of each member, regardless of whether present at the meeting of the Board, the requirements for such notice may be waived at any time. Any provisions of these bylaws, with the exclusion of this Section 10.030H.1 pertaining to the amendment of bylaws, may be suspended in connection with the consideration of a matter before the Board by an affirmative vote of not less than 2/3 of the members of the Board in attendance at the meeting where such suspension is being considered.

I. Article IX Adoption of Bylaws

1. These bylaws shall be and become effective on the 1st day of July, 2010. All former bylaws of the Board are hereby repealed.
2. These bylaws, as adopted and from time to time amended, shall be known and cited as Board Bylaws of 2010.

FINANCE COMMITTEE

Todd P. Graves, Chair
Robert D. Blitz
Robert W. Fry
Keith A. Holloway

The Finance Committee (“Committee”) oversees the fiscal stability and long-term economic health of the University. The Committee will review and recommend policies to enhance quality and effectiveness of the finance functions of the University.

I. Scope

In carrying out its responsibilities, the Committee monitors the University’s financial operations, fundraising performance, debt level, capital priorities and investment performance; requires the maintenance of accurate and complete financial records; and maintains open lines of communication with the Board about the University’s financial condition.

II. Executive Liaison

The Vice President for Finance of the University or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include

- A. Reviewing and making recommendations to the Board on the following matters:
 1. University operating budget and financial plan;
 2. University capital budget and master facility plans;
 3. capital projects;
 4. tuition, fees and housing rates;
 5. state appropriation requests;
 6. pursuant to applicable Collected Rules and Regulations, contracts and reports;
 7. insurance brokers and self-insurance programs;
 8. pursuant to applicable Collected Rules and Regulations, real estate sales, purchases, leases, easements and right-of-way agreements;
 9. the issuance of debt;
 10. asset allocation guidelines and other policies related to the University’s investment management function; and
 11. additional matters customarily addressed by the finance committee of a governing board for an institution of higher education.
- B. Providing governance oversight to:
 1. long-range financial planning strategies;
 2. fundraising and development strategies;
 3. total indebtedness and debt capacity of the University;
 4. the investment portfolio performance; and
 5. the financial condition of the pension fund.
- C. Reviewing periodic reports including:
 1. quarterly and year-end financial reports that measure the University’s fiscal condition;
 2. annual purchasing reports on bids and equipment leases;

3. quarterly debt-management reports;
4. quarterly and year-end investment performance reports;
5. semi-annual reports on development and fundraising activities; and
6. other financial reports as requested by the Committee.

Fiscal Year 2025 Budget Update UM

At the April 2024 Board of Curator's meeting, Executive Vice President for Finance and Operations Ryan Rapp will provide an update on development of budgets for Fiscal Year (FY) 2025. The FY2025 operating budget will be presented for approval at the June meeting.

Executive Summary

The University remains well positioned financially, with a balance sheet within credit medians and a history of positive operations. If financial performance continues the trend through the first two quarters of FY2024, the University's consolidated operating margin performance will remain positive but fall below target. The University is well positioned to absorb a single year of underperformance. However, the trend in financial performance for FY2024 is not sustainable and must improve. The FY2025 budget planning cycle will focus on improving FY2024 results in FY2025 to historical levels and credit medians. Multiple years of performance at FY2024 levels would negatively impact the University's financial position.

MU Healthcare, while still projecting to maintain a positive operating margin, is the primary driver of the pressure on consolidated financial performance. Industry headwinds, several years of operating results below target, significant capital investment, and increased debt load have challenged the financial condition of the healthcare enterprise. While not wholly unexpected with a period of investment, the onset of a pandemic, and the acquisition of a financially challenged community hospital, the current level of performance is not sustainable. The financial resources of the hospital and the consolidated enterprise are not limitless, and the FY2025 budget process will focus MU Healthcare on improving financial condition. MU Healthcare has begun work on a financial improvement plan and reported out initiatives and progress at the April Health Affairs Committee meeting. To date, the rating agencies have given health systems time to turnaround, however, the university's consolidated credit rating is at risk if healthcare performance does not improve over the next two years.

The academic core of the University remains in a good position, with state appropriations tracking at inflation and enrollment outperforming the public averages for Missouri. The academic institutions have been able to keep budgets balanced by managing expenditures within available revenues. Leading indicators for fall enrollment remain strong, and research growth continues to support additional revenue growth. The key for the FY2025 budget process at the academic institutions is managing performance issues that have arisen outside the academic core with a combination of revenue increases coupled with cost decreases.

FY2024 Consolidated University Performance to Credit Agency Reports

Moody's and S&P reports issued in 2023 for the University indicate a stable outlook. Credit opinions highlighted the University's strong financial management along with good revenue diversity and substantial economies of scale. The agencies cited the strength of the University's brand, position as a land grant research institution and position as an important regional healthcare

provider all as credit strengths. The reports reviewed the University’s FY2022 financial performance, as FY2023 financial statements had not been issued at the time of the credit review.

Moody’s highlights the institution’s sound financial management and ability to deliver a 14% EBIDTA margin as a credit strength. The university’s detailed financial and capital planning remains a key strength, lending to predictable financial results and reflecting solid performance history. The significant pension exposure and a high exposure to the healthcare industry both present credit challenges.

Each agency also highlights factors that could lead to a negative credit action. For the most recent credit updates, those factors include the following:

- Material demand decline leading to operating cash flow margin falling below 10% on a sustained basis. In terms of the University’s financial performance, this would be equivalent to an operating margin below zero at the consolidated level.
- Significant weakening in financial leverage or reserves.

FY 2024 Performance is Below Credit Medians

The University’s consolidated operating performance in FY2024 is projected to fall below levels from the credit review on FY2022 information. Operating cash flow margin (otherwise known as EBIDTA) represents operating earnings before any depreciation of capital or interest on debt. The table below presents operating cash flow margin for comparison to the 10% marker outlined in the Moody’s credit rating report.

Figure 1: Operating Cash Flow Margin for Aa1 Public Institutions, FY2022

Operating Cash Flow Margin – Aa1	
U. of Iowa	18.7%
Texas Tech System	17.9%
U. of Delaware	15.1%
Virginia Tech	15.0%
U. of Pittsburgh	15.0%
Ohio State	14.6%
U. of Missouri System FY22 - Median	14.3%
North Carolina State	13.7%
U. of Minnesota	13.4%
Penn State	12.7%
U. of Utah	12.4%
U. of Nebraska	12.4%
U. of Colorado	12.4%
U. of Missouri System Projected FY24	11.2%
U. System of Maryland	10.4%



Figure 1 presents the operating cash flow margin for the Aa1 public universities, based on the latest median data available from Moody’s. The University operating cash flow margin was at the median for FY2022. For FY2024, the University projects operating cash flow margin to decline to 11.2%. While this metric remains above 10% for FY2024, continued underperformance in FY2025

to budget would continue to place downward pressure on this metric. The University can sustain a single year of performance at this level, but multiple years of performance at this level would draw down reserves and place pressure on the credit rating.

The target for reserves (spendable cash to operations) is a key indicator of balance sheet strength and drives the majority of the University’s credit score. Spendable Cash to Operations shows the relative size of liquid reserves (non-endowed investments) to the operating expenses of the organization.

Figure 2: Liquidity and Leverage Metrics for Aa1 Public Institutions, FY2022

Spendable Cash to Operations	
U. of Pittsburgh	2.25
U. of Delaware	1.77
U. of Minnesota	1.51
Penn State	1.14
Texas Tech System	1.13
U. of Iowa	1.13
U. of Colorado -Median	1.08
U. of Nebraska	1.07
Ohio State	1.05
North Carolina State	1.02
U. of Missouri System FY22	0.99
Virginia Tech	0.96
U. of Missouri System Projected FY24	0.82
U. System of Maryland	0.75
U. of Utah	0.57



Figure 2 presents the spendable cash to operations metric for the Aa1 public universities, based on the latest financial metrics available. These quantitative metrics provide a benchmark for the University’s liquidity and leverage in relation to Aa1 public institutions. The University’s underperformance on operations coupled with more rapid expenditure growth is reducing this metric. The University targets spendable cash and investments to operations of 1.0, which is slightly below the current median. A continued downward trend in operating performance will continue to drive this measure down, which is how the rating agencies measure reserve levels.

At the April Board Meeting, Janney, the University’s Financial Advisor, will provide an update on the University’s debt portfolio. In general, the University remains well positioned with debt levels inside its rating band. If operating performance does not improve, debt capacity metrics will be lower as debt size in the credit band is measured based upon consolidated operating earnings and size of liquid assets.

Drivers of Operating Performance Decline

The operating margin is an annual performance metric approved each year by the Board at its June meeting and is the only recurring source of cash to fund growth, capital investments, and debt. Operating margin is different from operating cash flow margin in that it subtracts both interest on

debt and depreciation on capital assets. Misses to budgeted operating margin are concentrated at the MU healthcare entities, which account for \$46M of the \$60M projected miss.

Table 1: Operating Margin by Unit

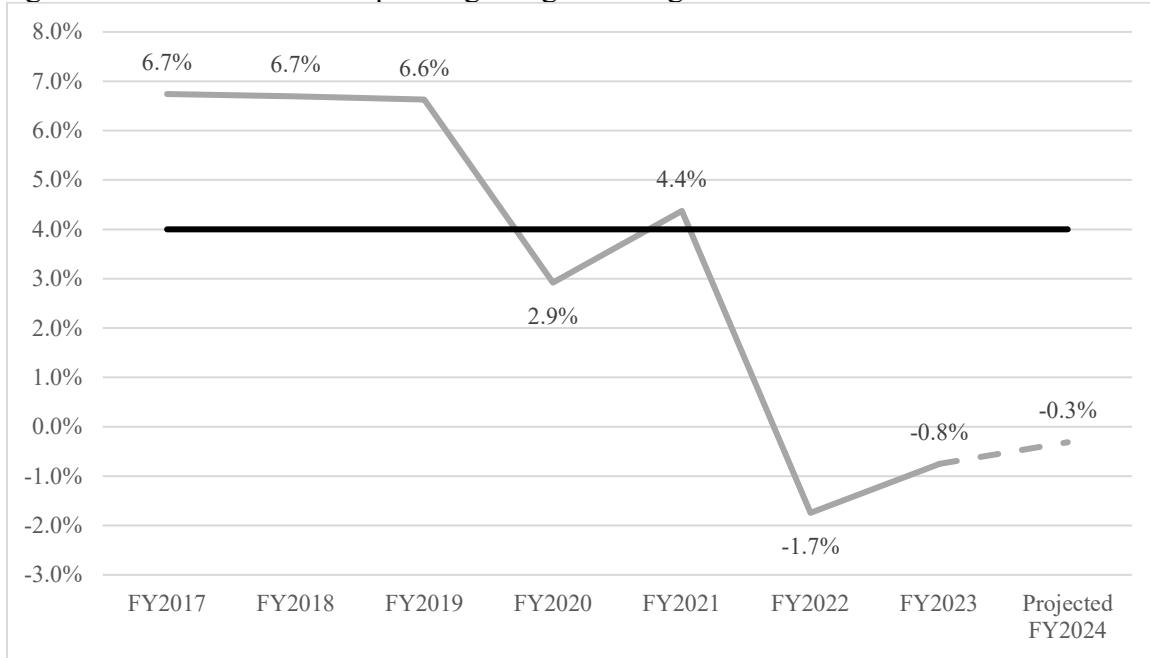
	Consolidated	MU	UMKC	Missouri S&T	UMSL	MU Healthcare (Columbia)	CRMC
FY2024 Projection	0.8%	1.0%	2.2%	2.9%	-1.4%	1.9%	-8.8%
FY2024 Budget	2.2% ¹	1.8%	1.8%	2.6%	0.2%	4.9%	-6.4%
Margin Budget Variance	\$(60)M	\$(12)M	\$2M	\$1M	\$(4)M	\$(43)M	\$(3)M

Note 1: Approved consolidated budget from June 2023 without Capital Regional Medical Center (CRMC) equates to 2.7%. When CRMC budget added to consolidated total, margin drops to 2.2%.

Table 1 reflects the projected operating margin by unit as compared to budget. The University’s consolidated operating margin is projected to decrease to 0.8% in FY2024 and fall below the budget. The budget is the annual performance requirement, whereas the operating margin target is what the institution must average over a five-year period to meet the performance requirement in the plan. The operating margin targets are set at levels to fully fund capital plans and operational growth over the plan horizon within the University’s credit rating.

For FY2024, expense growth continues to outpace growth in revenues, driving margins down. The largest variance by unit both in terms of percentage and dollars is at MU Healthcare. The academic units have returned to historical margins within target range as the injection of pandemic stimulus has fallen off. MU Healthcare’s underperformance to budget is the primary driver for the consolidated operating margin being below target. Despite the return of performance to historical levels within the academic units, academic operating margins are no longer sufficient to offset the underperformance of MU Healthcare at the consolidated level.

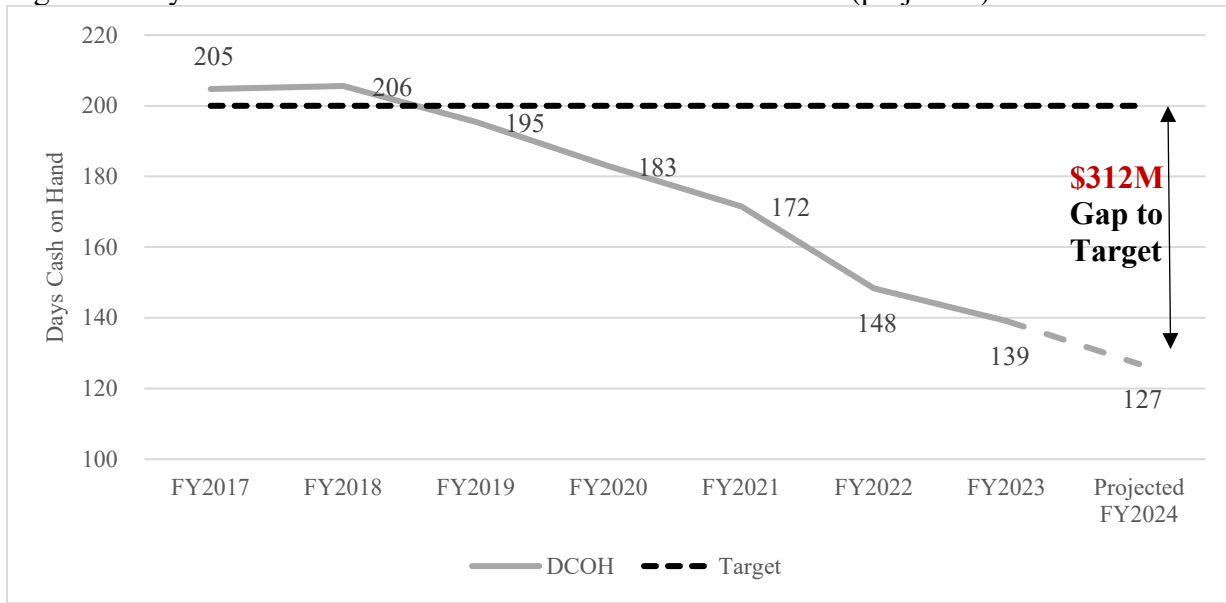
Figure 3: MU Healthcare’s Operating Margin to Target



Note: Operating margin includes CRMC across all years and adjustment for academic support provided to MU. Previous target excluded these two impacts and was set at 7%.

Figure 3 presents MU Healthcare's operating performance since FY2017 and demonstrates that the operating margin target of 4% set for healthcare is achievable and lower than historical performance, reflecting realities after the pandemic. MU Healthcare faces financial constraints as expenditure growth has outpaced operating revenue growth, starting in FY2020. Labor costs continue to consume a higher percentage of net patient service revenue over the pre-pandemic average. The integration of Capital Regional Medical Center (CRMC) has further stressed margins, as expected, and budgeted. There will continue to be pressure on consolidated financial resources until MU Healthcare is able to execute a FY2025 budget at target. Multiple years of underperformance has led to a significant reduction in MU Healthcare’s days cash on hand.

Figure 4: Days Cash on Hand MU Healthcare FY2017 – FY2024 (projected)



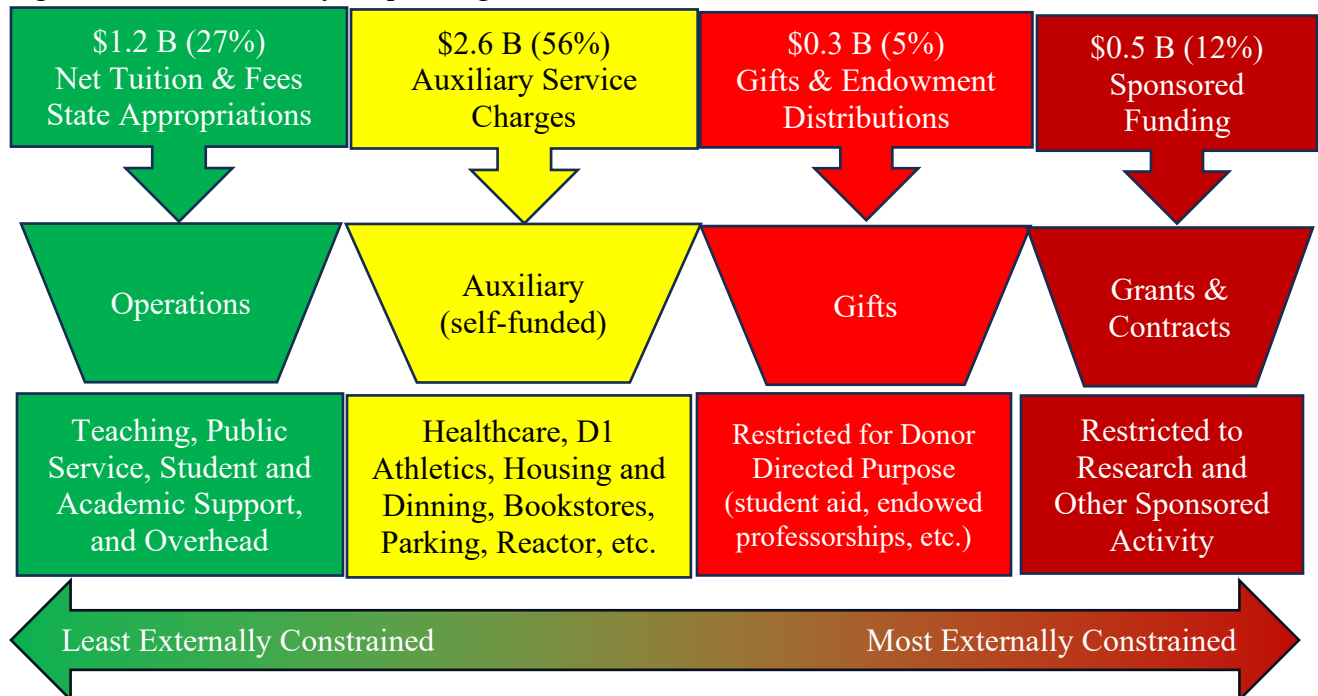
Note: Chart includes CRMC as consolidated into MUHC.

Figure 4 presents MU Healthcare’s days cash on hand since FY2017. Days cash on hand is the healthcare industry measure for the spendable cash to operations metric. MU Healthcare remains the largest driver of the University’s reserve metric decline. MU Healthcare started the year 30% below target. MU Healthcare’s expenditure growth continues to exceed budget and operating performance continues to miss on budget. Cash balances throughout 2024 have continued to fall due to underperformance and capital investment in the new Children’s Tower. While the gap in cash cannot be solved in one year, MU Healthcare needs to improve performance in FY2025, adding cash at a faster rate than expense growth. MU Healthcare is executing on a financial improvement plan for both Columbia and Jefferson City to improve performance for FY2025.

Academic Enterprise performing close to budget, with improvement necessary in auxiliaries.

The University benefits from a diverse revenue stream. The “Colors of Money” illustration in Figure 5, presents the different types of revenue sources that support the University’s mission. This graphic depicts the different types of funding sources for the University, color coded similar to a stoplight to represent the level of spending restriction on the funding source. This is a useful way to segment the University’s operation and move a layer beneath the consolidated performance.

Figure 5: Color of Money - Operating Revenue



The operations fund, shown in green on the chart, is where the bulk of the University’s teaching, academic creative works, public service, and supporting service activities occur. Its primary funding sources are tuition and fees and state appropriations, although it does receive some support from unrestricted auxiliary operations in the form of overhead payments for services provided by the operations fund (such as accounting, procurement, legal, grant management, facilities, etc.). In addition, the operations fund receives facilities and administrative cost recovery funding from grants and contracts to partially offset the costs of providing space and support services (overhead) to grants and contracts. Operations fund revenues are the most valuable because they are the least constrained by third parties. Operations fund revenues contribute 27% of total current fund revenues.

Auxiliary funds are shown in shades of yellow on the chart. The primary source of funding for this group is fees for services provided. These operations are treated as separate enterprises and are expected to set fees for their services to cover their current operating costs plus depreciation, which is set aside for future capital and equipment replacement. Included in this category are University Hospitals and clinics, student auxiliaries (housing, dining, bookstores, and recreation centers), intercollegiate athletics, student unions, research reactor, service operations (energy

management, facilities design and construction, telecommunications, etc.), continuing education and self-insurance funds. These activities comprise 56% of the current fund budget.

Third parties, primarily donors and granting agencies, restrict the remainder of the current funds between Gifts and Grants & Contracts. Gift funds must be spent within donor stipulations. Most gifts the University receives are restricted based upon the donor’s intent. These funds are shown in red on the chart because there is very little flexibility in how the funds are spent. Gift funds include both gifts available for current use from donors and the spending distributions from the endowment fund. Grants and Contracts require delivery on a set scope of work. Grants and contracts are primarily for specific research, although some grants and contracts fund public service and instructional activities. This fund is also where federal financial aid is budgeted and accounted for due to the restricted nature of these funds. Restricted funds contribute to 17% of the current funds budget. The growth in grants has been significant, with grants growing from 7% of the budget in 2019 to 12% of the budget in 2024.

Figure 6: Net Operating Income by Fund Type for Universities

	Operations	Auxiliary	Gifts & Grants	Operating Cash Flow Margin	Depreciation & Interest Expense	Net Operating Income
FY2024 Budget	\$176M	\$55M	\$32M	\$263M	\$(222)M	\$41M
Budget Variances						
MU	23M	(25)M	0M	(2)M	(10)M	(12)M
UMKC	4M	(2)M	3M	5M	(3)M	2M
S&T	3M	(1)M	0M	2M	(1)M	1M
UMSL	0M	0M	(3)M	(3)M	(1)M	(4)M
FY2024 Projection	\$206M	\$27M	\$32M	\$265M	\$(237)M	\$28M

Figure 6 shows the breakdown of revenues less related expenses for each type of fund based upon the colors of money. This figure highlights that auxiliary enterprises are driving the budget underperformance to budget. The University’s operating fund is projected to overperform budget by \$30 million whereas auxiliary enterprises are projected to underperform budget by \$28 million.

MU’s auxiliary operations are projected to underperform budget by \$25 million. The key to the FY2025 budget process will be restoring auxiliary performance to historical levels, which will then balance operating margin and generate positive cash flows and reserves. If the University cannot balance the auxiliary operation, it will ultimately have to look to the academic core and deferment of capital to improve financial performance. MU is already working on cost containment measures that are available to improve auxiliary performance for the second half of the fiscal year. MU has started the FY2025 budget process and is developing plans to balance underperformance within auxiliary operations.

FY2025 Budget Outlook for University of Missouri

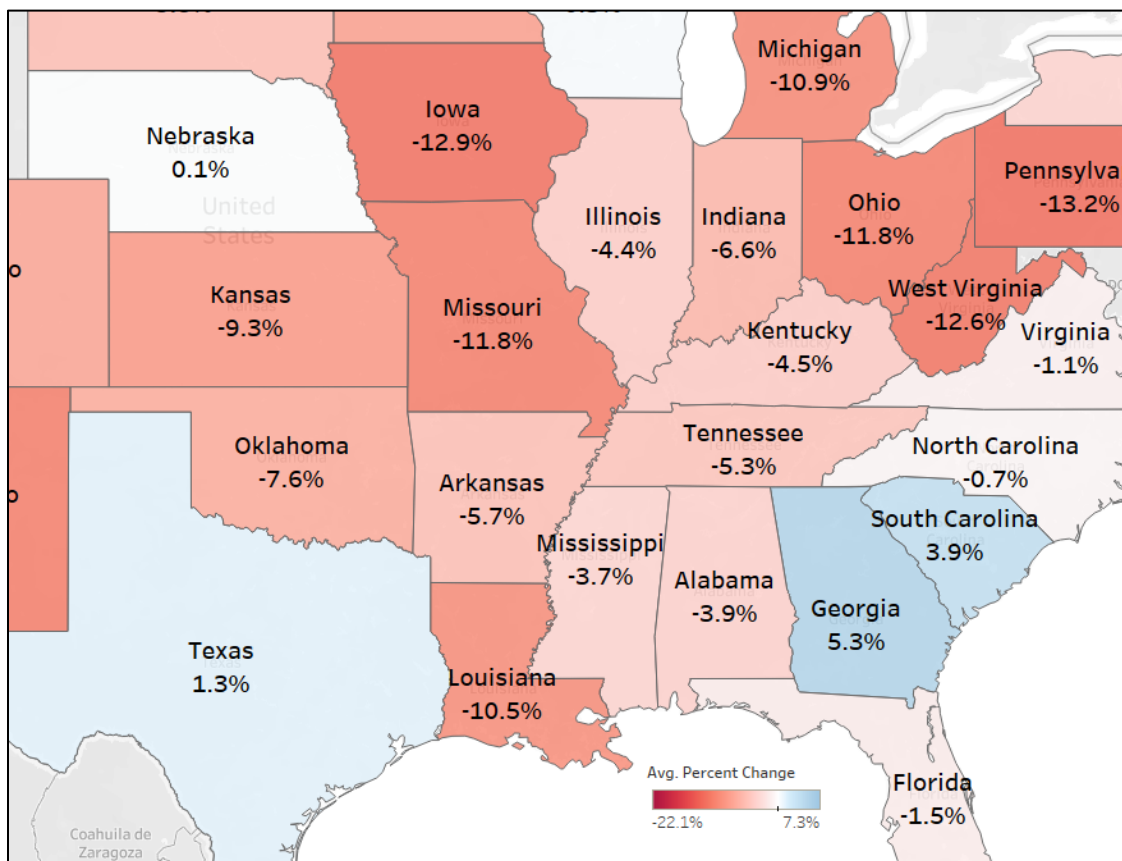
The section that follows outlines the current planning assumptions being utilized to build the FY2025 operating budget for the Universities and the Health System. The key for the budget

process will be delivering balanced financial performance that is more in line with FY2022 and FY2023 performance levels.

Net Tuition & Fees are the cornerstone to sustain a quality research university and a relatively strong market position. Tuition coupled with state support builds the base of funding for academic operations as they are the primary funding sources unencumbered by restrictions that relate to the core mission.

The primary driver of net tuition revenue is enrollment. The state of Missouri continues to see downward trends in four-year public higher education enrollment, on the higher end of the trend in surrounding states.

Figure 7: Change in Undergraduate Enrollment Fall 2018 to 2023 by State, Public four-years.



Source: National Student Clearinghouse Research Center

Figure 7 presents the undergraduate enrollment change by state from Fall 2018 to 2023. Over this period, the undergraduate population at Missouri four-year public universities experienced a 11.8% decline.

Figure 8: Change FTE Enrollment Fall 2018 to 2023 for Missouri Public four-year Institutions.

Institution	Fall 2018	Fall 2023	Student Change	Percent Change
MU	25,357	26,926	1,569	6.2%
UMKC	11,424	10,634	(790)	-6.9%
UMSL	9,487	8,128	(1,359)	-14.3%
Missouri S&T	7,235	6,076	(1,159)	-16.0%
Total UM	53,503	51,764	(1,739)	-3.3%
Northwest Missouri State	5,594	6,367	773	13.8%
UCM	8,852	8,619	(233)	-2.6%
SEMO	8,519	7,519	(1,000)	-11.7%
Missouri State	18,195	16,011	(2,184)	-12.0%
Lincoln University	1,899	1,389	(510)	-26.9%
Missouri Southern State	4,682	3,049	(1,633)	-34.9%
Missouri Western State	4,154	2,633	(1,521)	-36.6%
Harris Stowe	1,523	964	(559)	-36.7%
Truman	5,098	2,913	(2,185)	-42.9%
Total Other 4 Years	58,516	49,464	(9,052)	-15.5%

Source: Missouri Coordinating Board for Higher Education

Figure 8 presents the total enrollment change over the same period for Missouri four-year public institutions. The decline has not been uniform across institutions. Over the five-year period, only MU and Northwest Missouri State grew enrollment. Enrollment declined at the remaining 11 institutions, with the majority experiencing a double-digit decrease. UM System institutions remain above the average decline for four-year regional institutions, demonstrating relative brand strength.

For the FY2025 budget process, the University remains focused on the key leading indicators on fall 2024 enrollment. The key metrics to watch as a leading indicator on enrollment are applications, acceptances, and deposits.

Table 2: First-time Freshman Cohort Trends (FTC) by University

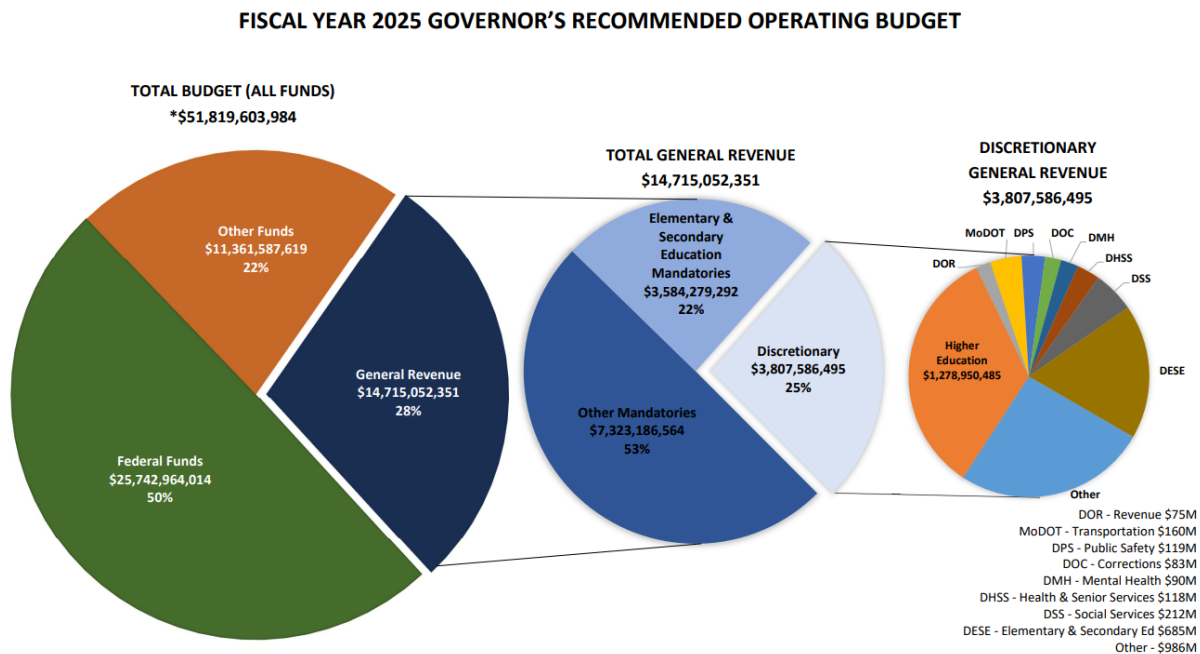
	MU	UMKC	S&T	UMSL
FTC Change from PY in				
Applications	13.3%	4.8%	-2.8%	40.0%
Admits	15.8%	0.5%	3.5%	50.3%
Deposits	7.0%	1.9%	21.9%	4.5%
FTC Accepts Fall 2024	5,644	786	1,107	323

As of March 2024, application, admission, and deposit trends remain positive for first time college students across the four universities. Current students admitted with paid deposits are up across

all four institutions. If these positive trends continue through the spring, overall enrollment across the System could remain flat as the size of the incoming freshman class should be large enough to account for a similar sized graduating senior class. The University also continues to improve retention rates, with Fall 2023 reporting a decade high of 87% for the System and 91% for MU. Increased retention also helps to improve enrollment. The Universities remain focused on generating positive outcomes for students, starting with admitting a quality class, retaining them throughout their career, graduating them on time, and placing them into a job with earnings sufficient to justify their cost of education.

The University of Missouri continues to receive inflationary increases in *State Appropriations*. For FY2025, the Governor’s budget includes a 3% increase in recurring core appropriations. This stacks upon multiple increases close to inflation since the abatement of the pandemic. The University represents a significant portion of the state’s “Discretionary” general revenue.

Figure 9: Governor’s Operating Budget by Funding Restrictions



Higher education accounts for 34% of discretionary spending for the State. If the state faces any economic downturns and or revenue reductions, the University will likely be one of the first state expenditures impacted. This is no different than many other states, where higher education remains the balance wheel of state budgets.

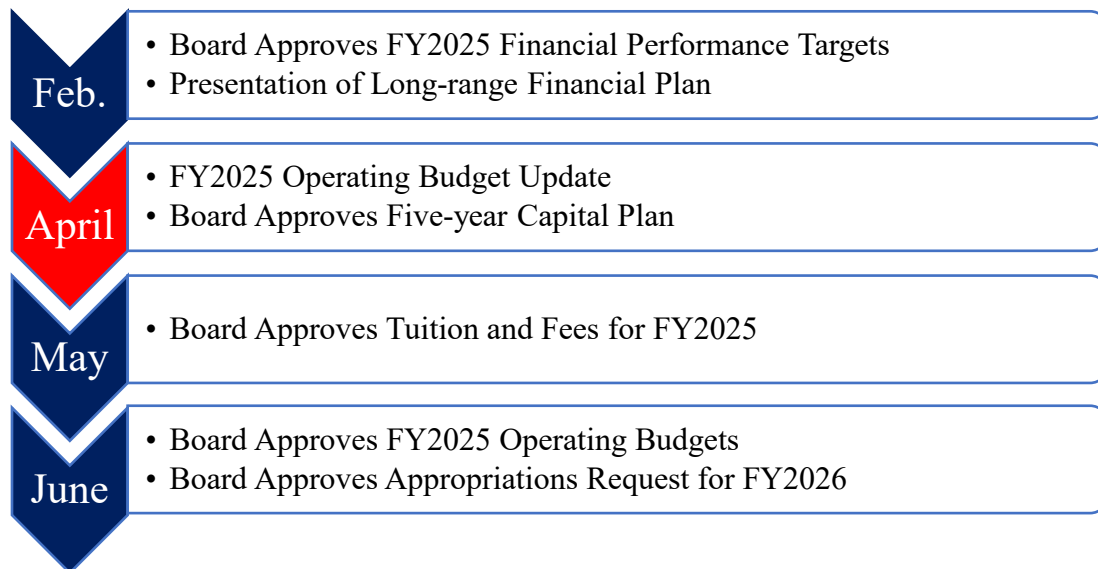
Auxiliary Enterprises are self-supporting operations that run on a breakeven or better basis. The primary focus of the FY2025 budget process will be on improving the performance of underperforming auxiliary units. Performance improvement will be delivered through a combination of revenue growth through volume and inflationary price increases combined with expenditure reductions. If the auxiliary units cannot achieve historical levels of performance, the University will look to reduce overhead and capital spending to balance the FY2025 budget.

Gifts and Endowment Distributions support 5% of the University’s total operating revenue and does not include permanently endowed or capital philanthropy funds given to the University. The budget process will look to ensure that gift funds remain in balance, spending only the available revenues for FY2025 expenditures.

Grants & Contracts represent contractual revenues to perform activities related to the University’s core mission, generally undertaken on a cost-reimbursement basis. These revenues represent 12% of total operating revenues for the University and remain a source of revenue growth. To the extent faculty salaries are placed on grants without cost backfill on the operating funds, grants and contracts can be a helpful way to grow. However, in the aggregate, grants and contracts are not structured to make money due to federal costing principles. At the University, on average, research costs about \$1.24 for every dollar of research revenue generated. The source for that subsidy is generally tuition or state appropriations, as the other portions of the University’s revenue are generally offset with breakeven expenses. This expense is largely driven by necessary overhead to cover federal regulations on the operating fund and capital cost reimbursement as depreciated instead of when spent.

Next Steps

To balance the budget for FY2025, the University will have to set priorities and find efficiencies. Through the FY2025 budget process, each university and MU Healthcare will continue to utilize the budget process to focus on managing costs within available revenues and finding efficiencies to deliver on mission. Budgets for FY2025 will include performance-based wage increases that address both market and merit. Wage increases will vary based on unit and employee performance. FY2025 budgets will reflect the necessary actions to deliver on the financial performance expectations set during the financial planning process presented to the Board in February. The full budget will be presented to the Board for approval in June.



Between the April and June Board meetings, the University’s leadership team will take any feedback from the Board and incorporate it into the current budget planning process underway.

FY2025 System Budget Update

April 18, 2024



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN - FIN - INFO - 1-13

April 18, 2024

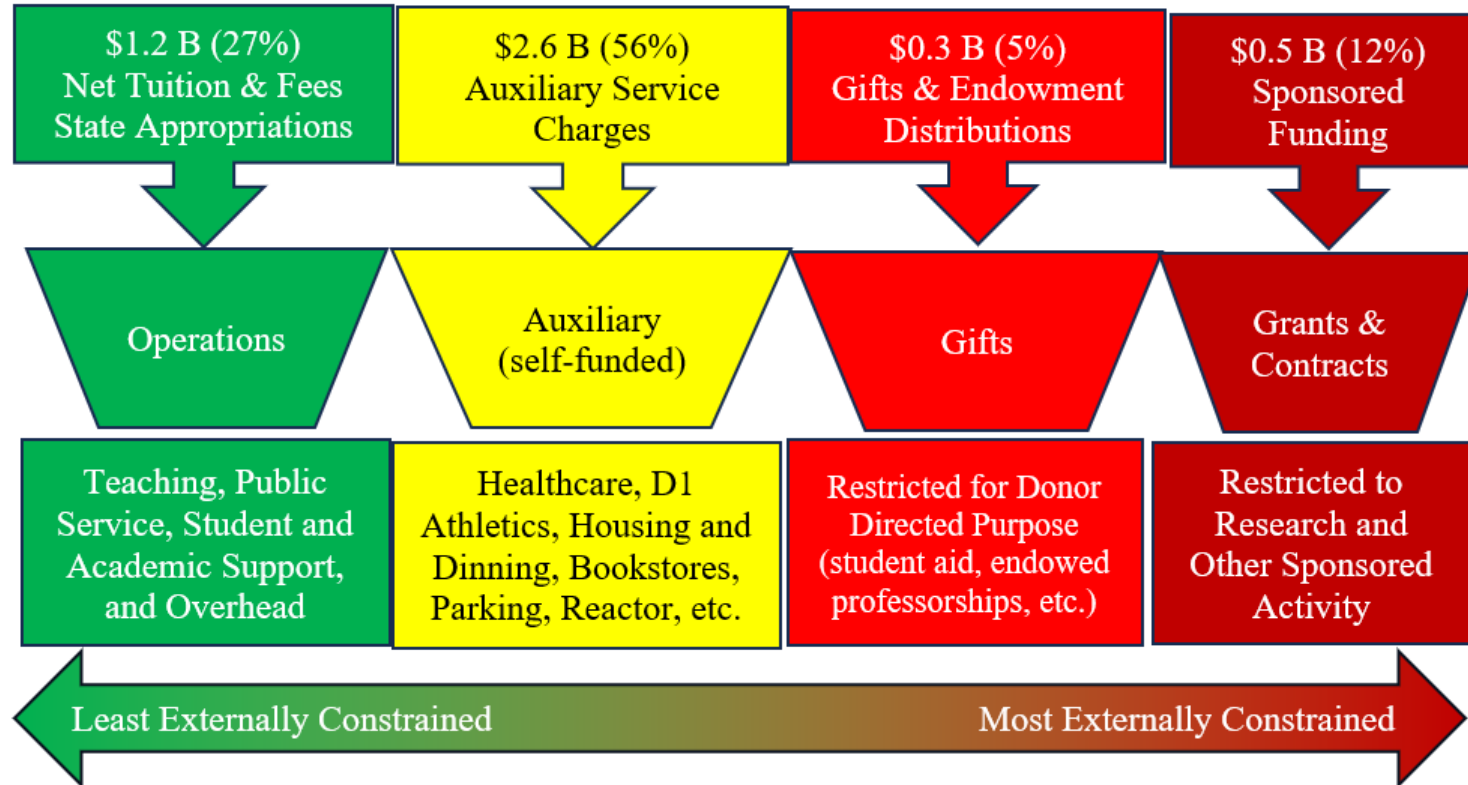
Projected to end FY2024

	Consolidated	MU	UMKC	Missouri S&T	UMSL	MU Healthcare (Columbia)	CRMC
FY2024 Projection	0.8%	1.0%	2.2%	2.9%	-1.4%	1.9%	-8.8%
FY2024 Budget	2.2% ¹	1.8%	1.8%	2.6%	0.2%	4.9%	-6.4%%
Margin Budget Variance	\$(60)M	\$(12)M	\$2M	\$1M	\$(4)M	\$(43)M	\$(3)M

- Consolidated operating margin remains positive but less than budgeted
- The University's balance sheet remains well positioned financially for FY2024 with projected underperformance
- Financial improvements are necessary for FY2025 to maintain financial position



University Benefits from a Diverse Revenue Stream



- The “Colors of Money” presents the different types of revenue sources that support the University’s mission
- Color coded similar to a stoplight to represent the level of spending restriction



FY2025 Enrollment Outlook

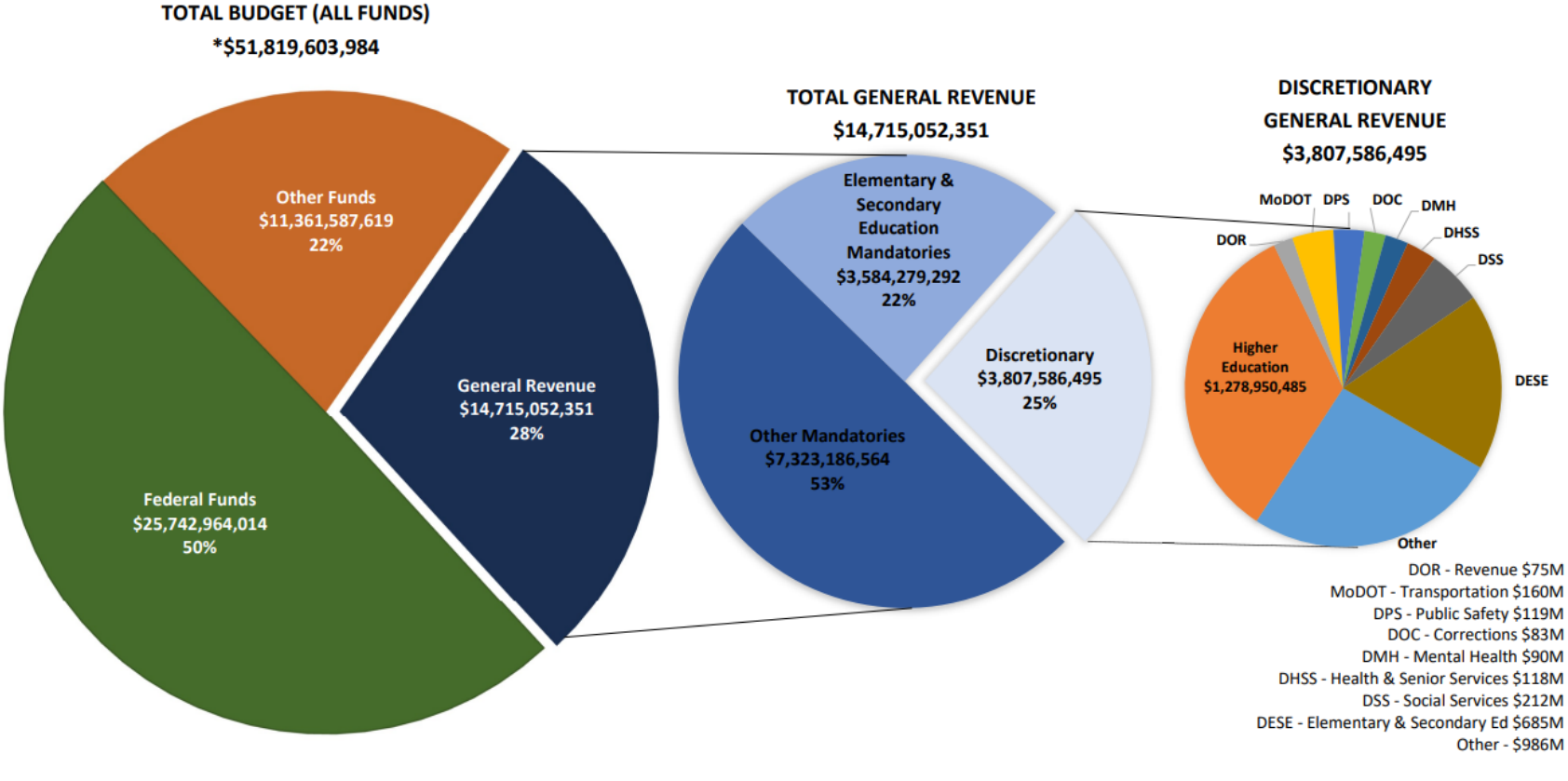
	Fall 2018	Fall 2023	Student Change	Percent Change
MU	25,357	26,926	1,569	6.2%
UMKC	11,424	10,634	(790)	-6.9%
UMSL	9,487	8,128	(1,359)	-14.3%
Missouri S&T	7,235	6,076	(1,159)	-16.0%
Total UM	53,503	51,764	(1,739)	-3.3%
Total Other MO 4-Year Public Institution	58,516	49,464	(9,052)	-15.5%

- Over the last five years UM System institutions remain above the average decline for four-year regional institutions
- Key leading indicators for Fall 2024 enrollment (applications, admits and deposits) trends remain positive for FTC student across the four UM institutions



Governor's Budget Includes 3% Increase

FISCAL YEAR 2025 GOVERNOR'S RECOMMENDED OPERATING BUDGET



FY2025 Budget Outlook

- FY2025 budget cycle will focus on improving operating performance closer to historical levels and credit medians
- Competition for enrollment will increase, and maintaining enrollment within a solid pricing strategy will be a key to generating resources for the University's academic mission
- University continues to receive inflationary increases in recurring core appropriations along with continued one-time funding for capital projects
- Budgets will reflect the necessary actions to deliver on the financial performance expectations set during the financial planning process
- Budgets will include performance-based wage increases that address both market and merit



UMKC

MISSOURI
S&T

UMSL

Questions



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN - FIN - INFO - 1-19

April 18, 2024



————— University of Missouri System —————

Debt & Credit Update
UM

At the April 18, 2024 Board of Curators meeting, Rob Kanzer, Managing Director, Head of Higher Education and Not-For-Profit Advisory Group with Janney and financial advisor to the university and Kevin Hogg, Treasurer, UM System will provide an update on the university's debt portfolio and credit profile.

As of June 30, 2023, the university's outstanding debt totaled approximately \$1.5 billion. The University is rated Aa1 and AA+ by Moody's and Standard & Poor's, respectively, and is amongst the highest of rated public higher education institutions.

APRIL 18, 2024



DEBT PORTFOLIO & CREDIT PROFILE UPDATE

UNIVERSITY OF MISSOURI SYSTEM



Executive Summary

Debt & Credit Update (as of June 30, 2023)

- There were no significant changes made to the debt portfolio and the System's ratings during FY23
 - Total Debt Outstanding: \$1.64 billion⁽¹⁾
 - Portfolio Debt Mix: 96% fixed rate debt / 4% variable rate debt (excluding interest rate swaps)
 - Credit Ratings⁽²⁾: Aa1/stable (Moody's) and AA+/stable (S&P); amongst the highest of rated public institutions

Outlook for Future Portfolio Management

- Future activity will be driven by projected capital plans and available funding sources
- The System is contemplating a potential financing transaction in early FY25 that may include the following:
 - New Capital: Up to \$240 million of capital needs for the Women's & Children's Hospital project and CRMC integration which could be funded by long-term debt.
 - Refinancing/Restructuring: Continue to monitor the portfolio for opportunities to reduce cost which may include Series 2014A as well as outstanding Build America Bonds (Series 2009A and 2010A)

(1) Includes System Facilities Revenue Bonds and commercial paper.

(2) Both ratings were subsequently affirmed with a stable outlook in December 2023 (FY24).

System's Financing Team



DEBT PORTFOLIO UPDATE



Debt & Derivatives Portfolio Summary (as of 06/30/23)

SYSTEM FACILITIES REVENUE BONDS

Series	Tax Status	Coupon	Next Call Date	Final Maturity	Outstanding Par
Series 2007B	Tax-Exempt	Variable	Any Date	2031	70,735,000
Series 2009A	Taxable (BABs)	Fixed	Make-Whole	2039	246,230,000
Series 2010A	Taxable (BABs)	Fixed	Make-Whole	2041	252,285,000
Series 2013A	Tax-Exempt	Fixed	Non-Callable	2023	1,590,000
Series 2013B	Taxable	Fixed	Make-Whole	2043	150,000,000
Series 2014A	Tax-Exempt	Fixed	11/01/2024	2035	180,350,000
Series 2014B	Taxable	Fixed	Make-Whole	2054	150,000,000
Series 2020A	Taxable	Fixed	Make-Whole	2050	400,000,000
Series 2020B	Tax-Exempt	Fixed	Non-Callable	2030	190,200,000
Commercial Paper	Tax-Exempt/Taxable	Variable	N/A	N/A	0
Sub-Total					1,641,390,000

NOTES, LEASES, & OTHER OBLIGATIONS

Type of Obligation	Tax Status	Coupon	Next Call Date	Final Maturity	Outstanding Par
Notes Payable	Taxable	Fixed	N/A	2030	2,033,000
Financed Purchase Obligations	Taxable	Fixed	N/A	2029	45,088,000
ROU Lease Obligations	Taxable	Fixed	N/A	2048	108,797,000
Health Facilities Revenue Bonds ⁽¹⁾	Tax-Exempt	Fixed	N/A	2040	39,467,000
Sub-Total					195,385,000

Total Debt & Other Obligations

1,836,775,000

SUMMARY OF DERIVATIVES PORTFOLIO

Counterparty/Related Debt	Effective Date	Termination Date	University Pays	University Receives	Outstanding Notional
JPMorgan (2007B)	07/26/2007	11/01/2031	3.798%	68% SOFR + 0.11448%	70,735,000
JPMorgan (N/A) ⁽²⁾	07/18/2002	11/01/2032	3.950%	SIFMA	40,000,000
Bank of America (N/A) ⁽²⁾	12/14/2006	08/01/2026	3.902%	SIFMA	41,120,000
Total					151,855,000

(1) The Health Facilities Revenue bonds were subsequently defeased during FY24.

(2) These swaps were subsequently terminated during FY24.

Debt Portfolio Outlook

- The System is contemplating a potential financing transaction in early FY25 that may include up to \$240 million of new capital for the Women's & Children's Hospital project and CRMC integration which were temporarily financed with Central Bank balances.
- It is possible that other elements of the portfolio could converge in the first half of FY25 to also be included in the bond issue.
 - Refunding of Series 2014A bonds which have a call date of November 1, 2024 (the bonds could potentially be refunded in advance of the call date depending on market conditions).
 - Refunding of Series 2009A and 2010A Build America Bonds which are subject to a make-whole call but may present an opportunity to eliminate federal subsidy risk depending on market conditions.
- It will be important to analyze each element separately and determine the appropriate approach and timing.

CREDIT PROFILE UPDATE



Credit Profile

(Moody's: Aa1/Stable; S&P: AA+/Stable)

Credit Strengths

- Large revenue base continues to grow and provides for significant economies of scale
- Ample wealth and liquidity will continue to provide significant credit strength and financial flexibility
- Consistent operating surpluses and sound liquidity reflect prudent financial management and oversight

Credit Challenges

- Student demand challenges driven by weaker regional demographics and competitive conditions
- Research profile remains below peer levels, with sizable investment underway driving growth
- Manageable financial leverage, but a considerable pension liability

Rating Agency Commentary

Rating Agency Commentary on risk factors positively impacting the System's credit:

- Position as Missouri's flagship and land-grant institution; close alignment with the Aaa-rated State of Missouri
- State financial support is solid relative to peer competitors
- Good diversity across enrollment and healthcare operations supports substantial scale and helps mitigate the challenges associated with weak regional demographics and heightened competition
- Closely integrated enrollment, financial and capital planning contribute to excellent financial policy and strategy

Rating Agency Commentary (continued)

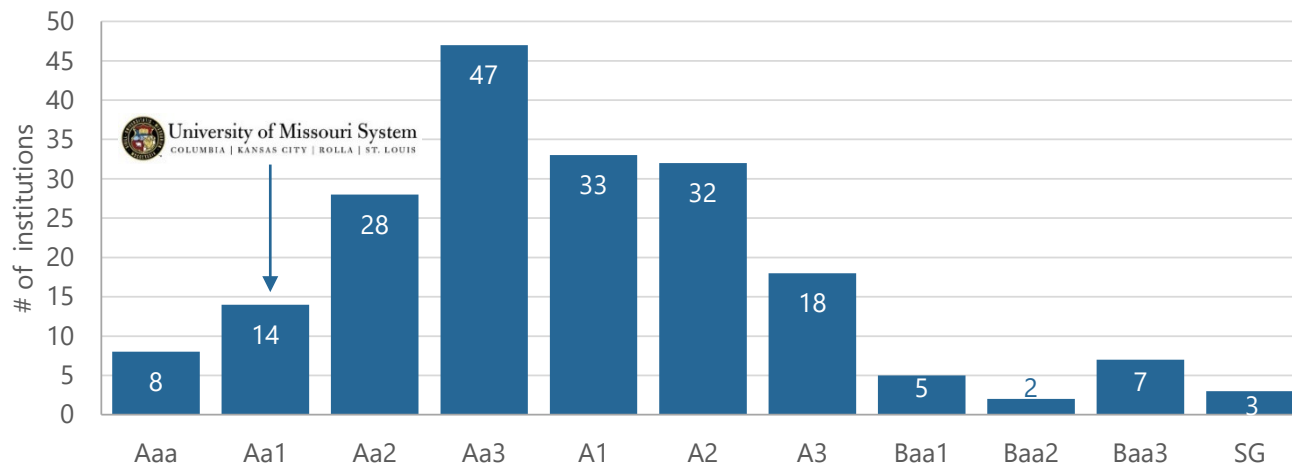
Rating Agency Commentary on risk factors that could lead to a downgrade. In the 2023 reports, operating performance and liquidity profile were highlighted as potential risk factors for the System.

Moody's	S&P
2023 Report	2023 Report
<ul style="list-style-type: none">▪ Material downturn in demand leading to an erosion in operating performance and a move to below 10% EBIDA margins on a sustained basis▪ Significant weakening in financial leverage or a deterioration in liquidity profile	<ul style="list-style-type: none">▪ If enrollment declined substantially, the university established a trend of full-accrual deficits, or financial resource ratios deteriorated substantially from current levels.

Credit Strength & Strategic Use of Debt

- The System maintains strong credit ratings (see chart below) based on its essential role as a key provider of public higher education and healthcare in the Aaa-rated State of Missouri.
- The consolidated credit of the System provides low-cost capital for all campuses and constituents.
- The rating impact of new debt will depend on the strategic nature of projects being financed.
- The ability to afford additional debt will depend on UM's future financial performance relative to credit peers.
- Debt capacity is a limited resource, and the System should continue to make capital investments that align with the mission of the institution.

Moody's Rating Distribution (Public Institutions)



Source: Moody's Investors Service

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Five-year Capital Plans for MU, MU Health Care, Missouri S&T, UMKC, and UMSL

The capital planning process includes development of a five-year capital plan that will be reviewed and approved annually by the Board of Curators. The capital plan contains two sections, the five-year capital plan included in the five-year finance plan and the strategic development project plan for aspirational strategic projects not currently included in the finance plan. This process allows for execution of the current year plans and will provide additional time for fundraising, working with legislature, and additional due diligence during years two through five. The capital plans will assist in driving any official fundraising campaigns for capital projects. Major capital projects will be approved by the Board of Curators before being incorporated into any approved capital plans, budget plans, or long-range business plans. Major capital projects include any new construction over \$5 million in project cost or any renovation/infrastructure improvements over \$8 million in project cost.

The capital planning process and investment in existing facilities are two key components of Facilities Stewardship. Facilities stewardship takes a long and broad view of an institution's past and future. The University of Missouri System is comprised of over 1,350 buildings, four primary campuses and a health care system. UM education and general (E&G) facilities have over \$2.1 billion in facilities needs (FCN), resulting in the facilities portfolio being rated in fair condition. In total, the University targets all buildings to average a facility condition need index (FCNI) of 0.30 (fair condition). The FCNI compares the value of facilities needs to the total value of the buildings. Currently, only UMSL has a FCNI worse the goal of 0.30. UMSL's current capital plan spends the majority of fund on renovation to address a number of facilities needs while also taking unused space offline.

To be a good steward of available capital funding, the University must be deliberate in setting capital priorities to uphold stewardship responsibility. FCNI has improved with space planning, prioritizing key buildings, and taking old and unused space offline over the course of multiple years. The scale of capital is large and deferrals of maintenance cannot be solved quickly. The capital planning process is critical in ensuring the university upholds responsibility for capital over the long run.

Included herein is the current year, FY24, and the FY 2025 - 2029 Capital Project Plans for review and approval. The enclosed information includes:

- Facilities Stewardship information with historic spending.
- Capital Plans included in the five-year finance plans summary table of all proposed projects by category (new construction or renovation/infrastructure) with campus priority, project cost, and the year anticipated for Curator approval; summary table of project funding sources; and project descriptions.
- Strategic Projects Development Plans summary table for aspirational strategic projects not yet included in the five-year finance plan and project descriptions.

April 18, 2024

No. 1

Recommended Action - Approval of Five-year Capital Plans for MU, MU Health Care, Missouri S&T, UMKC and UMSL

It was recommended by President Choi, Chancellor Agrawal, Chancellor Dehghani, and Chancellor Sobolik, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the:

MU: Capital Plan included in Finance Plan:

- Center for Energy Innovation (A/E Hire April 2023)
- NextGen MURR Phase I
- MU Research Reactor Lab Expansion (A/E Hire Feb 2024)
- Radioisotope Facility at Discovery Ridge
- Electrical Interconnection and Substation (A/E Hire Feb 2023)
- Pickard Hall – Decommissioning and Mitigation

Strategic Projects Development Plan:

- Memorial Stadium Improvements
- Animal Resource Center – Vivarium Facility Expansion
- Roy Blunt NextGen Precision Health Building – 4th Floor
- New Swine Research Facility
- Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement

MUHC: Capital Plan included in Finance Plan:

- Children’s Hospital Facility – Third Floor Surgery Fit-Out

Strategic Projects Development Plan:

- MUHC Campus Consolidation & Inpatient Services Expansion

UMKC: Capital Plan included in Finance Plan:

- KCUR Building

Strategic Projects Development Plan:

- New Brookside Arena
- Olson Performing Arts Center Addition & Renovations
- New Science, Engineering, and Research Building

S&T: Strategic Projects Development Plan:

- Bioplex
- Physics Building Renovation
- Innovation Campus Program Expansion
- Computer Science Building Renovation
- Scaling Facility
- Partnership Research Facility
- University Center West

UMSL: Capital Plan included in Finance Plan:

- Central Utility Plant – North Campus

Strategic Projects Development Plan:

- Stadler Hall Renovation

be approved for further planning and development as described in the following materials.

Roll call vote of the Committee:	Yes	No
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		

The motion _____.

Roll call vote:	Yes	No
Curator Blitz		
Curator Brncic		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Layman		
Curator Sinquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

April 18, 2024

Fiscal Years 2024 – 2029 Capital Plan included in Finance Plan for University of Missouri

#			2024*	2025	2026	2027	2028	2029
#		University	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5
#	New Construction		\$95,000,000	\$291,000,000	\$0	\$0	\$0	\$
1	Center for Energy Innovation (A/E Hire April 2023)	MU		\$160,000,000				
2	NextGen MURR Phase I	MU	\$36,000,000					
3	MU Research Reactor Lab Expansion (A/E Hire Feb 2024)	MU	\$34,000,000					
4	Radioisotope Facility at Discovery Ridge	MU		\$39,000,000				
5	Electrical Interconnection and Substation (A/E Hire Feb 2023)	MU		\$42,000,000				
1	Children’s Hospital Facility - Third Floor Surgery Fit-Out	MUHC		\$50,000,000				
1	KCUR Building	UMKC	\$25,000,000					
	Renovation/Infrastructure		\$15,000,000	\$10,000,000	\$0	\$0	\$0	\$0
6	Pickard Hall – Decommissioning and Mitigation	MU		\$10,000,000				
1	Central Utility Plant – North Campus	UMSL	\$15,000,000					
	Total Project Cost		\$110,000,000	\$301,000,000	\$0	\$0	\$0	\$0

*Projects listed under 2024 are projects approved or will request approval during FY24.

April 18, 2024

Projects						Funding Strategy					
#	Title	University	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
	Center for Energy Innovation	MU	NC	\$0	0	\$160,000,000	\$0	\$50,000,000	\$80,000,000	\$0	\$30,000,000
1	NextGen MURR Phase One	MU	NC	\$0	0	\$36,000,000	\$0	\$0	\$6,000,000	\$20,000,000	\$10,000,000
2	MU Research Reactor Lab Expansion	MU	NC	\$0	0	\$34,000,000	\$0	\$0	\$34,000,000	\$0	\$0
3	Radioisotope Facility at Discovery Ridge	MU	NC	\$0	0	\$39,000,000	\$0	\$0	\$0	\$20,000,000	\$19,000,000
4	Electrical Interconnection and Substation	MU	INFR	N/A	N/A	\$42,000,000	\$0	\$0	\$22,000,000	\$0	\$20,000,000
5	Pickard Hall – Decommissioning and Mitigation	MU	Demo	\$6.5M	0.47	\$10,000,000	\$0	\$0	\$10,000,000	\$0	\$0
6	Children’s Hospital Facility - Third Floor Surgery Fit-Out	MUHC	NC	N/A	N/A	\$50,000,000	\$0	\$0	\$50,000,000	\$0	\$0
1	KCUR Building	UMKC	NC	NA	NA	\$25,000,000	\$0	\$25,000,000	\$0	\$0	\$0
1	Central Utility Plant – North Campus	UMSL	INFR	NA	NA	\$15,000,000	\$0	\$0	\$8,771,630	\$0	\$6,228,370
Total						\$411,000,000	\$0	\$75,000,000	\$210,771,630	\$40,000,000	\$85,228,370

April 18, 2024

Fiscal Years 2024 – 2029 Strategic Projects Development Plan for University of Missouri (Considered for Years 2-5)

Project						Funding Strategy					
#	Title	University	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Memorial Stadium Improvements	MU	NC	NA	NA	\$250,000,000	\$75,000,000	\$125,000,000	\$50,000,000	\$0	\$0
2	Animal Resource Center - Vivarium Facility Expansion	MU	NC	NA	NA	\$8,000,000	\$0	\$0	\$0	\$8,000,000	\$0
3	Roy Blunt NextGen Precision Health Building - 4th Floor Innovation Tower Fit-out	MU	NC	NA	NA	\$8,400,000	\$0	\$0	\$8,400,000	\$0	\$0
4	New Swine Research Facility	MU	RE	N/A	N/A	\$10,000,000	\$0	\$0	\$10,000,000	\$0	\$0
5	Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement	MU	RE	\$15.2M	0.27	\$15,000,000	\$0	\$0	\$0	\$0	\$15,000,000
1	MUHC Campus Consolidation & Inpatient Services Expansion	MUHC	NC	N/A	N/A	\$93,000,000	\$93,000,000	\$0	\$0	\$0	\$0
1	New Brookside Arena	UMKC	NC	NA	NA	\$60,000,000	\$15,000,000	\$30,000,000	\$15,000,000	\$0	\$0
2	Olson Performing Arts Center Addition & Renovations	UMKC	NC/RE	\$10.3M	0.41	\$70,000,000	\$0	\$60,000,000	\$10,000,000	\$0	\$0
3	New Science, Engineering, and Research Building	UMKC	NC	NA	NA	\$125,000,000	\$0	\$50,000,000	\$0	\$0	\$75,000,000
1	Bioplex	S&T	NC	\$0	0.00	\$117,568,000	\$0	\$67,568,000	\$0	\$0	\$50,000,000
2	Physics Building Renovation	S&T	RE	\$15.0	0.41	\$27,105,751	\$0	\$0	\$0	\$0	\$27,105,751
3	Innovation Campus Program Expansion	S&T	NC	NA	NA	\$95,000,000	\$0	\$15,000,000	\$0	\$40,000,000	\$40,000,000
4	Computer Science Building Renovation	S&T	RE	\$11.4 M	0.52	\$20,616,123	\$0	\$0	\$0	\$0	\$20,616,123
5	Scaling Facility	S&T	NC	NA	NA	\$25,000,000	\$0	\$0	\$0	\$25,000,000	\$0
6	Partnership Research Facility	S&T	NC	NA	NA	\$21,581,857	\$21,581,857	\$0	\$0	\$0	\$0
7	University Center West	S&T	NC	\$1.8 M	0.16	\$11,191,515	\$0	\$0	\$11,191,515	\$0	\$0
1	Stadler Hall Renovation	UMSL	RE	\$30M	0.57	\$38,500,000	\$0	\$0	\$0	\$0	\$38,500,000
Total						\$995,963,246	\$204,581,857	\$347,568,000	\$104,591,515	\$73,000,000	\$266,221,874

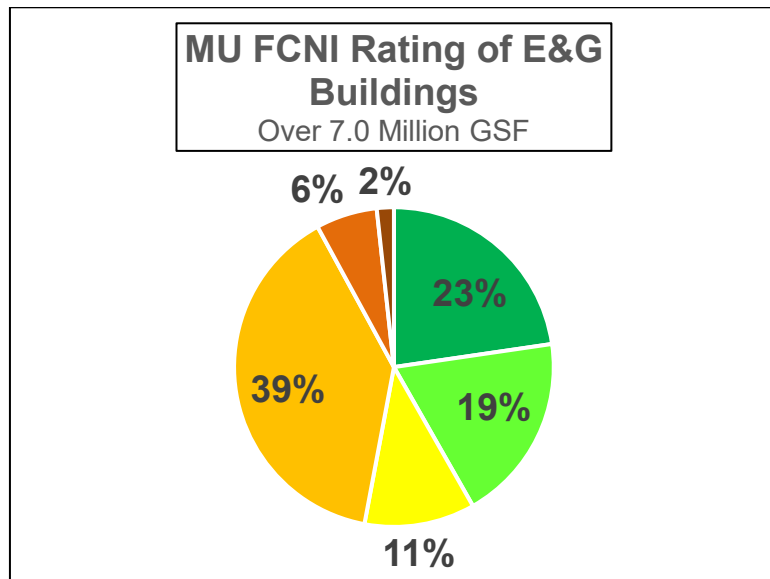
April 18, 2024

University of Missouri – Columbia
Fiscal Year 2024 - 2029 Capital Plan

University of Missouri - Columbia Facilities Stewardship

CRR 110.015 was established to maintain the facilities of the University of Missouri System in adequate condition to meet the needs of the University’s education and research missions. A Facilities Condition Needs Index (FCNI) of 0.30 or lower was established as the goal for the Education and General (E&G) facility portfolio. CRR 110.015 also requires each campus to annually establish its facilities needs funding (target spend) by calculating the investment required to achieve and maintain the campus FCNI goal of 0.30 or lower for its E&G facilities over the next ten years.

MU currently has a FCNI of 0.26 and a backlog of \$941.8 million of facilities needs. Forty-seven percent (47%) of the E&G space on the campus fall in the category of Below Average Condition, Poor condition, or Replacement is recommended. Ten facilities (over 411,000 gsf) were demolished in FY2023 and eliminated over \$111 million of facilities critical needs. This demolition and prioritization helped bring MU’s FCNI back above the target level.



E&G Facilities <i>(Dollars shown in Millions)</i>	2019	2020	2021	2022	2023
Target Spend	\$55.9	\$59.0	\$60.2	\$60.9	\$68.4
Actual Spend	\$21.6	\$28.5	\$13.9	\$23.9	\$17.5
Recurring	\$16.3	\$12.7	\$8.1	\$6.4	\$11.9
One-Time	\$5.3	\$15.8	\$5.8	\$17.5	\$5.6
Difference in Target and Actual	(\$34.3)	(\$30.5)	(\$46.3)	(\$37.0)	(\$50.9)
FCN Backlog	\$840.9	\$867.8	\$881.6	\$958.4	\$941.8
Deferred Maintenance	\$442.0	\$443.4	\$446.8	\$502.2	\$498.9
Plant Adaption	\$115.0	\$118.3	\$120.5	\$129.3	\$117.3
Capital Renewal	\$283.9	\$306.1	\$314.3	\$326.9	\$325.6
Recommended Target for next year	\$59.0	\$60.2	\$61.0	\$68.4	\$52.2
Campus FCNI	0.31	0.31	0.30	0.31	0.26

Facility Condition Needs Index
Excellent Condition, typically new construction (0.000 - 0.100)
Good Condition, renovations occur on schedule (0.101 - 0.200)
Fair Condition, in need of normal renovation (0.201 - 0.300)
Below Average Condition, major renovation required (0.301 - 0.500)
Poor Condition, total renovation indicated (0.501 - 0.600)
Replacement Recommended (0.600 and Higher)

April 18, 2024

University of Missouri - Columbia: Fiscal Years 2024 – 2029 Capital Plan included in Finance Plan

Projects	2024*	2025	2026	2027	2028	2029
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$70,000,000	\$241,000,000	\$0	\$0	\$0	
Center for Energy Innovation (A/E Hire April 2023)		\$160,000,000				
NextGen MURR Phase I	\$36,000,000					
MU Research Reactor Lab Expansion (A/E Hire Feb 2024)	\$34,000,000					
Radioisotope Facility at Discovery Ridge		\$39,000,000				
Electrical Interconnection and Substation (A/E Hire Feb 2023)		\$42,000,000				
Renovation/Infrastructure	\$0	\$10,000,000	\$0	\$0	\$0	
Pickard Hall – Decommissioning and Mitigation		\$10,000,000				
Total Project Cost	\$70,000,000	\$251,000,000	\$0	\$0	\$0	

* Projects listed under 2024 are projects approved or will request approval during FY24

April 18, 2024

University of Missouri – Columbia: Fiscal Years 2024 – 2029 Capital Plan included in Finance Plan Funding

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Center for Energy Innovation	NC	\$0	0	\$160,000,000	\$0	\$50,000,000	\$80,000,000	\$0	\$30,000,000
2	NextGen MURR Phase One	NC	\$0	0	\$36,000,000	\$0	\$0	\$6,000,000	\$20,000,000	\$10,000,000
3	MU Research Reactor Lab Expansion	NC	\$0	0	\$34,000,000	\$0	\$0	\$34,000,000	\$0	\$0
4	Radioisotope Facility at Discovery Ridge	NC	\$0	0	\$39,000,000	\$0	\$0	\$0	\$20,000,000	\$19,000,000
5	Electrical Interconnection and Substation	INFR	N/A	N/A	\$42,000,000	\$0	\$0	\$22,000,000	\$0	\$20,000,000
6	Pickard Hall – Decommissioning and Mitigation	Demo	\$6.5M	0.47	\$10,000,000	\$0	\$0	\$10,000,000	\$0	\$0
Total					\$321,000,000	\$0	\$50,000,000	\$152,000,000	\$40,000,000	\$79,000,000

April 18, 2024

1. Center for Energy Innovation, MU

Enabling Utilities Project February 2024

Architect/Engineer Hire April 2023

Informational Report November 2023

The Center for Energy Innovation (CEI) will consist of approximately 180,000 gross square feet of wet and dry laboratory research space, support functions and services, office, and collaboration spaces. The facility will be sited North of Lafferre Hall on Sixth Street. This is the former site of Parker Hall, Noyes Hall, and Old Student Health Building, three buildings in poor condition recently demolished as part of MU's Strategic Space Reduction initiative.

Through the Center for Energy Innovation, MU is committed to tackling challenges presented through rising energy concerns and rapid growth in artificial intelligence and how the two work together to optimize energy production, transmission and grid security. This facility will bring together engineers, agronomists, physicists, chemist, and public policy experts to provide sustainable solutions for the future and strengthen domestic energy supply. Levels of CEI will be dedicated to nuclear energy and nuclear-engineered materials; hydrogen and renewables; energy storage; and grid security, resilience and innovation alongside public policy. CEI joins a growing tradition at Mizzou of bringing experts in different disciplines together for collaborative innovation.

Given uncertainty in availability of internal funding and giving for the project, full project approval is not being sought at the April Board meeting as previously planned. Once a formal plan of finance has been firmed up with committed sources, the University will proceed with board approval, likely in 2025, but possibly later if budgets become challenged.

Funding for the \$160,000,000 project is provided by \$30,000,000 state, \$80,000,000 internal, and \$50,000,000 in gift funds.

April 18, 2024

2. NextGen MURR - Phase One, MU

This project will construct a new, larger research reactor to expand critical cancer-fighting research and medical isotope production at MU. The University will solicit interest from qualified parties to provide preliminary designs, industry partnerships, and support preparation of regulatory requirements for potential construction at Discovery Ridge in Columbia.

The new NextGen MURR, will build on the internationally recognized excellence of the MU Research Reactor (MURR), the highest-powered university research reactor and the only producer in the United States of the critical medical isotopes yttrium-90, used for the treatment of liver cancer; molybdenum-99, for analysis of heart functions; iodine-131, used for treatment of thyroid cancer; and lutetium-177, used for treatment of pancreatic and prostate cancers.

Funding for the \$36,000,000 project will be from a \$20,000,000 federal appropriation and \$10,000,000 in state funds and \$6,000,000 in internal funds.

3. MU Research Reactor Lab Expansion, MU

Architect/Engineer Hire February 2024

This MURR Lab Expansion project will consist of an approximately 8,000 square foot facility addition to the West side of the MURR Reactor Building, a renovation of adjacent space within the Reactor Building, and a renovation of existing space within the Main Industrial Building. The first floor of the addition and renovation spaces will house new hot cell lines for increased production. The addition will include a second floor for hot cell maintenance access, a penthouse for mechanical equipment, and supplies storage.

MURR's innovative design and operating cycle — operating year-round, 24 hours a day, 6.5 days a week, 52 weeks a year — enables MURR to produce the active ingredients in multiple FDA-approved drugs. More than 1.6 million patients a year are diagnosed or treated using the radioisotopes that MURR produces. Because of MURR's unique capabilities, it is a vital resource for patients, health care providers, researchers and industrial partners across the globe.

For more than 50 years, the faculty and staff of the MURR have promoted groundbreaking research and developed life-saving radiopharmaceuticals. MURR has executed multiple production contracts with pharmaceutical companies, and this project enables the line expansion necessary to deliver upon those contracts. \$29.5M of construction cost will be funded directly by these committed contracts. The \$4.5M cost of the backup line will be financed by MURR reserves generated from MURR earnings.

This project will occur while the current MURR West Addition, approved by the board in June 2022, is still under construction.

Funding for the \$34,000,000 project is from University funding. The majority of the cost will be funded by a contract with a pharmaceutical company.

4. Radioisotope Facility at Discovery Ridge, MU

This project will construct a new, 33,000 gross square feet (gsf), single story radioisotope processing facility at Discovery Ridge. The types of spaces include processing and research spaces, laboratories, storage space for waste, shipping and receiving space, conference rooms, classrooms, and office space for Missouri University Research Reactor (MURR) and the Department of Energy (DOE).

The DOE Isotope Program (DOE IP) has collaborated with the University of Missouri Research Reactor (MURR) for decades. More recently that collaboration has grown such that MURR was one of the first to join DOE IP's University Network. This new partnering approach allows for economical supply of R&D grade Se-75 and Lu-177 by combining unique strengths. Building on the proven partnering abilities and taking a fresh look at core strengths of each organization has led to the concept of establishing a DOE Isotope Processing Center (DOE IPC) at the University of Missouri in Columbia. The proposed Center would leverage MURR's competency and experience in the weekly processing and supply of short-lived isotopes as active pharmaceutical ingredients (APIs).

Funding for the \$39,000,000 project is from anticipated \$20,000,000 federal Department of Energy (DOE) funds and \$19,000,000 state funds.

5. Electrical Interconnection and Substation, MU

Architect/Engineer Hire February 2023

This project will relocate the Stadium Road Electrical Substation currently located on the southeast corner of Monk Drive and Hospital Drive to a new location on the south side of Virginia Avenue to accommodate new redundant transformers, medium voltage breakers, switchgear, and other electrical equipment. Two new overhead 69kV transmission lines, one from the Hinkson Creek Substation and the other from the Grindstone Substation will be constructed from the south of campus to a new 69kV switch station located south of the General Services Building. An underground electrical duct bank will be constructed between the new switch station and the Stadium Road Substation. The interconnection project will ensure the campus has a redundant power supply and additional capacity to meet demand on peak consumption days.

Funding for the \$42,000,000 project is anticipated \$20,000,000 in state funds and \$22,000,000 in internal funds.

6. Pickard Hall - Decommissioning and Mitigation, MU

Pickard Hall is located on the east side of Francis Quadrangle. Currently, the building sits idle due to regulatory complications surrounding the nearly century old contamination from early research in radium extraction. This project will complete the decommissioning process required by the Nuclear Regulatory Commission (NRC). The only way to fully eliminate the long-term liability for MU is to completely remove the building and prepare the site for a future facility. The current building is small but sits on a site that can support more functions in the heart of campus than the current building allows. The site will be prepared for a new signature building, one which respects history yet provides options for the future. The unknown extent of the radium contamination complicates the potential for rehabilitating the building, both in scale and cost. Remediating the contamination necessitates the removal of the basement slab to remove capped piping, removing unknown quantities of brick from the masonry bearing walls, and removing unknown quantities of the wood structural system. These unknowns put the institution at risk for significant cost and time. Complete removal of the building will assure the elimination of the contamination and any regulatory obligations requiring significant staff oversight and unknown future costs. There is, however, no reason to believe that putting off the decision to remove the building will do anything other than allow potential future costs to increase.

Pickard Hall, and the Francis Quadrangle context in which it sits, is important to the physical and emotional fabric of the campus. The intent for future building development is to maintain consistency with the architectural characteristics of the surrounding historic district. Providing a redevelopment site in the core of the historic campus allows the opportunity for a flexible and adaptable building that supports the future goals of the University.

Funding for the \$10,000,000 project is from internal funds.

Removed from Capital Plan:

Ellis Library – MU Student Experience Center (\$15,000,000): The project planned to move student success units into the library from a nearby building. Upon further investigation through a programmatic study, the financial investment was greater than originally estimated. The scale of the financial investment necessitated removal from the capital plan.

University of Missouri - Columbia
Strategic Projects Development Plan

FY 25 – University of Missouri – Columbia: Strategic Projects Development Plan

Project						Funding Strategy				
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Memorial Stadium Improvements	NC	NA	NA	\$250,000,000	\$75,000,000	\$125,000,000	\$50,000,000	\$0	\$0
2	Animal Resource Center - Vivarium Facility Expansion	NC	NA	NA	\$8,000,000	\$0	\$0	\$0	\$8,000,000	\$0
3	Roy Blunt NextGen Precision Health Building - 4th Floor Innovation Tower Fit-out	NC	NA	NA	\$8,400,000	\$0	\$0	\$8,400,000	\$0	\$0
4	New Swine Research Facility	RE	N/A	N/A	\$10,000,000	\$0	\$0	\$10,000,000	\$0	\$0
5	Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement	RE	\$15.2M	0.27	\$15,000,000	\$0	\$0	\$0	\$0	\$15,000,000
Total					\$291,400,000	\$75,000,000	\$125,000,000	\$68,400,000	\$8,000,000	\$15,000,000

April 18, 2024

1. **Memorial Stadium Improvements, MU**

Consultant Selection: Programming Study, December 2023

The Memorial Stadium Improvements project initiates an effort to create an open-air mixed-use development, in the North Concourse area of Memorial Stadium. Such a project embraces the entrepreneurial spirit that has become common and led to profitable ventures in professional sports. The project design must strive to maintain stadium views and engagement to the primary MU Campus north of Memorial Stadium. Primary program elements are envisioned to include: Premium Seating component, variety of improved & modernized concessions, new restroom facilities, new stadium gateway and gate system, multiple open-air observation decks, improved wayfinding and graphics, retail outlets, team recruiting room, engagement between Memorial Stadium and MU campus, integration of new North Endzone scoreboard, preservation and memorialization of the north end zone “M” constructed of rocks.

Funding for the \$250,000,000 project is provided by \$125,000,000 in gifts funds, \$50,000,000 internal funds and \$75,000,000 in debt.

2. Animal Resource Center – Vivarium Facility Expansion

Animal Resource Center is a 20,000 gross square foot (gsf) building, designed for future expansion, constructed with American Recovery and Reinvestment Act (ARRA) federal funds following the 2008 recession. Since the facility's opening in 2013, it has served faculty across the campus in areas of cardiovascular, orthopedic, neural regeneration, and muscular dystrophy. The facility is planned to increase capacity to serve current faculty and future recruitment by creating an addition of approximately 10,000 - 12,000 gross square feet which can operate efficiently through the Division of Research, Innovation, Impact – Office of Animal Resources.

The use of animal models is a significant need in the type of research going forward given investments in faculty hiring in the School of Medicine, College of Veterinary Medicine, College of Engineering, and College of Health Sciences. The investment in the Medical Science Building vivarium completed in 2019 has been successful in meeting current and near-term faculty needs for small animals. Currently, other animal models are located at the Animal Resource Center (ARC) and NextGen Precision Health Building. The addition to the ARC will provide opportunities for additional grant projects by providing an adaptable and separated facility which can be used by a variety of research projects across the campus.

The \$8,000,000 project is a potential federal grant submission or consideration for internal funding.

3. **Roy Blunt NextGen Precision Health Building – 4th Floor Innovation Tower Fit-Out**

The 4th Floor of the NextGen Precision Health Facility was shelled for future fit-out of areas specifically for bench lab research and a component of the floor that is focused on research team office space or office space for partner businesses. A project to fit out the majority of the 4th floor for bench labs and associated office space is complete.

This project would fit-out the final 10,000 square feet of shell space area by upgrading the originally conceptualized partner office space to instead provide another component of wet lab research space. By upgrading the building systems, the space is capable of housing 85 lab workstations, 10 fume hoods, 7 small accessory labs and an office suite for the research teams.

The fit-out of the laboratories will support additional growth in research grants and contracts.

The \$8,400,000 project is under consideration for internal funding.

4. **New Swine Research Facility, MU**

This project will build a new swine research facility at a site to be determined. A study is underway to determine size and location best suited to meet the budget and facilitate the program space to house pigs with surgery and procedure rooms as well as a common lab and office space. This project will expand swine as a biomedical research model program to support a new Institute for Innovative Animal Research. This project supports MU's market leading research on swine models.

The \$10,000,000 project is under consideration for internal funding.

5. **Jesse Hall Exterior Masonry/Metal Repairs and Window Replacement, MU**

The project will repair the exterior deteriorating brick and stone masonry, and ornamental and structural painted metal, and replace the original wood windows.

Jesse Hall has stood as the heart of the iconic campus fabric for more than a century. The building has an FCNI of 0.33 with facility needs over \$30.8 million. The building exterior is a combination of brick and stone masonry with ornamental and structural painted metal with original wood windows which are in various stages of deterioration and rotting. The large size (127,000 gsf) and historic significance of the building make it a potential candidate for investments to improve the condition for the future Tigers to come.

The \$15,000,000 project is under consideration for state funding.

Removed from Strategic Plan:

Memorial Union – Masonry and Exterior Envelope Repairs Phase II (\$11,400,000). The sources of capital are currently under review for exterior repairs on this building and others.

Medical Science Building – Renovation Phase III (\$20,000,000). Research space priorities are reflected in the remaining projects in the strategic capital plan. The “three phase” analysis was a conceptual construct to develop budget planning based on what was current at the time related to potential federal sources. At the early stages of the effort, phase 1 was on the capital plan and then phase 2 & 3 were on the strategic plan due to variability in what was anticipated to be available from federal sources. HRSA funds were only sufficient for phases 1 & 2. Phase 3 will remain tabled as a concept until more funding is identified on the horizon. It is not expected that federal sources will continue at current levels, and remaining effort will be focused on CEI.

Laboratory for Infectious Disease Research (LIDR)– Regional biocontainment facility (\$52,000,000). This project was listed as a potential competition for federal funds based on the Dec 2022 Omnibus bill, that is the only reason it was included on the strategic development plan for the FY24 submission. There has not been any contact from the federal agency, and the federal budgets are becoming more constrained on research priorities. The University will continue to manage the LIDR within federal guidelines and seek funding when available. It is not expected that significant investment will be available in the five year horizon given investments already made.

Bond Life Sciences Center – Phase II (\$80,000,000). Research space priorities are reflected in the remaining projects in the strategic capital plan. The Center for Energy Innovation is the key research related space priority. The animal vivarium, precision health fit out, and swine facility represent more pressing priorities in the strategic listing. The concept will be tabled and could move back onto the strategic plan if a need arises.

MU Health Care
Fiscal Years 2024 – 2029 Capital Plan

MU Health Care: Fiscal Years 2024 – 2029 Capital Plan included in Finance Plan

	2024*	2025	2026	2027	2028	2029
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$0	\$50,000,000	\$0	\$0	\$0	\$0
Children’s Hospital Facility - Third Floor Surgery Fit-Out	\$0	\$50,000,000	\$0	\$0	\$0	\$0
Renovation/Infrastructure	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$50,000,000	\$0	\$0	\$0	\$0

*Projects listed under 2024 are projects anticipated to go to the board for approval during FY24.

MU Health Care: Fiscal Years 2024 – 2029 Capital Plan included in Finance Plan Funding

Projects					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Children’s Hospital Facility - Third Floor Surgery Fit-Out	NC	N/A	N/A	\$50,000,000	\$0	\$0	\$50,000,000	\$0	\$0
Total					\$50,000,000	\$0	\$0	\$50,000,000	\$0	\$0

1. Children’s Hospital Facility - 3rd Floor Surgery Fit-Out, UMHC

The Children’s Hospital Facility (CHF) Third Floor Surgery Fit-Out project will construct seven (7) new operating rooms including an intraoperative MRI, seven (7) Post Anesthesia Care Unit (PACU) bays, fourteen (14) pre/recovery bays, and associated support space for the entire floor.

MU Health Care has recently completed planning for key service lines across the health system. These plans support significant growth in oncology, cardiovascular, neurosciences, women’s health, and pediatrics. Each of these service lines includes surgical care for patients that requires adequate operating room, preparation, and recovery space. In addition to general operating room space, there is a need for an intraoperative MRI to support the neurosciences program. In order to achieve the goals set out in these clinical service line plans, UH must increase capacity of surgical space.

The current surgery space and capacity located on the MUHC main campus (University Hospital and Missouri Orthopaedic Institute) encompasses thirty-six (36) operating rooms, seventy-four (74) prep/recovery and thirty-six (36) PACU rooms/bays. These spaces are inadequate to meet the current and future volume projections and have created a need for additional operating rooms, prep/recovery and PACU space.

The CHF Third Floor has been designated and shelled as a future surgery suite space. The connectivity is directly adjacent to the large Patient Care Tower surgery suite and serves as an operationally efficient expansion of that surgery core for MU Health Care at the University Hospital location.

American Hospital Association (AHA) Industry Standard is 800-1,000 cases per room (all facilities). Since MUHC is an academic, tertiary care center, the lower end (800 cases per room) is the recommended standard. The current thirty-six (36) ORs available at University Hospital (UH) and Missouri Orthopaedic Institute (MOI) includes specialty rooms such as cysto, hybrid, heart, and robotic rooms. Targeted utilization is 75%- 80% capacity to allow for access and flexibility for the unpredictable nature of emergent/urgent cases.

OR Volume Projections			
	FY25	FY28	FY31
Inpatient	9,208	9,760	9,865
Outpatient	18,953	20,012	21,039
TOTAL	28,161	29,772	30,904
OR Demand Based on AHA Industry Standard			
ORs Needed (Based on 80% Utilization)	44.00	46.52	47.02
ORs Available (36 ORs at UH and MOI + 7 New at CHF)	43.00	43.00	43.00

The project budget of \$50,000,000 will be funded from MU Health Care Reserves and be repaid through Operations.

MU Health Care
Strategic Projects Development Plan

FY 25 – MU Health Care: Strategic Projects Development Plan

Projects						Funding Strategy				
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	MUHC Campus Consolidation & Inpatient Services Expansion	NC	N/A	N/A	\$93,000,000	\$93,000,000	\$0	\$0	\$0	\$0
Total					\$93,000,000	\$93,000,000	\$0	\$0	\$0	\$0

1. MUHC Campus Consolidation & Inpatient Services Expansion, UMHC

The MU Health Care Ambulatory Facility/Medical Office Building (MOB) project will construct a four-story clinic building with up to approximately 125,000 to 150,000 gross square feet to accommodate medicine and surgical specialty clinics and departments. The building will be constructed on University owned land.

University Hospital currently has a shortage of space needed for high revenue-generating, hospital-based services such as diagnostic cardiology, cardiac catheterization labs, interventional radiology labs, endoscopy labs, etc. This has a negative impact on access, and consequently, patient and referring physician satisfaction.

A new ambulatory building will allow for growth of medicine and surgical specialties; decant outpatient services to allow for more profitable, hospital-based services; meet ongoing payer and patient demands for more outpatient-based services, abate leases secured for short-term solutions; and create synergies and efficiencies by consolidating clinics, especially those that now have two locations due to capacity constraints.

A study conducted by Cannon Design indicates multiple specialty clinics are nearing or exceeding target utilization, creating significant limitations in terms of growth. Some of the specialty clinics are in prime, high-cost hospital space. A couple of clinics have had to split off into two locations, some of which have required adding leased space, to accommodate physician recruitment needed to meet growing demand.

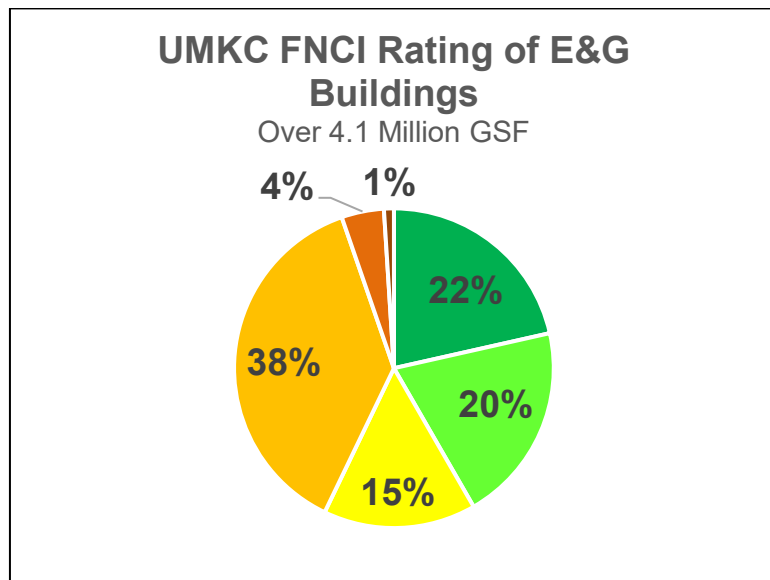
The project budget of \$93,000,000 will be debt financed.

University of Missouri – Kansas City
Fiscal Years 2024 – 2029 Capital Plan

University of Missouri - Kansas City Facilities Stewardship

CRR 110.015 was established to maintain the facilities of the University of Missouri System in adequate condition to meet the needs of the University’s education and research missions. A Facilities Condition Needs Index (FCNI) of 0.30 or lower was established as the goal for the Education and General (E&G) facility portfolio. CRR 110.015 also requires each campus to annually establish its facilities needs funding (target spend) by calculating the investment required to achieve and maintain the campus FCNI goal of 0.30 or lower for its E&G facilities over the next ten years.

UMKC currently has a FCNI of 0.27 and a backlog of \$499.0 million of facilities needs. Forty-three percent (43%) of the E&G space on the UMKC campus fall in the category of Below Average Condition, Poor condition, or Replacement is recommended. UMKC has received \$6.9 million from the Federal Budget Stabilization Fund (FBSF) that was used for M&R projects such as roof replacements and fire alarm replacements.



E&G Facilities <i>(Dollars shown in Millions)</i>	2019	2020	2021	2022	2023
Target Spend	\$27.0	\$23.3	\$25.3	\$28.0	\$31.3
Actual Spend	\$8.3	\$13.3	\$16.3	\$23.8	\$15.5
Recurring	\$5.5	\$6.5	\$5.2	\$2.0	\$1.2
One-Time	\$2.8	\$6.8	\$11.1	\$21.8	\$14.3
Difference in Target and Actual	(\$18.7)	(\$10.0)	(\$9.0)	(\$4.2)	(\$15.8)
FCN Backlog	\$400.9	\$417.2	\$433.2	\$449.5	\$499.0
Deferred Maintenance	\$223.0	\$250.4	\$269.9	\$287.1	\$313.0
Plant Adaption	\$32.9	\$33.4	\$34.0	\$38.3	\$38.7
Capital Renewal	\$145.0	\$133.4	\$129.3	\$124.0	\$147.3
Recommended Target for next year	\$23.3	\$25.3	\$26.0	\$31.3	\$33.4
Campus FCNI	0.30	0.30	0.31	0.29	0.27

Facility Condition Needs Index
Excellent Condition, typically new construction (0.000 – 0.100)
Good Condition, renovations occur on schedule (0.101 – 0.200)
Fair Condition, in need of normal renovation (0.201 – 0.300)
Below Average Condition, major renovation required (0.301 – 0.500)
Poor Condition, total renovation indicated (0.501 – 0.600)
Replacement Recommended (0.600 and Higher)

April 18, 2024

University of Missouri - Kansas City: Fiscal Years 2024 - 2029 Capital Plan included in Finance Plan

Projects	2024*	2025	2026	2027	2028	2029
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$25,000,000	\$0	\$0	\$0	\$0	\$0
KCUR Building	\$25,000,000	\$0	\$0	\$0	\$0	\$0
Renovation/Infrastructure	\$0	\$0	\$0	\$0	\$0	\$0
N/A						
Total Project Cost	\$25,000,000	\$0	\$0	\$0	\$0	\$0

* Projects listed under 2024 are projects approved or will request approval during FY24

University of Missouri - Kansas City: Fiscal Years 2024 - 2029 Capital Plan included in Finance Plan Funding

Projects					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	KCUR Building	NC	NA	NA	\$25,000,000	\$0	\$25,000,000	\$0	\$0	\$0
Total					\$25,000,000	\$0	\$25,000,000	\$0	\$0	\$0

April 18, 2024

1. **KCUR Building, UMKC**

This project provides new facilities for KCUR and Classical KC public media in Kansas City. This transformative two-story building with 30,000 SF will be the new center for constituent engagement over the intermediate and long-term future. Designed to be both efficient and sustainable it will feature office space and conference rooms, state-of-the art broadcast and production studio space, and physical gathering spaces for the community at large.

The Office space will be flexible to meet ever-evolving staff needs. As a nationally recognized provider of quality programming the new facility will prioritize exemplary studio and technical performance space, as well as sound isolation. A multipurpose community space, podcast studios, and open public plaza will be welcoming to students, interns, and community members. Through the incorporation of new spaces and advanced technology, this transformative modern facility will create an atmosphere conducive to enhanced community engagement.

UMKC currently owns vacant land on Troost Avenue that has been identified for development in the most recent Campus Master Plan. This new building would fit well on the identified site and will help develop the Troost corridor. It will be the first campus building to face Troost Avenue, bringing with it a more active and revitalizing presence. Most importantly a new building will allow KCUR to meet its physical needs for space which are currently going unmet, despite considerations of the efficiencies that have been gained through remote work. There is a demand for space for a growing staff and content services. Parking needs can be met at this site.

This project will build on the third pillar of the university's strategic plan: to transform the community and region through impactful engagement. This new building is envisioned to be a vibrant gathering space, where the community will be welcomed to civic conversations, and where local creators can be spotlighted – all opportunities to enhance the reputation of KCUR, Classical KC, and UMKC.

The new facility will also enable KCUR to partner with local schools to teach applied journalism to help develop tomorrow's workforce in broadcast operations, multi-media journalism, podcast production and culture. Working together with UMKC, a robust pipeline of internships and fellowships will be created to help encourage talented young people to stay in the Kansas City area. This will be a pathway to desirable and meaningful careers for a new generation of communication, journalism, and media graduates.

Funding for the \$25,000,000 project will be from gifts.

University of Missouri – Kansas City
Strategic Projects Development Plan

FY 25 – University of Missouri - Kansas City: Strategic Projects Development Plan

Projects						Funding Strategy				
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	New Brookside Arena	NC	NA	NA	\$60,000,000	\$15,000,000	\$30,000,000	\$15,000,000	\$0	\$0
2	Olson Performing Arts Center Addition & Renovations	NC/RE	\$10.3M	0.41	\$70,000,000	\$0	\$60,000,000	\$10,000,000	\$0	\$0
3	New Science, Engineering, and Research Building	NC	NA	NA	\$125,000,000	\$0	\$50,000,000	\$0	\$0	\$75,000,000
Total					\$255,000,000	\$15,000,000	\$140,000,000	\$25,000,000	\$0	\$75,000,000

April 18, 2024

1. New Brookside Arena, UMKC

This project provides new 4,000 seat arena for Kansas City Athletics. The project will build on empty land on the UMKC campus boarded by Oak St, Brookside Boulevard and 51st Street and will be adjacent to the new Streetcar terminus. The arena will provide student athletes with locker facilities, sports medicine and strength and conditioning, for men's and women's basketball, and women's volleyball. Also included are offices for coaches. The arena will provide enhanced space for athletic and other campus events in a modern and engaging atmosphere with improved concessions and hospitality areas.

The Kansas City Athletics Mission Statement states that “The University of Missouri - Kansas City Athletics Department will provide academic, athletic, and personal development opportunities to support student-athletes. We will promote a culture of comprehensive excellence while providing the resources that will enable our student-athletes, coaches, and staff to achieve the highest levels of success. It is our mission to develop the best athletic programs and serve as a great source of pride in representing the UMKC community and Kansas City.”

The project will provide world class experiences for students and student athletes alike, and improving on key university priorities of increased enrollment, retention of current students, and increased community engagement and awareness. The facility will be a point of pride on campus, increase alumni engagement, and provide additional visitors to ensure the Kansas City community knows that UMKC is the best academic option in the city.

Funding for the \$60,000,000 project will be from gifts, internal funds, and debt.

2. Olson Performing Arts Center Addition and Renovations, UMKC

Phase I: The construction of a 52,000 square foot addition to the east side of the Olson Performing Arts Center addresses critical educational and community needs. Adding appropriate dance and large ensemble rehearsal studios will provide expanded state of the art studios that will enhance classes/individual tutoring lessons and individual practice spaces. The addition will create new and welcoming student areas, individual student practice rooms with an emphasis on natural light. The new black box theatre will be more visible and significantly easier to access with inclusion on the same level as White Recital Hall, Spencer Theatre and the McIlrath Lobby creating a contiguous “theatre district” and enhanced visitor experience.

Phase II of the renovation and construction that would provide a re-imagined and improved White Recital Hall, as well as redesigned and expanded administrative offices, bringing all the Conservatory’s leadership team together in one suite to further facilitate the creative exchange of ideas and collaboration.

The Conservatory has always leveraged the rich performance opportunities within the greater Kansas City area. We have expanded our programs in professional artists’ training by establishing collaborative offerings with the Henry W. Bloch School of Management and are currently developing new training opportunities with the Kansas City Ballet. The UMKC Conservatory faces challenges attracting and retaining top talent in part because our facilities do not meet current standards. Many of our perspective students have had better facilities in high school. The Division of Dance completed its application for accreditation in fall of 2023, and as a result of the evaluation site visit, our membership was deferred until we can address the need to increase the square footage of the dance rehearsal halls and build dressing rooms for the students. The proposed new spaces are critical to maintaining our NASD accreditation and to returning to pre-Covid student recruiting targets in the Division of Dance.

The proposed investments in PAC facilities will expand and update the building functionally and aesthetically and allow us to grow undergraduate enrollment in the dance and theatre divisions by 30-40%. The tuition generated by these planned increases, in both our undergraduate majors and minors, will provide a sustainable income stream, thereby enhancing the long-term financial stability of the Conservatory.

Phase one projected costs are \$40 million. Phase two projected costs are \$30 million.

Funding for the \$70,000,000 project will be from gifts and internal funding.

3. **New Science, Engineering, and Research Building, UMKC**

The initial concept for a new Science, Engineering, and Research building provides additional program space for the College of Science and Engineering to meet growing demand in computer science and to provide additional research space to meet increased demand as UMKC seeks to transition from an R2 research institution to an R1 research institution.

Funding for the \$125,000,000 project will be from state appropriations and gifts.

Projects Removed from Strategic Projects:

Spencer Chemistry & Biological Science (\$40,000,000). Since this was placed on the capital project list, UMKC's priority has shifted for state funded projects. UMKC is planning on completing a master plan for this building. The resulting plan will allow UMKC to undertake smaller, phased renovation projects getting the campus to a fully renovated building in a planned manner.

New Student Housing (\$45,000,000). Since the 2021 campus master plan was completed the demand for on campus housing has declined. When the demand returns, UMKC will bring this project back to the Capital Plan.

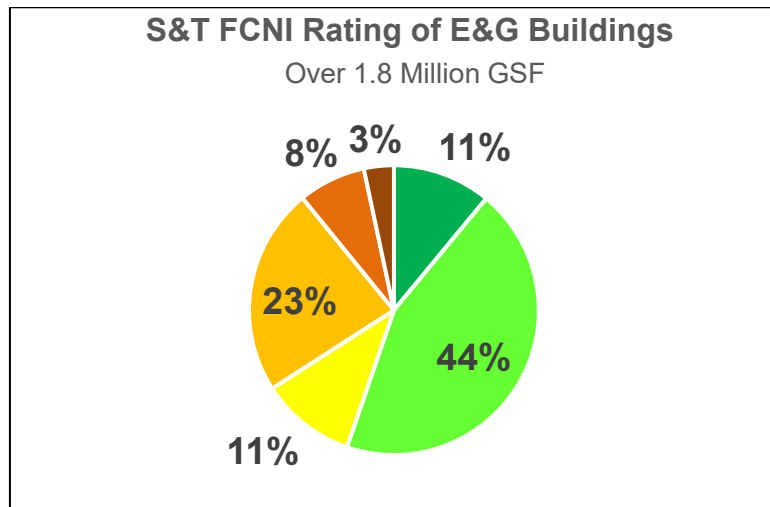
4747 Troost Renovation (\$8,500,000) The building's continued deterioration has changed the priority from renovation to vacate, and likely demolition.

Missouri University of Science and Technology
Fiscal Years 2024 – 2029 Capital Plan

Missouri University of Science and Technology Facilities Stewardship

CRR 110.015 was established to maintain the facilities of the University of Missouri System in adequate condition to meet the needs of the University’s education and research missions. A Facilities Condition Needs Index (FCNI) of 0.30 or lower was established as the goal for the Education and General (E&G) facility portfolio. CRR 110.015 also requires each campus to annually establish its facilities needs funding (target spend) by calculating the investment required to achieve and maintain the campus FCNI goal of 0.30 or lower for its E&G facilities over the next ten years.

Missouri S&T currently has a FCNI of 0.25 and a backlog of \$252.8 million of facilities needs. Thirty-four percent (34%) of the E&G space on the campus falls in the category of Below Average Condition, Poor condition, or Replacement is recommended. S&T has received \$4.7 million from the Federal Budget Stabilization Fund (FBSF) that was is being used for M&R projects such as the Power Plant Demolition and the Substation Replacement.



E&G Facilities <i>(Dollars shown in Millions)</i>	2019	2020	2021	2022	2023
Target Spend	\$17.0	\$17.9	\$21.9	\$18.8	\$20.0
Actual Spend	\$16.9	\$13.0	\$14.1	\$16.6	\$21.1
Recurring	\$8.4	\$8.5	\$8.1	\$7.4	\$8.3
One-Time	\$8.5	\$4.5	\$6.0	\$9.2	\$12.8
Difference in Target and Actual	(\$0.1)	(\$4.9)	(\$7.8)	(\$2.2)	\$1.1
FCN Backlog	\$150.4	\$182.1	\$185.1	\$214.9	\$252.8
Deferred Maintenance	\$58.9	\$85.6	\$91.0	\$103.0	\$123.5
Plant Adaption	\$25.6	\$27.2	\$31.0	\$33.6	\$32.1
Capital Renewal	\$65.9	\$69.3	\$63.1	\$78.3	\$97.2
Recommended Target for next year	\$17.9	\$21.9	\$18.8	\$20.0	\$20.8
Campus FCNI	0.18	0.21	0.21	0.23	0.25

Facility Condition Needs Index
Excellent Condition, typically new construction (0.000 - 0.100)
Good Condition, renovations occur on schedule (0.101 - 0.200)
Fair Condition, in need of normal renovation (0.201 - 0.300)
Below Average Condition, major renovation required (0.301 - 0.500)
Poor Condition, total renovation indicated (0.501 - 0.600)
Replacement Recommended (0.600 and Higher)

April 18, 2024

Missouri University of Science & Technology: Fiscal Years 2024 - 2029 Capital Plan included in Finance Plan

Missouri S&T	2024*	2025	2026	2027	2028	2029
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$0	\$0	\$0	\$0	\$0	\$0
N/A						
Renovation/Infrastructure	\$0	\$0	\$0	\$0	\$0	\$0
N/A						
Total Project Cost	\$0	\$0	\$0	\$0	\$0	\$0

* Projects listed under 2024 are projects approved or will request approval during FY24.

Missouri University of Science and Technology: Fiscal Years 2024 – 2029 Capital Plan included in Finance Plan Funding

Projects					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
N/A										
Total					\$0	\$0	\$0	\$0	\$0	\$0

April 18, 2024

Missouri University of Science and Technology
Strategic Projects Development Plan

FY 2025 – Missouri University of Science and Technology: Strategic Projects Development Plan

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Bioplex	NC	\$0	0.00	\$117,568,000	\$0	\$67,568,000	\$0	\$0	\$50,000,000
2	Physics Building Renovation	RE	\$15.0M	0.41	\$27,105,751	\$0	\$0	\$0	\$0	\$27,105,751
3	Innovation Campus Program Expansion	NC	NA	NA	\$95,000,000	\$0	\$15,000,000	\$0	\$40,000,000	\$40,000,000
4	Computer Science Building Renovation	RE	\$11.4 M	0.52	\$20,616,123	\$0	\$0	\$0	\$0	\$20,616,123
5	Scaling Facility	NC	NA	NA	\$25,000,000	\$0	\$0	\$0	\$25,000,000	\$0
6	Partnership Research Facility	NC	NA	NA	\$21,581,857	\$21,581,857	\$0	\$0	\$0	\$0
7	University Center West	NC	\$1.8 M	0.16	\$11,191,515	\$0	\$0	\$11,191,515	\$0	\$0
Total					\$318,063,246	\$21,581,857	\$82,568,000	\$11,191,515	\$65,000,000	\$137,721,874

April 18, 2024

1. Bioplex, Missouri S&T

The Bioplex is a planned new construction project immediately North and West of the James E. Bertelsmeyer Hall. The project will bring faculty together from a broad range of academic programs who are currently engaged in medical or health-related research, and allow for future research growth. This 124,000 gsf facility will be the final building project in S&T's new arrival district and will anchor the southern edge of the arrival court.

The facility will be located directly adjacent to Bertelsmeyer Hall and near Schrenk Hall which together house S&T's chemical and biochemical engineering, chemistry, biological sciences, and environmental science programs. This adjacency will allow better collaboration between the research faculty.

With more than 20 faculty involved in medical or health-related research, S&T is positioned to have a significant impact on the future of medical research in a wide range of areas, including nano-delivery of medicines for cancer and other diseases, systems engineering approaches to matching kidneys with transplant patients, biomaterials to speed the healing of open wounds and bones, and neuroscientific research to help diagnose Alzheimer's disease.

S&T has secured major support from the National Institutes of Health in recent years, with funding increasing from \$280,000 in 2019 to over \$2.5 million in 2023 and a projected growth to \$15 million by 2030. All of this follows an investment of \$45.8 million in capital construction and renovation of chemical and biological engineering and biological sciences facilities since 2014, and \$28 million in planned renovations starting in fiscal year 2024.

This project is funded with \$67,568,000 in gifts and \$50,000,000 in state funds.

2. Physics Building Renovation, Missouri S&T

The Physics Building, constructed in 1963, is home to the physics department. The project is a full renovation of the building and will include replacement all current building mechanical, electrical, plumbing systems, exterior envelope repairs, renovation of all interior components, installation of a fire suppression system and associated backup generator, and accessibility improvements. The project will address all deferred maintenance and 10-year facility renewal needs.

The physics department is a key department at S&T in terms of both its teaching and research missions. Every year, close to 2000 students take classes in the Physics Building, and most S&T students take at least one class in this building during their time on campus. In addition, physics faculty carry out high-profile research in astrophysics, atomic physics, and materials physics.

The Physics Building houses a number of cutting-edge laboratories including a particle accelerator, a laser laboratory, crystal growth facilities, and an ultra-low-temperature materials laboratory. The functioning of the classrooms and laboratories is severely hampered by the condition of the Physics Building, which has not seen a major renovation since its original construction.

The facility has \$15.0 M in facilities needs and has an FCNI of 0.41. Replacement of the building systems is expected to reduce operating expenses.

This \$27,105,751 project will be funded by state funds.

3. Innovation Campus Program Expansion, Missouri S&T

The initial concept for the Innovation Campus Expansion proposes providing additional program space in three separate buildings adjacent to the Missouri Protoplex building. These facilities will provide research, laboratory, meeting, and classroom space.

The Innovation Campus Program Expansion is intended to follow construction of the Missouri Protoplex and accommodate additional program to support pre-production, testing and development, business incubation, cyber-security, materials, manufacturing and methods, semi conductor, and critical minerals research. Research that will occur on the Innovation Campus will focus on advanced manufacturing, additive manufacturing, and the development of tools and techniques to reduce production costs, lead time, improve product quality, and reliability and safety. The work will draw on the expertise of Missouri S&T faculty in aerospace, ceramic, electrical, manufacturing, mechanical, metallurgical, and systems engineering, as well as engineering management, materials science and engineering, economics, and business information and technology. The Innovation Campus will build on and broaden Missouri S&T's strong relationships with over 60 companies in the aerospace, electronics and computing, infrastructure, and the steel manufacturing industries through four consortia through which S&T conducts non-proprietary research for consortia members who benefit from this shared expertise.

These facilities will also accommodate meeting and classroom space for the education and training of high-skilled advanced manufacturing workers, collaboration among manufacturers and entrepreneurs with faculty from colleges and universities across our state, and education focused on innovation, entrepreneurship, and economic development.

This \$95,000,000 project will be funded by \$40,000,000 in federal funds, \$40,000,000 in state funds, and \$15,000,000 in gifts.

4. Computer Science Building Renovation, Missouri S&T

The Computer Science Building was constructed in 1971 and has not had a major renovation since. The 2020 campus master plan shows computer science building as a top priority for a major renovation having a below average condition. The extensive renovation project will transform this facility an appropriate learning, teaching, and research facility reflective of the successful and growing Computer Science program that is assigned the majority of space within the building.

An addition to the Computer Science Building was completed in 2020, and that portion of the facility will not require renovation. The East portion of the building is the original structure and will be the focus of the renovation.

Not having seen a major renovation since its original construction, the Computer Science Building has \$11.4 million in deferred maintenance needs and an FCNI of 0.52. The renovation will include exterior repairs and improvements, accessibility improvements, mechanical and electrical system replacements, and site improvements.

Missouri S&T's computer science program has seen unprecedented growth recently. Undergraduate enrollment reached a five-year high of 670 students in fall 2022. The program also reached an all-time high of 153 MS-degree students in fall 2022, which represents more than a 200% increase in MS students in the past five years. Excellence in our computational and data science capabilities underpins the strength of S&T's engineering programs. Missouri S&T is investing heavily in faculty positions devoted to training the growing number of computer science students and expanding our research capabilities in areas such as artificial intelligence and cybersecurity. A state-of-the-art facility to support this program is vital to its success. The building also houses important infrastructure including a data center and a high performance computing data center.

This \$20,616,123 project is anticipated to be funded with 100% state funds.

5. Scaling Facility, Missouri S&T

The proposed facility is intended to be a new stand-alone building for critical mineral and material processing including hydrometallurgy and extraction of Complex Amorphous Materials (CAM) material. The main goals of the proposed facility include building a skilled workforce, advancing hydrometallurgical and separation techniques, as well as advancing manufacturing technologies. The facility will incorporate a 12,000 sf mineral processing 18-foot high bay; a 4,750 sf entry-office-laboratory area; and a 1,950 sf observation and supply storage mezzanine. The mezzanine will be utilized for observation of the mineral processing area as well as general supply storage for day-to-day operations of the facility.

Construction of the new building will be consistent with that of similar mineral processing facilities. The building will have a pre-engineered metal building structure and exterior enclosure, with an insulated metal wall panel façade, and an insulated metal roof system. The interior face of exterior walls will be finished with durable and cleanable painted metal panels. The floor will be slab on grade with integral curbed, sloped, and drained floors for containment of all liquid waste within sump basins for collection and disposal.

Missouri S&T has a long history of mining and minerals education and that we can leverage to become a national leader in critical minerals research. Missouri S&T now has over \$21 million (including \$15.5 from the State of Missouri) in active critical minerals research projects from government and industry sources. The proposed facility will be a unique facility in the U.S. with pilot-scale mineral processing and extractive metallurgy equipment combined with advanced simulation that currently does not exist in the U.S. By co-locating this facility near the Missouri S&T Experimental Mine, we will create a combined mining campus that would enhance our ability to support research and train the engineers and scientist for the critical minerals sector.

This \$25,000,000 project will be funded with 100% federal funds.

6. Partnership Research Facility, Missouri S&T

This project provides leasable research space for strategic partnerships between Missouri S&T's research centers and State, Federal, and/or private entities. The new 40,070 gross square feet (GSF), single story building includes offices; dry, wet, and clean up laboratories; and storage space. The building exterior façade is anticipated to be an insulated metal panel system. The location, north of HWY E, East of Spruce Drive and West of Fraternity Drive, selected for this building was indicated in S&T's 2020 Master Plan as Research and Development Future Facilities.

One of Missouri S&T's three north star goals is to attain a Carnegie R1 classification as determined by the Carnegie Classification of Institutions of Higher Education. The building provides space for research partnerships that would increase S&T's research volume and contribute to the north star goal. The building's debt service and all operating costs would be funded through federally contracted lease income, and the project is contingent on federal contract award.

This \$21,581,857 project will be funded through debt.

7. **University Center West Missouri S&T**

The University Center West project will construct a 20,000 gross square feet (gsf), two story facility at the southwest corner of Bishop Avenue and University Drive. The Center will provide space for a food service venue, offices for Campus Housing and Dining Services, and a central mail facility to serve the nearby residential complex. The project will include the demolition of 720 Tim Bradley Way Building which has \$1.8 M in facilities needs and an FCNI of 0.16.

This facility will provide a dining venue to serve the Residential Commons One & Two, and the University Commons building. These facilities currently do not have a dining facility. Additionally, this facility will locate the campus housing and dining staff that serve these students to a more accessible location near these large housing complexes.

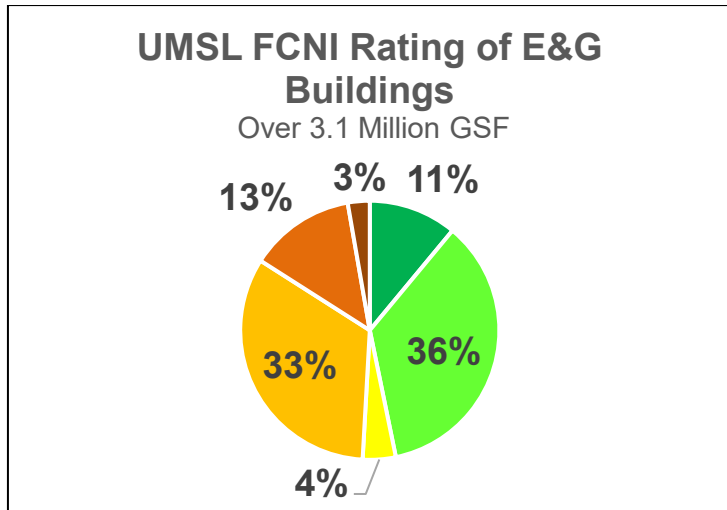
This \$11,191,515 project will be funded by campus funds.

University of Missouri – St. Louis
Fiscal Years 2024 – 2029 Capital Plan

University of Missouri – St. Louis Facilities Stewardship

CRR 110.015 was established to maintain the facilities of the University of Missouri System in adequate condition to meet the needs of the University’s education and research missions. A Facilities Condition Needs Index (FCNI) of 0.30 or lower was established as the goal for the Education and General (E&G) facility portfolio. CRR 110.015 also requires each campus to annually establish its facilities needs funding (target spend) by calculating the investment required to achieve and maintain the campus FCNI goal of 0.30 or lower for its E&G facilities over the next ten years.

UMSL currently has a FCNI of 0.34 and a backlog of \$420.5 million of facilities needs. Forty-nine percent (49%) of the E&G space on the UMSL campus fall in the category of Below Average Condition, Poor condition, or Replacement is recommended. UMSL has received \$5.2 million from the Federal Budget Stabilization Fund (FBSF) that was used for M&R projects, such as chiller replacements and roof replacements. UMSL is also receiving \$40 million from the American Rescue Plan Act (ARPA) to help reduce the facilities needs backlog of the campus with strategic renovations and demolition of a few buildings on the South Campus. The one-time funding will reduce the backlog in FY2023 by \$2.7 million to \$417 million.



Facility Condition Needs Index
Excellent Condition, typically new construction (0.000 - 0.100)
Good Condition, renovations occur on schedule (0.101 - 0.200)
Fair Condition, in need of normal renovation (0.201 - 0.300)
Below Average Condition, major renovation required (0.301 - 0.500)
Poor Condition, total renovation indicated (0.501 - 0.600)
Replacement Recommended (0.600 and Higher)

E&G Facilities <i>(Dollars shown in Millions)</i>	2019	2020	2021	2022	2023
Target Spend	\$31.0	\$31.0	\$31.9	\$30.5	\$26.3
Actual Spend	\$8.6	\$10.6	\$18.1	\$9.3	\$17.5
Recurring	\$5.6	\$6.2	\$9.9	\$5.0	\$4.6
One-Time	\$3.0	\$4.4	\$8.1	\$4.3	\$12.9
Difference in Target and Actual	(\$22.4)	(\$20.4)	(\$13.8)	(\$21.1)	(\$8.8)
FCN Backlog	\$389.6	\$441.8	\$449.2	\$384.2	\$420.5
Deferred Maintenance	\$212.2	\$238.6	\$242.6	\$160.4	\$175.4
Plant Adaption	\$41.1	\$48.1	\$48.9	\$47.3	\$51.8
Capital Renewal	\$136.3	\$155.1	\$157.7	\$176.5	\$193.3
Recommended Target for next year	\$31.0	\$31.9	\$30.5	\$26.3	\$30.9
Campus FCNI	0.35	0.33	0.33	0.34	0.34

April 18, 2024

University of Missouri – St. Louis: Fiscal Years 2024 - 2029 Capital Plan included in Finance Plan

Projects	2024*	2025	2026	2027	2028	2029
	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$0	\$0	\$0	\$0	\$0	\$0
N/A						
Renovation/Infrastructure	\$15,000,000	\$0	\$0	\$0	\$0	\$0
Central Utility Plant – North Campus	\$15,000,000	\$0				
Total Project Cost	\$15,000,000	\$0	\$0	\$0	\$0	\$0

* Projects listed under 2024 are projects approved or will request approval during FY24

University of Missouri – St. Louis: Fiscal Years 2024 - 2029 Capital Plan included in Finance Plan

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Central Utility Plant – North Campus Project Approval Planned in June 2024	INFR	NA	NA	\$15,000,000	\$0	\$0	\$8,771,630	\$0	\$6,228,370
	Total				\$15,000,000	\$0	\$0	\$8,771,630	\$0	\$6,228,370

April 18, 2024

1. Central Utility Plant – North Campus, UMSL

Design and construction of a Central Utility Plant to support UMSL’s North Campus. Project will include new chillers, boilers, pumps, controls, piping distribution, etc. to provide cooling and heating to 10+ buildings.

Currently, the North Campus infrastructure is fragmented with 10+ boilers and 10+ chillers that need constant maintenance and which will need to be replaced in the near future. This proposed Central Utility Plant will be created in lieu of replacing each individual piece of equipment, resulting in lower maintenance costs. As part of this plant, UMSL is pursuing geothermal technology similar to the system at Missouri S&T. Geothermal would improve UMSL’s sustainability, reduce carbon footprint, reduce operating/ utility costs, and increase efficiency.

This project is aligned with UMSL’s Master Plan by addressing the need for improved infrastructure that supports the overall North Campus consolidation effort. Over the next 5 years, several buildings are scheduled for major renovations near UMSL’s North Campus Quad and the campus is employing a strategy to move more campus classes and support offices to the North Campus. The following buildings could directly benefit from a Central Utility Plant: Social Sciences Building, Thomas Jefferson Library, Welcome & Alumni Center, J.C. Penney North, Lucas Hall, Clark Hall, Mark Twain Building, Touhill PAC, Millenium Student Center, Express Scripts, and Woods Hall.

Funding for the \$15,000,000 project is anticipated to be \$6,228,370 from a state appropriation and \$8,771,630 from internal funds.

University of Missouri – St. Louis
Strategic Projects Development Plan

FY 24 - University of Missouri –St. Louis: Strategic Projects Development Plan

Projects					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Stadler Hall Renovation	RE	\$30.0M	0.57	\$38,500,000	\$0	\$0	\$0	\$0	\$38,500,000
Total					\$38,500,000	\$0	\$0	\$0	\$0	\$38,500,000

1. Stadler Hall Renovation, UMSL

Renovation of Stadler Hall will include renovating existing research laboratories, offices, classrooms, restrooms, and common core areas. The project provides new infrastructure (HVAC, electrical switchgear, building envelope, etc.), and the associated technology required to teach and learn in today's world. The project will also include extensive renovation to common use areas to allow students to study and collaborate and will address life safety and ADA deficiencies. Exterior improvements include building envelope upgrades, signage improvements, sidewalks, accessible routes, doors, and steps.

This project is aligned with UMSL's ten-year Master Plan, Space Survey, and ISES Report by addressing technology, life-safety, building code and accessibility deficiencies. UMSL's research department has been operating in a facility that is 50+ years old with infrastructure that is failing and out of date. In addition, the technology in the building does not operate as designed, and research is being compromised as a result. This project updates the interior of the research complex with state-of-the-art research and technology that will align with the survivability of UMSL's long term plans.

Funding for the \$38,500,000 project will be provided by a state appropriation.

University of Missouri System Board of Curators April 18, 2024

Fiscal Years 2024 – 2029 Capital Plans for MU,
MU Health Care, S&T, UMKC, and UMSL
UM



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN – 1-61

April 18, 2024

Capital Planning

Capital Plan includes:

- Rolling Five-year Capital Plan included in Five-year Finance Plan
 - All planned new construction projects greater than \$5.0 million & renovation and infrastructure projects greater than \$8.0 million
 - All planned debt funded projects regardless of size
- Strategic Projects Development Plan
 - Strategic new construction projects greater than \$5.0 million & renovation and infrastructure projects greater than \$8.0 million not currently in the Five-year Finance Plan
 - All planned debt funded projects regardless of size for projects not currently in the Finance Plan



MU FY24 – FY29 CAPITAL PLAN

Capital Plan included in Finance Plan:

- Center for Energy Innovation
- NextGen MURR Phase One
- MURR Lab Expansion
- Radioisotope Facility at Discovery Ridge
- Electrical Interconnection and Substation
- Pickard Hall – Decommissioning and Mitigation



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

MU FY24 – FY29 CAPITAL PLAN

Strategic Project Development Plan:

- Memorial Stadium Improvements
- Animal Resource Center - Vivarium Facility Expansion
- Roy Blunt Precision Health Building – 4th Floor Innovation Tower Fit-out
- New Swine Research Facility
- Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

MUHC FY24 – FY29 CAPITAL PLAN

Capital Plan included in Finance Plan:

- Children's Hospital Facility – Third Floor Surgery Fit-Out

Strategic Project Development Plan:

- MUHC Campus Consolidation & Inpatient Services Expansion



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

UMKC FY24 – FY29 CAPITAL PLAN

Capital Plan included in Finance Plan:

- KCUR Building

Strategic Project Development Plan:

- New Brookside Arena
- Olson Performing Arts Center Renovation and Additions
- New Sciences, Engineering, and Research Building



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

S&T FY24 – FY29 CAPITAL PLAN

Strategic Projects Development Plan:

- Bioplex
- Physics Building Renovation
- Innovation Campus Program Expansion
- Computer Science Building Renovation
- Scaling Facility
- Partnership Research Facility
- University Center West



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

UMSL FY24 – FY29 CAPITAL PLAN

Capital Plan included in Finance Plan:

- Central Utility Plant – North Campus

Strategic Project Development Plan:

- Stadler Hall Renovation



UMKC

MISSOURI
S&T

UMSL

University of Missouri System



————— University of Missouri System —————

Project Approval
MURR Lab Expansion
MU

The University of Missouri – Columbia requests approval of the University of Missouri Research Reactor (“MURR”) Lab Expansion project. The total project budget of \$34,000,000 is funded from MURR Reserves and Third-Party Contracts.

For more than 50 years, the faculty and staff of the MURR have promoted groundbreaking research and developed life-saving radiopharmaceuticals. MURR has executed multiple production contracts with pharmaceutical companies, and this project enables the line expansion necessary to deliver upon those contracts. Approximately \$29.5M of construction cost will be funded directly by these committed contracts while approximately \$4.5M of the cost will be funded by MURR reserves generated from MURR earnings. MURR’s contribution to the project will cover the incremental cost of including a backup production line in the expansion plant.

This MURR project will consist of an approximately 8,000 square foot facility addition to the West side of the MURR Reactor Building and a renovation of existing space within the Main Industrial Building (MIB). The MIB renovation and first floor of the addition will house new hot cell lines for increased production. The addition will include a second floor for hot cell maintenance access and a penthouse for mechanical equipment and supplies storage. A schematic design is currently underway to develop a detailed analysis of existing spaces for the renovation, equipment lead times, and scheduling requirements. This project will occur while the current MURR West Addition, approved by the board in June 2022, is still under construction.

Due to an aggressive delivery schedule and the shared site, Clark & Enersen, Kansas City, Missouri, was selected as the architectural and engineering firm. That selection was approved by the Board of Curators at the February 2024 meeting. Clark & Enersen was originally selected through an RFQ process for the MURR West Addition, and they are best suited for this additional overlapping construction area and scopes of work.

The project will be delivered as a Construction Manager at Risk (CMR) project due to its size, complexity, and schedule requirements. SIRCAL Contracting, Inc., Jefferson City, Missouri, was selected through a competitive two-step request for qualification and request for proposal process for providing preconstruction services (cost estimating, scheduling, identifying long lead items and procurement strategies, value engineering, and constructability). SIRCAL received the highest interview score from the selection committee and had the lowest proposed fee. The project is expected to be completed in two phases: 3rd Level Target Capacity Line Substantial Construction Completion in February 2025, Backup Capacity Line, and 4th Level Target Capacity Line Substantial Construction Completion in March 2026.

No. 2

Recommended Action - MURR Lab Expansion, MU

It was recommended by President Choi, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

the project approval for the MURR Lab Expansion, MU

Funding of the project budget is from:

MURR Reserves	4,500,000
Third-Party Contracts	<u>29,500,000</u>
Total Funding	\$34,000,000

Roll call vote Finance Committee YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

The motion _____.

Roll call vote Full Board: YES NO

Curator Blitz

Curator Brncic

Curator Fry

Curator Graves

Curator Holloway

Curator Layman

Curator Sinquefield

Curator Wenneker

Curator Williams

The motion _____.

GOVERNANCE, COMPENSATION AND HUMAN RESOURCES COMMITTEE

Robert W. Fry, Chair
Jeff L. Layman
Robin R. Wenneker

I. **Governance, Compensation and Human Resources Committee**

The Governance, Compensation and Human Resources Committee (“Committee”) will review and recommend policies to enhance quality and effectiveness of the Board as well as compensation, benefits and human resources functions of the University.

II. **Governance**

A. **Scope**

In carrying out its responsibilities regarding governance, the Committee has the central authority of ensuring that board members are prepared to exercise their fiduciary duties and assisting the Board to function effectively, efficiently and with integrity.

B. **Executive Liaison**

The General Counsel of the University, or some other person(s) designated by the President of the University with the concurrence of the Board Chair and the Committee Chair, shall serve as executive liaison to the Committee on governance matters and be responsible for transmitting Committee recommendations related to governance.

C. **Responsibilities**

In addition to the overall responsibilities of the Committee described above, and in carrying out its responsibilities regarding governance, the Committee shall review and make recommendations on the following matters:

1. ensuring that Board members are prepared to carry out their fiduciary duties to the University;
2. providing and monitoring a substantive orientation process for all new Board members and a continuous board education program for existing Board members;
3. periodic review and coordination, with timing and substance agreed upon with the Board Chair, of appropriate Board self-assessments;
4. establishing expectations and monitoring compliance of individual Board members, when made necessary by circumstances or requested by the Board Chair;
5. periodic review of the Board’s adherence to its rules of conduct, including conflict-of-interest and disclosure policies, and that it otherwise maintains the highest levels of integrity in everything it does;

6. periodic review of the adequacy of the Board's bylaws and other Collected Rules and Regulations adopted by the Board that pertain to its internal operations (all recommendations for bylaws amendment shall first be considered by this Committee);
7. periodic review and identification of best practices in institutional and Board governance;
8. monitoring and assessing external influences and relationships with affiliated entities; and
9. those additional matters customarily addressed by the governance committee of a governing board for an institution of higher education.

III. Compensation and Human Resources

A. Scope

In carrying out its responsibilities regarding compensation and human resources, the Committee reviews and makes recommendations to the Board of Curators on strategies and policies relating to compensation, benefits and other human resources functions and associated programs.

B. Executive Liaison

The Vice President and Chief Human Resources Officer of the University, or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall serve as executive liaison to the Committee on human resources and compensation matters and be responsible for transmitting committee recommendations related to human resources and compensation.

C. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities regarding human resources and compensation, the charge of the Committee shall include reviewing and making recommendations to the Board on the following matters:

1. Performance and compensation of individuals reporting directly to the Board:
 - a. President
 - b. General Counsel
 - c. Secretary of the Board of Curators
2. Pursuant to Section 320.020 of the Collected Rules and Regulations, appointment or change of appointment of the following shall be reported to and approved by the Board before the effective date:
 - a. Vice Presidents
 - b. Chancellors
3. Intercollegiate Athletics

Pursuant to Section 270.060 of the Collected Rules and Regulations, contracts for Directors of Intercollegiate Athletics and Head Coaches may not exceed five (5) years and shall not include buyout clauses calling for the individual to receive more than the balance of the contractually anticipated annual compensation (excluding incentives, allowances, expense stipends, etc.) the individual would have earned under the remaining terms of the contract, unless approved by the UM Board of Curators upon the recommendation of the President.

4. Benefit, retirement, and post-retirement plans, including an annual benefits report, as further defined in Section 520.010, Benefit Programs, of the Collected Rules and Regulations.
5. Additional employee benefits including the Education Assistance Program for University Employees, CRR 230.070, and Layoff and Transition Assistance, CRR 350.051.
6. Labor Union Recognition and matters as further defined in Section 350.020, Labor Union Recognition, of the Collected Rules and Regulations.
7. Employment related policies including those related to employee absences, conduct and grievances.
8. Periodic review of the University of Missouri System's diversity, equity and inclusion programs.
9. Additional matters customarily addressed by the compensation and human resources committee of a governing board for an institution of higher education.

University of Missouri System 2023 Annual Benefits Report

April 2024

I. Introduction

This annual benefits report is provided to the University of Missouri Board of Curators pursuant to Section 520.010 of the Collected Rules & Regulations. Highlights include trends, costs and contributions, and an overview of the three-year roadmap to ensure UM's ability to be competitive in the recruitment and retention of top talent.

The University has taken measures to manage the total cost of benefits to control operating budgets, while balancing competitiveness in the labor market. To ensure cost and market competitiveness, the University periodically conducts competitive bids for employee benefit products. The bidding process consists of a thorough review of providers, services, and fees to ensure we offer an affordable and accessible benefit package. Annually, the University conducts a benchmark analysis of our benefit plans to review cost efficiency, cost sharing and, plan design.

II. Overview of Benefit Plans

Benefits for Active Employees

The University offers a comprehensive set of benefit options with flexibility for employees to choose plans that are right for them and their family. A summary of these plans include:

Medical Plans:

- The PPO Plan is available to all employees and offers a broad network of providers, which may be ideal for those who desire flexibility for medical services in exchange for a higher cost. There are 2,439 employees enrolled in the PPO Plan, covering 4,745 individuals.
- The Healthy Savings Plan is available to all employees and is coupled with a Health Savings Account (HSA). The University makes an annual contribution to the HAS to help increase employee savings for qualified healthcare expenses. There are 6,171 employees enrolled in the Healthy Savings Plan, covering 12,104 individuals.
- The Custom Network Plans are available to employees in the eligible regions around Columbia and St. Louis and offers a focused network of providers, which improves the quality of services and offers a lower cost for those employees who are willing to limit their provider choices. There are 8,780 employees enrolled in the Custom Network Plans, covering 21,130 individuals.
- The Tiered PPO Plan was featured in Kansas City starting in 2018 and in Rolla starting in 2022. This plan utilizes the same broad network as the traditional PPO Plan; however it is designed to provide additional cost savings to employees who use providers who have been recognized as offering high-quality and cost-effective care. In 2022, the Tiered PPO Plan was expanded to include all counties outside of the Columbia and St. Louis Custom Network plan areas. Employees living outside of a Custom Network Plan area are eligible to enroll in the Tiered PPO Plan. There are 1,533 employees enrolled in the Tiered PPO Plan covering 2,899 individuals.

Ancillary benefits: Additional benefits are available to employees including shared cost benefit plans (dental, life insurance, and long-term disability) and benefit plans that are fully paid for by the employee (vision and accidental death & dismemberment). In 2023, 83% of benefit eligible employees were enrolled in dental coverage and 73% of benefit eligible employees were enrolled in vision coverage. An employee paid dental buy-up plan for orthodontics was added in 2023.

Tuition Assistance: Faculty and staff who choose to pursue or continue their college education—as well as eligible spouses and dependents—can receive tuition assistance at any of the universities within the UM System. Employees receive a 75% reduction and eligible dependents receive a 50% reduction in tuition.

Retirement: Employees are enrolled in a core retirement plan based on their benefit eligible hire date. The core retirement plans include:

- Defined Benefit Plan – This is a typical pension plan.
 - Active, benefit-eligible employees hired before 10/01/2012, or returning employees hired on or after 10/01/2012 but before 10/01/2019 who were previously vested and did not take a distribution of their benefit.
- Hybrid Plan – This is a mixed pension and defined contribution plan.
 - Active, benefit-eligible employees first hired on or after 10/01/2012 but before 10/01/2019 or returning employees during this time who either did not vest previously or who vested and took a distribution of their benefit.
- Defined Contribution Plan – This is an employer matching plan.
 - Active, benefit-eligible employees hired or rehired on or after 10/01/2019.

The University also offers voluntary retirement plan options for both benefit-eligible and non-benefit-eligible faculty and staff.

Leave Benefits for Active Staff Employees

A new leave program for staff was approved at the September 2022 meeting. Following Board approval of the plan design, a team was developed to build, communicate, and implement the new leave program to begin on January 1, 2024. Subject matter experts collaborated across functions to successfully complete a Request for Proposal (RFP) for a vendor to support the University in administering the newly offered paid parental and caregiver leaves as well as short-term disability. MetLife was selected through a competitive bidding process. The team identified and achieved project milestones that led to a successful implementation.

More than 20 live information sessions were delivered to impacted employees and supervisors in the Spring and Fall of 2023. Videos and other resources were provided on a dedicated webpage and shared with HR professionals and supervisors across the system to support employees in their units. Stakeholder groups were engaged throughout the implementation process. These employee representative groups continue to provide valuable feedback on employee experience.

On January 1, 2024, all employees with accrued vacation time saw their existing balance banked and then converted to PTO (paid time off) or a fixed portion paid out, depending on

their balances. Banked vacation balances are available to employees to use until they are paid out or time is exhausted, as outlined in our vacation policy (HR-402).

As administration continues to implement and evaluate the new plans and employee experience, process changes have been and will continue to be implemented going forward.

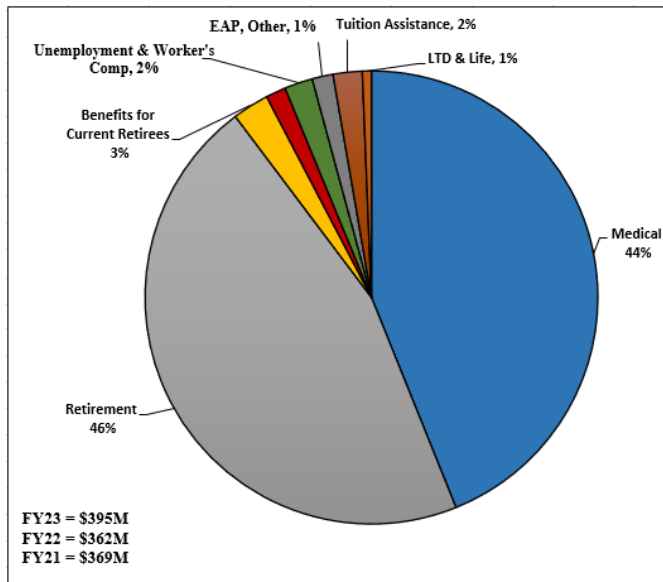
Benefits Plans for Eligible Retirees

The University closed the retiree health and welfare plan for active employees in January 2018 with a phaseout of benefits based upon age and years of service. The plan closure eliminated the benefit for any employee with less than five years of service as of the closure date. The subsidy levels were maintained for employees who had age plus years of service greater than 80 on the date of closure (Categories A and B). Category C (employees who had age and years of service less than 80, but had five or more years of creditable service, on the date of closure) receive a flat subsidy of \$100 per year of service up to 25 total years of service. If employees separate after the plan closure, but before retirement eligibility under the pension plan, or drop University-sponsored coverage upon retirement, they would no longer be eligible for coverage in the plan. Current retirees and surviving spouses remain eligible for these benefits depending on whether they were vested in the plan prior to closure and elimination. Eligible pre-65 retirees and their dependents have a choice of two medical plans: the Retiree Health PPO Plan or the Retiree Healthy Savings Plan. Eligible Medicare retirees and their dependents have the option to enroll in the University sponsored Medicare Advantage Plan. Summary of the plans include:

- The pre-65 retiree plans are available to employees who had at least five years of service as of December 31, 2017, and are in Access Category A, B or C based on age and years of service upon retirement. There are 551 retirees enrolled in the pre-65 retiree plans covering 913 individuals.
- The University sponsored Medicare Advantage Plan is available to retirees who are eligible for traditional Medicare coverage (by age or disability) and meet the years of service and age requirements at the time of retirement. There are 8,146 retirees enrolled in the Medicare Advantages Plans.
- If certain eligibility requirements are met at the time of retirement, ancillary benefits may also be available to retirees and surviving spouses such as dental, vision (retiree paid), life insurance, and accidental death & dismemberment. For dental, 81% of benefit eligible retirees elect coverage and 55% of benefit eligible retirees elect vision coverage (retiree paid).

Total Cost of Benefits for Operating Units

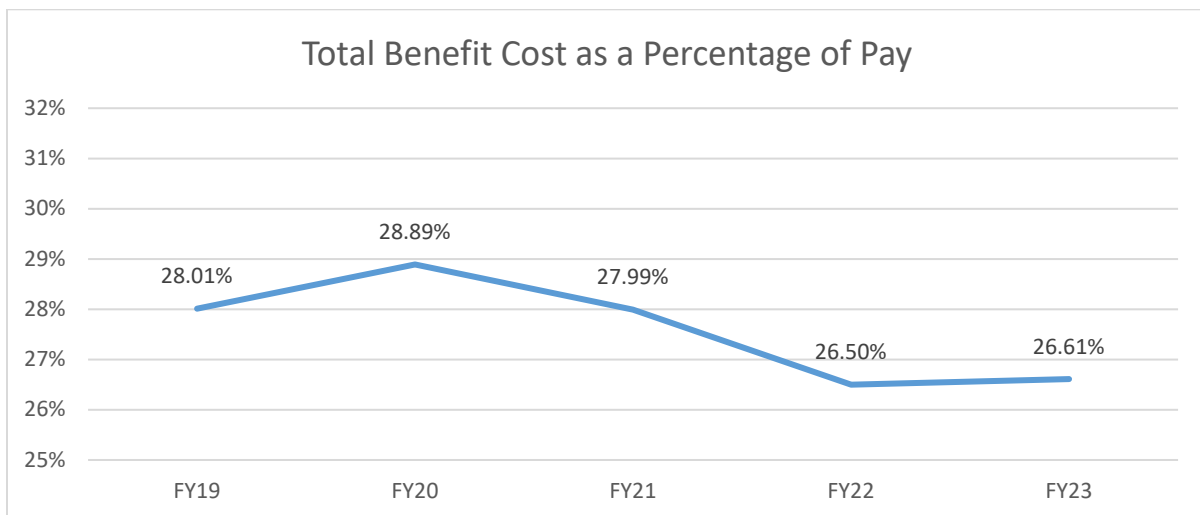
The University's total cost of benefit plans was \$395M in FY23. The University's contributions towards medical premiums and retirement plans make up the largest portion of UM's benefit investment, accounting for 90% of total spend. Of the retirement spend, half of the \$181M spent is a required payment towards the \$1.3B unfunded pension liability.



Total cost of benefits is not only impacted by medical trends and investment returns on the pension plan, but also the number of benefit eligible employees and related salaries and wages. Between FY22 and FY23, the total number of benefit eligible employees increased 5% from 18,378 to 19,273, and the average salary per benefit eligible employee increased 3%.

A comparable year over year measure is total benefit spend as a percentage of benefit eligible salaries, shown in the graph below. On average, the

University paid 26.61% in benefits per benefit eligible employee in FY23. While the total spend may be increasing, the cost as a percentage of salaries in FY23 is lower than FY19, indicating overall cost control while maintaining a competitive benefit package. The reduction as a percentage of salaries between FY20 and FY22 was largely driven by the medical plan design changes made during the pandemic, which are still in place today, and decreasing retiree benefits cost.



III. Medical and Pharmaceutical Trends

As a self-insured plan, the University's medical fund includes the total cost of claims incurred for employees and retirees. The total claims cost is covered by the employer and employee premium contributions. By nature, medical and pharmaceutical claims can fluctuate significantly from one year to the next depending on plan design changes and catastrophic cases experienced by the plan.

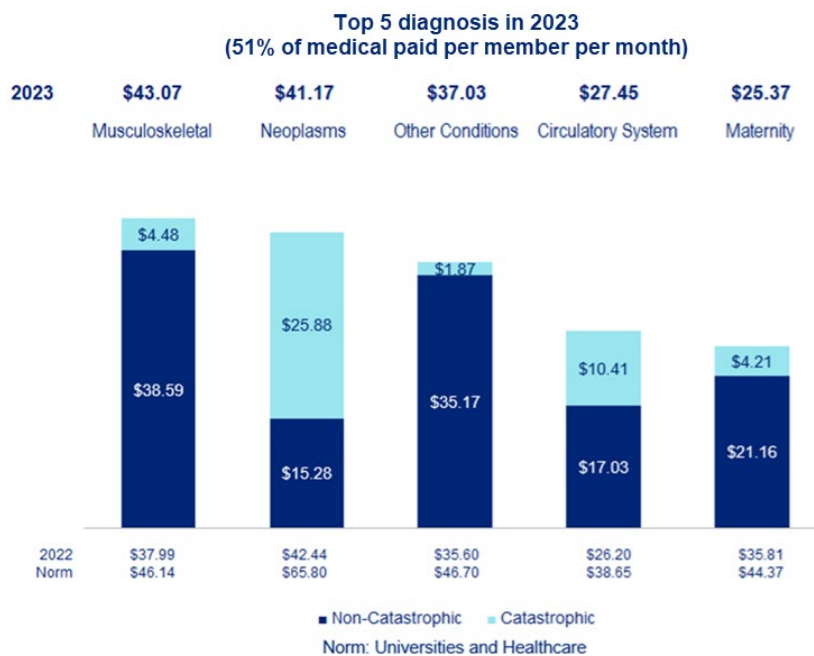
In 2023, the medical plan saw a 2% decrease in medical claims per member. The decrease in claims per member was driven by a reduction in catastrophic claims, down 21% from the prior year. Additionally, the plan experienced a decrease in the cost for medical specialty prescriptions that are administered by a physician or in an outpatient setting, members in active cancer treatment, and maternity claims.

In 2023, the pharmaceutical plan saw a 15.9% increase in claims per member per month from \$98.19 in 2022 to \$113.79 in 2023. The increase is largely driven by an increase in the cost of prescriptions and increased utilization. Additionally, the FDA approval of gene therapy drugs is expected to increase claims cost over time.

High-Cost Drivers

For pharmaceuticals, the high-cost drivers are: inflammatory conditions, neoplasms (cancer) and GLP-1 drugs. GLP-1 drugs for diabetics and weight loss were responsible for \$4.5M in pharmacy costs which is 8.7% of overall pharmacy costs. Increased trend growth is expected as more GLP-1 drugs come to market. The University covers weight loss drugs with prior authorization that verifies with the physician that the patient is 18 or older, has engaged in a trial of behavioral modification and dietary restriction for at least 3 months, has a BMI of 30 or more, and will be engaged in a reduced calorie diet/behavioral modification. The initial prior authorization is approved for 7 months and can only be extended if the member has lost at least 5% of body weight and meets the other criteria.

In 2023, 51% of medical claims spend was driven by five high-cost drivers: musculoskeletal system (orthopedics), neoplasms (cancer), general care such as wellness visits and checkups, circulatory system, and maternity. Musculoskeletal was the University’s top medical spend diagnosis in 2023. Per member per month claim costs increased by 13.4% to \$43.07 in this category due to an increase in surgical care claims. Additional details of each high-cost driver is highlighted in the chart below.



Catastrophic Claims

Each year, catastrophic claims comprise a significant amount of medical spend. A catastrophic claim is defined as \$100k or more in medical costs. The number of catastrophic claims decreased 10.5% to 193 in 2023 compared to 212 in 2022. However, these claims account for 24% of total spend. Cancer is the top contributor to catastrophic spend, and chemotherapy treatment is the top diagnosis by spend for those members. Circulatory Systems are the second highest category for catastrophic claims followed by Injury and Poisoning as the third highest catastrophic diagnosis category.

Mental Health

Benchmarking shows that the use of behavioral health services increased for most employers in 2023. The University experienced a 6.9% increase in per member per month costs for behavioral health services in 2023 of \$16.20 compared to \$15.15 per member per month cost in 2022. While this is an increase for the University this cost remains below the United Healthcare book of business norm of \$36.02 per member per month. Specifically, anxiety, depression, trauma, and stressor related disorders were the top conditions by prevalence for 2023.

Through United Healthcare Behavioral Health Services, the University offers a nationwide provider network, virtual care options, as well as digital and online tools to help employees and dependents with mental health care. The University's employer-sponsored Employee Assistance Program offers free, confidential services for employees, their dependents and organizational work units.

Virtual Visits

Virtual Care visits continue to decrease from their peak in 2020 and are below 2019 levels. In 2019 there were 21.9 virtual visits per 1,000 visits, and in 2023 virtual visits were at 15.6 visits per 1,000 visits. Virtual visits continue to be a lower cost site of care with the average cost per visit at \$25 compared to Physician visits at \$106 per visit.

Urgent Care

Urgent Care visits, which does not include quick care services, increased by 7.5% in 2023. The top three visit reasons by primary diagnosis are upper respiratory infections, viral infections, and infection of the ear and related conditions (inflammation of ear). Visits have increased for sprains and strains, and superficial injuries/contusions, each up about 20%. Despite being the second most common diagnosis, viral infections are down 30% in this setting.

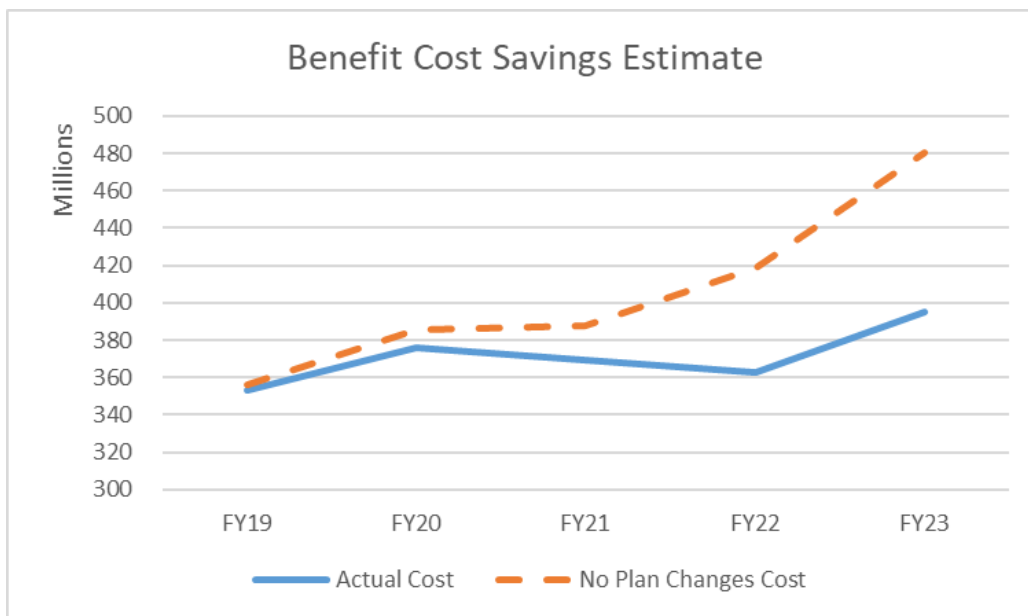
Emergency Room Claims

Emergency room net cost per member per month, increased by 17% in 2023, and at the same time have seen a decrease in visits per 1,000 of 2%. The number of abdominal pain related emergency room medical claims increased 17.5% in 2023 to make it the highest primary diagnosis ahead of nonspecific chest pain at 7.9 visits per 1,000.

IV. Key Steps to Manage Plan Costs

Controlling benefit cost is an important aspect of plan management. The cost of benefits directly impacts each unit’s operating budgets but must be balanced with meeting the expectations of faculty and staff and providing a competitive benefit package. The two largest components of the benefit package are healthcare and retirement. The healthcare industry continues to have cost of care and drug pricing trends that exceed inflation. For retirement, the pension plan is challenged by long-term investment returns and other experience against plan assumptions.

Despite the industry challenges, the University has been able to control costs while maintaining a competitive benefit package. Significant steps taken by the University have resulted in the total benefit cost to be an estimated 22%, or \$85M lower in FY23 than if no cost control measures had been taken over the past 5 years.



Medical Plan Programs

Reoccurring administrative and benefit design programs, which influence member behavior and mitigate cost increases on an annual basis, include:

- **SaveOnSP** is a prescription copay savings program with Express Scripts that utilizes Affordable Care Act state benchmarks to maximize the value of manufacturer copay assistance programs for certain specialty prescriptions. The 2023 net savings were \$2.8M. Cost of the program in 2023 was \$1.2 M.
- **Radiology/Cardiology Prior Authorization** is a program to consistently manage imaging and cardiac procedures through evidence-based medicine. The program helps promote appropriate utilization of imaging and cardiac procedures and addresses variations in the quality and safety of care provided to plan members. The University’s actual results show net savings for 2023 of \$0.97 per member per month or \$640,010.
- **Onsite Wellness Coordinator.** The UnitedHealthcare onsite wellness coordinator engages employees in making better healthcare decisions, provides health education to

group and individuals through in-person and virtual classes, coordinates on-site events (including health fairs, health screenings, weight loss and fitness challenges), and serves as point of contact for programs. Better health is expected to reduce plan costs. The program cost is included in the United Healthcare base administration fee.

- **Mizzou Specialty Pharmacy as an in-network provider for the Columbia Custom Network Plan.** The annual savings to the benefit plan in 2023 was \$1.7M. There are no administrative costs for this program.
- **Real Appeal** is an online weight loss program focused on members' goals, nutrition, and exercise. It offers resources, personalized tools and support, and weekly coaching. The continued positive impact this program has on members with circulatory concerns, diabetes, pre-diabetes, and weight management is estimated to reduce cost drivers by a net savings of \$2.1M over three years. From 2017 to 2023, 2,925 plan members have enrolled in the program. There are no administrative costs for this program.
- **Advanced Analytics and Recovery Services** delivers a retrospective paid claim review where claims will be re-examined monthly for up to 12 months utilizing expertise in data analysis, investigation, identification, and recovery. The estimated net savings for 2023 were \$511,360. The program cost is based on a percentage (24%) of realized plan savings.
- **Onsite Nurse Program.** The UHC onsite nurse is a resource for members to utilize for various healthcare needs. The program helps increase preventative care visits, assists members in utilizing appropriate care settings, and promotes the use of United HealthCare and the University of Missouri tools and resources to reduce claim costs. The program cost is included in the United Healthcare base administration fee.
- **Arthroscopy Medical Necessity Bundle.** This is a process for determining whether services, tests, and procedures are cost-effective, identifying opportunities to move from higher-cost hospital settings to an Ambulatory Surgical Center setting, when applicable. Estimated net savings for 2023 were \$114,066. There are no administrative costs for this program.
- **Medical Necessity Review** for Genetic Testing, Inflammatory Medications, Functional Endoscopic Sinus Surgery, Hysterectomy, and Sinuplasty was implemented at no additional cost to the University. Genetic Testing estimated savings through 2023 were \$411,059.
- **Enhanced billing audit** is a pre and post payment review based on provider and facility-based audits. The audit includes review of claims using algorithmic pattern combinations, artificial health care intelligence and manual clinical review of medical records. The 2023 savings were \$2,188,091 versus a fee of \$356,176.
- **Focused claims review** is designed to catch inaccuracies through targeted reviews by UHC specialty aligned, board-certified physicians. The 2023 savings were \$50,558 versus a fee of \$2,371.
- **Credit balance recovery program** is a retrospective recovery service that helps facilitate research and resolve overpaid claims. The 2023 savings were \$24,782 versus a fee of \$3,029.

A comparison of 2022 to 2023 active employee premiums by tier level is available in **Appendix A**. See **Appendix B** for a detail of plan design changes effective 2023.

Columbia Custom Network Plan Shared Savings Agreement

The Columbia Custom Network Plan (CNP) was created in 2015 and since then it has grown from 30% of members to over 60% of eligible members enrolled in the plan in 2023. The change redirected significant volume through the University's healthcare (MUHC) in exchange for reduced rates and closer management of medical expenses.

To manage the plan, UM benefits works collaboratively with health system leadership and physicians to review healthcare consumption, set up appropriate incentives for providers and patients, and monitor the overall quality of care.

Components of the shared savings program include:

- Methodology for cost targets that, if met, allow for shared savings between the parties
- Established quality metrics and targets for patient care
- Established care management performance metrics and targets
- A governance structure that includes a Joint Operating Group and an Executive Governance Committee.
- Ongoing work groups to review and reduce out-of-network claims, lower prescription costs, and establish reporting deliverables for the Joint Operating Group.

Disability, Life and FMLA Administration RFP

A Request for Proposal (RFP) process for carrier and administrator for life insurance coverage, accidental death and dismemberment (AD&D) coverage, long-term disability, short-term disability, FMLA, parental leave, and caregiver leave administration was conducted in 2023. The recommendation was to transition all current products (life and AD&D insurance coverage, long-term disability coverage, FMLA) and new products (short-term disability, parental leave, caregiver leave administration) to MetLife. The effective date of the transition was January 1, 2024.

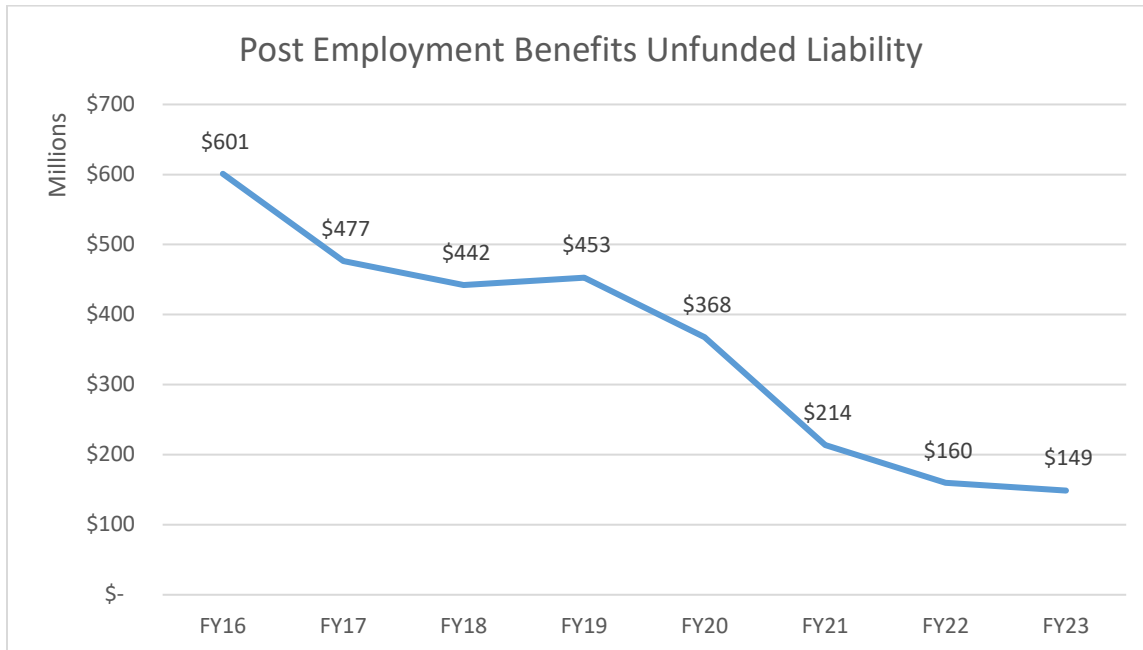
Retiree Medical Cost Control

The University eliminated retiree health and welfare benefits for employees with less than five years of service as of 2017 and limited the benefit to a flat subsidy amount for many other existing University employees. This had an impact on the Other Post Employee Benefit (OPEB) liability held by the University, reducing the unfunded liability from \$601M to \$477M between FY16 and FY17. Since this change, the University has taken additional cost saving and liability actions, which has reduced the unfunded liability further to \$149M in FY23.

The implicit subsidy was eliminated to fully cost retiree medical plans in the University's self-funded plans. Historically, for pre-65 retirees, the University's active medical plans subsidized non-Medicare retiree premiums. In 2018, the University implemented a phased approach for pre-65 retiree premium rates to move toward fully costed premiums and eliminated the implicit subsidy by active employees in 2023.

The University’s Medicare Advantage Plan and Part D prescription coverage are fully insured products through United Healthcare. The University’s contribution for the Medicare Advantage and Part D prescription coverage decreased by 60% from \$5.8M to \$2.3M as a result of combining medical and pharmacy. Retirees also realized savings, reducing their total premium contribution by 12% from \$9.4M to \$8.4M. These actions led to financial impacts not only on the annual cash flow but also the OPEB liability valuation.

With the above cost savings measures and closing the OPEB plan, the liability has decreased by 75% since FY16. Prior to the retiree medical cost control measures, this liability was projected to be over \$1B.

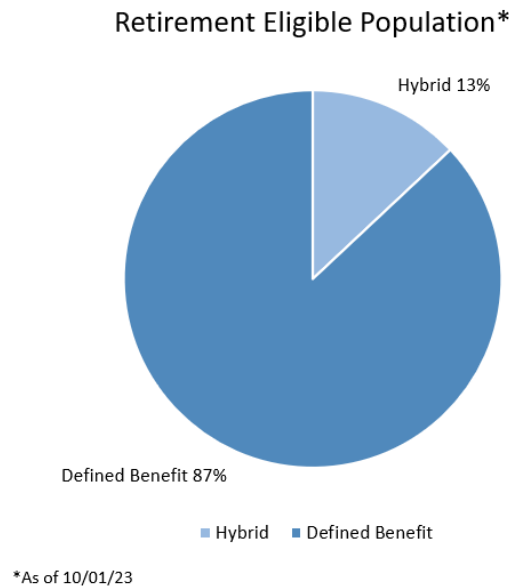


While significant efforts have been made to control the costs of retiree benefits, the Centers for Medicare and Medicaid Services (CMS) made several significant changes to the Medicare Advantage and Part D drug plans in 2023 for the 2024 and 2025 plan years. CMS reduced reimbursement to Medicare Advantage plans for over 2,000 diagnosis codes. These diagnosis codes will no longer receive additional funds from CMS towards member care, ultimately increasing the cost of that care to the plans. All Part D and Medicare Advantage plans are required to provide a \$0 cost share for members who enter the Catastrophic Coverage phase of the Part D drug benefit. This change enriches overall Part D drug plan benefits. Impacts on the University due to these changes are a \$1.5M increase in annual cash flow and a \$22M increase in OPEB liability. The decision was made to implement plan design changes necessary to maintain a \$42 monthly premium on the Base Medicare Advantage Plan to mitigate the impact to the University.

V. Retirement Plan Trends & Management

Retirement Eligible Population

As of 10/1/23, a total of 31% of the University's employees enrolled in a plan with a pension benefit are currently eligible for retirement. Of those eligible, 7.9% of the population (821 employees) are at full retirement*, and 23.1% (2,409 employees) are eligible for early retirement**). The majority of retirement eligible employees are enrolled in the Defined Benefit Plan (87%). In fact, 48% of members enrolled in the Defined Benefit Plan are retirement-eligible compared to only 9% of those enrolled in the Hybrid Plan.



*Full retirement: age 65 with at least 5 years of service or age 62 with at least 25 years of service

**Early retirement: age 55-59 with at least 10 years of service or age 60 with at least 5 years of service

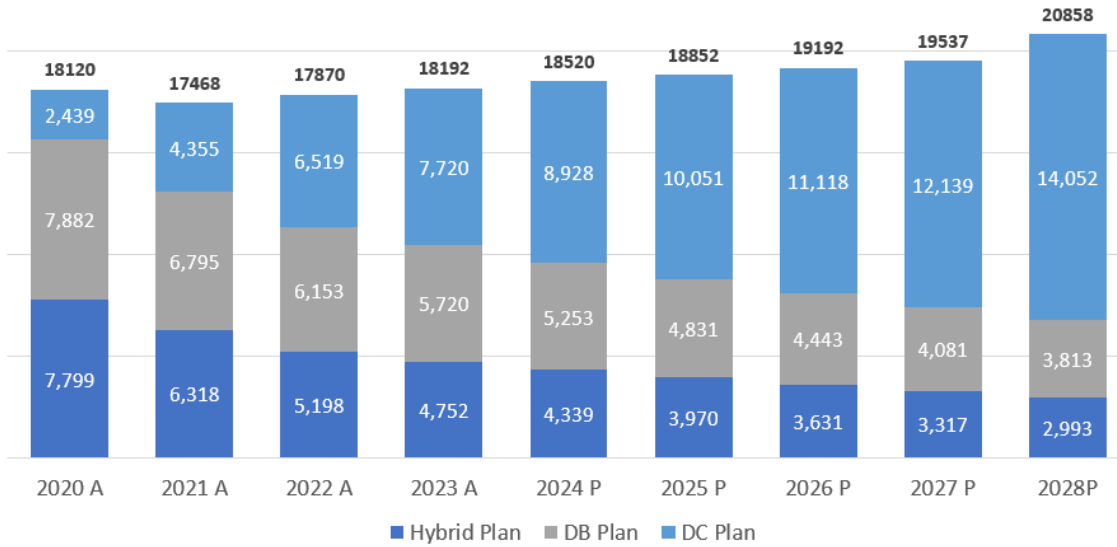
Retirement Plan Management

The University has been a leader in the public pension space, taking action to manage cost and liability growth in ways that many other public pensions have not over the past decade. These efforts have been ongoing since 2010:

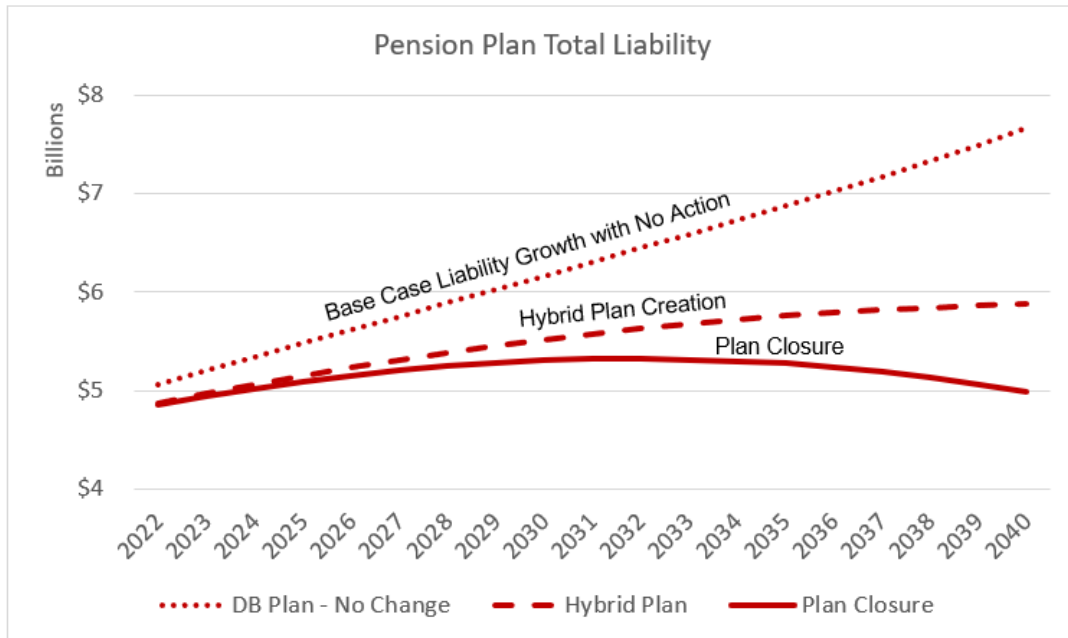
- 2010 - Added an employee contribution requirement; established a stabilization reserve to control contribution volatility
- 2012 – Transition to 50% defined benefit and 50% defined contribution benefit in the Hybrid Plan for new employees
- 2019 – Plan closure to new entrants, transitioning new employees to 100% Defined Contribution Plan.
- 2022 – Implemented the Defined Benefit Plan Financial Management Policy
- 2023 – Terminated Vested Member Buyout Program

Defined Benefit Plan Closure: The University closed the defined benefit plan to new entrants and implemented a defined contribution only retirement plan effective 10/1/2019. According to the most recent department of labor survey, of the public pension plans that changed benefits, 98% remained open for new employees to access a defined benefit. Said another way, only 2% of public pension plans have closed to new entrants. The following chart shows that with closing the defined benefit plan to new or rehired employees, enrollment in the defined contribution plan will increase as the defined benefit population retires or separates employment. By 2028, 67% of the benefit eligible population is expected to be in the defined contribution plan, compared to the 42% in 2023.

UM RETIREMENT PLANS
ACTUALS AND 5 YEAR PROJECTION

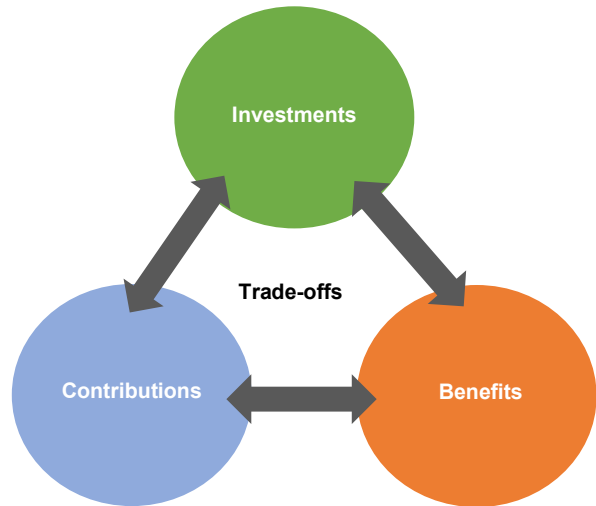


Today, the pension plan total liability of \$5.6B is \$230M lower from the creation of the Hybrid Plan and \$25M lower from the closure of the pension plan to new members in October 2019. By 2040, that variance in liability without actions taken would be \$2.6B. The pension liability is a long-term obligation; realizing liability savings takes time and is managed with the Financial Management Policy implemented. While closed to new members since October 2019, annual benefit payments under the pension plan are projected to continue growing through 2043. Based on current mortality assumptions, benefit payments by the plan will continue well past 2090. The total remaining benefit payments over the life of the pension plan are projected to be more than \$19B.



Financial Management Policy: During FY22, the University undertook a process to review the status of the pension plan to develop a strategy to align contribution and investment strategies consistent with a plan closed to new entrants. In FY23, the Financial Management Policy, *CRR 530.020* was implemented. The policy outlines principles for managing and improving the funding status of the pension plan, while balancing short-term needs of the University with the long-term obligations of the plan.

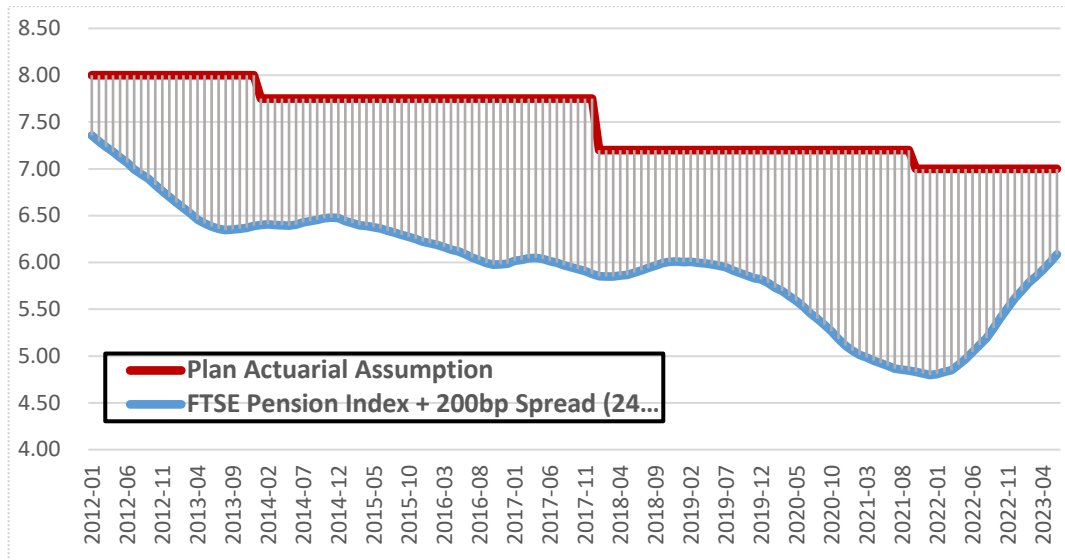
Managing a pension plan can be described by the formula: contributions + investments = benefits paid. Benefits are established for members by the plan. Contributions come from the University's operating budgets and any amount into the plan offsets some return on mission. Investment returns are the most significant contributor towards the plan, but the volatility and risk of investment returns ultimately impacts the operating budget. The new financial management policy outlines the tradeoffs within this formula, prioritizing meeting the full commitment to plan members while balancing investment risk and contribution impact on other University priorities.



Given the magnitude and longevity of the pension plan's liabilities, the policy established the following:

- **Contributions:** The University established a minimum contributions requirement in order to maintain at a minimum the contribution level towards the unfunded liability at the time of implementation. This floor ensures that contributions will not fall until the plan reaches a reasonable level of risk for a closed plan. The policy controls volatility of pension contributions on budgets to the extent possible. The retirement stabilization fund, created in 2010 following the financial crisis, will be utilized to control the volatility until exhausted.
- **Investments:** As a closed plan to new members, annual contributions going into the plan will decline over time, leaving it increasingly reliant on investment income and ultimately, the plan's assets to fund the plan's liabilities. Therefore, the policy directs management to continue to de-risk the plan until the discount rate reaches Financial Times Stock Exchange (FTSE) Pension Liability Index plus 2%. This target aligns with the risk level of private market pension plans, which is how credit rating agencies evaluate pension plan funding and stability. The move towards market rates will eventually allow the risk in the plan's assets to align with the market risk of the plan's liabilities, fully funding the closed plan at a private market rate. The current discount rate of 7% is above the current 6.09% policy target. The 7% discount rate aligns with averages for public pension plans, but the policy will move the University away from this practice over time as the plan is part of only 2% of public plans that are closed. As investment gains are realized over time, the discount rate will

continue until it reaches the target. The last decade of history of the University discount rate and policy target are illustrated in the following chart.



- Plan benefits:** Given the magnitude of the plan’s liabilities and the additional risks inherent in managing a closed plan, benefit increases are prohibited. Any benefit increases would increase the plan’s total and unfunded liability, which this policy seeks to limit to the extent possible. The goal of the policy is to direct resources towards reducing risk within the plan to ensure the contractual benefit is stable for all members.

Lastly, the policy establishes funding guardrails to ensure the pension plan is managed within a reasonable funding level within every five-year period. If the plan falls below 75% funded or moves above 95% funded, management must present the Board with a plan to improve the plans funded status or propose changes to reduce investment or benefit risk within the plan. The new review corridors ensure the Board receives an update outside of the five-year assumption review if the plan falls below expectations. Moving above or below the funding corridors force a review of contribution, investment, and benefit strategies.

Terminated Vested Buyout Program: In addition to the policy principles, administration has explored ways to further reduce the growth of the pension liability. At the April 2023 Board meeting, administration approved a plan amendment for an Optional Terminated Vested Buyout program. This program was a one-time offer for employees who had terminated their employment prior to April 1, 2023. The offer was an option for eligible members to cash out their pension benefit as an enhanced lump-sum between October-December 2023. This program provided those terminated employees an opportunity to gain control of their benefit and related investment returns. This program did not impact current employees or retirees. During the election window, 18% of eligible participants took advantage of the enhanced lump-sum resulting in a reduction of the total liability by \$70M and a reduction of the unfunded liability by \$10M.

Actuarial Report: Defined Benefit Plan

Each year, the University completes an actuarial valuation for the University of Missouri's Retirement, Disability, and Death Benefit Plan, or pension plan, which provides information about the funding status of the plan and the required contribution for the upcoming fiscal year. The University has always made the actuarially determined required contribution into the plan.

Included in the 10/1/2023 actuarial valuation, investment returns were 4.92%, below the 7% return assumption. Due to investment performance and other negative experiences in actual versus expected experience, the actuarial unfunded liability grew from \$1.199B to \$1.289B. The growth in unfunded liability decreased the plan's actuarial funding ratio to 77.12% from the prior year's funding ratio of 78%. The actuarial funding ratio remains within the corridor of 75% to 95% funded. Per policy, the unfunded liability contribution of \$127M is equal to the actuarial determined contribution (ADC).

VI. Strategic Direction

2023 Impact Summary and Road Map

The Office of Human Resources regularly updates a three-year road map to provide a line of sight over multiple years, ensuring we support the strategic direction of the University.

Results of the 2023 roadmap priorities are summarized below.

2023 Action	Outcome
Finalize project plan, resource needs, and robust communications for PTO implementation.	Complete. Implemented new leave program successfully January 2024.
Develop transition plan for employee leave balances accrued prior to 1/1/24.	Complete. Converted 80 hours to PTO, with additional hours paid out in 2024 – 2026.
Complete full market and job analysis with 2023 market benchmarks.	Complete.
Fully fund pre-65 retiree premiums .	Complete and effective as of January 2024.
Conduct FMLA / LTD / Life / STD/Parental Leave/Caregiver Leave vendor RFP and implementation. Includes evaluation of Short-term disability buy-up option.	Completed and implemented in alignment with new PTO program, including STD buy-up option and new qualifying leave plans.
Implement buy-up dental plan and change in vision plan administration.	Complete and buy-up dental plan designed and implemented. Changed vision plan providers.
Implement funding policy for unfunded DB liability.	BOC approval in April 2023.
DB plan levers to manage unfunded liability.	Completed the Voluntary Terminated Vested Buyout initiative.
Analyze Secure 2.0 approved legislation.	Implemented security measures required by the Secure Act within this timeframe. Additional measures expected for 2025 and 2026.

The detailed Roadmap for 2024-2026 is available in **Appendix C**.

2023 Pay Structure Review and Total Rewards Evaluation

The University partnered with Willis Towers Watson (Global Executive Compensation Consulting Firm) in 2014 to implement a Global Grading Structure (GGS) for non-academic staff positions. The structure is maintained by participating in regular compensation surveys, assessing salary structure on a regular basis with the external market and range adjustments as necessary to ensure we are recruiting and retaining valuable employees.

In 2023, the University partnered with Willis Towers Watson to conduct a compliance and market evaluation of the GGS structure to ensure best practice approaches are in place.

- Job evaluation methodology
- Market pricing methodology and structure alignment
- Application of administration guidelines
- Conduct thorough job level realignment and market pricing assessment

The University also utilized Aon's Benefit Index Tool to benchmark the competitive value of total rewards (benefits, retirement, paid time off, compensation, etc.). This analysis paired with the University's compensation data allows the University to better understand how our benefits compare to others and supports the continued development of our multi-year strategy roadmap. Benefits are competitive with the industry benchmark and the study indicated that continuing to invest in market-based compensation is important in today's competitive talent market.

Capital Region Medical Center (CRMC)

In July 2023, the University started a process to integrate with Capital Region Medical Center. Effective January 1, 2024, employees of CRMC became University employees and transitioned to University benefits and systems. Most former CRMC staff transitioned to MU Health Care employment, and the former CRMC physicians, advanced practice professionals, and a small number of other staff transitioned to MU School of Medicine employment.

VII. Acknowledgment of Total Rewards Advisory Committee (TRAC)

Thank you for the opportunity to provide this annual report. We look forward to continued improvements to ensure competitive and financially sustainable benefit and retirement programs for the University of Missouri System.

Input and feedback were received from the Total Rewards Advisory Committee (TRAC) on the actions in this report. TRAC is comprised of a faculty and a staff member from each campus, a hospital representative, and a retiree representative. Members continue to be actively engaged in benefit, retirement, compensation, policy analysis, and related discussions for the University of Missouri.

APPENDIX A – PREMIUM COMPARISON

	2022 Premiums			2023 Premiums			Cost Difference		
	EE Premium	ER Contribution	Total	EE Premium	ER Contribution	Total	EE Premium	ER Contribution	Total
PPO									
Self	\$176	\$589	\$765	\$176	\$589	\$765	\$0	\$0	\$0
Self + Sp	\$426	\$1,242	\$1,668	\$430	\$1,253	\$1,683	\$4	\$11	\$15
Self + Ch	\$391	\$1,204	\$1,595	\$408	\$1,256	\$1,664	\$17	\$52	\$69
Family	\$661	\$1,933	\$2,594	\$690	\$2,016	\$2,706	\$29	\$83	\$112
CNP									
Self	\$84	\$461	\$545	\$84	\$461	\$545	\$0	\$0	\$0
Self + Sp	\$236	\$951	\$1,187	\$238	\$961	\$1,199	\$2	\$10	\$12
Self + Ch	\$212	\$924	\$1,136	\$221	\$965	\$1,186	\$9	\$41	\$50
Family	\$383	\$1,467	\$1,850	\$399	\$1,529	\$1,928	\$16	\$62	\$78
HSP									
Self	\$58	\$385	\$443	\$58	\$385	\$443	\$0	\$0	\$0
Self + Sp	\$164	\$802	\$966	\$166	\$809	\$975	\$2	\$7	\$9
Self + Ch	\$141	\$783	\$924	\$147	\$817	\$964	\$6	\$34	\$40
Family	\$273	\$1,232	\$1,505	\$284	\$1,283	\$1,567	\$11	\$51	\$62
RHP									
Self	Varies	Varies	\$843	Varies	Varies	\$948	Varies	Varies	\$105
Self + Sp	Varies	Varies	\$1,823	Varies	Varies	\$2,086	Varies	Varies	\$263
Self + Ch	Varies	Varies	\$1,724	Varies	Varies	\$2,062	Varies	Varies	\$338
Family	Varies	Varies	\$2,797	Varies	Varies	\$3,353	Varies	Varies	\$556
MA									
Self	Varies	Varies	\$635	Varies	Varies	\$683	Varies	Varies	\$48
Self + Sp	Varies	Varies	\$1,373	Varies	Varies	\$1,503	Varies	Varies	\$130
Self + Ch	Varies	Varies	\$1,298	Varies	Varies	\$1,486	Varies	Varies	\$188
Family	Varies	Varies	\$2,106	Varies	Varies	\$2,416	Varies	Varies	\$310

APPENDIX B – SUMMARY OF 2023 BENEFIT PLAN DESIGN CHANGES

ACTIVE MEDICAL AND PHARMACY PLANS

PPO, Custom Network, and Healthy Savings Plans:

- Increase out of network, out of pocket maximum to IRS limit
 - \$3,500 to \$3,750 for individuals
 - \$7,000 to \$7,500 for family

RETIREE MEDICAL AND PHARMACY PLANS

Pre-65 Retiree Plans

Retiree Health PPO Plan

- Increase deductibles
 - \$700 to \$1,000 for individuals
 - \$1,700 to \$2,500 for family
- Increase out-of-pocket maximum
 - \$3,400 to \$4,000 for individuals
 - \$6,800 to \$8,000 for family

Retiree Healthy Savings Plan

- Increase deductibles
 - \$1,750 to \$1,875 for individuals
 - \$3,500 to \$3,750 for family
- Increase out-of-pocket maximum to IRS limit
 - \$3,500 to \$3,750 for individuals
 - \$7,000 to \$7,500 for family
- Increase coinsurance from 15% to 20%

HEALTHY SAVINGS PLAN | What You Pay for Covered Expenses in 2022/2023

		2022 HEALTHY SAVINGS PLAN		2023 HEALTHY SAVINGS PLAN	
		In-network	Out-of-network**	In-network	Out-of-network**
DEDUCTIBLE	Medical deductible	\$1,750/self; \$3,500/family* (combined)	\$3,500/self; \$7,000/family* (combined)	\$1,750/self; \$3,500/family* (combined)	\$3,500/self; \$7,000/family* (combined)
	Rx deductible				
SERVICES	Preventive care	\$0	35% or more after deductible	\$0	35% or more after deductible
	Primary care	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
	Specialist care	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
	Urgent care	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
	Lab and x-ray	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
	Outpatient care	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
	Inpatient care (incl. maternity delivery)	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
	Durable medical equipment	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
	Emergency room	15% after deductible	15% or more after deductible	15% after deductible	15% or more after deductible
	Ambulance	15% after deductible	15% or more after deductible	15% after deductible	15% or more after deductible
Rx	Rx drug: Retail/Mail*** ▪ Formulary generic ▪ Formulary brand ▪ Non-formulary brand	15% after deductible	35% or more after deductible	15% after deductible	35% or more after deductible
OUT-OF-POCKET	Medical limit	\$3,500/self; \$7,000/family* (combined)	\$7,000 or more/self; \$14,000 or more/family* (combined)	\$3,750/self; \$7,500/family* (combined)	\$7,000 or more/self; \$14,000 or more/family* (combined)
	Rx limit				

*Considerations for "self" and "family" are different for the Healthy Savings Plan than for the Custom Network and PPO Plans. See the glossary (umurl.us/glossary) for details.

**Refer to the Summary Plan Description (SPD) for additional details on allowable and eligible expenses when using an out-of-network provider.

***90-day fill/refill at Mizzou pharmacies at same cost as mail order.

CUSTOM NETWORK PLAN | What You Pay for Covered Expenses in 2022/2023

		2022 CUSTOM NETWORK PLAN		2023 CUSTOM NETWORK PLAN	
		In-network	Out-of-network**	In-network	Out-of-network**
DEDUCTIBLE	Medical deductible	\$200/self, \$600/family	\$1,500/self, \$4,500/family*	\$200/self, \$600/family	\$1,500/self, \$4,500/family*
	Rx deductible	Retail: \$50/person Mail order: \$0/person	Retail: \$50/person Mail order: \$0/person	Retail: \$50/person Mail order: \$0/person	Retail: \$50/person Mail order: \$0/person
SERVICES	Preventive care	\$0	50% or more after deductible	\$0	50% or more after deductible
	Primary care	\$15 copay/visit	50% or more after deductible	\$15 copay/visit	50% or more after deductible
	Specialist care	\$40 copay/visit	50% or more after deductible	\$40 copay/visit	50% or more after deductible
	Urgent care	\$50 copay/visit	\$50 copay/visit or more	\$50 copay/visit	\$50 copay/visit or more
	Lab and x-ray*****	\$5 (basic)/\$100 (advanced)	50% or more after deductible	\$5 (basic)/\$100 (advanced)	50% or more after deductible
	Outpatient care	10% after deductible	50% or more after deductible	10% after deductible	50% or more after deductible
	Inpatient care (incl. maternity delivery)	10% after deductible	50% or more after deductible	10% after deductible	50% or more after deductible
	Durable medical equipment	10% after deductible	50% or more after deductible	10% after deductible	50% or more after deductible
	Emergency room	\$250 copay/visit after deductible	\$250 copay/visit or more after deductible	\$250 copay/visit after deductible	\$250 copay/visit or more after deductible
	Ambulance	\$200 copay/occurrence after deductible	\$200 or more copay/occurrence after deductible	\$200 copay/occurrence after deductible	\$200 or more copay/occurrence after deductible
	RX	Rx drug: Retail ■ Formulary generic ■ Formulary brand ■ Non-formulary brand	Greater of copay or coinsurance after deductible: ▪ \$7 (retail) and \$15 (mail) or 20% ▪ \$15 (retail) and \$30 (mail) or 25% ▪ \$30 (retail) and \$60 (mail) or 50%	Greater of \$30 copay or 50% network cost after deductible****	Greater of copay or coinsurance after deductible: \$7 (retail) and \$15 (mail) or 20% \$15 (retail) and \$30 (mail) or 25% \$30 (retail) and \$60 (mail) or 50%
OUT-OF-POCKET	Medical limit	\$3,500/self, \$7,000/family*	\$10,500 or more/self, \$21,000 or more/family*	\$3,750/self, \$7,500/family*	\$10,500 or more/self, \$21,000 or more/family*
	Rx limit	\$5,200/self, \$10,400/family*		\$5,200/self, \$10,400/family*	

*Considerations for "self" and "family" are different for the Healthy Savings Plan than for the Custom Network and PPO Plans. See the glossary (unurl.us/glossary) for details.

**Refer to the Summary Plan Description (SPD) for additional details on allowable and eligible expenses when using an out-of-network provider.

***90-day fill/refill at Mizzou pharmacies at same cost as mail order.

****Member will be required to pay the difference between non-participating pharmacy and participating pharmacy charge.

***** For lab and x-ray services, "Basic" includes services such as x-ray, blood work, lipid panel, etc. "Advanced" includes services such as CT scan, PET scan, MRI, etc.

PPO PLAN | What You Pay for Covered Expenses in 2022/2023

		2022 PPO PLAN <i>(with Tiered Feature available in Kansas City and Rolla)</i>				2023 PPO PLAN <i>(with Tiered Feature available in Kansas City and Rolla)</i>					
		In-network		Out-of-network**		In-network		Out-of-network**			
DEDUCTIBLE	Medical deductible	<i>Tiered PPO Plan:</i> \$500/self, \$1,500/family*	<i>PPO Plan:</i> \$800/self, \$2,400/family *	<i>Tiered PPO Plan:</i> \$1,000/self, \$3,000/family*	<i>PPO Plan:</i> \$1,600/self, \$4,800/family*	<i>Tiered PPO Plan:</i> \$500/self, \$1,500/family*	<i>PPO Plan:</i> \$800/self, \$2,400/family *	<i>Tiered PPO Plan:</i> \$1,000/self, \$3,000/family*	<i>PPO Plan:</i> \$1,600/self, \$4,800/family*		
	Rx deductible	<i>Retail: \$75/person Mail order: \$0/person</i>				<i>Retail: \$75/person Mail-order: \$0/person</i>					
SERVICES	Preventive care	\$0		40% or more after deductible		\$0		40% or more after deductible			
	Primary care	<i>Tiered PPO Plan:</i> Tier 1 (▼▼): \$15 copay/visit; Tier 2 (▼): \$25 copay/visit		<i>PPO Plan:</i> \$20 copay/visit		<i>Tiered PPO Plan:</i> Tier 1 (▼▼): \$15 copay/visit; Tier 2 (▼): \$25 copay/visit		<i>PPO Plan:</i> \$20 copay/visit			
	Specialist care	<i>Tiered PPO Plan:</i> Tier 1 (▼▼): \$35 copay/visit; Tier 2 (▼): \$40 copay/visit		<i>PPO Plan:</i> \$40 copay/visit		<i>Tiered PPO Plan:</i> Tier 1 (▼▼): \$35 copay/visit; Tier 2 (▼): \$40 copay/visit		<i>PPO Plan:</i> \$40 copay/visit			
	Urgent care	\$50 copay/visit		40% or more after deductible		\$50 copay/visit		40% or more after deductible			
	Lab and x-ray	<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible		<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible			
	Outpatient care	<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible		<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible			
	Inpatient care <i>(incl. maternity delivery)</i>	<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible		<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible			
	Durable medical equipment	<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible		<i>Applicable coinsurance after deductible[^]</i>		40% or more after deductible			
	Emergency room	\$250 copay/occurrence after deductible		\$250 copay/occurrence or more after deductible		\$250 copay/visit after deductible		\$250 copay/visit or more after deductible			
	Ambulance	\$200 copay/occurrence after deductible		\$200 or more copay/occurrence after deductible		\$200 copay/occurrence after deductible		\$200 or more copay/occurrence after deductible			
	Rx	Rx drug: Retail/Mail*** ▪ Formulary generic ▪ Formulary brand ▪ Non-formulary brand		<i>Greater of copay or coinsurance after deductible: ▪ \$7 (retail) and \$15 (mail) or 20% ▪ \$15 (retail) and \$30 (mail) or 25% ▪ \$30 (retail) and \$60 (mail) or 50%</i>		<i>Greater of \$30 copay or 50% network cost after deductible****</i>		<i>Greater of copay or coinsurance after deductible: ▪ \$7 (retail) and \$15 (mail) or 20% ▪ \$15 (retail) and \$30 (mail) or 25% ▪ \$30 (retail) and \$60 (mail) or 50%</i>		<i>Greater of \$30 copay or 50% network cost after deductible****</i>	
	OUT-OF-POCKET	Medical limit	\$3,500/self, \$7,000/family*		\$10,500 or more/self, \$21,000 or more/family*		\$3,750/self, \$7,500/family*		\$10,500 or more/self, \$21,000 or more/family*		
Rx limit		\$5,200/self, \$10,400/family*				\$5,200/self, \$10,400/family*					

[^] 2022 in-network coinsurance- *PPO Plan:* 20% after deductible; *Tiered PPO:* Tier 1- 10% after deductible and Tier 2- 20% after deductible

2023 in-network coinsurance- *PPO Plan:* 20% after deductible; *Tiered PPO:* Tier 1- 10% after deductible and Tier 2- 20% after deductible.

*Considerations for "self" and "family" are different for the Healthy Savings Plan than for the Custom Network and PPO Plans. See the glossary (umurl.us/glossary) for details.

**Refer to the Summary Plan Description (SPD) for additional details on allowable and eligible expenses when using an out-of-network provider.

***90-day fill/refill at Mizzou pharmacies at same cost as mail order.

****Member will be required to pay the difference between non-participating pharmacy and participating pharmacy charge

APPENDIX C— BENEFITS AND RETIREMENT ROADMAP

BENEFITS (HEALTH PLANS) ROADMAP

Benefits Roadmap

	2024	2025	2026
Health Plan & Ancillary Benefits	<p>Extend or renegotiate CNP agreements based on 2024 action</p> <p>Continue to evaluate and implement, as appropriate, enhanced vendor solutions to improve participant health and manage costs</p> <p>Ensure compliance with required provider cost transparency</p> <p>Short-term disability effective</p> <p>Conduct creditable coverage analysis on Part D portion of the retiree plans to ensure compliance with Medicare changes</p> <p>Changes to FMLA / LTD / Life / STD effective January 2024; monitoring continues</p> <p>Annual plan benchmarking with recommendations</p>	<p>Evaluate CNP agreements</p> <p>Conduct medical plan and Medicare Advantage RFPs and implementation for 2026</p> <p>Evaluate Provider cost and quality transparency tools</p> <p>Assess HSA, FSA, COBRA and EAP vendors</p> <p>Continue to evaluate and implement, as appropriate, enhanced vendor solutions to improve participant health and manage costs</p> <p>Annual plan benchmarking with recommendations</p> <p>Evaluate membership across plans and refresh migration strategy</p>	<p>Evaluate / expand programming with MUHC</p> <p>Medical plan and Medicare Advantage plan/vendor changes effective January 2026.</p> <p>Continue to evaluate and implement, as appropriate, enhanced vendor solutions to improve participant health and manage costs</p> <p>Annual plan benchmarking with recommendations</p> <p>Evaluate membership across plans and refresh migration strategy</p> <p>Medicare RFP</p>

RETIREMENT & LEAVE ROADMAP

Retirement and Leave Roadmap

	2024	2025	2026
Retirement Programs	<p>Continue alignment of retirement plan cost, contribution, and benefit value</p> <p>Evaluate potential voluntary plan change for current employees.</p> <p>Monitor impact of DB discount rate change</p> <p>Explore additional pension administration tasks to co-source partner, including automating pension option selection</p> <p>Third-party fee review of DC plans</p> <p>Implementing Secure 2.0 required changes (Roth option for 457b contributions).</p> <p>Continued support of Investment Committee, including fiduciary training.</p>	<p>Explore market trends such as phased retirement programs</p> <p>Evaluate co-sourcing additional pension administration.</p> <p>Continue to monitor Secure 2.0</p> <p>Implement Secure 2.0 required changes (income-based Roth catchup contributions) effective January 2026.</p> <p>Continued support of Investment Committee, including fiduciary training.</p>	<p>Achieve optimal balance for co-sourced/outsourced pension administration</p> <p>Continue to evaluate plan membership shifts and impact to administration</p> <p>Secure 2.0 required Roth changes effective (January).</p> <p>Continued support of Investment Committee, including fiduciary training.</p>
Leave Programs	<p>New PTO program effective</p> <p>Post-implementation communication</p> <p>Post-implementation evaluation and recommendations for any needed follow up</p> <p>Initial payout of leave banks</p>	<p>Stabilize programs and evaluate impact of changes</p> <p>Second payout of leave banks</p> <p>Monitor and report on leave utilization</p>	<p>Final payout of leave banks</p> <p>Monitor and report on leave utilization</p>

APPENDIX D – Annual Retirement, Disability, and Death Benefit Plan
Actuarial Valuation (as of October 1, 2023)

University of Missouri Retirement,
Disability, and Death Benefit Plan

Actuarial Valuation and Review as of October 1, 2023



March 15, 2024

Board of Curators
University of Missouri
Columbia, MO 65211

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of October 1, 2023. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for the University's fiscal year July 1, 2024 – June 30, 2025.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board of Curators to assist in administering the Retirement Plan. The census information and financial information on which our calculations were based was prepared by the staff of the University. That assistance is gratefully acknowledged.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and changes in plan provisions or applicable law.

The actuarial calculations were directed under the supervision of Joshua Kaplan. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial valuation is complete and accurate, except as noted in *Section 4*. The assumptions used in this actuarial valuation were selected by the Board of Curators based upon my analysis and recommendations. In my opinion, the assumptions are reasonable and take into account the experience of the Plan and reasonable expectations. In addition, in my opinion, the combined effect of these assumptions is expected to have no significant bias.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

A handwritten signature in black ink that reads "Joshua Kaplan". The signature is written in a cursive style with a large initial "J".

Joshua Kaplan, FSA, FCA, MAAA, EA
Senior Vice President and Actuary

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the Plan as of October 1, 2023. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Board of Curators;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of September 30, 2023, provided by the University;
- The assets of the Plan as of September 30, 2023, provided by the University;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. and
- The funding policy adopted by the University.

Certain disclosure information required by GASB Statements No. 67 and 68 as of June 30, 2024 for the Plan is provided in a separate report.

Valuation highlights

1. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the unfunded actuarial accrued liability and the principal balance. The funding policy adopted by the University meets this standard.
2. The actuarial loss of \$123,570,620, or 2.2% of actuarial accrued liability, is due to an investment loss of \$37,320,942, or 0.7% of actuarial accrued liability, and a loss from sources other than investments of \$86,249,678, or 1.5% of the actuarial accrued liability. This non-investment loss was primarily due to higher salaries than projected.
3. The rate of return on the market value of assets was 4.9% for the year ending September 30, 2023. The return on the actuarial value of assets was 6.1% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 7.0%. Given the target asset allocation and expectations of future investment returns for various asset classes, we advise the Board to continue to monitor actual and anticipated investment returns relative to the assumed long-term rate of return on investments of 7.0%.
4. The actuarial value of assets is 103.7% of the market value of assets. The investment experience in the past years has only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the Plan is likely to increase unless the net loss is offset by future experience. The recognition of the net deferred losses of \$153.2 million will also have an impact on the future funded ratio. If the net deferred losses were recognized immediately in the actuarial value of assets, the ADEC would increase from \$165.2 million to \$181.5 million, or 9.9%.

Changes from prior valuation

5. The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 77.1%, compared to the prior year funded ratio of 78.0%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio is 74.4%, compared to 76.2% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of the plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.
6. The ADEC for the year beginning July 1, 2024 is \$165.2 million, an increase of \$11.4 million from last year. As a percentage of payroll of members in the defined benefit plan, the employer contribution rate is 19.10% for Level 1 members and 15.64% for Level 2 members (17.68% combined) and is based on the funding policy adopted by the University, which includes level amortizations of the total plan liability in accordance with the amortization base schedule shown in Exhibit D.

Risk

7. It is important to note that this actuarial valuation is based on plan assets as of September 30, 2023. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on the covered population due to mortality or other demographic changes that may emerge after September 30, 2023. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
8. Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition, but have included a brief discussion of some risks that may affect the Plan in *Section 2*. A more detailed assessment would provide the Board with a better understanding of the inherent risks and could be important for the Plan because relatively small changes in investment performance can produce large swings in the unfunded liabilities.

Summary of key valuation results

Valuation Result	Current	Prior
Contributions for fiscal year beginning	July 1, 2024	July 1, 2023
• Actuarially determined employer contributions	\$165,207,802	\$153,824,034
• Level 1 employer ADEC as a percent of payroll	19.10%	17.30%
• Level 2 employer ADEC as a percent of payroll	15.64%	13.83%
• Total blended employer ADEC as a percent of payroll	17.68%	15.85%
Actuarial accrued liability for plan year beginning	October 1, 2023	October 1, 2022
• Retired members and beneficiaries	\$2,828,814,720	2,722,676,602
• Inactive vested members	542,004,715	520,452,690
• Inactive members due a refund of employee contributions	14,163,926	13,365,547
• Active members	2,251,006,320	2,192,479,943
• Total	5,635,989,681	5,448,974,782
• Normal cost for plan year beginning October 1	51,836,103	53,809,728
Assets for plan year beginning October 1		
• Market value of assets (MVA)	\$4,193,500,773	\$4,151,216,937
• Actuarial value of assets (AVA)	4,346,731,457	4,250,030,226
• Actuarial value of assets as a percentage of market value of assets	103.65%	102.38%
Funded status for plan year beginning October 1		
• Unfunded actuarial accrued liability on market value of assets	\$1,442,488,908	\$1,297,757,845
• Funded percentage on MVA basis	74.41%	76.18%
• Unfunded accrued liability on actuarial value of assets	\$1,289,258,224	\$1,198,944,556
• Funded percentage on AVA basis	77.12%	78.00%

Valuation Result	Current	Prior
Key assumptions	October 1, 2023	October 1, 2022
• Net investment return	7.00%	7.00%
• Inflation rate	2.20%	2.20%
Demographic data for plan year beginning October 1		
• Number of retired members and beneficiaries	12,027	11,746
• Number of inactive vested members ¹	6,671	6,513
• Number of inactive members due a refund of employee contributions	11,487	11,443
• Number of active Level 1 members	5,856	6,367
• Number of active Level 2 members	4,586	5,248
• Average salary for Level 1 members	\$93,995	\$88,431
• Total payroll for Level 1 members	\$550,433,113	\$563,042,597
• Average salary for Level 2 members	\$83,741	\$77,687
• Total payroll for Level 2 members	\$384,037,086	\$407,702,605

¹ Includes participants on long term disability who are continuing to accrue service

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the System. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the University. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If the University is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan provisions, but they may be subject to alternative interpretations. The University should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the System upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

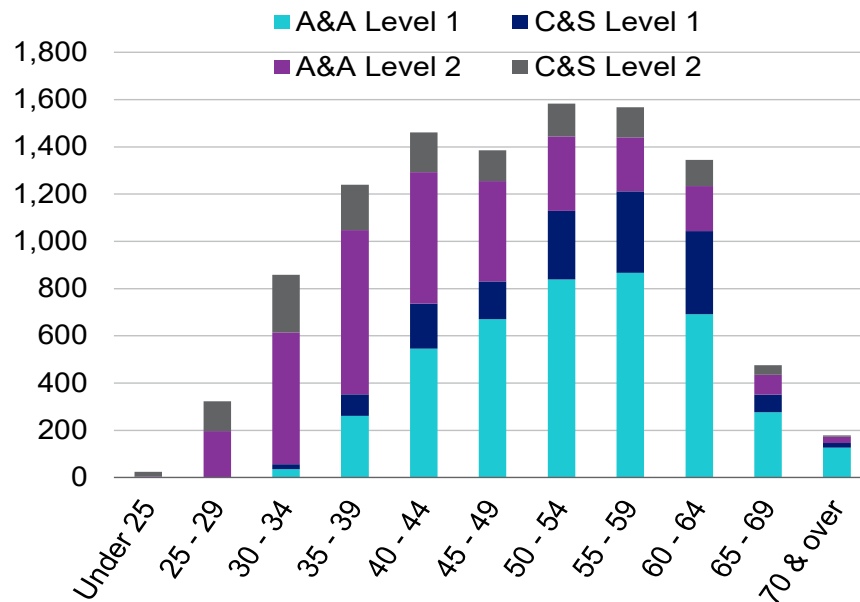
Section 2: Actuarial Valuation Results

Active members

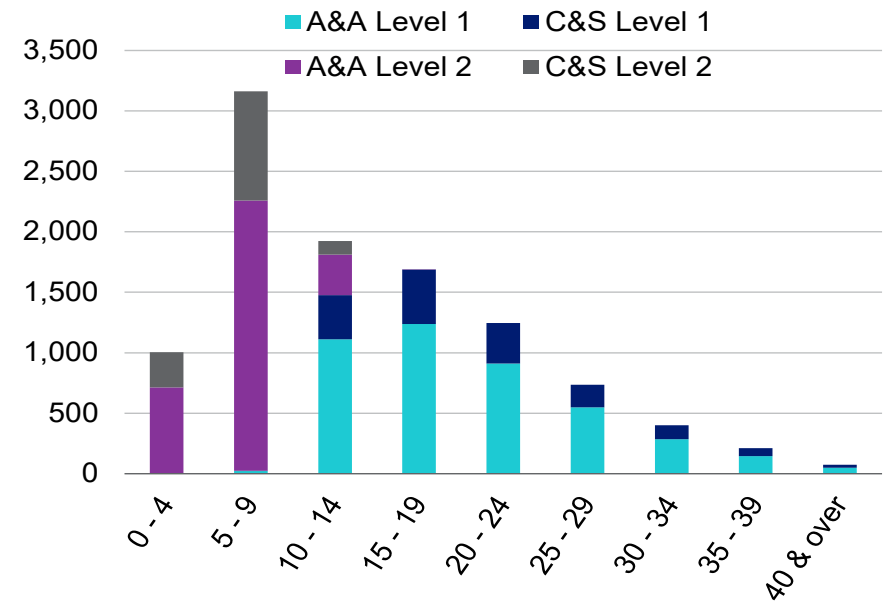
As of September 30,	2023	2022	Change
Active participants	10,442	11,615	-10.1%
Average age	49.3	48.4	0.9
Average years of service	14.5	13.4	1.1
Average compensation	\$89,491	\$83,577	7.1%
Academic & Administrative (A&A) percentage	72.7%	71.8%	N/A
Clerical & Service (C&S) percentage	27.3%	28.2%	N/A

Distribution of Active Members as of September 30, 2023

Actives by Age



Actives by Years of Service



Inactive members

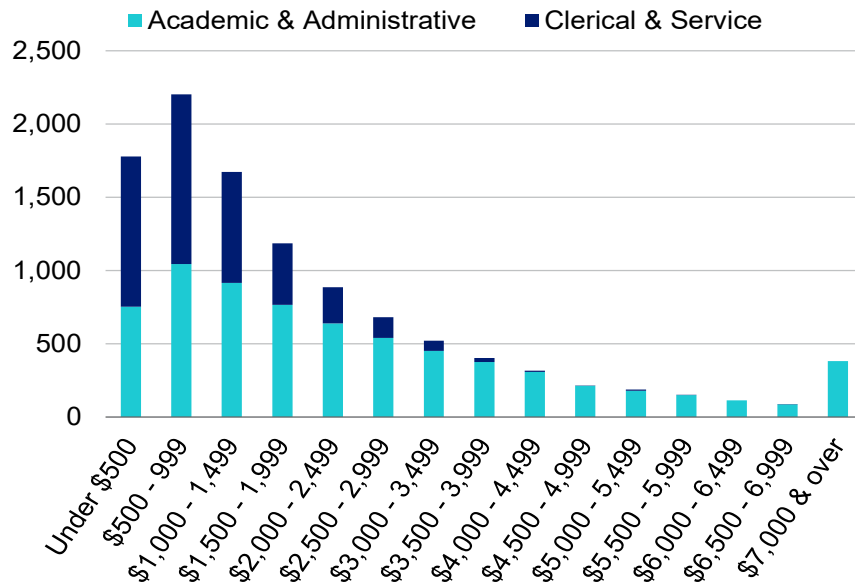
- In this year's valuation, there were 6,671 inactive members with a vested right to a deferred or immediate vested benefit. This includes members who are inactive due to long-term disability but who continue to accrue service. Of the 6,671 inactive vested members, 4,764 are Academic and Administrative and 1,907 are Clerical and Service.
- In addition, there were 11,487 inactive members entitled to a return of their employee contributions.

Retired members and beneficiaries

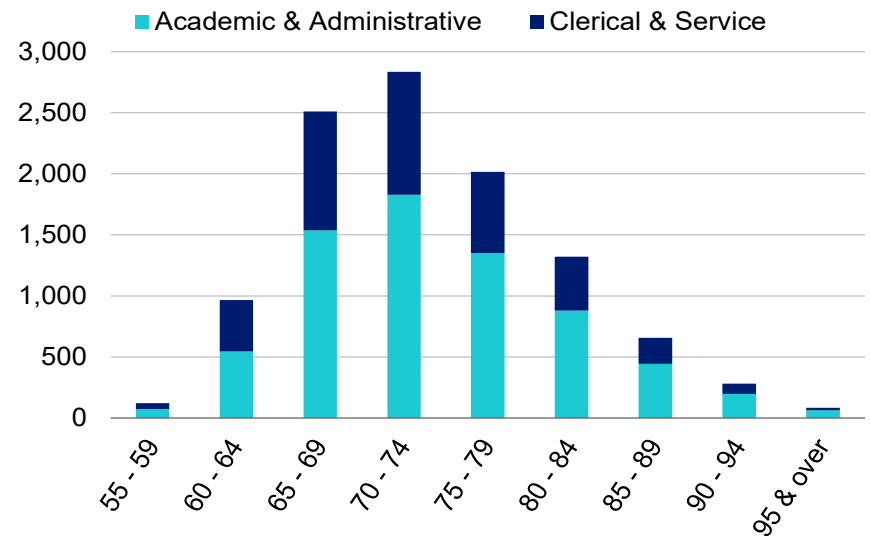
As of September 30,	2023	2022	Change
Retired participants	10,866	10,620	2.3%
Average age	73.5	73.2	0.3
Average amount for A&A	\$2,624	\$2,574	1.9%
Average amount for C&S	\$1,080	\$1,065	1.4%
Beneficiaries	1,161	1,126	3.1%
Total monthly amount	\$24,198,990	\$23,203,455	4.3%

Distribution of Retired Members as of September 30, 2023

By Monthly Amount



By Age



Financial information

- It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Curators has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Determination of Actuarial Value of Assets for Year Ended September 30, 2023

Step	Original Amount*	Percent Deferred†	Unrecognized Amount‡	Amount
1. Market value of assets, September 30, 2023				\$4,193,500,773
2. Calculation of unrecognized return				
a. Year ended September 30, 2023	-\$84,821,407	80%	-\$67,857,126	
b. Year ended September 30, 2022	-553,527,683	60%	-332,116,611	
c. Year ended September 30, 2021	652,396,599	40%	260,958,640	
d. Year ended September 30, 2020	-71,077,937	20%	-14,215,587	
e. Year ended September 30, 2019	-94,989,646	0%	0	
f. Total unrecognized return				-\$153,230,684
3. Preliminary actuarial value: (1) - (2f)				4,346,731,457
4. Adjustment to be within 20% corridor				0
5. Final actuarial value of assets as of September 30, 2023: (3) + (4)				\$4,346,731,457
6. Actuarial value as a percentage of market value: (5) ÷ (1)				103.7%
7. Amount deferred for future recognition: (1) - (5)				-\$153,230,684

* Total return minus expected return on a market value basis.

† Percent deferred applies to the current valuation year.

‡ Recognition at 20% per year over five years.

Actuarial experience

- To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), any contribution requirement will decrease from the previous year. On the other hand, any contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).
- Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience. If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

Actuarial Experience for Year Ended September 30, 2023

	Assumption	Amount
1.	Gain/(loss) from investments*	-\$37,320,942
2.	Net gain/(loss) from salary	-43,286,695
3.	Net gain/(loss) from other experience	-42,962,983
4.	Net experience gain/(loss): 1 + 2 + 3	-\$123,570,620

* Details on next page

Investment experience

- A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan’s investment policy. The rate of return on the market value of assets was 4.92% for the year ended September 30, 2023.
- For valuation purposes, the assumed rate of return on the actuarial value of assets for the year ended September 30, 2023 was 7.00%. The actual rate of return on an actuarial basis for the 2023 Plan Year was 6.11%. Since the actual return for the year was lower than the assumed return, the Plan experienced an actuarial loss during the year ended September 30, 2023 with regard to its investments.

Investment Experience *Year Ended September 30, 2023 vs. Year Ended September 30, 2022*

Investment	YE 2023 Market Value	YE 2023 Actuarial Value	YE 2022 Market Value	YE 2022 Actuarial Value
1. Net investment income	\$200,235,471	\$254,652,866	-\$240,323,260	\$296,761,530
2. Average value of assets	4,072,241,120	4,171,054,408	4,474,348,888	4,036,077,386
3. Rate of return: 1 ÷ 2	4.92%	6.11%	-5.37%	7.35%
4. Assumed rate of return	7.00%	7.00%	7.00%	7.00%
5. Expected investment income: 2 x 4	285,056,878	291,973,809	313,204,422	282,525,417
6. Investment gain/(loss): 1 – 5	-\$84,821,407	-\$37,320,943	-\$553,527,682	\$14,236,113

Non-investment experience

Retirement experience

- During the year ended September 30, 2022, the number of retirements for academic and administrative employees closely matched the assumption in aggregate and the number of retirements was lower than projected for clerical and service employees.

Salary Experience

- Between the 2022 and 2023 actuarial valuations, the average salary increased by 6.2% for academic and administrative employees and increased by 7.5% for clerical and service employees. These patterns were greater than assumed producing an actuarial loss of \$43.3 million.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among members
- The number of disability retirements (more or fewer than projected)

Actuarial assumptions

- There are no assumption changes since the prior valuation.
- Details on actuarial assumptions and methods are in Section 4, Exhibit I.

Plan provisions

- There were no changes in plan provisions since the prior valuation.
- A summary of plan provisions is in Section 4, Exhibit II.

Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended September 30, 2023

	Unfunded Actuarial Accrued Liability	Change	Amount
1.	Unfunded actuarial accrued liability at beginning of year		\$1,198,944,556
2.	Normal cost at beginning of year		51,883,251
3.	Prior year's actuarially determined contribution (ADC) at beginning of year		-161,400,140
4.	Interest on 1, 2 & 3		<u>76,259,937</u>
5.	Expected unfunded actuarial accrued liability		\$1,165,687,604
6.	Changes due to:		
a.	Actuarial investment loss	\$37,320,942	
b.	Salary increases greater than expected	43,286,695	
c.	Other (gain)/loss	42,962,983	
	Total changes		\$123,570,620
7.	Unfunded actuarial accrued liability at end of year		\$1,289,258,224

Actuarially determined contribution

The actuarially determined contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. As of October 1, 2023, the actuarially determined employer contribution is \$165,207,802, or 17.68% of projected plan-covered payroll in aggregate, or 19.10% for Level 1 members and 15.64% for Level 2 members.

The methodology used to calculate the actuarially determined contribution separately amortizes the initial unfunded liability as of October 1, 2021 over 20 years, the impact of the assumption changes over 20 years, and future experience gains and losses over 25 and 15 years, respectively. See Section 3, Exhibit D for a schedule of amortization bases established under this methodology.

Note that the Plan uses a level dollar amortization schedule. Since the Plan is closed to new entrants and the active population and payroll are declining, the percent of payroll contribution rates reported herein as of October 1, 2023 may amortize the unfunded liability slower than the scheduled period when applied to the reduced payroll in the period July 1, 2024 – June 30, 2025. Note that payroll only applies to those actives who are members in this Plan.

The contribution requirement as of October 1, 2023 is based on the data previously described, the actuarial assumptions and plan provisions described in Section 4, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

Actuarially Determined Contribution for Year Beginning October 1

Contribution Requirements	2023			2022		
	Total Plan	Level One % of Projected Payroll	Level Two % of Projected Payroll	Total Plan	Level One % of Projected Payroll	Level Two % of Projected Payroll
1. Normal cost	\$51,836,103	7.00%	3.47%	\$53,809,770	7.03%	3.49%
2. Amortization of unfunded liability	<u>126,734,077</u>	<u>13.56%</u>	<u>13.56%</u>	<u>113,583,450</u>	<u>11.70%</u>	<u>11.70%</u>
3. Actuarially determined contribution 1 + 2	178,570,180	20.56%	17.03%	167,393,220	18.73%	15.19%
4. Expected employee contribution	<u>-13,362,378</u>	<u>-1.46%</u>	<u>-1.39%</u>	<u>-13,569,186</u>	<u>-1.43%</u>	<u>-1.36%</u>
5. Actuarially determined employer contribution 3 + 4	\$165,207,802	19.10%	15.64%	\$153,824,034	17.30%	13.83%

Reconciliation of actuarially determined contribution

The chart below details the changes in the actuarially determined contribution from the prior valuation to the current year's valuation.

Reconciliation of Actuarially Determined Contribution from October 1, 2022 to October 1, 2023

Step	Amount	Percent of Payroll
1. Actuarially determined contribution as of October 1, 2022	\$167,393,220	17.24%
2. Effect of salary loss	4,606,655	0.47%
3. Effect of investment (gain)/loss	3,971,768	0.41%
4. Net effect of other gains and losses on accrued liability	4,572,205	0.47%
5. Net effect of other changes, including composition and number of members	-1,973,668	-0.20%
6. Total change	\$11,176,960	1.15%
7. Total change in percentage due to payroll change	N/A	0.72%
8. Actuarially determined contribution as of October 1, 2023	\$178,570,180	19.11%

Minimum actuarially determined contribution

The Plan's financial management policy has a provision for a Minimum Actuarially Determined Contribution (MADC) that states that the amortization component of the ADC may not be lower than the amortization component of the ADC in the October 1, 2021 actuarial valuation until the plan is fully funded.

The amortization component of the ADC in the October 1, 2021 actuarial valuation, including an adjustment for monthly payments, is \$94,838,104, or 7.53% of total University payroll (for Level 1, Level 2, and Level 3 members). The amortization component of the October 1, 2023 ADC is \$126,734,076, or 8.40% of total payroll. Since this exceeds the October 1, 2021 value, as of October 1, 2023, the MADC is equal to the ADC.

Schedule of funding progress through September 30, 2023

Actuarial Valuation Date	Unfunded AAL (UAAL)	Funded Ratio MVA	Funded Ratio AVA	UAAL as a Percentage of Covered Payroll
10/01/2014	\$476,427,007	89.2%	86.9%	42.9%
10/01/2015	474,031,119	82.6%	87.4%	42.0%
10/01/2016	459,286,212	84.9%	88.2%	40.1%
10/01/2017	738,711,563	82.9%	82.9%	64.4%
10/01/2018	798,247,042	82.5%	82.1%	67.2%
10/01/2019	904,627,693	80.0%	80.6%	73.7%
10/01/2020	899,503,574	79.2%	81.2%	80.6%
10/01/2021	1,036,557,118	88.4%	79.9%	101.1%
10/01/2022	1,198,944,556	76.2%	78.0%	123.5%
10/01/2023	1,289,258,224	74.4%	77.1%	138.0%

History of ADC rates

History of Actuarially Determined Contributions: 2019 – 2023 Level One

Plan Year Beginning October 1	Normal Cost Percentage	Amortization Percentage	Total Contribution Rate	Employee Contribution Rate	Net Contribution Rate
2019	7.04%	6.33%	13.38%	1.37%	12.01%
2020	6.99%	7.04%	14.03%	1.37%	12.66%
2021	7.08%	9.25%	16.33%	1.39%	14.93%
2022	7.03%	11.70%	18.73%	1.43%	17.30%
2023	7.00%	13.56%	20.56%	1.46%	19.10%

History of Actuarially Determined Contributions: 2019 – 2023 Level Two¹

Plan Year Beginning October 1	Normal Cost Percentage	Amortization Percentage	Total Contribution Rate	Employee Contribution Rate	Net Contribution Rate
2019	3.34%	6.33%	9.68%	1.27%	8.41%
2020	3.35%	7.04%	10.39%	1.28%	9.11%
2021	3.47%	9.25%	12.71%	1.32%	11.40%
2022	3.49%	11.70%	15.19%	1.36%	13.83%
2023	3.47%	13.56%	17.03%	1.39%	15.64%

¹ Does not include contributions to the defined contribution plan for Level Two employees. The blended contribution rates shown are based on the total employee population and salaries as of the valuation date.

History of Actuarially Determined Contributions: 2019 – 2023 Blended Level One and Level Two¹

Plan Year Beginning October 1	Net Contribution Rate¹
2019	10.29%
2020	11.03%
2021	13.39%
2022	15.85%
2023	17.68%

¹ Does not include contributions to the defined contribution plan for Level Two employees. The blended contribution rates shown are based on the total employee population and salaries as of the valuation date.

Low-Default-Risk Obligation Measure (LDRM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDRM) when performing a funding valuation. The LDRM presented in this report is calculated using the same methodology and assumptions used to determine the Actuarial Accrued Liability (AAL) used for funding, except for the discount rate. The LDRM is required to be calculated using “a discount rate...derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future.”

The LDRM is a calculation assuming a plan’s assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in September of the measurement period, by The Bond Buyer (www.bondbuyer.com), is 4.09% for use effective September 30, 2023. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDRM is not used to determine a plan’s funded status or Actuarially Determined Contribution. The plan’s expected return on assets, currently 7.00%, is used for these calculations.

As of September 30, 2023, the LDRM for the system is \$8,182,959,395. The difference between the plan’s AAL of \$5,635,989,681 and the LDRM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the plan’s diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDRM with respect to the funded status of the plan, plan contributions, and the security of participant benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the Actuarially Determined Contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

Risk

The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions.

We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition but have included a brief discussion of some risks that may affect the Plan.

- Economic and Other Related Risks. Potential implications for the Plan due to the following economic effects (that were not reflected as of the valuation date) include:

- Volatile financial markets and investment returns lower than assumed
- High inflationary environment impacting salary increases
- Lingering direct and indirect effects of the COVID-19 pandemic

- Investment Risk (the risk that returns will be different than expected)

Since the Plan's assets are much larger than contributions, investment performance may create volatility in the actuarially determined contribution requirements. For example, for the prior plan year, if the actual return on market value were 1% different, the actuarially determined contribution would increase or decrease by \$4.2 million (0.4% of payroll) once fully recognized in the actuarial value of assets.

The market value rate of return over the last 10 years has ranged from a low of -5.4% to a high of 24.8%.

- Longevity Risk (the risk that mortality experience will be different than expected)

The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution.

- Contribution Risk (the risk that actual contributions will be different from actuarially determined contribution)

The Plan's funding policy requires payment of the actuarially determined contribution. As long as this policy is adhered to, contribution risk is negligible. Note, however, that the ADC as a percent of payroll shown in this report needs to be adjusted for the declining payroll base due to the plan closure. Simply paying the ADC percentages shown in this report will create a small contribution risk.

- Demographic Risk (the risk that participant experience will be different than assumed)

Examples of this risk include:

- Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.

- More or less active participant turnover than assumed.
- Salary increases more or less than expected
- There are external factors including legislative or financial reporting changes that could impact the Plan’s funding and disclosure requirements. While we do not assume any changes in such external factors, it is important to understand that they could have significant consequences for the Plan.

- Actual Experience Over the Last Ten Years

Past experience can help demonstrate the sensitivity of key results to the Plan’s actual experience. Over the past ten years:

- The funded percentage on the actuarial value of assets has ranged from a low of 77.1% to a high of 88.2% since 2014.

- Maturity Measures

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan’s asset allocation is aligned to meet emerging pension liabilities.

Currently the Plan has a non-active to active participant ratio of 1.79 as compared to 1.57 for the prior year.

For the prior year, benefits paid were \$158.0 million more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return.

- Detailed Risk Assessment

A more detailed assessment of the risks would provide the Board with a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing, and stochastic modeling.

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Active Members

Category	Year Ended September 30, 2023	Year Ended September 30, 2022	Change From Prior Year
Level One Academic & Administrative Members:			
• Number	4,314	4,626	-6.7%
• Average age	53.6	53.1	0.5
• Average years of service	20.3	19.6	0.7
• Average salary	\$108,526	\$103,278	5.1%
• Total payroll	\$468,180,410	\$477,764,515	-2.0%
Level One Clerical & Service Members:			
• Number	1,542	1,741	-11.4%
• Average age	54.0	53.4	0.6
• Average years of service	20.9	20.1	0.8
• Average salary	\$53,342	\$48,982	8.9%
• Total payroll	\$82,252,703	\$85,278,082	-3.5%
Level Two Academic & Administrative Members:			
• Number	3,280	3,716	-11.7%
• Average age	43.6	42.5	1.1
• Average years of service	6.9	5.9	1.0
• Average salary	\$97,180	\$91,220	6.5%
• Total payroll	\$318,751,882	\$338,973,664	-6.0%
Level Two Clerical & Service Members:			
• Number	1,306	1,532	-14.8%
• Average age	43.8	42.8	1.0
• Average years of service	6.8	5.8	1.0
• Average salary	\$49,989	\$44,862	11.4%
• Total payroll	\$65,285,204	\$68,728,941	-5.0%

Non-Active Members

Category	Year Ended September 30, 2023	Year Ended September 30, 2022	Change From Prior Year
Inactive members			
• Inactive vested participants*	6,671	6,513	2.4%
• Inactive members due a refund of employee contributions	11,487	11,443	0.4%
Retired Members			
• Number in pay status	10,866	10,620	2.3%
• Average age	73.5	73.2	0.3
• Average monthly benefit	\$2,071	\$2,033	1.9%
Beneficiaries:			
• Number in pay status	1,161	1,126	3.1%
• Average age	77.6	78.0	-0.4
• Average monthly benefit	\$1,463	\$1,436	1.9%

* Includes participants on long term disability who are continuing to accrue service

Exhibit B: Members in active service as of September 30, 2023 by age and years of service

Academic & Administrative, Level One

Years of Service

Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--
30 - 34	36	--	2	33	1	--	--	--	--	--
35 - 39	261	--	4	205	52	--	--	--	--	--
40 - 44	546	--	4	246	242	53	1	--	--	--
45 - 49	671	1	1	200	259	167	43	--	--	--
50 - 54	839	2	4	165	279	217	133	35	4	--
55 - 59	867	1	4	115	198	237	174	94	43	1
60 - 64	691	--	2	84	123	170	145	109	48	10
65 - 69	276	--	--	53	58	49	39	33	32	12
70 & over	127	--	--	11	25	17	14	15	18	27
Total	4,314	4	21	1,112	1,237	910	549	286	145	50

Academic & Administrative, Level Two

Years of Service

Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	5	3	2	--	--	--	--	--	--	--
25 - 29	196	107	89	--	--	--	--	--	--	--
30 - 34	557	121	410	26	--	--	--	--	--	--
35 - 39	695	146	476	73	--	--	--	--	--	--
40 - 44	556	91	405	60	--	--	--	--	--	--
45 - 49	425	76	287	62	--	--	--	--	--	--
50 - 54	315	54	221	40	--	--	--	--	--	--
55 - 59	229	48	156	25	--	--	--	--	--	--
60 - 64	191	38	126	27	--	--	--	--	--	--
65 - 69	84	21	47	16	--	--	--	--	--	--
70 & over	27	3	15	9	--	--	--	--	--	--
Total	3,280	708	2,234	338	--	--	--	--	--	--

Clerical & Service, Level One

Years of Service

Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--
30 - 34	21	--	--	20	1	--	--	--	--	--
35 - 39	91	--	--	61	30	--	--	--	--	--
40 - 44	191	--	3	64	93	30	1	--	--	--
45 - 49	159	--	--	39	64	32	24	--	--	--
50 - 54	290	--	--	54	74	83	43	36	--	--
55 - 59	344	--	1	51	74	83	61	39	33	2
60 - 64	352	--	--	51	83	96	45	36	23	18
65 - 69	75	--	--	21	20	12	8	3	8	3
70 & over	19	--	--	2	11	1	3	1	1	--
Total	1,542	--	4	363	450	337	185	115	65	23

Clerical & Service, Level Two

Years of Service

Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	19	14	5	--	--	--	--	--	--	--
25 - 29	127	39	87	1	--	--	--	--	--	--
30 - 34	245	47	178	20	--	--	--	--	--	--
35 - 39	193	39	139	15	--	--	--	--	--	--
40 - 44	168	37	120	11	--	--	--	--	--	--
45 - 49	131	24	91	16	--	--	--	--	--	--
50 - 54	139	28	96	15	--	--	--	--	--	--
55 - 59	128	34	82	12	--	--	--	--	--	--
60 - 64	11	22	74	15	--	--	--	--	--	--
65 - 69	40	8	27	5	--	--	--	--	--	--
70 & over	5	--	4	1	--	--	--	--	--	--
Total	1,306	292	903	111	--	--	--	--	--	--

Exhibit C: Summary statement of income and expenses on a market value basis

Year Ended September 30, 2023 versus Year Ended September 30, 2022

Item	Income and Expenses	Assets as of YE 2023	Income and Expenses	Assets as of YE 2022
Net assets at market value at the beginning of the year		\$4,151,216,937		\$4,557,157,578
Contribution and other income:				
Employer contributions	\$137,742,403		\$118,991,535	
Employee contributions	<u>13,900,130</u>		<u>14,112,960</u>	
Total contribution income		\$151,642,533		\$133,104,495
Investment income:				
Interest, dividends, and other income	\$30,556,998		\$32,365,441	
Net gain/(loss) from sales of investments	127,844,371		113,485,934	
Unrealized appreciation/(depreciation)	55,896,047		-373,876,736	
Expenses	<u>-14,061,945</u>		<u>-12,297,899</u>	
Net investment income		<u>\$200,235,471</u>		<u>-\$240,323,260</u>
Total income available for benefits		\$351,878,004		-\$107,218,765
Less disbursements:				
Benefit payments	-309,594,168		-298,721,875	
Net benefit payments and administrative expenses		-\$309,594,168		-\$298,721,875
Change in market value of assets		\$42,283,836		-\$405,940,641
Net assets at market value at the end of the year		\$4,193,500,773		\$4,151,216,937

Exhibit D: Table of amortization bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment*	Years Remaining	Outstanding Balance
Initial Liability	10/01/2021	20	\$805,496,269	\$73,697,568	18	\$764,824,059
Change in Assumptions	10/01/2021	20	231,060,849	21,140,536	18	219,393,811
Change in Methodology	10/01/2022	19	97,072,052	9,103,510	18	94,475,082
Actuarial Loss	10/01/2022	15	90,600,047	9,641,835	14	86,994,652
Actuarial Loss	10/01/2023	15	123,570,620	13,150,627	15	123,570,620
Total				\$126,734,076		\$1,289,258,224

* Reflects adjustment for monthly payments

Exhibit E: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Retirees and Beneficiaries:	Actuarial Present Value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial Gain or Loss:	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially Equivalent:	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	<p>The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is:</p> <p>Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)</p> <p>Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and</p> <p>Discounted according to an assumed rate (or rates) of return to reflect the time value of money.</p>

Actuarial Present Value of Future Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan, as well as Actuarially Determined Contributions.
Actuarial Value of Assets (AVA):	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.
Actuarially Determined:	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially Determined Contribution (ADC):	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC consists of the Employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the Unfunded Actuarial Accrued Liability. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.

Assumptions or Actuarial Assumptions:	<p>The estimates upon which the cost of the Plan is calculated, including:</p> <p><u>Investment return</u> - the rate of investment yield that the Plan will earn over the long-term future;</p> <p><u>Mortality rates</u> - the rate or probability of death at a given age for employees and retirees;</p> <p><u>Retirement rates</u> - the rate or probability of retirement at a given age or service;</p> <p><u>Disability rates</u> - the rate or probability of disability retirement at a given age;</p> <p><u>Withdrawal rates</u> - the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;</p> <p><u>Salary increase rates</u> - the rates of salary increase due to inflation, real wage growth and merit and promotion increases.</p>
Closed Amortization Period:	<p>A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.</p>
Decrements:	<p>Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.</p>
Defined Benefit Plan:	<p>A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.</p>
Defined Contribution Plan:	<p>A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.</p>
Employer Normal Cost:	<p>The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.</p>
Experience Study:	<p>A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.</p>
Funded Ratio:	<p>The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the AVA.</p>
Investment Return:	<p>The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.</p>

Normal Cost:	The portion of the Actuarial Present Value of Future Benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment with respect to an Unfunded Actuarial Accrued Liability is not part of the Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of member contributions and employer Normal Cost unless otherwise specifically stated.
Open Amortization Period:	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the Amortization Period.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Valuation/Actuarial Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the Actuarial Experience Study for 2016-2020. The recommended assumption changes detailed in the referenced study were reviewed and adopted by the Board of Curators, in effect directing Segal to utilize those recommended assumptions to complete this actuarial valuation. Current data is reviewed in conjunction with each annual valuation and we have no reason to doubt the appropriateness of those mandated assumptions.

Net investment return

7.00%.

Salary increases

The salary increases shown below exclude assumed inflation of 2.20%

Age	Academic & Administrative Rate (%)	Clerical & Service Rate (%)
25	6.0	3.1
30	3.6	2.2
35	2.6	1.8
40	2.1	1.4
45	1.8	1.0
50	1.4	0.7
55	0.8	0.5
60	0.3	0.2

Mortality rates

Academic & Administrative Members:

Healthy: Pub-2010 Teacher Healthy Annuitant Mortality Table, weighted 95% for males and 103% for females, with generational projection using Scale MP-2020

Non-Annuitant: Pub-2010 Teacher Employee Mortality Table, weighted 95% for males and 103% for females, with generational projection using Scale MP-2020

Clerical & Service Members:

Healthy: Pub-2010 General Healthy Annuitant Mortality Table, weighted 124% for males and 112% for females with generational projection using Scale MP-2020

Non-Annuitant: Pub-2010 General Employee Mortality Table, weighted 124% for males and 112% for females, with generational projection using Scale MP-2020

Academic & Administrative and Clerical & Service Members:

Disabled: Pub-2010 Non-Safety Disabled Annuitant Mortality Table, weighted 95% for males and females, with generational projection using Scale MP-2020

Surviving Spouse: 80% of the Pub-2010 Teacher Contingent Survivor Amount-Weighted Tables and 20% of the Pub-2010 General Contingent Survivor Amount-Weighted Tables projected generationally with Scale MP-2020

Academic & Administrative Annuitant Mortality Rates Based on Age at Valuation Date:

Age	Mortality Rates		Expected Years of Life Remaining	
	Male	Female	Male	Female
60	0.35%	0.31%	28.2	29.7
70	0.94%	0.70%	18.8	20.2
80	3.28%	2.67%	10.8	11.8
90	11.81%	9.95%	5.2	5.8

Clerical & Service Annuitant Mortality Rates Based on Age at Valuation Date:

Age	Mortality Rates		Expected Years of Life Remaining	
	Male	Female	Male	Female
60	0.78%	0.45%	24.1	27.6
70	1.76%	1.05%	15.6	18.5
80	5.32%	3.46%	8.6	10.6
90	17.05%	12.32%	4.0	5.1

Termination rates before retirement

Years of Service	Withdrawal Rate ¹ (%)	
	Academic & Administrative	Clerical & Service
0	21.5	31.0
1	21.0	23.0
2	18.5	19.5
4	15.0	13.5
6	13.0	11.5
8	11.0	11.0
10	9.0	10.0
12	7.0	8.0
14	5.0	6.0
16	5.0	5.0
18	5.0	5.0
20	4.0	5.0
22	4.0	5.0
24	4.0	5.0

¹ Withdrawal rates do not apply at or beyond early retirement or 25 years of service

Age	Disability Rates (%)
40	0.04
45	0.10
50	0.19
55	0.37
60	0.61

Retirement rates

Age	Academic & Administrative		Clerical & Service	
	Under 25 Years of Service	Over 25 Years of Service	Under 25 Years of Service	Over 25 Years of Service
55	5%	8%	7%	12%
56 - 58	3	4	5	6
59	3	4	5	12
60	5	8	10	18
61	5	12	10	24
62	10	25	20	50
63 - 64	10	12	15	30
65 - 66	25	25	40	40
67 - 79	20	20	35	35
80	100	100	100	100

Weighted average retirement age

Age 65 for academic & administrative members and age 62 for clerical & service members, determined as follows: The weighted average retirement age for each participant is calculated as the sum of the product of each potential current or future retirement age times the probability of surviving from current age to that age and then retiring at that age, assuming no other decrements. The overall weighted retirement age is the average of the individual retirement ages based on all the active members included in the October 1, 2023 actuarial valuation.

Retirement rates for inactive vested participants

65

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Percent married

80%

Age of spouse

Spouses of male participants are female and three years younger and spouses of female participants are male and three years older.

Benefit election

All members are assumed to elect the single life form of payment.

Load for Summer Appointments

2.20% of Academic & Administrative active member liability

Actuarial value of assets

Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the actuarial value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.

Actuarial cost method

Entry Age Actuarial Cost Method. Entry Age is the age at date of employment or, if date is unknown, current age minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary, with Normal Cost determined using the plan of benefits applicable to each participant.

Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Changes in actuarial assumptions

There have been no changes in actuarial assumptions since the last valuation.

Exhibit 2: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan year

October 1 through September 30

Plan status

Closed effective October 1, 2019

Membership

Level One Member is one who was initially hired prior to October 1, 2012. Level Two Member is one who is hired or rehired on or after October 1, 2012 (except that a Qualified Member who was initially hired prior to October 1, 2012, earned a vested benefit, terminated service after earning such vested benefit, did not receive a lump sum payment, and is rehired by the University on or after October 1, 2012 shall be a Level One Member).

Normal retirement

Age Requirement	65
Amount	<i>Level One Members:</i> Total years of service multiplied by 2.2% of compensation base <i>Level Two Members:</i> Total years of service multiplied by 1.0% of compensation base
Compensation Base	Average regular annual salary, excluding any incentive compensation and including any shift differential pay, of the member for the five consecutive highest salary years of employment. Salary year is September 1 through August 31.
Minimum Value Accumulation for Level One Members Only	Members shall receive an annual minimum benefit of the actuarial equivalent annuity of an account crediting 5% of each year's pay accumulated at 7.5% interest annually.

Benefit for Summer Employment

Academic Members who receive a summer appointment designated as summer service earn a separate benefit added to normal pension.

Amount	<i>Level One Members:</i> Total number of summer appointments multiplied by 2.2% of compensation base <i>Level Two Members:</i> Total number of summer appointments multiplied by 1.0% of compensation base
Compensation Base	Average of the 5 consecutive highest summer salaries earned during the summers worked. Summer salary may not exceed 3/9 of regular compensation (2/9 of regular compensation prior to May 1, 2011).

Early retirement

Age and Service Requirement	60 with 5 years of credited service, or 55 with 10 years of credited service, with one year of credit earned after age 54
Amount	Normal pension reduced 3-1/3% for each year younger than age 65, or younger than age 62 with 25 years of credited service

Disability

Benefit is deferred to Normal or Early retirement age and is equal to normal pension reflecting compensation base at time of disability and years of service that member would have had if they remained in employment until actual retirement

Vesting

Age Requirement	55
Service Requirement	5 years of credited service
Amount	Normal retirement pension reduced 6-2/3% for each of the first 5 years younger than age 65 and 3-1/3% for each of the next 5 years
Normal Retirement Age	65

Pre-retirement death benefit

Beneficiaries of members who die in active employment will receive the greater of the following:

- One times (Two times for Level One Member) base salary at time of death limited to 100 times the monthly normal retirement benefit accrued at time of death
- Actuarial present value of benefit accrued as of date of death (reflecting minimum value accumulation for Level One members)
- Beneficiaries of terminated vested participants will receive the lump sum member was eligible to receive at date of death with interest from date of termination to date of death.

Post-retirement death benefit

If married, pension benefits are paid in the form of a joint and survivor annuity unless this form is rejected by the participant and spouse. If not rejected, the benefit amount otherwise payable is reduced to reflect the joint and survivor coverage. If not rejected, and the spouse predeceases the employee, the employee's benefit amount will subsequently be increased to the unreduced amount payable had the joint and survivor coverage been rejected. If rejected, or if not married, benefits are payable for the life of the employee or in any other available optional form elected by the employee in an actuarially equivalent amount.

Optional forms of benefits

Employee may elect any combination of 120-month certain and life annuity, 2 or 4% annual cost-of-living increases, or 50%, 75%, or 100% joint-and-survivor annuity with pop-up. Pension will be reduced accordingly for optional benefits added to form.

Employees who terminate employment prior to eligibility for normal or early pension may elect to receive actuarial equivalent value of benefit as a lump sum payment.

Employees who terminate employment after eligibility for normal or early pension may elect to receive 10%, 20%, or 30% of actuarial equivalent value of benefit as a lump sum payment.

Credited Service

Credited service is the number of continuous years and fractional parts thereof between date of employment and termination. A full year's credit shall be granted for twelve months of service with proportional credit for shorter periods of service. Special provisions are made for members on nine-month appointments.

Changes in plan provisions

There have been no changes in plan provisions since the last valuation.

Exhibit 3: Contribution rates

Member

Effective July 1, 2009, members are required to contribute 1% of their salary up to \$50,000 plus 2% of their salary in excess of \$50,000. Contribution account balances are refunded with interest at 4% per year if the member terminates prior to becoming a Qualified Member. If the member terminates due to death prior to becoming a Qualified Member, the refund of the account balance is paid to the member's beneficiary.

Employer

Equal to actuarially determined employer contribution.

ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE

Jeanne C. Sinquefield, Chair

Robert D. Blitz

Todd P. Graves

Michael A. Williams

The Academic, Student Affairs, Research and Economic Development Committee (“Committee”) will review and recommend policies to enhance quality and effectiveness of academic, student affairs, research and economic development and align the available resources with the University’s academic mission.

I. Scope

In carrying out its responsibilities, the Committee reviews and makes recommendations to the Board of Curators on strategies and policies relating to student and faculty welfare, academic standards, educational and instructional quality, intercollegiate athletics, degree programs, economic development, research initiatives, and associated programs.

II. Executive Liaison

The Associate Vice President for Academic Affairs of the University, or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the committee and responsible for transmitting committee recommendations.

III. Ex Officio Member

The Student Representative to the Board of Curators shall be an ex officio member of the Committee.

IV. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include reviewing and making recommendations to the Board on the following matters:

- A. Selection of Curators’ Distinguished Professors;
- B. Approval and review of new degree programs;
- C. Intercollegiate athletics, as specifically outlined in Section 270.060 of the Collected Rules and Regulations with a commitment to the academic success, and physical and social development of student-athletes;
- D. Changes to university-level admissions requirements, academic standards, student services, and graduation requirements;
- E. Quarterly and annual reports providing information on academic programs that have been added, deactivated, or deleted;
- F. Provide oversight over the University of Missouri System’s diversity, equity and inclusion programs;
- G. Highlight successful research and economic development efforts and partnerships; linking research and commercialization from the University with business and industry across the state and around the world.
- H. Additional matters customarily addressed by the academic, student affairs, research & economic development committee of a governing board for an institution of higher education.



Board of Curators Meeting
Melissa Ringhausen, Director
of Athletics
2022-23 Update

S&T ATHLETIC OVERVIEW

FALL OF 2022

Women's Sport

Basketball

Cross Country

Soccer

Softball

Track & Field

Volleyball

Men's Sport

Baseball

Basketball

Cross Country

Football

Golf

Soccer

Swimming

Track & Field

Volleyball

17

Varsity Sports

DII

GLVC Conference

450

Student-Athletes

ACADEMIC PORTRAIT

Grade Point Average (GPA)	Women's Sports	Men's Sports	All Sports
2022-23*	3.656	3.401	3.53
2021-22	3.551	3.371	3.461

*All teams had above a 3.00 GPA with 72 student-athletes with a 4.0 annual GPA

Federal Graduation Rates (FGR) & Academic Success Rate (ASR)	All Students (FGR)	Student Athletes (FGR)	Student Athletes (ASR)
2023	65%	72%	78%

ACADEMIC AWARDS

Great Lakes Valley Conference (GLVC)	2022-23	2021-22
GLVC Academic All-Conference (GPA 3.3+)	269	269
GLVC Brother Gaffney Distinguished Scholar Award (4.0 Yearly GPA)	72	69
GLVC COP Academic Excellence Award (Exhaust Eligibility with GPA 3.5+)	48	32
GLVC Academic Team Award (Team GPA 3.3+)	13	9
Academic All-District Selection	38	9
CoSIDA Academic All-American	5	5

ATHLETIC AWARDS

GLVC Honors	2022-23	2021-22
GLVC All-Conference Student-Athletes	72	50
GLVC Player of the Week Honors	23	18
GLVC Individual Championships	12	7
GLVC Team Championships	2	0
GLVC Freshman of the Year	3	1
GLVC Overall Team Sportsmanship Award	6	0

NCAA Honors	2022-23	2021-22
Individual NCAA Championship Appearances	18	16
NCAA All-America Honors	16	15

SPECIAL TEAM HIGHLIGHTS

Men's Basketball (16-12): First winning record since 1996-97

Men's Golf: Finished 8th at the NCAA Championships

Men's Track & Field: GLVC Championships in Indoor and Outdoor Track & Field

Men's Volleyball (12-9): Inaugural season and recorded a winning record

Women's Basketball (15-14): First post-season appearance since 2012-13 season

Women's Volleyball (16-9): Student-Athlete lands both GLVC Offensive Player of the Week/GLVC Defensive Player of the Week (occurred only three other times in the GLVC)

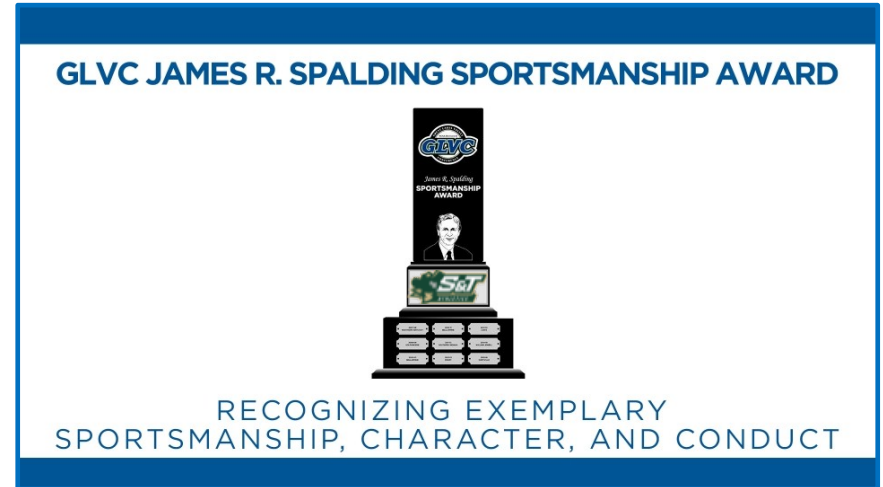
DR. JOSEPH J. MCGOWAN VISIONARY AWARD

Criteria: The award is presented annually to the GLVC institution that displays vision and exemplary programming to promote and advance the student-athlete experience.



JAMES R. SPALDING SPORTSMANSHIP AWARD

Criteria: Given to the institution that demonstrates good sportsmanship throughout the entire year.



ALUMNI EVENTS



1969 Football Team Reunion



Swimming alumni



Academy of Miner Athletics



1974-75 Men's Basketball Team Reunion
& 2022 Hall of Fame Inductees



2022 Hall of Fame Inductees

GAME DAY ENVIRONMENT



- Developed the Pickaxe Platoon student section
- Engage other student organizations in the game day experience
- Invite and recognize special groups from campus and in the community
- Host fun activities for fans
- Local youth involvement



QUESTIONS?



THANK YOU!

EXECUTIVE SUMMARY

Strategic Plan Update – S&T

At regular intervals, the four universities engage in strategic planning efforts to outline objectives, goals, and key metrics for the coming years. The last set of strategic plans for the four UM System universities were approved by the Board of Curators in September 2018, with MU, S&T, and UMSL putting forward 5-year plans (2018-2023) and UMKC putting forward a 10-year plan (2018-2028).

In 2023, each university initiated independent strategic planning processes to outline strategies for advancing their objectives and mission over the next five years. This resulted in the development of new strategic plans at MU, S&T, and UMSL, and an update to the UMKC strategic plan, which is halfway through its lifecycle.

At the April 2024 Board of Curators meeting, S&T will seek approval of their strategic plans. S&T Provost and Executive Vice Chancellor Colin Potts will be present to provide a 20-minute presentation, with an additional 10-minutes for questions and discussion. The MU strategic plan will be presented and put forward for consideration at a subsequent Board meeting.

No. 1

Recommended Action – Strategic Plan Update,
Missouri University of Science and Technology

It was recommended by Missouri University of Science and Technology
Chancellor Mo Deghani, endorsed by President of the University of Missouri Mun
Y. Choi, recommended by the Academic, Student Affairs and Research & Economic
Development Committee, moved by Curator _____, seconded by
Curator _____ that the following action be approved:

that the Missouri University of Science and Technology strategic plan be
approved as provided in the materials.

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Graves

Curator Sinuefield

Curator Williams

The motion _____.

Roll call vote of Board: YES NO

Curator Blitz

Curator Brncic

Curator Fry

Curator Graves

Curator Holloway

Curator Layman

Curator Sinuefield

Curator Wenneker

Curator Williams

The motion _____.



Strategic Plan 2026

Foundations for Tomorrow

v1.8e (4/1/2024)

Message from the Chancellor

This week, we will step into a significant chapter for our institution by introducing our Strategic Plan. This pivotal document reflects a deep appreciation for our past and a bold vision for our future. It serves as a testament to our commitment to uphold and elevate academic and professional excellence.

This plan embodies an action-oriented mindset, advocating for strategic follow-through. It is grounded in principles of possibility thinking, with clear strategies, focused tactics, milestones, and targets designed to guide us in prioritizing and sequencing events that lead us to our North Star Goals.

Our plan, both in structure and content, was developed collaboratively with input from a wide range of stakeholders. It is divided into two phases: from the present to 2026 and from 2026 to 2030, creating an operational environment that stresses accountability and ownership, with leading indicators to measure our progress. This segmentation is our commitment to an iterative and adaptive approach that embraces today's higher educational landscape's volatile, uncertain, complex, and ambiguous nature.

In this spirit, the strategic plan is not static but a living document, blending strategy with execution. The strategy remains steadfast, while the execution is characterized by outcomes-focused teams, evolving tactics, and clear short-range cycles that foster continuous learning and adaptation toward our long-term aspirations.

Our strategic framework aligns with North Star aspirations and principles and is deeply connected with Missouri S&T's mission, vision, and values. It also incorporates the Missouri Compacts for Achieving Excellence, serving as a dynamic and informed compass toward our North Stars.

As we embark on this journey, we are not idle planners of tomorrow; we are the active architects of a reality yet to unfold. This plan celebrates our unity in spirit, acknowledges our historical triumphs, and affirms our allegiance to the relentless pursuit of excellence.

I invite each one of you to engage with this plan, to find your place within its goals and strategies, and to contribute to the vibrant future it envisions. Together, let's continue to build a legacy of excellence, community, and innovation while laying the ***foundations for tomorrow***.

Sincerely,

Mo Deghani, Ph.D.

Chancellor

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Introduction

In the fall of 2022, the Missouri University of Science and Technology embarked on a transformative journey by initiating the development of the 2026 Strategic Plan, encapsulated in a "Vision, Strategy, and Execution" (VSE) document. This framework, rooted in 13 strategic areas, underwent consolidation into ten key areas, forging a roadmap for strategic planning. The integration of the *Theory of Change* (TOC) and *Logical Modeling* in this process creates a unique approach, ensuring that tactics and actions contribute meaningfully to achieving our strategic goals. The process transcends the mere creation of a strategic plan; it fosters a culture of ongoing and evolving action and tactics to realize our North Star Goals (NSG) by 2030.

This process embodies a commitment to a strategic mindset, emphasizing follow-through and action as its ultimate outcomes. Grounded in the principles of *possibility* and *abundance* thinking, the approach is action-oriented, delineating clear strategies, focused tactics, milestones, and targets. The aim is to guide the prioritization and sequencing of events aligned with our 2030 NSG. The collaborative development of action plans involves diverse teams of stakeholders, fostering institutional planning that intertwines threads of accountability and responsibility.

As part of our commitment to the 2030 NSG, the planning horizon has been divided into two phases: current to 2026 and 2026 to 2030. This segmentation ensures a focused operational and impact environment, emphasizing accountability, ownership, and the use of leading indicators as measures of directional success. Traditional lagging indicators have been transformed into paths leading to 2030, emphasizing an iterative and adaptive approach.

The strategic planning framework acknowledges the volatile, uncertain, complex, and ambiguous (VUCA) nature of the higher education landscape. To address unforeseen events or environmental factors impacting the plan, the process is designed as a living document merging strategy and execution. While the strategy remains static throughout the cycle, it is fully expected that the tactics and actions will evolve and adapt to outcomes and new opportunities. Strategy execution is characterized by de-siloing within matrixed, functional outcomes-based teams, evolving tactics from knowledge gained, and clear short-range cycles. This approach sets expectations for iterative excellence, allowing for closer "wins" and try-fail sequences that facilitate continuous learning and adaptation. Moreover, the explicit, shorter timeframe for revision and adjustment ensures agility in responding and adapting to achievements, environmental constraints, or emerging opportunities. The Missouri University of Science and Technology is not merely planning for the future but actively building a *foundation for tomorrow* through a dynamic and intentional strategic planning process.

Alignments

The foundation of our strategic plan is deeply rooted in alignment with numerous institutional and UM System statements of aspiration and principles. While our strategic framework is primarily oriented toward attaining the North Star Goals (NSG), it is essential to underscore that the NSG themselves are intricately connected with our institution's Mission, Vision, and Values (MVV). Beyond the overarching goals, our strategic plan addresses operational and systemic improvements crucial for effectively implementing matrixed strategies. This approach emphasizes a comprehensive integration with the university's NSG and MVV and extends to incorporate the Missouri Compacts for Achieving Excellence. This alignment is achieved through a nuanced triangulation at multiple levels, as illustrated in the

Appendix. As we navigate the strategic landscape, our plan stands as a dynamic and informed compass, finely tuned to our institution's core principles and North Stars.

Mission

Missouri S&T integrates education, research and application to create and convey knowledge that serves our state and helps solve the world's great challenges.

Vision

Missouri S&T will be the leading public technological research university for discovery, creativity and innovation.

We will cultivate curiosity, creativity and confidence in our graduates. We will be the institution of choice for partners around the world seeking a highly qualified, talented and entrepreneurial workforce; innovative research; relevant educational programs, products and services; and technology and ideas to solve the great challenges of our time.

Values

Lifelong Success – *We add exceptional value. The rewards of the Missouri S&T experience extend far beyond a college education, valued degree or gratifying career. The S&T experience prepares you for a fulfilling life defined by the confidence to succeed, a desire to excel and a love of learning that never stops.*

Creativity – *We are innovators. Building a better world demands a creative spark, innovative and entrepreneurial approaches, and curiosity to discover and explore new solutions to the world's great challenges.*

Integrity – *We hold ourselves accountable for our actions. We strive to uphold the highest ethical standards, to conduct ourselves with trustworthiness and respect for all of humanity, and to instill in our campus community these same principles.*

Sustainability – *We live by example. As stewards of the public goodwill, the financial resources entrusted to us, and the environment, we emphasize resilient and sustainable practices in all our endeavors.*

Partnerships – *We are great partners. We focus on adding value and creating mutually beneficial partnerships. The solutions to today's great challenges require agile collaboration, teamwork and engagement with our stakeholders, both on campus and in the greater business, civic, national and international communities.*

Inclusion – *We are an inclusive, welcoming community. We seek to build a creative learning environment marked by openness, understanding and valuing all people and perspectives.*

North Star Goals for 2030

Attain Carnegie R1 classification (very high research activity) as determined by the Carnegie Classification of Institutions of Higher Education. This is the highest classification for doctoral universities. Missouri S&T is currently classified as a Carnegie R2 (high research activity) doctoral university.

Grow enrollment to 12,000 students (8,000 undergraduate and 4,000 master's and Ph.D. students). Missouri S&T's enrollment as of fall 2022 was 7,083 (5,501 undergraduate and 1,582 master's and Ph.D. students).

Achieve a top 100 ranking among national doctoral universities as measured by U.S. News & World Report.

Missouri Compacts for Achieving Excellence

Student Success

Research and Creative Works

Engagement and Outreach

Inclusive Excellence

Planning, Operations and Stewardship

Strategic Plan Structure and Threading

The S&T Strategic Plan is organized around 8 Strategic Focus Areas (SFA) aligning with general desired outcomes of growth or excellence. In the context of Logical Modeling, each *strategic focus area* is further defined by logical *strategic groupings* that occur by functional or distinct needs in organizing effort and/or operational focus. The first two levels encompass the strategic aspects of the plan and provide first-level details of targets, accountable persons (AP), and timelines for measurement and tracking. The execution of the plan is defined within strategy groups as they are defined in terms of *actionable tactics* to operationalize the strategy into what will be accomplished to meet the goals of the strategic group and ultimately contribute to the success of the strategic focus area. Below the tactic level are the individual actions and activity sequences required to implement the tactic.

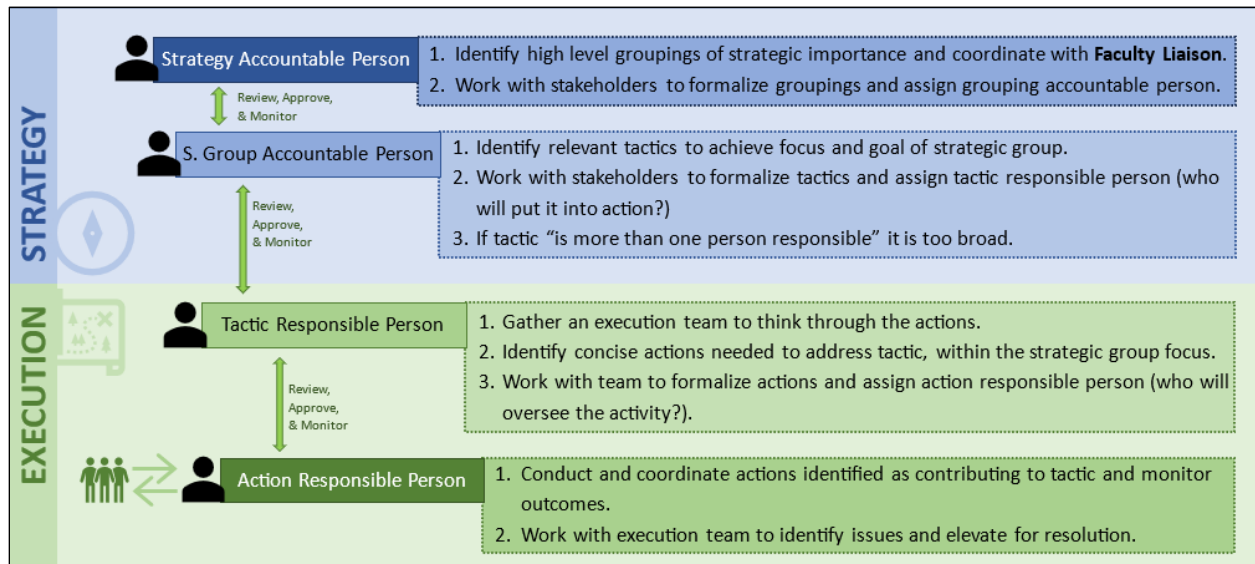
STRATEGY	Strategic Focus Area
	<ul style="list-style-type: none"> Organizing conceptual focus General desired outcome, primarily narrative-oriented Singular Accountable Person
	Strategy Group(s)
EXECUTION	<ul style="list-style-type: none"> Focused framing of SFA to narrow accountability and group effort and tactics Specific goal/outcome Long-range due date (likely last measure available before the end of plan cycle) Singular Accountable Person
	Tactic(s)
	<ul style="list-style-type: none"> SMART-oriented Narrow due dates and may be bound by order of execution or recurrence While most likely involving teams, there is a singular Responsible person
	Action(s)
	<ul style="list-style-type: none"> Concise activity statement (impactful activities to be completed to achieve the tactic) Time bounding to when the activity will be completed Data relation with metric and KPI/target defined. (real-time or manual updates) While most likely involving teams, there is a singular Responsible person

Threads

As described in the preceding paragraphs, the plan is strongly focused on logical structures and a hierarchical relationship among the four levels of strategy and execution. Embedded within this concept is that a singular accountable or responsible person can identify each item within a level. A person identified within the plan as an owner of an item has a clear relationship with other owners up or down the logical structure. This comprises accountability threads within the strategic plan, as illustrated in *Figure 1* below. This threaded hierarchy also involves a snowball-like approach to identifying stakeholders and strategy and execution needs, in that each level determines the next level of stakeholders that should be involved with the discussion and also within the level to identify others that should be included, until saturation of strategy is determined by the accountable person at the next higher level. Through this process, the S&T strategic planning process directly involved over 65 individuals through dozens of focus area meetings and over 280 individuals in group information sessions, with 236 respondents contributing input via a survey to campus faculty and staff. As a living document at the tactic and action levels, it is expected that additional stakeholders will be identified over the coming years, and new ideas and possibilities will become embedded in the plan.

Figure 1

Strategic plan threaded structural components and accountability and responsibility scopes



A *thread* is the hierarchical line of accountable and responsible persons across a strategy to action. For example, an action will thread above the action level involving a Strategic Focus Area Accountable Person, a Strategic Group Accountable Person, and a Tactic Responsible Person in addition to the Action Responsible Person. This thread can be viewed as the governance and authority in relation to the activity. All thread members should be aware of the status and dependencies related to the thread. A person's role within the threads clearly defines expectations of ownership in the plan. An *Accountable Person* (or position) is accountable for the success and definition of the identified strategy area. The accountable person may or may not be directly involved in the effort to achieve the stated goals; however, they are accountable that the work or effort is completed to achieve the goal. The *Faculty*

Liaison is a vital link between the faculty, the Accountable Person, and the SFA broadly, in the crucial role of communicating faculty concerns, providing a strong voice in matters where faculty are primarily responsible, and offering valuable perspectives on matters that impact faculty. Acting as representatives, Liaisons are identified as Faculty Senate officers or chairs of SFA-aligned sub-committees, ensuring a seamless flow of strategic information and updates to faculty members. This fosters a spirit of shared governance, facilitating communication and dialog between the Liaison and the SFA Accountable Person, or through appropriate channels within the faculty governance structure. A *Responsible Person* (or position) ensures timely and appropriate execution to address the tactic or action necessary to achieve the strategic goal. The responsible person will most likely be directly involved with the effort to achieve the goal and oversight of teams working toward actions. *Teams* are groups of stakeholders brought together to achieve an action or groups of highly related actions. Teams are in support of the responsible person and the required actions.

Monitoring and Progress

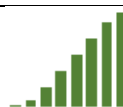
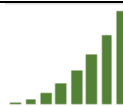

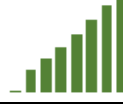
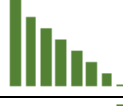
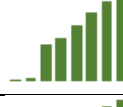


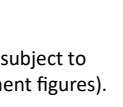
As described in the preceding sections, the S&T strategic plan is not just a static document, but a system that operationalizes our strategic direction. We use a Power BI-based tool to execute the S&T strategy, which allows us to track and monitor timelines, targets, roles, and individual contributions. This system enables us to define and track the plan hierarchy down to the *action* level, automate statuses at the *tactics* level, and accountable person-determined statuses at the *strategy group* and *strategic focus area* levels. This system of tracking enables the accountability threads mentioned previously in the areas of reviewing, approving, and monitoring updates, statuses, and changes to the plan in real time.

We will report and review statuses within the tool and on the Strategic Plan public-facing website (strategicplan.mst.edu). However, public reporting will be limited to progress toward *Core Strategic Metrics*, described below, statuses at the strategic focus area, and strategy group levels only. Internal-facing reporting provides a detailed view of divisional, departmental, and individual contributions to the strategic direction, enhancing our ability to bring together staff who have worked on achieving our strategic goals to gain insights and additional improvements to processes and inform the revisions for the second phase of the strategy (2026-2030).

Core Strategic Metrics

Monitoring key lagging indicators is crucial for evaluating strategy effectiveness, facilitating course corrections, optimizing resource allocation, and communicating with stakeholders. These indicators provide tangible regular targets and actuals realized of strategic initiatives, offering insights into whether the strategy is achieving intended goals and if adjustments are needed. The *Core Strategic Metrics* (see, Table 1) define measures of plan success in the ability to achieve the North Star Goal on a year-to-year and 2030-target timeframe.

Table 1*Baseline and Annual Targets for Core Strategic Metrics: 2023 – 2030*

Core Metric	Report Year								
	2023*	2024	2025	2026	2027	2028	2029	2030	
Undergraduate Fall Enrollment (N) ^{a †}	5,510	5,647	6,012	6,439	6,883	7,312	7,722	8,000	
Graduate Fall Enrollment (N) ^{a †}	1,646	1,745	1,919	2,157	2,477	2,885	3,387	4,000	
Combined Fall Enrollment (N) ^{a †}	7,156	7,392	7,931	8,596	9,360	10,197	11,109	12,000	
1st Year UG Retention (%) ^{b †}	86.1	87.6	88.4	89.2	90.0	91.0	92.0	92.5	
Post-1st Year UG Attrition (%) ^{c †}	19.1	18.0	17.5	17.0	16.5	16.0	15.5	15.0	
6-Year UG Graduation (%) ^{b †}	63.6	63.8	67.4	68.1	69.5	70.8	72.1	73.4	
Year to Year Grad. Success (%) ^{d †}	86.3	91.2	91.6	92.1	92.6	93.1	93.5	94.0	
Research Expenditure (\$M) ^{e ‡}	53.3	60.0	66.6	73.3	80.0	86.7	93.3	100.0	

^a Total Headcount.^b IPEDS Methodology.^c Fall to Fall Combined Attrition of "continuing" FTC.^d Fall to Fall Retention or Graduated Status of Graduate Students, excluding Certificate. Note, longitudinal target and baseline subject to revision as indicator weighting method is refined (e.g. curve of master's success will be more impactful on cumulative enrollment figures).^e NSF HERD Report Total R&D.[†] Fall Reporting Cycle.[‡] Fiscal Year Reporting.

* 2023 Report Year Actuals / Baseline

SFA 1 – Enrollment Growth – Admissions (Provost)

The growth and diversification of our student body will be a key strategy in creating a thriving and diverse student body. A diverse student body creates an environment where students can learn from one another, exchange ideas, and develop a broader perspective on the world. It also helps to foster a sense of community, as students from different backgrounds come together to pursue their academic goals. By pursuing strategies that aim to increase enrollment, S&T can create a more welcoming and inclusive environment for all students and prepare them for success in an increasingly globalized world.

Accountable Person (AP): Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

Faculty Liaison: Academic Freedom & Standards Committee Chair

NSG 2030 Primary Alignment(s): Grow enrollment to 12,000 students.

Missouri Compacts Primary Alignment(s): Student Success; Inclusive Excellence.

Strategy Group 1: Enrollment growth – new first-time college (FTC) (AP: Vice Provost for Enrollment Management)

Tactic 1: Increase UG admissions reach to new markets within Missouri and nationally without adjusting entrance requirements.

Tactic 2: Increase total FTC applications by analyzing and improving our marketing, acceptance, and yield management campaigns.

Strategy Group 2: Enrollment growth – transfers (TRE) (AP: Vice Provost for Enrollment Management)

Tactic 1: Establish pipeline partnerships with Missouri community colleges.

Tactic 2: Re-engage with prior admits who did not enroll.

Tactic 3: Strengthen existing transfer partnerships.

Tactic 4: Create an online orientation module to onboard new transfer students through Online Advantage.

Strategy Group 3: Enrollment growth – master's (on-campus) (AP: Vice Provost for Enrollment Management)

Tactic 1: Determine the growth potential of existing master's programs, potential new programs using market research, and focus recruitment in those areas.

Tactic 2: Design program-level recruitment targets and design recruitment plans for each program.

Tactic 3: Create an online orientation module to onboard new master's students.

Strategy Group 4: Enrollment growth – master's (online) (AP: Vice Provost for Online Learning & Educational Innovation)

Tactic 1: Build an online admission team to review applications and monitor progress toward targets.

Tactic 2: Build outreach and communication campaigns to build awareness and market programs to potential students.

Tactic 3: Create an online orientation module to onboard new master's online students.

Tactic 4: Determine annual and periodic targets and goals for Inquiry-to-enrollment touchpoints.

Tactic 5: Determine the growth potential of existing or new online programs and focus recruitment in high-potential areas.

Tactic 6: Establish an online student satisfaction survey and administer yearly.

Strategy Group 5: Enrollment growth – doctoral (AP: Vice Provost for Graduate Education)

Tactic 1: Expand Kummer Innovation and Entrepreneurship Doctoral Fellows Program.

Tactic 2: Create an online orientation module through Online Advantage to onboard new doctoral students.

Tactic 3: Improve the doctoral/advisor/advisee matchmaking process.

Tactic 4: Expand doctoral student recruitment.

Tactic 5: Increase the number of prospective doctoral student visits to campus.

Tactic 6: Expand doctoral graduate student funding opportunities.

Tactic 7: Showcase doctoral graduate achievements and excellence.

Tactic 8: Increase domestic doctoral graduate students.

Strategy Group 6: Improved admissions processes (AP: Vice Provost for Enrollment Management)

Tactic 1: Automate outreach communications (e.g., emails, texts, physical letters).

Tactic 2: Review supplemental communications sent outside of automated campaigns to include for next year to communicate proactively.

Tactic 3: Improve efficiency and timing of application decisions, targeting messages to students in accordance with their expressed academic and non-academic interests.

Tactic 4: Improve automatic merit-based scholarship awards.

Tactic 5: Review the test-optional process for core-course redistribution and reevaluation based on year of study.

Tactic 6: Increase the validity of high school rankings by purchasing an external high school ranking list and implementing it in Slate.

Tactic 7: Train campus entities and engage with outreach measures to incoming students, e.g., Army of Champions and other student ambassador organizations, Chancellor's Advisory Committee on African American Recruitment and Retention (CACAARR), Alumni and

academies, National Society of Black Engineers (NSBE), and Society of Hispanic Professional Engineers (SHPE).

Tactic 8: Improve the application experience for students and meet national standards for application components.

Strategy Group 7: National and international diversification (AP: Vice Provost for Enrollment Management)

Tactic 1: Increase S&T presence to recruit students in key cities in Missouri and nationwide.

Tactic 2: Hire staff to help guide market saturation and exploration efforts.

Tactic 3: Army of Champions program to increase visibility in key feeder high school, local/regional events, and other engagement opportunities in Missouri and neighboring states.

Tactic 4: Partnerships to increase the visibility of S&T and expand beyond current international markets.

Tactic 5: Increase the number of female STEM undergraduate students and participation in Summer Camps.

Tactic 6: Increase marketing efforts to recruit high school students to participate in the pre-college initiatives held by NSBE and SHPE.

Strategy Group 8: Improve scholarships and finance-related areas of admissions and yield (AP: Vice Provost for Enrollment Management)

Tactic 1: Refine Kummer Vanguard Scholars program to target prospective undergraduate students who do not see S&T as their first choice.

Tactic 2: Implement and expand/grow a need-based aid program for in-state students (Solving for Tomorrow Scholarship).

Tactic 3: Improved Scholarship Process specific to awarding of non-automatic scholarships.

Tactic 4: Improve graduate domestic scholarship awarding options.

Tactic 5: Explore restricted scholarship opportunities with University Advancement specific to non-research master's students.

Tactic 6: Evaluate and potentially expand S&T Connection Award to Illinois and Iowa.

Tactic 7: Evaluate and potentially expand the transfer merit-based award to cover all years of attendance.

Tactic 8: Evaluate and potentially expand scholarship opportunities to southern states.

Strategy Group 9: Enhance admissions/recruiting-specific marketing (AP: Vice Provost for Enrollment Management)

Tactic 1: Establish a combined Enrollment Management (EM) and Marketing and Communication working group to assess current and future needs, including an improved web presence.

Tactic 2: Develop a campaign inclusive of brand and enrollment support elements.

Tactic 3: Establish Junior and Sophomore campaigns with Marketing and Communications.

Tactic 4: Engage campus community, alumni, and students in EM tactics to attract students via admissions and yield activities.

Tactic 5: Establish transfer student campaigns with Marketing and Communications.

Tactic 6: Yearly review of the online marketing program for S&T.

SFA 2 – Student Well-being and Success (Provost)

S&T is redefining student success to align with the holistic needs of today's students and how they interact on campus. Today's students have diverse learning styles and see success as more than completing a degree. We are designing a campus-wide structure that supports their holistic needs and drives collective impact for well-being and success.

Well-being and belonging are crucial for student success. They affect retention, academic achievement, engagement, and readiness for the world. Improving one area, such as students' sense of belonging, can positively affect their overall well-being and academic success. It is crucial that the entire campus community contribute to this focus area for collective impact.

Accountable Person: Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

Faculty Liaison: Student Affairs Committee Chair

NSG 2030 Primary Alignment(s): Grow enrollment to 12,000 students; Achieve a top 100 ranking.

Missouri Compacts Primary Alignment(s): Student Success; Inclusive Excellence.

Strategy Group 1: Embed well-being into all facets of campus culture and across organizational boundaries (AP: Vice Chancellor for Student Affairs)

Tactic 1: Merge the Divisions of Student Affairs and Undergraduate Education to overcome institutional/organizational barriers to student success and flourishing.

Tactic 2: Educate S&T community about Collective Impact methodology and apply it to all student wellbeing initiatives.

Tactic 3: Identify, address, and communicate barriers to student success and flourishing.

Tactic 4: Enhance initiatives that promote accessibility in and outside the classroom through collaboration with faculty.

Tactic 5: Implement JED (Jed Foundation) Health and Wellbeing Committee strategic initiatives to improve measures of mental health and flourishing.

Strategy Group 2: Implement and evolve initiatives to promote student belonging and connection to campus (AP: Vice Chancellor for Student Affairs)

Tactic 1: Increase support for underrepresented and underserved populations.

Tactic 2: Continue to cultivate and expand student-centered spaces that foster broad connectivity, socialization, and creative interaction (e.g. "third spaces" such as coffee bars and meeting lounges).

Tactic 3: Design spaces that encourage inquiry, innovation, and team-based problem solving.

Tactic 4: Create more nutritionally informative, interactive, and convenient dining experiences.

Tactic 5: Bolster and coordinate community events that the university runs or participates in (e.g. St. Pat's, Equinox, Family Weekend, Homecoming, Celebration of Nations, Convocation, First-Year Celebration).

Tactic 6: Modernize and expand living-learning communities around topics that engage students.

Tactic 7: Create a catalog of classroom capabilities (e.g. reconfigurable furniture) and teaching equipment to be used in scheduling courses in the most appropriate locations.

Tactic 8: Design library space to meet evolving student needs.

Strategy Group 3: Enhance life skills and world readiness (AP: Vice Chancellor for Student Affairs)

Tactic 1: Broaden co-curricular experiences to improve career readiness across all majors.

Tactic 2: Introduce a STEM-to-X advising initiative (where X = medicine and healthcare, the law, education, business and management) to encourage students to pursue professional career paths.

Tactic 3: Infuse life skill development across services and programs, including integration of the Writing and Communication Center, Career Center, CEC's LIFE program, KVS colloquia and challenges, team-based design competitions, etc. into curricular and co-curricular experiences.

Tactic 4: Regularly solicit the voice of students regarding their S&T experience using scheduled and pulse surveys.

Strategy Group 4: Improve undergraduate student outcomes, including first-year retention, four- and six-year graduation rates, time-to-degree, and career outcomes (AP: Associate Provost for Academic Operations, Accreditation and Assessment)

Tactic 1: Use student analytics to infer the effectiveness of interventions on first-year retention, adjusting interventions accordingly.

Tactic 2: Investigate the feasibility of reducing time-to-degree through curricular analytics and curricular modularization.

Tactic 3: Enhance post-graduation career success outcomes for all majors.

Tactic 4: Facilitate transitions between majors by simplifying paperwork, approval processes, and course substitutions.

Tactic 5: Support and evolve student success in underprepared student populations (e.g. first-generation students) through grants.

Tactic 6: Clarify organizational structures for shared academic advising by combining centralized standards (including processes, training, and metrics) with distributed, department- and college-based expertise.

Tactic 7: Expand pre-enrollment preparatory programs for incoming students.

Tactic 8: Evaluate and enhance where appropriate tutoring and mentoring options, including one-on-one and faculty-led group tutoring.

Strategy Group 5: Improve graduate student outcomes (AP: Vice Provost of Graduate Education)

Tactic 1: Adopt evidence-based programs for improving graduate students' satisfaction, well-being, and belonging.

Tactic 2: Monitor and increase year-to-year doctoral graduate student retention.

Tactic 3: Establish appropriate targets for doctoral time-to-degree completion and monitor progress regularly.

Tactic 4: Enhance post-graduation career success outcomes.

Tactic 5: Develop a campus-wide policy on graduate student rights and responsibilities.

Strategy Group 6: Improve online and distance student outcomes (AP: Vice Provost for Online Learning and Educational Innovation)

Tactic 1: Adopt and implement best practices in online and distance education for course design, student support, and scheduling.

Tactic 2: Identify and make available campus support resources appropriate to online and distance students.

Tactic 3: Adopt methods to increase online and distance students' sense of belonging.

Tactic 4: Adopt processes, training, and metrics to customize advising for online and distance students.

SFA 3 – Academic Excellence (Provost)

In order to prepare students for success in their careers and lives, S&T is dedicated to enriching educational offerings, ensuring they align with the evolving needs of our students and the dynamic world around us. We will develop and sustain innovative teaching methods, comprehensive review processes, and the relevancy of S&T's curriculum.

We are dedicated to evolving our general education, dual enrollment, undergraduate and graduate programs to meet the highest standards of educational excellence. We aim to create a learning environment that is both intellectually stimulating and aligned with real-world needs. We will provide pathways and delivery models that fit a diverse range of students.

Accountable Person: Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

Faculty Liaison: Campus Curriculum Committee Chair

NSG 2030 Primary Alignment(s): Grow enrollment to 12,000 students; Achieve a top 100 ranking. Attain Carnegie R1.

Missouri Compacts Primary Alignment(s): Student Success; Engagement and Outreach; Research and Creative Works.

Strategy Group 1: Improve processes related to academic programs and curriculum (AP: Associate Provost for Academic Operations, Accreditation and Assessment)

Tactic 1: Design faculty-led processes to create and administer interdisciplinary programs across academic units.

Tactic 2: Ensure academic rigor and quality in all majors and programs to meet regional and professional accreditation standards.

Tactic 3: Implement HLC Assessment Academy as S&T's Quality Initiative.

Tactic 4: Articulate learning objectives and curriculum maps for all programs/majors to help students make informed decisions about selecting courses and degree programs.

Tactic 5: Design a process to internally review the sustainability of all degrees and certificates by tracking their enrollments and graduation rates.

Tactic 6: Update the process for external department reviews into a comprehensive process.

Tactic 7: Articulate course learning outcomes and document them in all syllabi and in the course catalog, and assess progress through S&T's HLC Quality Initiative: participation in the HLC Learning Academy

Tactic 8: Ensure consistent web presence for academic programs and faculty.

Strategy Group 2: Develop and enhance teaching and education excellence (AP: Vice Provost for Online Education and Educational Innovation)

Tactic 1: Restructure the Center for Advancing Faculty Excellence (CAFE) in to support teaching excellence in all programs.

Tactic 2: Create CAFÉ training related to effective course and program assessment.

Tactic 3: Establish new teaching evaluations with the Committee for Effective Teaching (CET) (mid-semester and end-of-semester evaluations together with CET observations and the Peer Evaluation Team).

Tactic 4: Improve the graduate teaching assistant (GTA) training program.

Strategy Group 3: Improve and develop general education curriculum and dual enrollment and transfer programs (AP: Associate Provost for Academic Operations, Accreditation and Assessment)

Tactic 1: Plan and implement affordable dual enrollment offerings with high schools to strengthen the region's college readiness, leveraging existing transportation options to Rolla.

Tactic 2: Develop a unified general education curriculum consistent with accreditation requirements and Missouri Core-42 guidelines with appropriate levels of student choice and ease of transferability.

Tactic 3: Develop methods to assess the general education curriculum and dual enrollment programs.

Tactic 4: Pursue partnerships with community colleges to facilitate ease of transfer for students with associate's degrees.

Strategy Group 4: Develop and diversify undergraduate program offerings (AP: Provost and Executive Vice Chancellor for Academic Affairs)

Tactic 1: Diversify and update undergraduate programs through new emphasis areas, certificates, or concentrations.

Tactic 2: Simplify pathways to graduation by applying the results of curricular analytics to curriculum maps and modularizing courses and prerequisite chains accordingly.

Tactic 3: Encourage and incentivize the creation of interdisciplinary majors and programs.

Tactic 4: Using agreed-upon metrics, create, enhance, sunset, or redesign majors and/or programs.

Tactic 5: Explore the potential for developing a more robust honors program to recruit, retain, and develop outstanding students.

Strategy Group 5: Evaluate and evolve non-thesis master's program offerings (AP: Vice Provost for Online Education)

Tactic 1: Coordinate student marketing and pricing models.

Tactic 2: Develop plans for face-to-face offerings of non-thesis master's programs in St Louis.

Tactic 3: Evaluate the feasibility of moving non-thesis master's courses to shorter terms (e.g. eight-week blocks).

Tactic 4: Develop new high-demand master's programs.

Tactic 5: Leverage or market appropriate 4+1 programs for non-thesis master's degrees.

Tactic 6: Develop or adopt metrics to assess the need for new master's programs and differentiate them from research graduate programs.

Tactic 7: Explore new options for professional master's programs in order to diversify our offerings.

Strategy Group 6: Evaluate and evolve research graduate program offerings (doctoral and thesis master's) (AP: Vice Provost of Graduate Education)

Tactic 1: Review and revise our online PhD programs.

Tactic 2: Grow marketing and recruitment of graduate students into appropriate non-thesis master's programs and research (i.e. thesis master's and doctoral) programs, as appropriate.

Tactic 3: Pursue dual PhD programs to attract outstanding PhD students and leverage shared funding programs.

Tactic 4: Explore new opportunities for online professional doctoral programs (e.g. D.Eng. Ed.D., DBA).

Strategy Group 7: Develop plans for corporate education and periodic delivery online and in-person of short courses about specialty topics (AP: Associate Dean for Academic Programs)

Tactic 1: Investigate, evaluate, and develop executive education programs.

Tactic 2: Establish a process for regularly seeking alumni and corporate input on new programs and course modalities based on market need.

Tactic 3: Establish a cost model for executive and corporate educational activities, including the potential for compensation across college boundaries.

Tactic 4: Set up a website for off-campus programming.

Tactic 5: Expand corporate programs and course offerings in the St. Louis area and investigate other potential locations.

Strategy Group 8: Regularize transparent processes for academic resource allocation (AP: Provost and Executive Vice Chancellor for Academic Affairs)

Tactic 1: Develop funding models to ensure that academic priorities will be adequately resourced, including graduate student support, start-up costs, library needs, and additional teaching from other departments.

Tactic 2: Survey alumni and corporations to investigate future educational topics and delivery modes.

Tactic 3: Create a website devoted to off-campus programs.

Tactic 4: Hire staff support for the St. Louis location.

SFA 4 – Research, Innovation, and Entrepreneurship (VC for Research and Innovation)

A journey to position S&T as a global research, innovation, and entrepreneurship leader. This pivotal focus area is not just about enhancing our academic stature; it's about driving economic development and fostering a culture of breakthroughs. Aligned with our commitment to reach Carnegie R1 status and secure a top 100 ranking, this focus area intertwines with the Missouri Compacts, emphasizing Research and Creative Works alongside Engagement and Outreach.

Our multifaceted strategy includes developing cutting-edge facilities like the Protoplex and the Bio-Plex, pursuing significant NSF proposals, and growing our research support structure. By investing in training, coaching, and mentoring programs, we aim to empower our faculty to excel in securing large grants and advancing their research endeavors.

Accountable Person: Kamal Khayat, Vice Chancellor for Research and Innovation

Faculty Liaison: Intellectual Property & Tech Transfer Committee Chair

NSG 2030 Primary Alignment(s): Attain Carnegie R1; Achieve a top 100 ranking.

Missouri Compacts Primary Alignment(s): Research and Creative Works; Engagement and Outreach.

Strategy Group 1: Grow research, innovation, and entrepreneurship capacity and support infrastructure (AP: Vice Chancellor for Research and Innovation)

Tactic 1: Foster growth of University and Kummer Research Centers.

Tactic 2: Kummer Ignition Grant Initiative.

Tactic 3: Award Capture Team to identify grant opportunities and communicate to faculty.

Tactic 4: University Research Center Seed Grants.

Tactic 5: Seed Research Grant Initiative for arts, humanities and social sciences.

Tactic 6: Provide training for non-STEM faculty on RFPs (NGOs, foundations, etc.).

Tactic 7: Promote excellence in scholarship beyond research expenditures.

Tactic 8: Provide training, coaching, and mentoring for faculty of all ranks to pursue large grants.

Tactic 9: Grow research support structure (staffing and resources).

Tactic 10: Foster student entrepreneurship by facilitating the creation of student-led startup companies.

Tactic 11: Incentivize entrepreneurship with a dual focus on groundbreaking technologies and humanities-based initiatives.

Strategy Group 2: Grow research infrastructure (equipment and facilities) (AP: Vice Chancellor for Research and Innovation)

Tactic 1: Operationalize the Protoplex.

Tactic 2: Establish or fill research center director positions.

Tactic 3: Bio-Plex.

Tactic 4: Critical Mineral Testbed Facility and Analytical Support Structure.

Tactic 5: NSF Major Research Instrumentation proposals.

Tactic 6: Create a campus-wide Analytical Instruments Facility.

Tactic 7: Improve/Increase IT support for research.

Tactic 8: Enforce safety and training requirements in research facilities.

Strategy Group 3: Increase externally funded R&D expenditures and foster growth and strategic investments to support research and innovation (AP: Vice Chancellor for Research and Innovation)

Tactic 1: Increase number of collaborators in large funding proposals.

Tactic 2: Increase number and dollar amount of proposals in College of Engineering and Computing.

Tactic 3: Increase number and dollar amount of proposals in College of Arts Sciences and Education.

Tactic 4: Increase number and dollar amount of proposals in Kummer College of Innovation, Entrepreneurship, and Economic Development.

Tactic 5: Hiring of tenure/tenure-track (T/TT) faculty in strategically important areas according to R1 T/TT faculty hiring strategic plan (i.e., Advanced Manufacturing and Electronics, BioX, Smart Systems, Sustainable and Resilient Infrastructure, Extreme Environments, STEM and non-STEM Enhancement).

Tactic 6: Develop innovative strategies to fund start-up packages (e.g., endowments).

Tactic 7: Collaborate with Kummer Institute (KI) Center directors to foster the growth and leadership of the centers on large proposals.

Tactic 8: U.S. DOE EPIX (Energy Program for Innovation Clusters) Manufacturing Innovation Institute.

Tactic 9: Implement FY24 \$9M MOEXCELS grant with Community College partners and MAE department Chair and Faculty.

Tactic 10: Implement FY24 \$3M DOL Grant with Industry Collaborators.

Tactic 11: Increase number of \geq \$10M multi-institutional proposals in core science and engineering (S&E) areas.

Tactic 12: Increase number of \geq \$5M multi-institutional proposals in emerging S&E areas.

Tactic 13: Increase the number to \geq \$1M /year proposals in non-S&E areas.

Tactic 14: Increase externally funded R&D expenditures per faculty.

Tactic 15: Grow annual congressional programmatic and earmark requests.

Strategy Group 4: Increase S&E research staff (postdoctoral & non-faculty research staff) (AP: Vice Chancellor for Research and Innovation)

Tactic 1: Attract externally funded postdocs, such as NSF/NIH/Fulbright postdocs.

Tactic 2: Increase number of postdocs.

Tactic 3: Increase number of non-tenure-track (NTT) research professors.

Tactic 4: Increase number of research engineers/scientists.

Tactic 5: Identify new job families to foster growth of KI Centers.

Tactic 6: Enable KI and University Research Centers to hire and promote research professors and professional staff.

Strategy Group 5: Increase doctoral research degree conferrals in S&E and non-S&E doctoral degrees (AP: Vice Provost of Graduate Education)

Tactic 1: Increase the number of research-active faculty involved in doctoral student advising.

Strategy Group 6: Enhance global recognition of research centers and faculty and support student success (AP: Vice Chancellor for Research and Innovation)

Tactic 1: Advance research excellence to improve university ranking.

Tactic 2: Promote publications in prestigious journals (e.g., Nature, Science).

Tactic 3: Increase the number of early career faculty awards (e.g., NSF, NASA, DOE, DOD NIH).

Tactic 4: Nominate outstanding faculty for prestigious awards in their fields and assist departments/colleges in preparing nomination packages.

Tactic 5: Increase the number of national and international workshops in areas of strength.

Tactic 6: Improve analytical research infrastructure to attract off-campus users.

Strategy Group 7: Increase societal impact of university research and innovation (AP: Associate Vice Chancellor for Innovation, Entrepreneurship and Commercialization)

Tactic 1: Increase the number of invention disclosures.

Tactic 2: Increase the number of patent applications from S&T.

Tactic 3: Increase the number of intellectual property (IP) related agreements.

Tactic 4: Create a campus environment that encourages the formation of new companies.

Tactic 5: Broaden societal impact through knowledge dissemination, community outreach, and policies.

SFA 5 – Outreach and Engagement (Vice Chancellor of Strategic Initiatives)

As a university community, it is important to prioritize outreach and engagement initiatives that promote visibility and recognition of our achievements to and among our many stakeholders. By doing so, we can increase awareness of the valuable contributions that our members make to the broader community, and foster a sense of pride and connection among all those associated with our institution. Whether through public events, social media campaigns, or other means, we must actively seek to showcase the talents and accomplishments of our students, faculty, and staff, and ensure that our impact is felt far beyond the walls of our campus.

Accountable Person: Steve Roberts, Vice Chancellor of Strategic Initiatives

Faculty Liaison: Department Chairs Council Chair

NSG 2030 Primary Alignment(s): Attain Carnegie R1; Achieve a top 100 ranking.

Missouri Compacts Primary Alignment(s): Engagement and Outreach; Research and Creative Works; Inclusive Excellence; Planning, Operations, and Stewardship.

Strategy Group 1: Increase awareness and support (funding) of S&T’s goals, expertise, and initiatives, and S&T’s awareness of legislative funding priorities – State and Federal Legislators and other elected officials (AP: Chief of Staff)

Tactic 1: In coordination with the UM System Office of Government Relations, develop annual legislative outreach plans to inform and engage key state and federal legislators, members of the executive branch, and their staffs of the benefits of Missouri S&T to the state economy and social well-being.

Strategy Group 2: Increase awareness and support (funding) of S&T’s goals, expertise, and initiatives, and S&T’s awareness of agency funding priorities – Government agencies and research-centric organizations (AP: Vice Chancellor for Research and Innovation)

Tactic 1: Foster relationships with national labs.

Tactic 2: Foster research relationships with peer-universities.

Tactic 3: Foster research relationships with minority-serving institutions.

Tactic 4: Facilitate multi-institutional and industrial collaborations.

Strategy Group 3: Increase awareness and support (funding) of S&T’s goals and initiatives in student career readiness and S&T’s awareness of employer needs – Employers (AP: Director Career Opportunities and Employer Relations)

Tactic 1: Formally survey employers annually in collaboration with college deans.

Tactic 2: Assemble recruiters and hiring managers for an annual professional development mini-conference at S&T.

Tactic 3: Provide additional resources and outreach for departments/programs with the lowest positive outcome rates.

Strategy Group 4: Increase awareness and support (funding) of S&T's research goals, expertise, and initiatives, and S&T's awareness of corporate needs and funding priorities – Corporate research sponsors (AP: Associate Vice Chancellor for Innovation, Entrepreneurship and Commercialization)

Tactic 1: Develop a plan to identify a corporate “front door” for the University.

Tactic 2: Develop a plan to better identify and approach corporate foundations for university support.

Strategy Group 5: Increase awareness of S&T's goals, expertise, resources, and initiatives in economic development, and S&T's awareness of local, regional, state business needs, opportunities, and priorities (AP: Director of Engagement and Outreach)

Tactic 1: Establish annual engagement forums to communicate the university's mission, strategic goals, and initiatives to the community.

Tactic 2: Enable and support a broad range of campus and community collaboratives with local organizations, businesses, and non-profits that align with university expertise and resources.

Strategy Group 6: Increase awareness of S&T's goals, initiatives, and expertise in K-12 education, and S&T's awareness of school- and district-level needs, opportunities, and priorities in K-12 education, and inspire students to attend S&T and pursue careers in STEM and STEM adjacent fields – K-12 schools and districts (AP: Director Kummer Center for STEM Education)

Tactic 1: Expand the teacher lending loan program based on feedback from the teacher curriculum cohort professional development and school district meetings.

Tactic 2: Annually, create outreach plans for major external K-12 STEM events.

Tactic 3: Annually, evaluate the impact of K-12 STEM outreach and internal S&T reach.

Strategy Group 7: Enhance organizational capabilities to advance institutional communications and boost visibility and reputation. (AP: Vice Chancellor of Marketing and Communications)

Tactic 1: Develop annual plan to share brand pillars and strategies with campus

Tactic 2: Develop comprehensive content marketing plan

Tactic 3: Conduct market research and identify target areas based on results and goals

Tactic 4: Expand media outreach efforts regionally, statewide, and in selected markets

Tactic 5: Explore communication options for enhanced exposure with alumni and other stakeholders

Tactic 6: Identify niche areas across campus for potential national exposure and develop media plan

Tactic 7: Creation of an Office of Outreach and Engagement to provide centralized resources, training, and coordination of outreach and engagement activities campuswide.

SFA 6 – Advancement and Alumni Relations (Vice Chancellor for University Advancement)

Establish S&T as a leader in addressing the world's greatest challenges by fostering unparalleled partnerships with individuals, corporations, and foundations. We aim to expand and deepen our impact through strategic fundraising and alumni engagement initiatives, solidifying S&T's reputation as a model for public university advancement teams. By implementing these strategies, we will position S&T as a destination for high-performing professionals who display integrity, creativity, and donor-centric stewardship in the pursuit of aggressive fundraising and alumni engagement goals. Together, we will elevate S&T to be among the top 40 public universities by endowment size, making a permanent impact on our institution's future through sustained investments that support Missouri S&T's North Star Goals.

Accountable Person: Tory Verkamp, Vice Chancellor for University Advancement

Faculty Liaison: Faculty Senate President

NSG 2030 Primary Alignment(s): Foundational

Missouri Compacts Primary Alignment(s): Planning, Operations, and Stewardship; Engagement and Outreach.

Strategy Group 1: Foster campuswide education and engagement in philanthropy, solidifying donor stewardship and fundraising best practices as an ingrained and integral function of every campus interaction a prospective partner may experience (AP: Vice Chancellor for University Advancement)

Tactic 1: Develop metrics for academic leaders that focus our partnership and drive measurable results.

Tactic 2: Communicate progress and successes methodically via multi-channel approaches that celebrate our donors and inspire new and increased giving.

Tactic 3: Create a philanthropic training program for academic and staff partners interested in engaging in our work.

Tactic 4: Add an alumni association committee charged with staff engagement to identify areas of strategic alignment and influence future Miner Alumni Association work.

Tactic 5: Launch a faculty and staff giving program.

Tactic 6: Implement a Student Gift Officer program. This program will serve as a stewardship tool and an opportunity to inspire student ambassadorship of philanthropy.

Strategy Group 2: Create efficiencies and expand capabilities in our prospect research and relationship management tools and processes (AP: Executive Director for University Services)

Tactic 1: Complete the implementation and enhanced reporting capabilities of a new customer relationship management (CRM) to improve pipeline building and moves management capabilities.

Tactic 2: Launch the University Advancement (UA) Power BI dashboard to enhance division transparency, offer real-time reporting to campus partners, and encourage data-driven decision-making.

Tactic 3: Conduct portfolio review and optimization to prioritize current and future prospects best.

Tactic 4: Reorganize major gifts staff structure and assignments to maximize team strengths.

Strategy Group 3: Establish comprehensive campaign planning to execute the institution's largest comprehensive campaign in history (AP: Vice Chancellor for University Advancement)

Tactic 1: Develop a case for support that clearly articulates campaign vision and priorities.

Tactic 2: Determine the projected campaign timeline and key milestones.

Tactic 3: Finalize campaign budget, detailing critical investments to expand our capabilities to reach unprecedented fundraising targets.

Tactic 4: Reorganize and bolster existing, distributed stewardship efforts.

Strategy Group 4: Develop and implement innovative approaches to support pipeline development while rebuilding a dedicated annual giving team (AP: Assistant Vice Chancellor for Alumni Affairs and Advancement Services)

Tactic 1: Solicit all contactable alumni annually, which has not been done in a decade.

Tactic 2: Revive and reimagine a campuswide Giving Day.

Tactic 3: Reinstate face-to-face visits with annual giving donors, strengthening relationships and adding an essential strategic engagement step in the solicitation cycle.

Tactic 4: Define and establish a leadership annual giving program.

Tactic 5: Introduce user-friendly annual giving tools to improve the giving process.

Strategy Group 5: Complete fundraising for key capital projects (AP: Assistant Vice Chancellor for University Advancement)

Tactic 1: Engage campaign counsel to support fundraising efforts for these vital, time-sensitive projects.

Tactic 2: Secure naming gift for the Innovation Lab, the largest capital naming opportunity in our campus' history.

Tactic 3: Secure naming gift for the Welcome Center, the largest capital naming opportunity in our campus' history.

Tactic 4: Launch Bio-X/Bio-Plex campaign.

Strategy Group 6: Create a cohesive, thriving ecosystem for campus board engagement. Cultivate a roster of volunteer partners inspired to support and elevate Missouri S&T through time, talent, and treasure (AP: Vice Chancellor for University Advancement)

Tactic 1: Leverage board expertise and networks to enhance fundraising efforts.

Tactic 2: Coordinate opportunities for cross-collaboration among our various boards to maximize staff resources and provide high-impact engagement opportunities for all board members.

Tactic 3: Develop recruitment matrices to map current skills and attributes and identify needs and interests promoting healthy, diverse boards that advance our mission cooperatively, never competitively.

Tactic 4: Re-evaluate existing committee structures, realigning efforts to advance our mission.

Tactic 5: Identify and implement new approaches and processes to engage alumni, customized to generational demographics.

SFA 7 – Employer/Employee Excellence (Chief Human Resources Officer)

As an institution of higher education, it is imperative that we prioritize the satisfaction and development of our employees, as well as the optimization of our policies and processes, to achieve excellence. By investing in staff and faculty, we will cultivate a culture of innovation, collaboration, and growth within our university community.

Additionally, streamlining processes and procedures can contribute to a more efficient and effective work environment for our employees. Ultimately, by prioritizing these areas of improvement, we can create a more supportive and inclusive university community that values the contributions of all its members.

Accountable Person: Cindi Nelson, Chief Human Resources Officer

Faculty Liaison: Tenure Policy Committee Chair

NSG 2030 Primary Alignment(s): Foundational.

Missouri Compacts Primary Alignment(s): Inclusive Excellence; Engagement and Outreach; Planning, Operations, and Stewardship.

Strategy Group 1: Improvement of campus climate and environment for faculty and staff well-being and satisfaction (AP: Staff Success Center Manager)

Tactic 1: Utilize climate data to develop campus-wide annual improvement plans.

Tactic 2: Develop or extend Rolla/Community Partnerships.

Tactic 3: Enhance and promote faculty and staff well-being programs.

Tactic 4: Review and improve campus business processes for quality and effectiveness.

Tactic 5: Increase recognition for staff and faculty, particularly those who contribute to a supportive climate.

Tactic 6: Improve compensation procedures and add greater transparency to process.

Strategy Group 2: Enhance faculty academic life (AP: Associate Provost for Faculty Affairs)

Tactic 1: Conduct a comprehensive and continuous review of P&T process for TT/NTT tracks, including appropriate weight for exceptional teaching.

Tactic 2: Develop campus-wide faculty mentoring programs across career stages and career tracks (e.g., TT/T/NTT).

Tactic 3: Compile and enhance faculty workload distribution and related policies, adjusting as necessary.

Tactic 4: Clarify and expand upon the definitions of merit and measured success / effort on campus that contribute to P&T in the spirit of inclusivity, including appreciation of diverse types of scholarship.

Tactic 5: Improve faculty evaluation processes in alignment with P&T.

Tactic 6: Develop and implement career development and promotion processes for NTT faculty.

Tactic 7: Develop processes that address COACHE survey concerns, especially regarding mutual trust and communication between faculty and administrators.

Strategy Group 3: Improve staff engagement and retention (AP: Chief Human Resources Officer)

Tactic 1: Improve training and development opportunities.

Tactic 2: Improve recognition and appreciation programs.

Tactic 3: Improve performance review process.

Tactic 4: Develop programs and paths for promotion.

Tactic 5: Review and update staff compensation strategy to address salary compression and inversion.

Tactic 6: Develop concrete guidelines and processes for dual career hiring and retention (including both faculty and staff).

Strategy Group 4: Engagement and empowerment of employees (AP: Senate President & Staff Council President)

Tactic 1: Increase representation of underrepresented groups specifically in leadership positions.

Tactic 2: Facilitate inclusive dialogues about and clarify expectations for shared governance.

Tactic 3: Include faculty experts in administrative and operational decision-making processes about their areas of expertise.

Tactic 4: Develop a plan for improved communication between administration, faculty, and staff.

Tactic 5: Increase the role of standing committees (staff and faculty) in decision-making processes.

Tactic 6: Establish metrics to determine effectiveness of shared governance and other faculty/staff involvement strategies and track them over time.

Tactic 7: Create professional development opportunities to increase/enhance faculty/staff institutional involvement, shared governance participation, and continuity.

Strategy Group 5: Improve academic and administrative continuity (AP: Lead Recruitment Consultant)

Tactic 1: Develop appropriate continuity plans for administrative roles: deans and department chairs, academic administrators, and administrative leaders and directors.

Tactic 2: Create and maintain leadership development programs for faculty and staff, including both administrative and non-administrative leadership paths with a focus on emotional intelligence and relationship-building skills.

Tactic 3: Continuously identify exceptional talent that could enhance campus leadership, both internal and external.

Tactic 4: Reduce number and duration of interim appointments.

SFA 8 – Finance and Infrastructure (Vice Chancellor for Finance and Operations)

As a university community, we are dedicated to enhancing our budget prioritization to promote the strategic distribution of resources. We are committed to constructing and maintaining a state-of-the-art and inviting campus infrastructure that fosters a sense of belonging and provides an ideal atmosphere for academic and research activities. Our information technology and decision-making resources will be tailored to support the growth of academics, operations, and research, ensuring we have the necessary tools to achieve our objectives. Lastly, we strive for efficiency and collaborative operations, enabling us to attain our collective goals and make optimal use of our resources.

Accountable Person: Alysha O’Neil, Vice Chancellor for Finance and Operations

Faculty Liaison: Budgetary Affairs Committee Chair

NSG 2030 Primary Alignment(s): Attain Carnegie R1; Foundational.

Missouri Compacts Primary Alignment(s): Planning, Operations, and Stewardship; Student Success.

Strategy Group 1: Improve process and transparency of budget prioritization based on strategic initiatives (AP: Director Accounting and Budget)

Tactic 1: Align investments with the strategic plan.

Strategy Group 2: Develop, operate, and maintain a safe, modern, and attractive campus environment that promotes creativity and innovation for our students, faculty, and staff (AP: Associate Vice Chancellor for Facilities Planning and Operations)

Tactic 1: Address Physical Infrastructure Updates and Needs.

Tactic 2: Develop Research Facilities.

Tactic 3: Align maintenance/custodial activities and enrollment management on-campus events to maximize effectiveness in recruitment.

Tactic 4: Ensure space and land use support the strategic plan.

Tactic 5: Campus safety and security.

Tactic 6: Promote Sustainability and Energy Conservation.

Strategy Group 3: Ensure information technology infrastructure is sufficient to support achieving strategic goals (AP: Chief Information Officer)

Tactic 1: Assessment of IT’s ability to meet current needs and enable and accelerate North Star Goals.

Tactic 2: Strengthen IT security to protect against various threats, including malware/ransomware attacks.

Tactic 3: Improve IT support of research computing.

Tactic 4: Improve high-performance research computing to support growing research activities.

Tactic 5: Create outreach and training programs to equip faculty and staff with technological tools to support the success.

Tactic 6: NIST 800-171 and 800-172 compliance.

Strategy Group 4: Improve data literacy and data usage to support decision-making, increase productivity, improve efficiency, and foster a culture of collaboration and accountability. (AP: Senior Business Intelligence Consultant)

Tactic 1: Support the decision-making process at S&T by providing leaders with real-time data and analysis.

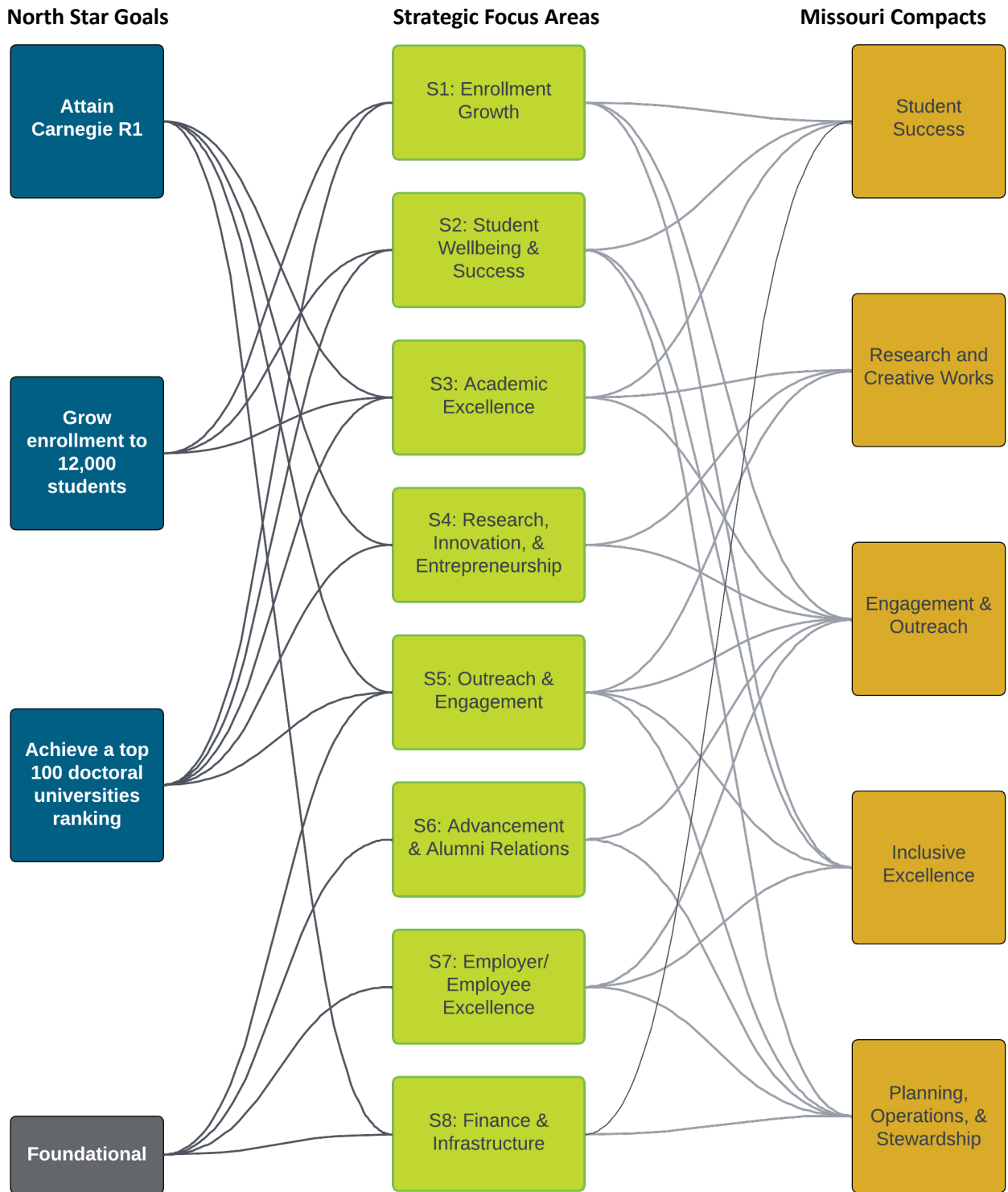
Tactic 2: Increase access to organized data by onboarding all S&T service lines into Power BI and deprecating legacy reporting solutions.

Tactic 3: Create a culture of collaboration by enabling cross-functional reporting, moving all remaining modeling to the Microsoft cloud, breaking down data ownership silos, and providing consumer training to the S&T community.

Tactic 4: Process and Performance Improvement: Collaborate and consult with units to design and develop new and improved analytics, reporting solutions, and applications to support strategic and operational missions.

Tactic 5: Lay the foundation for a predictive analytics program at S&T by starting a machine learning program focused on the central service lines.

Alignment of Strategic Focus Areas, North Star Goals, and Missouri Compacts





Missouri University of Science and Technology

Missouri University of Science and Technology Strategic Plan

Colin Potts (Executive VC Academic Affairs & Provost)

Board of Curators, April 18, 2024

Missouri S&T Strategic Plan

Contents

Vision: Our North Star Goals

Strategic Planning Framework: A Bridge from Vision to Execution

Strategic Plan: Guided walkthrough of parts of the plan



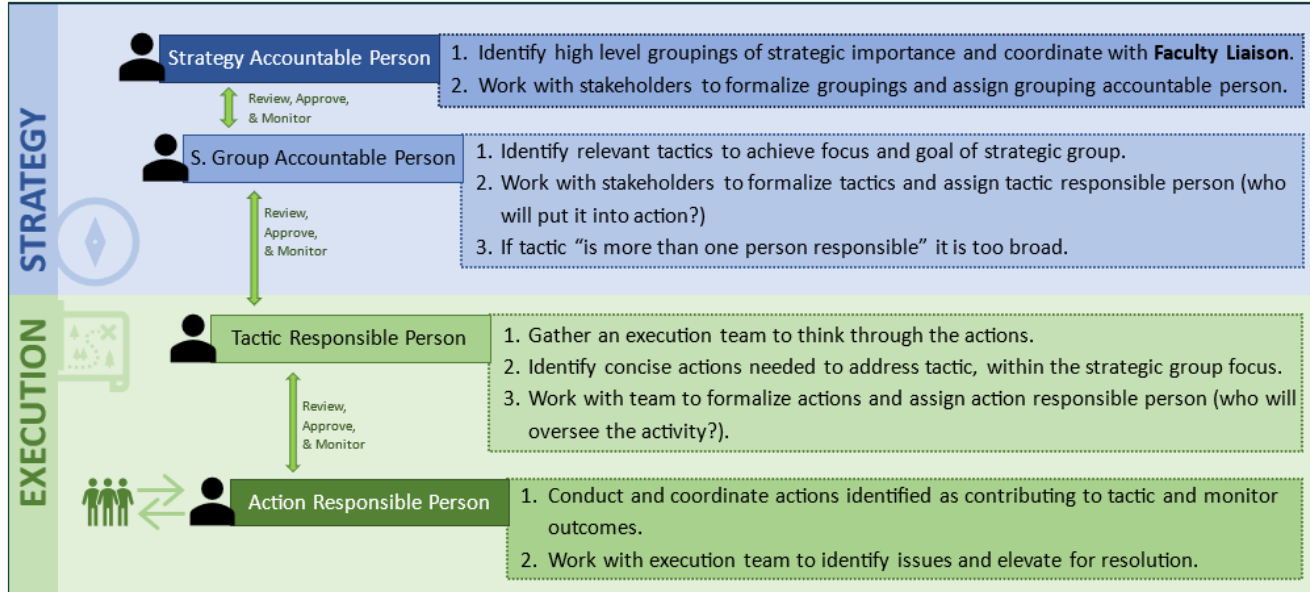
Vision

The North Star Goals

- Enrich STEM workforce by growing enrollment aggressively
 - **8,000 undergraduates and 4,000 graduate students by 2030**
- Be a leader in improving the human condition through STEM-focused discoveries, innovations and economic development activities.
 - **Become a Carnegie R1 institution by 2030 & maintain status**
- Become a nationally prominent and internationally recognized university
 - **Become a USNW top-100 ranked university by 2030**

Strategic Planning Framework

The Bridge from Vision to Execution



A tree with four levels

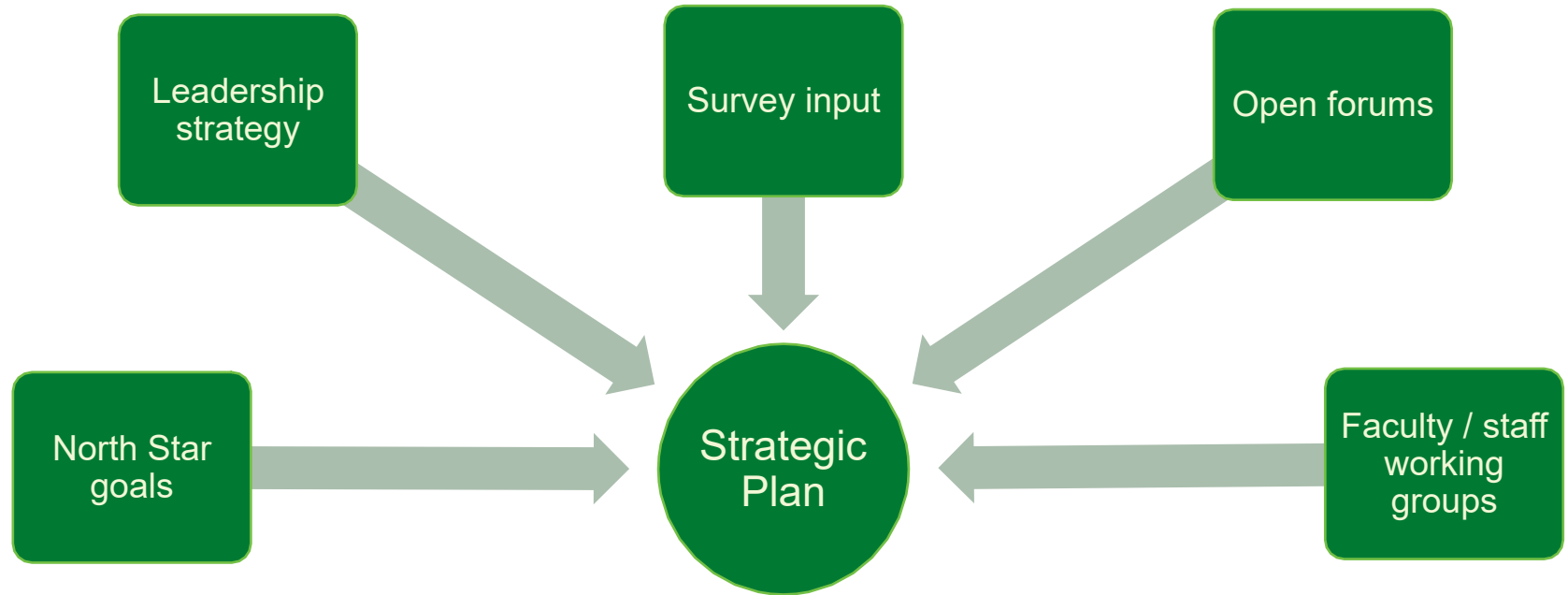
Every item at every level has an accountable/responsible role

A living document

Actions are the units of execution and will be tracked on a dashboard

Strategic Planning Framework

Collaborative Process with Widespread Input



OPEN -- ASARED -- 1-40

April 18, 2024

Strategic Plan Walkthrough

The Eight Strategic Focus Areas



- ▶ Enrollment growth
- ▶ **Student wellbeing & success**
- ▶ Academic excellence
- ▶ Research, innovation & entrepreneurship
- ▶ Outreach & engagement
- ▶ Advancement & alumni relations
- ▶ Employer/employee excellence
- ▶ Finance & infrastructure

Example Focus Area Walkthrough

Strategy Groups for *Student Wellbeing & Success*

- ▶ Embed well-being into all facets of campus culture and across organizational boundaries
- ▶ Implement and evolve initiatives to promote student belonging and connection to campus
- ▶ **Enhance students' life skills and world readiness**
- ▶ Improve undergraduate student outcomes, including first-year retention, four- and six-year graduation rates, time-to-degree, and career outcomes
- ▶ Improve graduate student outcomes
- ▶ Improve online and distance student outcomes



Example Task Group Walkthrough

Tactics for *Enhance students' life skills and world readiness*

- ▶ Broaden co-curricular experiences to Improve career readiness across all majors
- ▶ **Introduce a STEM-to-"X" advising initiative, ... encouraging students to pursue professional career paths**
- ▶ Infuse life skill development ... into curricular and co-curricular experiences
- ▶ Regularly solicit the voice of students regarding their S&T experience using scheduled and pulse surveys



Example Tactic Walkthrough

Hypothetical actions for *Introduce a STEM-to-X advising initiative*



- ▶ Create “professional village” within Career Fair, Fall 2024.
- ▶ Annotate degree maps to show pre-med pathway
- ▶ Agree MOU with <specific> University for early assurance Med School admission process
- ▶ Develop pre-law website materials to emphasize need for STEM-educated IP lawyers
- ▶

Summary

- ▶ S&T's strategic plan is a bridge from vision to execution.
- ▶ The vision consists of three North Star goals.
- ▶ The plan
 - was developed collaboratively with faculty input
 - has eight focal areas
 - is multi-level
 - is a living document
 - the execution levels will be tracked regularly



No. 2

Recommended Action – Resolution for Executive Session of the Board of Curators Academic, Student Affairs, Research and Economic Development Committee Meeting, April 18, 2024

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Board of Curators Academic, Student Affairs, Research and Economic Development Committee Meeting, April 18, 2024 for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment.

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Graves

Curator Sinuefield

Curator Williams

The motion _____.

AUDIT, COMPLIANCE AND ETHICS COMMITTEE

Keith A. Holloway, Chair

Julia G. Brncic

Jeanne C. Siquefield

Michael A. Williams

The Audit, Compliance and Ethics Committee (“Committee”) will review and recommend policies to enhance the quality and effectiveness of the University’s financial reporting, internal control structure and compliance and ethics programs.

I. **Scope**

In carrying out its responsibilities, the Committee monitors and assesses the University’s financial reporting systems and controls, internal and external audit functions, and compliance and ethics programs.

II. **Executive Liaison**

The Chief Audit and Compliance Officer of the University or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the committee and responsible for transmitting committee recommendations.

III. **Responsibilities**

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include:

A. Reviewing and making recommendations to the Board in the following matters:

1. the University risk assessment, audit plan and compliance plan; and
2. the appointment, compensation, and termination of the university’s external auditors.

B. Providing governance oversight regarding:

1. development and monitoring a University code of conduct;
2. effectiveness of the internal control framework;
3. ensuring that the significant findings and recommendations are received, discussed and appropriately resolved;
4. procedures for reporting misconduct without the fear of retaliation;
5. university compliance with applicable laws, regulations, and policies that govern all aspects of University operations including but not limited to the following:
 - a. Administrative compliance risks
 - b. Healthcare compliance risks
 - c. Research compliance risks
 - d. Information security compliance risks
 - e. Privacy compliance risks

6. those additional matters customarily addressed by the audit, compliance and ethics committee of a governing board for an institution of higher education.

C. Reviewing periodic reports regarding:

1. the independence, performance, resources and structure of the internal audit, compliance and ethics functions;
2. audit reports and open audit issue status updates;
3. management's written responses to significant findings and recommendations by the auditors;
4. the adequacy of the University's information technology methodology with regards to security, internal controls and data integrity assurance;
5. annual external audit reports, including audited financial statements, single audit and required procedures;
6. the effectiveness of the compliance and ethics program ensuring it has appropriate standing and visibility across the system.

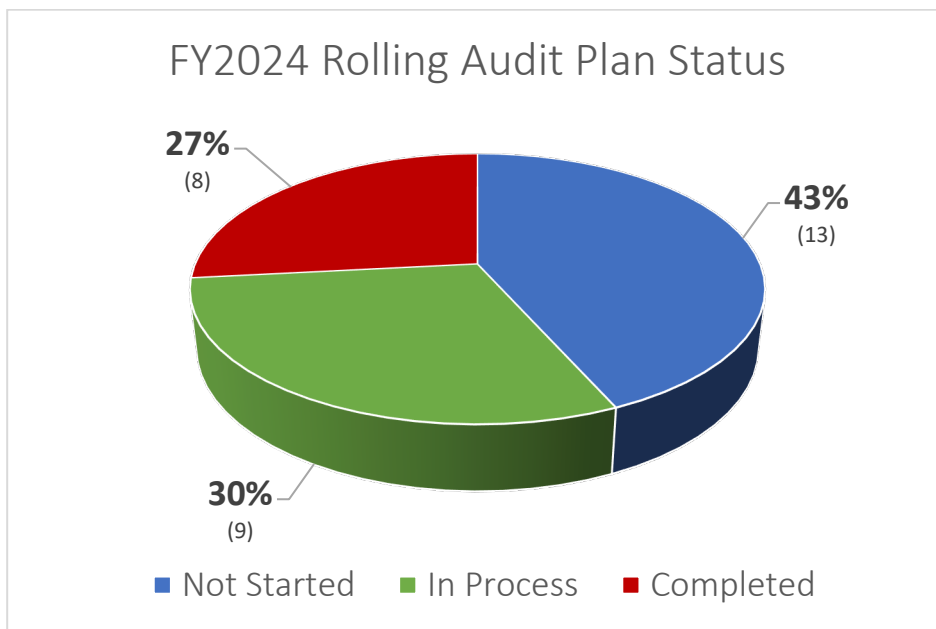
**Ethics, Compliance, and Audit Services (ECAS) Quarterly Report
UM System
April 18, 2024**

INTERNAL AUDIT

Status of the FY2024 Rolling Audit Plan:

Audit/Consulting:

Projects completed	8
In process	9
Not started	13



Internal Audit Work Completed Since February 2024

Audit/Project	Risk Rating
MU, Medical Student Education Program (MSEP) Grant Audit	2
MUHC, Surgery Charge Capture Audit	3
Final verification of FY24 action plan implementation	n/a

Investigations Completed: 6

Internal Audits, Projects, and Consulting Engagements Currently in Process

Audit Area	Overall Objective	Status	Risk Area(s)
1. MU - College of Agriculture, Food, and Natural Resources Standard Financial Audit	Focus on processes impacting financial performance.	Fieldwork	Operations
2. MU – Export Controls & Sanctions	Assessment of export control processes.	Fieldwork	Compliance
3. UMKC – Information Security Assessment	Co-sourced information security assessments, in collaboration with the information security officers, for critical systems, excluding Microsoft, Outlook, PeopleSoft, and Active Directory.	Fieldwork	Information Technology
4. UMSL – Information Security Assessment	Co-sourced information security assessments, in collaboration with the information security officers, for critical systems, excluding Microsoft, Outlook, PeopleSoft, and Active Directory.	Planning	Information Technology
5. MUHC - Pharmacy Drug Diversion	Co-sourced engagement to test and evaluate Pharmacy practices and controls over controlled substances at University Hospital.	Fieldwork	Operations
6. MU - Scholarship Awards	Assessment of scholarship awards to donor restrictions and/or established criteria.	Fieldwork	Operations
7. MUHC – Price Transparency	Co-sourced engagement to evaluate the processes/controls in place to determine compliance with CMS guidelines and best practices around the Price Transparency Rule.	Planning	Compliance
8. S&T – Construction Manager at Risk & Student Experience Center Project	Co-sourced engagement to assess contract language, and provide a review of construction project payments and documentation	Reporting	Operations
9. Risk Assessment	Identify areas of risk for FY25 Plan	In Progress	n/a

Investigations In Progress: 4

April 18, 2024

OPEN - ACE - INFO 1-2

Internal Audit Summary Report
MU, Medical Student Education Program (MSEP)
Grant Audit
January 2024

Report Risk Rating:
1 2 3 4 5

Background

In 2019 School of Medicine received two HRSA grants totaling nearly \$5 million to increase the number of doctors in Missouri and address the physical shortages in rural areas. The centerpiece of the two grants is a \$4.2 million award over four years to fund expansion of the Rural Scholars Program (Rural Track).

In July 2023, Dr. Quinn and Senior Associate Dean Dr. Kim Kimminau approached the Office of Ethics, Compliance, and Audit Services (ECAS) Internal Audit team with questions related to reporting in the MSEP grant and potential risk of overspending due to uncertainty in reporting. After an investigation, \$1.6 million in equipment expenses were identified that posted in September 2022 through March 2023 that were unexpected during that budgeting period. Internal Audit performed this audit to determine the root cause of the unexpected expenses.

Issues Summary

Internal Audit determined the unexpected expenses were caused by multiple factors:

- complicated project setup based on how funding was received during the grant period,
- incomplete reporting practices performed by Rural Track due to a misunderstanding of how reports were functioning, and
- uncertainty of reliability of reporting based on Rural Track’s misunderstanding of year end reports filed with HRSA by SPA.

During testing, Internal Audit confirmed the expenses were not inappropriately posted or spent, rather they were overlooked during reporting due to a misunderstanding of how reports display encumbered funds year over year. Beginning in FY24, Rural Track has implemented an independent tracking system that Internal Audit confirmed is appropriately monitoring encumbered funds to ensure this does not occur again.

Management Action Plan Summary

Management will continue to utilize the tracking system implemented in FY24 to monitor encumbered POs on all projects through the life of the grant to ensure funds are appropriately and accurately applied. SOM will implement additional training to principal investigators and fiscal officers on grant tools and processes to ensure consistent understanding and application

Risk Summary

Overall, the risk to the University and Rural Track is low. Internal tracking implemented by fiscal management reduces the risk that a similar instance will occur in the future.

Due Date: August 31, 2024

April 18, 2024

**Internal Audit Summary Report
MUHC, Surgery Charge Capture Audit
February 2024**



Background

Charge capture is the documentation, charging, posting and reconciliation of charges for services rendered/items provided to the patient. A formalized charge capture process is an essential component of the revenue cycle function and helps to verify that all services provided to patients are accurately documented prior to billing. Accurate revenue charge capture also ensures compliance with regulatory requirements and reduces the risk of billing errors and is critical to financial stability.

Issues Summary

Comprehensive data analytics testing was performed on about 17,435 accounts between January and June 2023 with \$814.7M of charges to test controls within the charge capture processes. Detailed testing of judgmentally selected samples identified missing surgery time, recovery time, and missing and/or inappropriate implant and supply charges for facility billing. No discrepancies were identified through the testing of professional charges. Overall, processes accurately capture most charges as the potential exceptions identified via data analytics were low compared to the population of data analyzed.

Management Action Plan Summary

MUHC has corrected patient claims with missing charges. Management will establish and implement charge capture policies and procedures and take other actions to implement the agreed to action plans and strengthen charge capture controls.

Due Date: May 15, 2024

Management Action Plan Status Report: Items Due

Follow-up procedures are performed twice a year to verify the status of management actions for previously issued audit reports.

July 1, 2023 – February 29, 2024	#
Action Items Due	19
Interim Progress Update Due	1
Action Items Completed	17
Action Items Extended	2
Audits “Closed”	2

Action Items Extended:

UMKC Conflict of Interest – Low Risk

One action item was extended to allow time for a new process to be fully implemented. New due date April 1, 2024.

MUHC Conflict of Interest – Low Risk

One action item was extended to allow time for implementation of a new procedure. New due date May 1, 2024.

Interim Progress Update:

MUHC Organized Health Care Arrangement (OHCA) – Medium Risk Audit Reported January 2022

Two of the three action items for this audit have been completed. An interim review was conducted to follow up on progress with the final action item, which requires a complex and coordinated management response involving technology, personnel, and processes at MU and MUHC to strengthen identity and access security. In the absence of funding for technology, the Office of Corporate Compliance will coordinate efforts with Management and operations to strengthen processes and improve consistency in identity and access management. The MUHC Information Security Program has added FTE in support of a comprehensive risk plan and is working to develop MUHC enterprise policies, procedures, and standards, and conducting assessments related to identity and account management. Ethics, Compliance, and Audit Services commends and supports this comprehensive approach. A due date for this final action item is anticipated by June 2024.

April 18, 2024

Management Action Plan Summary as of February 29, 2024

Entity	Report Name	Risk Rating	Total # of Action Plans in Report	Complete	Not Due	Past Due	Revised Due Date	Will Not Be Implemented
MU	Athletics Standard Financial Controls	High	6		6			
	Electronic Communication & Collaboration	Medium	2	2				
	MSEP Grant	Low	2		2			
UMKC	UMKC Lab Safety	Medium	5	4	1			
	Conflict of Interest Process	Low	4	1	2		1	
	Export Controls and Sanctions	Medium	17	3	14			
MUHC	Organized Health Care Arrangement	Medium	3	2	1			
	Network Segregation Phase 1	Medium	2	2				
	Network Segregation Phase 2	High	5		5			
S&T	Conflict of Interest Process	Low	1				1	
	Lab Safety	Medium	7	6	1			
UMSL	Export Controls and Sanctions	High	7		7			
	Scholarships	Medium	6	5	1			
	Conflict of Interest Process	Low	3		3			
Totals			70	25	43	0	2	0

KEY: Audits with action plans due between July 1, 2023, and February 29, 2024, are highlighted in GOLD. Audits in **BOLD** have extended due dates; **RED** are past due; **GREEN** are closed

April 18, 2024

ETHICS AND COMPLIANCE

FY24 Ethics and Compliance Plan Update

As indicated in the February 2024 report, a new project for 2024 would be to review the prior UM System Compliance Framework and update it as needed to comply with Federal Sentencing Guidelines, DOJ standards, and other best practice guidance. This would be done with an eye on meeting the unique needs of the UM System. The new lens for an updated framework would be: Prevent, Find, and Fix.

A review of the previous compliance framework:

- High-Level Oversight
- Policy and Procedure Integration
- Open Communication
- Training and Education
- Monitoring and Auditing
- Responses to Detected Errors
- Review and Refine

Over the past two months, we collaboratively developed a draft framework based on the guidance discussed above on what constitutes an effective compliance program. We will be recommending the following framework be put in place going forward:

Prevent

1. Leadership and Ethical Culture
2. Identify Requirements/Assess Risk
3. Establish Compliance Organization
4. Standards, Policies, and Procedures
5. Communicate, Promote, and Train

Find and Fix

6. Monitor, Audit, and Report
7. Investigate and Report
8. Enforce and Remediate
9. Evaluate and Continuously Improve

The following is a visual representation of the new proposed framework:

Nine Element Compliance Model



“Effective compliance programs are in place to **prevent** compliance issues from happening, to **find** them when they do, and to **fix** them once they are found. **Prevent. Find. Fix.**”

- Gerry Zack, CEO of HCCA/SCCE ¹

Based on guidance from the U.S. Sentencing Commission Guidelines, §*B2.1, *Effective Compliance and Ethics Program*; U.S. Department of Justice, *Evaluation of Corporate Compliance Program*; COSO *Internal Control - Integrated Framework Principles*; and U.S. Department of Health and Human Services Office of the Inspector General, *General Compliance Guidance*.

¹ Quoted in “Embracing simplicity in compliance with prevent, find, and fix,” *CEP Magazine*, October 2024, emphasis added.



University of Missouri System

Executive Summary of the Nine Elements

“Prevent” Elements	Summary
Leadership and Ethical Culture	Federal guidelines state, “The organization’s governing authority shall be knowledgeable about the content and operation of the compliance and ethics program...” and “...promote an organizational culture that encourages ethical conduct and a commitment to compliance with the law.” ¹
Identify Requirements/Assess Risk	Effective compliance and ethics programs identify compliance requirements and assess the relevant risks. ²
Establish Compliance Organization	Compliance responsibility is assigned to appropriate individuals, committees, functions, coordinators, etc. ³
Standards, Policies, and Procedures	Documented standards, policies, and procedures are fundamental to effective compliance and ethics programs. ⁴
Communicate, Promote, and Train	“Another hallmark of a well-designed compliance program is appropriately tailored training and communications.” ⁵
“Find and Fix” Elements	Summary
Monitor, Audit, and Report	“For each high-priority compliance risk...the organization should develop a monitoring and auditing plan.” ⁶ Results are reported to management, board, and/or regulators, as required.
Investigate and Report	The System takes allegations of wrongdoing seriously and investigates in a timely manner. ⁷ Results are reported to management, board, and/or regulators, as required.
Enforce and Remediate	Compliance is enforced consistently throughout the System and steps are taken to remediate, as needed. ⁸
Evaluate and Continuously Improve	Managers and employees make their compliance programs incrementally better. ⁹

We are currently pilot testing this framework on the Export Controls compliance program review. In future months, we will be sharing this with compliance leaders systemwide to get feedback and buy-in.

April 18, 2024

OPEN - ACE - INFO 1-9

UM System Ethics and Compliance: Support Activities

Within the scope of Compliance's current initiatives, particular emphasis has been placed on the introduction of the new campus security authority training, alongside its associated processes. This new training was launched in March and marks a significant reduction in the system's Clery Act compliance risk. Furthermore, the Compliance office has devised and implemented, in partnership with subject matter experts, supplementary training programs and supportive tools to effectively mitigate identified gaps and promptly adapt to regulatory changes. Some of the newly developed materials include:

- Faculty Search Committee Training,
- Conflict of Interest video, new employee orientation,
- Gift training for internal and external audiences,
- Reporting concerns and hotline job aids.

UM System Youth Protection Program Calendar Year 2023 Report

The Youth Protection Program supports the policy requirements for establishing a safe environment for youth participating in youth programs (as defined by policy), in person or virtually, on or off campus.

Below are the number of youth programs and youth served in 2023:



Accomplishments For 2023

- Expanded training options
- Approval and implementation of compliance escalation guidelines
- Development of the review and improvement process – pre and post program reviews with measurable criteria, recommendations, and accountability.
- Implemented a real-time monitoring and auditing process to validate compliance with policy requirements during youth programs.

Challenges For 2023

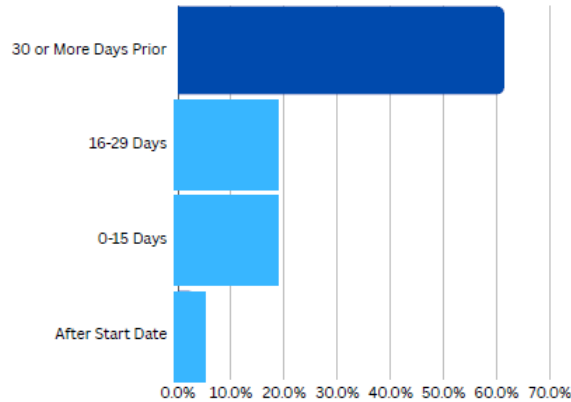
- Transitioning to the new registry system.
- Training issues with prior system, resolved by moving to a new system.
- Multiple email addresses used for many designated individuals being resolved by the transition to the new registry system.

April 18, 2024

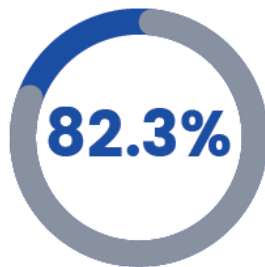
OPEN - ACE - INFO 1-10

Youth Policy Metrics

Each program director, department, division, campus, and system receive a report each year. Amongst the most important elements of those reports are the compliance scores for the policy requirements. Detailed below are the completion percentages of the elements from a system perspective prior to a youth program beginning.



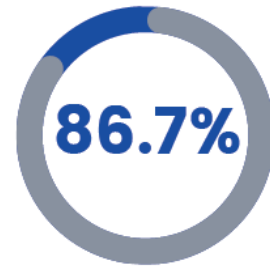
Registration Timeframes



**Background Check
Completed Prior to Program
Start Date**



**Training Completed Prior
to Program Start Date**



Supervision Ratio

Calendar Year 2024 Focus

- Expand communications for monitoring and compliance efforts.
- Utilize registry features in collaboration with program directors to increase compliance.
- Explore the use of a centralized program registration tool for youth to increase compliance and engagement.

Note: A copy of the full report has been amended to this document.

April 18, 2024

PRIVACY

Privacy work is moving forward, including identifying campus principals, assessing training requirements, and supporting breach remediation. Work is being done in alignment with the Privacy Program Framework, below.



Endnotes

¹ U.S. Sentencing Commission, *United States Sentencing Commission Guidelines Manual* (FSG), §8B2.1(b)(2) and (a)(2), 2023, p. 526.

² FSG, §8B2.1(c), OIG, p. 55.

³ FSG, §8B2.1(b)(2)(B-C).

⁴ FSG, §8B2.1(b)(1).

⁵ U.S. Department of Justice Criminal Division (DOJ), *Evaluation of Corporate Compliance Programs*, 2023, p. 4.

⁶ FSG, §8B2.1(b)(5); COSO CRM, p. 23.

⁷ Committee of Sponsoring Organizations of the Treadway Commission, *Compliance Risk Management: Applying the COSO ERM Framework* (COSO CRM), 2020, p. 9.

⁸ FSG, §8B2.1(b)(6).

⁹ FSG, §8B2.1(b)(7).

Youth Protection Annual Report 2023

This report highlights the University of Missouri's compliance with Executive Order 210.010, Youth Protection Policy (YPP). This report will provide an overview of adherence to this policy. Policy compliance is evaluated based on four (4) specific measurable components:

- advanced registration,
- background check completion,
- training completion,
- supervision ratios.

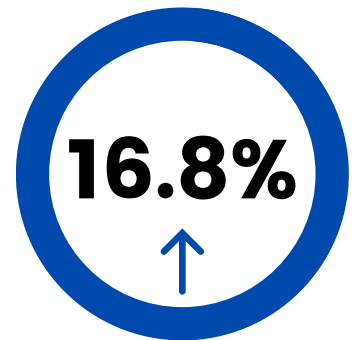
During the initial years of policy implementation, credit was extended to individuals and programs who met the above requirements after the program start date. This year, the methodology has been tightened, employing stricter criteria. Requirements must now be fulfilled prior to the program start date. Due to this change, the 4-point systemwide compliance score decreased slightly for calendar year 2023 to 3.37, compared to 3.41 in 2022.

ACCOMPLISHMENTS DURING 2023

The Youth Protection Program achieved significant milestones over the past year, demonstrating the University's steadfast commitment to ensuring the safety and well-being of youth.

Key highlights include:

- Expanded training options;
- Approval and implementation of compliance escalation guidelines;
- Implementation of inaugural Annual Compliance Reports;
- Implementation of a new registry system to increase compliance efforts;
- New youth protection training developed and hosted on the registry site for easier user access.



Number of youth engaged in registered programs increased in 2023

CHALLENGES



- Transitioning to the new registry system.
- Training issues with previous vendor (2023) have been resolved by moving to a new registry system (2024).
- Multiple email addresses being used by Designated Individuals being resolved by transition to new system.

2024 FOCUS



- Expand communications for monitoring and compliance efforts.
- Utilize registry system features in collaboration with Program Directors to increase compliance.
- Explore the use of centralized camp registration tool for youth to increase compliance and engagement.

OPEN - ACE - INFO 1-13



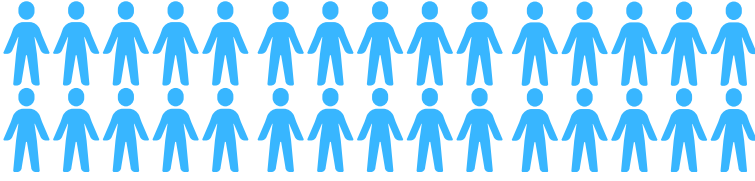
UMKC

MISSOURI
S&T

UMSL

University of Missouri System

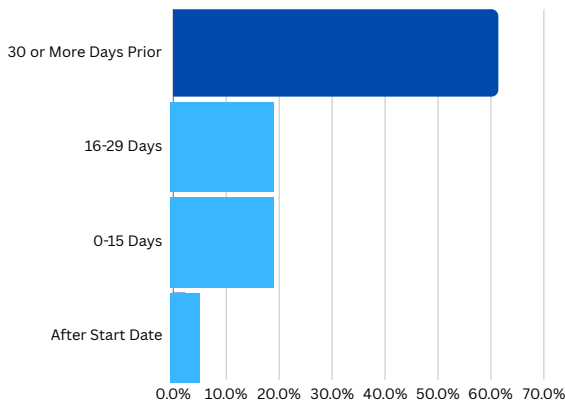
Youth Protection Program Compliance by the Numbers CY2023



11,600
Number of Youth Engaged

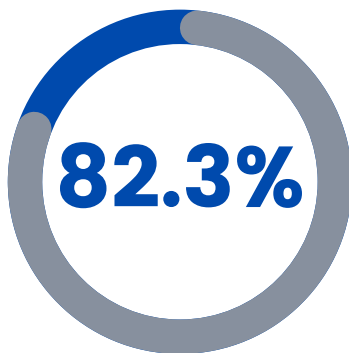


1,386
Number of Designated Adults

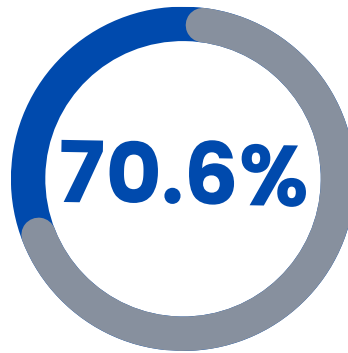


210
Number of Registered
Youth Programs

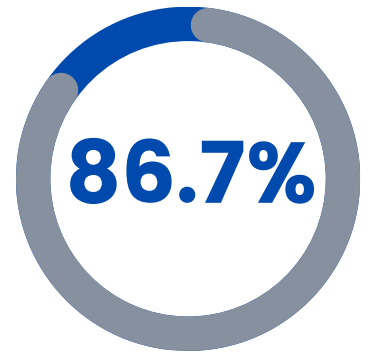
Registration Timeframes



82.3%
Background Check
Completed Prior to Program
Start Date



70.6%
Training Completed Prior
to Program Start Date



86.7%
Supervision Ratio

Report Detail:

This information only includes programs required to register as defined youth programs under the Youth Protection Policy, and is not representative of all youth activity on campus.

YPP tracks the completion of background check screening, including drivers license check if applicable, and youth protection training as pre-service requirements. The registration and pre-service requirements must be met prior to interacting with youth. All personnel (faculty, staff and volunteers) associated with a Youth Program, as defined by policy, must have completed all requirements for a program to be considered compliant.

CORE REQUIREMENT COMPONENTS EXPLAINED:

> **Number of Youth**

Actual number of youth updated after program is completed

> **Number of Adults**

The number of unique Designated Individuals working with youth programs

> **Youth Programs**

An academic, athletic or recreational activity or program offered to a minor by the University, or by a non-university group using University facilities, or in partnership during which youth are the primary audience. Refer to the policy for exceptions or exemptions such as individuals enrolled at the university or employed by the university.

> **Registration Timelines**

The number of days between a program being registered and its start date

> **Supervision Ratio**

The number of Designated Individuals (adults screened) to youth based on the youngest age group and program type. Ratio requirement detail is available on the [Youth Program website](#).

> **Background Checks**

Background check completed in advance of the program start date

> **Training**

The percentage of those who completed the Youth Protection training course prior to the program start date

> **Compliance Score**

This is calculated on a 4-point scale using the following calculation, each a max of 100%, for a total of 400 or 4:

- Percentage of programs registered prior to the start date;
- Percentage of people that completed the background check prior to the start date;
- Percentage of people that completed the annual Youth Protection training prior to the start date; and
- Percentage of programs that met the supervision ratio requirements (number of adults to youth) as published on the YPP website, based on youth age grouping and day or overnight program.

University of Missouri System Board of Curators

April 18, 2024

Audit, Compliance and Ethics Committee

Ethics, Audit, and Compliance (ECAS)

Quarterly Report

UM System



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OPEN – ACE – INFO 1-16

Internal Audit



UMKC

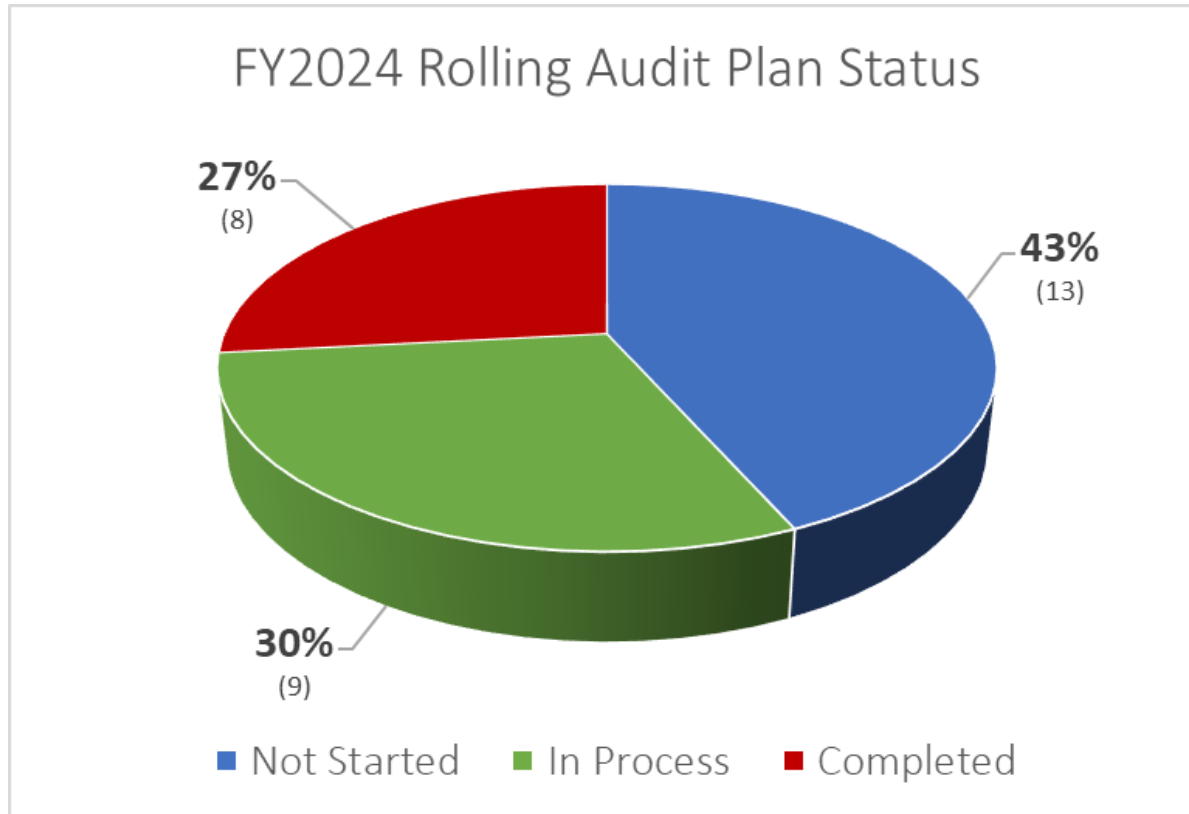
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OPEN – ACE – INFO – 1-17

Summary of Internal Audit Activity



Since February 2024	Status
Internal Audits	8 completed; 9 in progress; 13 not started
Audit Investigations	6 completed; 4 in progress
Bi-annual Follow-up	See attached



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Executive Summaries

Completed Audits



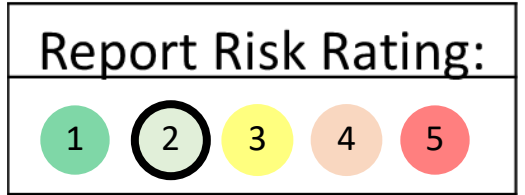
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MU, Medical Student Education Program Grant Audit



Issue

Some unexpected expenses were found in the HRSA funded Rural Scholars Program

Summary Observation

- Expenses could be explained by project setup issues and incomplete practices
- None of the expenses were inappropriately posted or spent
- Newly implemented tracking system will improve monitoring of Program funds

Management Action

Management will continue using the new tracking system to ensure funds are appropriately and accurately applied. This reduces the risk similar incidents will occur in the future. They will also implement additional training. **Due Date:** August 31, 2024.



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Surgery Charge Capture Audit MUHC

Report Risk Rating:



Issue

Charge capture is an essential component of the revenue cycle function

Summary Observation

Overall, processes accurately capture most charges; the potential exceptions identified via data analytics were low compared to the population of data analyzed

Management Action

MUHC has already corrected some of the exceptions. Management will establish and implement charge capture policies and procedures and take actions to implement additional action plans to strengthen charge capture controls. **Due Date:** May 15, 2024



Audit Follow-up

Management Action Plan Status Report



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Management Action Plan: Items Due

Process

Follow-up procedures are performed twice a year to verify the status of actions management committed to take in previously issued audit reports*

July 1, 2023 – February 29, 2024	#
Action Items Due	19
Interim Progress Updates Due	1
Action Items Completed	17
Action Items Extended	2
Audits Closed	2

*Full Management Action Plan Summary table can be found in the accompanying written report



Management Action Plan: Items Due

Interim Progress Update

MUHC Organized Health Care Arrangement OHCA – Medium Risk

- One action item was assigned “TBD” at the time the report was issued due to the complex nature of the finding. Due to additional funding issues, a new action plan has been written that will result in stronger policies, procedures, and standards. **Anticipated Due Date:** June 2024.



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Management Action Plan: Items Due

Action Items Extended

UMKC Conflict of Interest – Low Risk

- One action item was extended to allow time for a new process to be fully implemented. New due date April 1, 2024.

MUHC Conflict of Interest – Low Risk

- One action item was extended to allow time for implementation of a new procedure. New due date May 1, 2024.



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Ethics and Compliance



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UM System Ethics and Compliance Program

Previous UM System Compliance Framework

- High-Level Oversight
- Policy and Procedure Integration
- Open Communication
- Training and Education
- Monitoring and Auditing
- Responses to Detected Errors
- Review and Refine



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Proposed Framework Changes

Activities that “Prevent”

1. Leadership and Ethical Culture
2. Identify Requirements/Assess Risk
3. Establish Compliance Organization
4. Standards, Policies, and Procedures
5. Communicate, Promote, and Train

Activities that “Find and Fix”

6. Monitor, Audit, and Report
7. Investigate and Report
8. Enforce and Remediate
9. Evaluate and Continuously Improve



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Nine Element Compliance Model



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Based on guidance from the U.S. Sentencing Commission Guidelines, §*B2.1, *Effective Compliance and Ethics Program*; U.S. Department of Justice, *Evaluation of Corporate Compliance Program*; COSO *Internal Control - Integrated Framework Principles*; and U.S. Department of Health and Human Services Office of the Inspector General, *General Compliance Guidance*.

¹ Quoted in “Embracing simplicity in compliance with prevent, find, and fix,” *CEP Magazine*, October 2024, emphasis added.

Compliance

Support Activities



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Recently Completed

- Faculty Search Committee training
- Launch of new systemwide Clery campus security authority (CSA) training
- Four additional compliance subject-matter trainings
- Multiple compliance subject-matter job aids



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UM System Youth Protection Program

2023 Annual Report



11600

Number of Youth Updated After Program is Completed



1386

Number of Unique Adults Working with Youth Programs



210

Number of Youth Programs



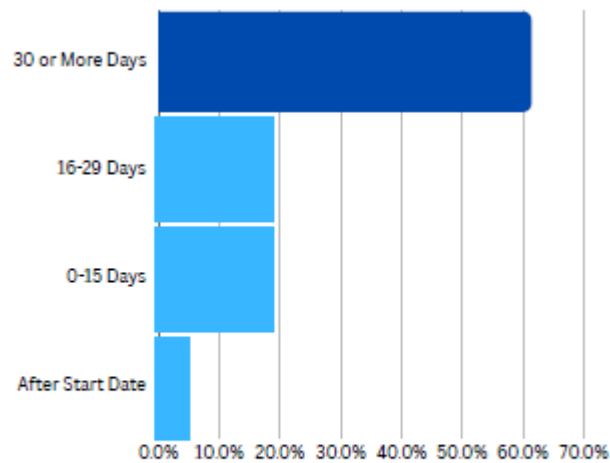
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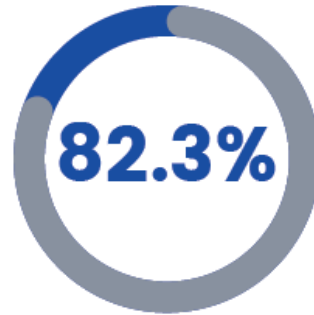
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Youth Protection Program Metrics



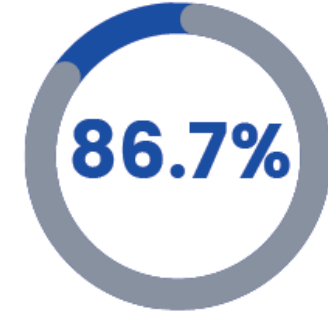
Registration Timeframes



Background Check Completed Prior to Program Start Date



Training Completed Prior to Program Start Date



Supervision Ratio



Privacy



UMKC

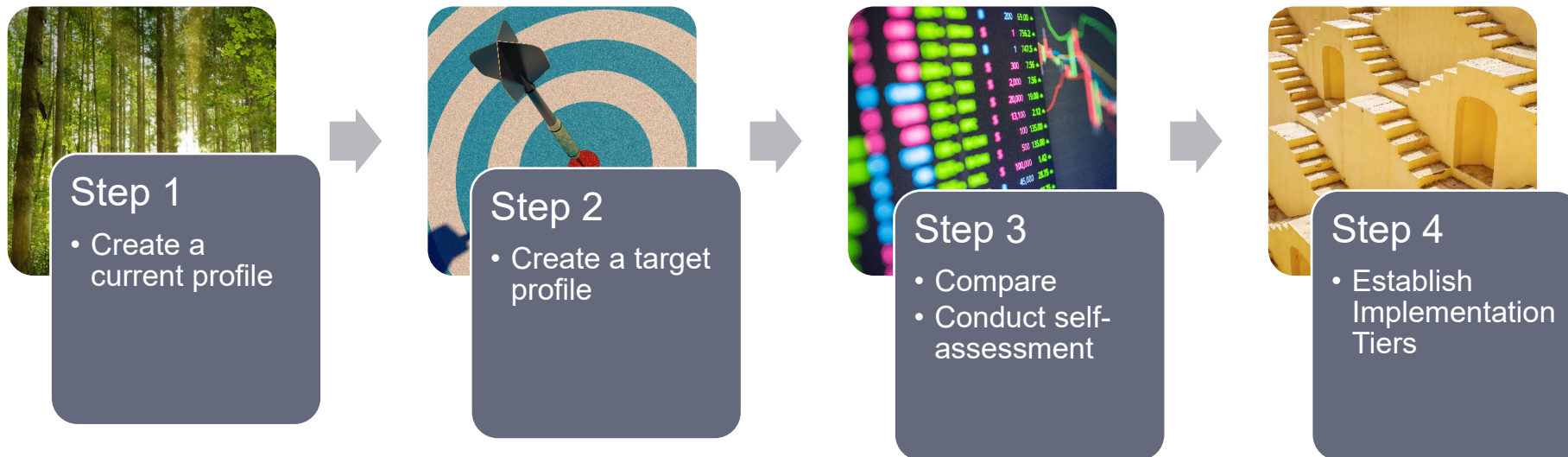
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Privacy

- Work continues on a variety of regulatory fronts
- Privacy Program Framework steps are in progress



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————— University of Missouri System —————

No. 1

Recommended Action - Resolution for Executive Session of the Audit, Compliance and Ethics Committee, April 18, 2024

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Board Audit, Compliance and Ethics Committee meeting April 18, 2024, for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021(12), RSMo**, relating to matters identified in that provision, which include sealed bids and related documents and sealed proposals and related documents or documents related to a negotiated contract; and
- **Section 610.021(13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment; and
- **Section 610.021 (17), RSMo**, relating to matters identified in that provision, which include confidential or privileged communications between a public governmental body and its auditor.

Roll call vote of the Committee: YES NO

Curator Brncic

Curator Holloway

Curator Sinquefield

Curator Williams

The motion _____.

April 18, 2024

HEALTH AFFAIRS COMMITTEE

Michael A. Williams, Chair
Julia G. Brncic
Robert W. Fry
Keith A. Holloway
Jeff L. Layman
Ronald G. Ashworth (non-curator)
Phillip Burger (non-curator)
Dan Devers (non-curator)

The Health Affairs Committee (“Committee”) assists the Board of Curators in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University’s teaching, research, and clinical missions.

I. Scope

The Committee provides oversight for the University’s clinical health care operations in the areas of:

- Mission, vision, and strategy;
- Governance and operational oversight;
- Quality of care and patient safety;
- Regulatory compliance;
- Financial planning and performance; and
- Coordination of the clinical, teaching, and research missions.
- Specific projects that enable meaningful collaboration among UM universities.

II. Executive Liaison

The Executive Vice Chancellor for Health Affairs of the University of Missouri-Columbia or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting Committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities regarding clinical health care operations, the charge of the Committee shall include:

- A. Reviewing and making recommendations to the Board regarding:
 1. actions that are appropriate or necessary to assist the Board in overseeing clinical health care operations or coordinating the teaching, research, and clinical missions;
 2. significant actions related to health care which should require advance notice or approval by the Committee or Board; and
 3. other matters referred to it by the Board and University officers.
- B. Requesting, receiving, and reviewing reports and other information from University officers and advisors regarding health care operations, coordination of the teaching, research, and clinical missions, and related matters, including meeting at least quarterly and receiving regular reports from appropriate

officers of University of Missouri Health Care, the MU School of Medicine, and the MU Health Chief Compliance Officer.

- C. Additional matters customarily addressed by the health affairs committee of a governing board for an institution of higher education.

IV. Committee Membership and Quorum Requirements

The Committee's membership may include non-Curator members in addition to Curator members. Subject to approval of the Board, the Board Chair shall determine the number of Curator and non-Curator members to appoint to the Committee and shall select individuals to serve as members of the Committee; provided that, the number of non-Curator members on the Committee shall not exceed the number of Curator members on the Committee, unless the Committee temporarily has more non-Curator members than Curator members because a Curator member of the Committee has resigned from the Board or the Committee. Non-Curator members may resign their Committee membership by providing written notice to the Board Chair. Non-Curator members of the Committee serve at the pleasure of the Board and may be removed by the Board Chair at any time, subject to approval of the Board.

A quorum for the transaction of any and all business of the Committee shall exist when:

1. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held in conjunction with meetings of the Board; or
2. Both all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are not held in conjunction with meetings of the Board; or
3. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held solely for the purpose of reviewing and overseeing compliance matters.

EXECUTIVE VICE CHANCELLOR
AND DEAN REPORT

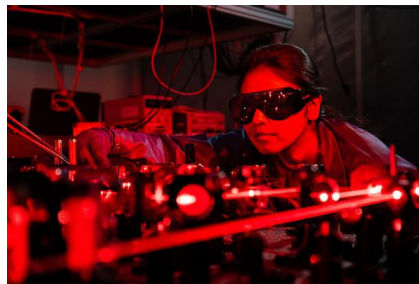
Materials for this information item will be
distributed prior to the meeting.

Transforming Missouri S&T

Presentation to the University of Missouri Board of Curators

April 18, 2024

Mo. Deghani, Chancellor



Overview

- ▶ Honoring a Lifesaver
- ▶ North Star Goals
- ▶ Research Highlights
- ▶ Gaining National Recognition
- ▶ Growing Enrollment
- ▶ Kummer Update and STEM Outreach
- ▶ Endowment Update
- ▶ Capital Projects Update

Honoring a Lifesaver

... Exemplary student action outside of the classroom

In Pursuit of Our North Star Goals

... S&T will become a world-class science and technology university for workforce development, research breakthroughs and economic development



Carnegie R-1 University



Establish National
Recognition



12,000 Enrollment

Strategic Plan

... eight strategic focus areas



Enrollment Growth



Student Well-being and Success



Academic Excellence



Research, Innovation and Entrepreneurship



Outreach and Engagement



Advancement and Alumni Relations



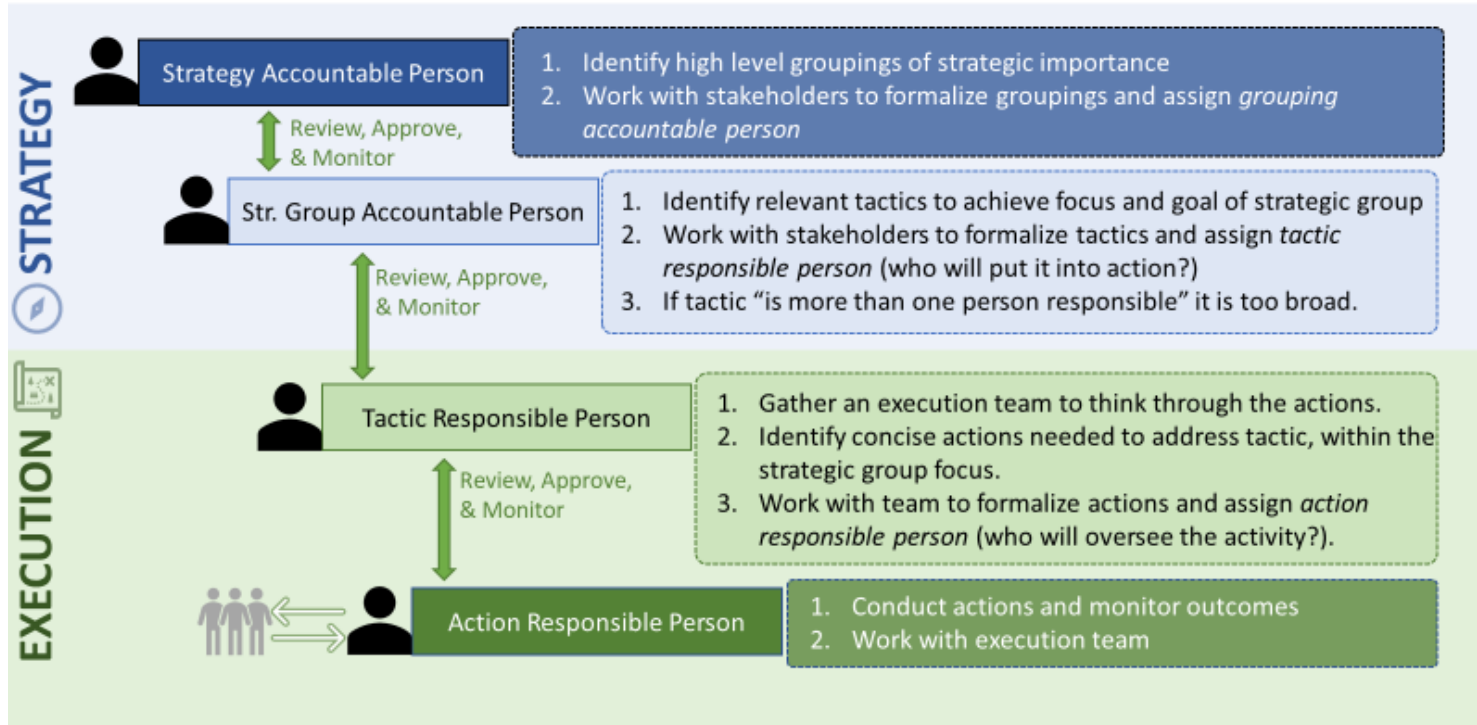
Employer and Employee Excellence



Finance and Infrastructure

Strategic Plan

... Development and Implementation

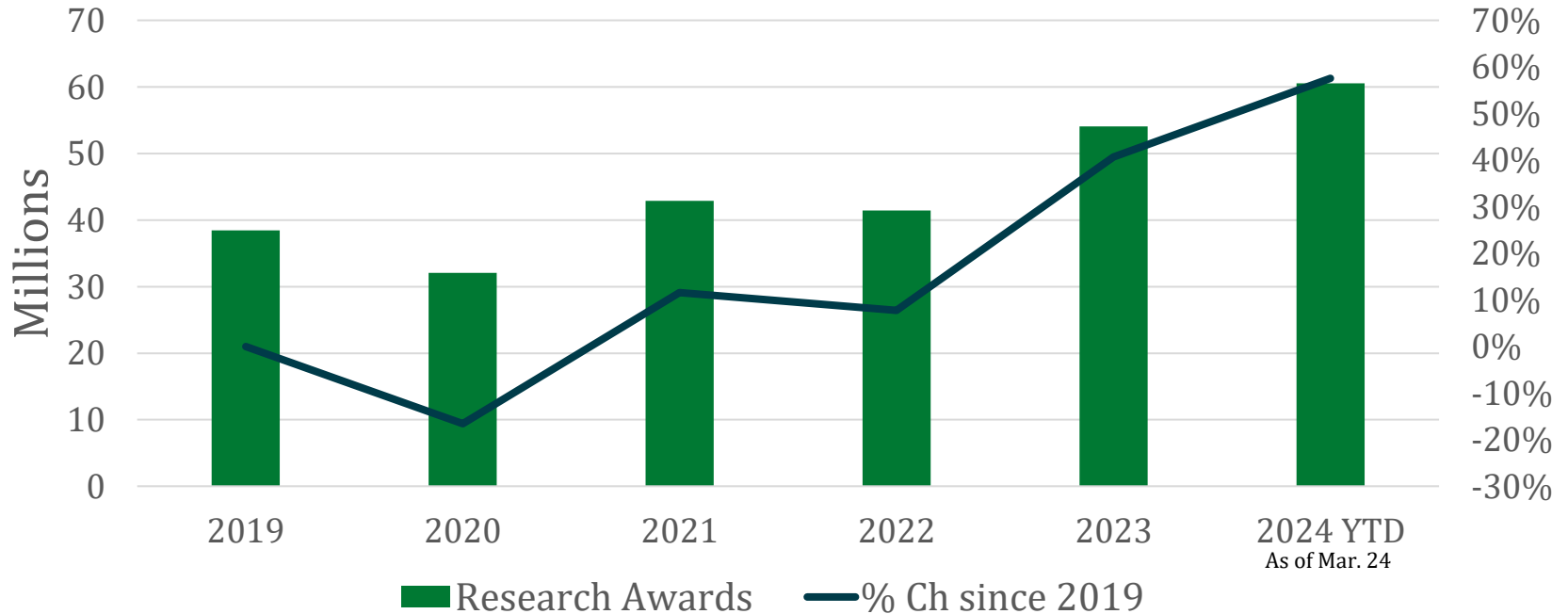


Research Highlights

Research Awards FY19 – FY24

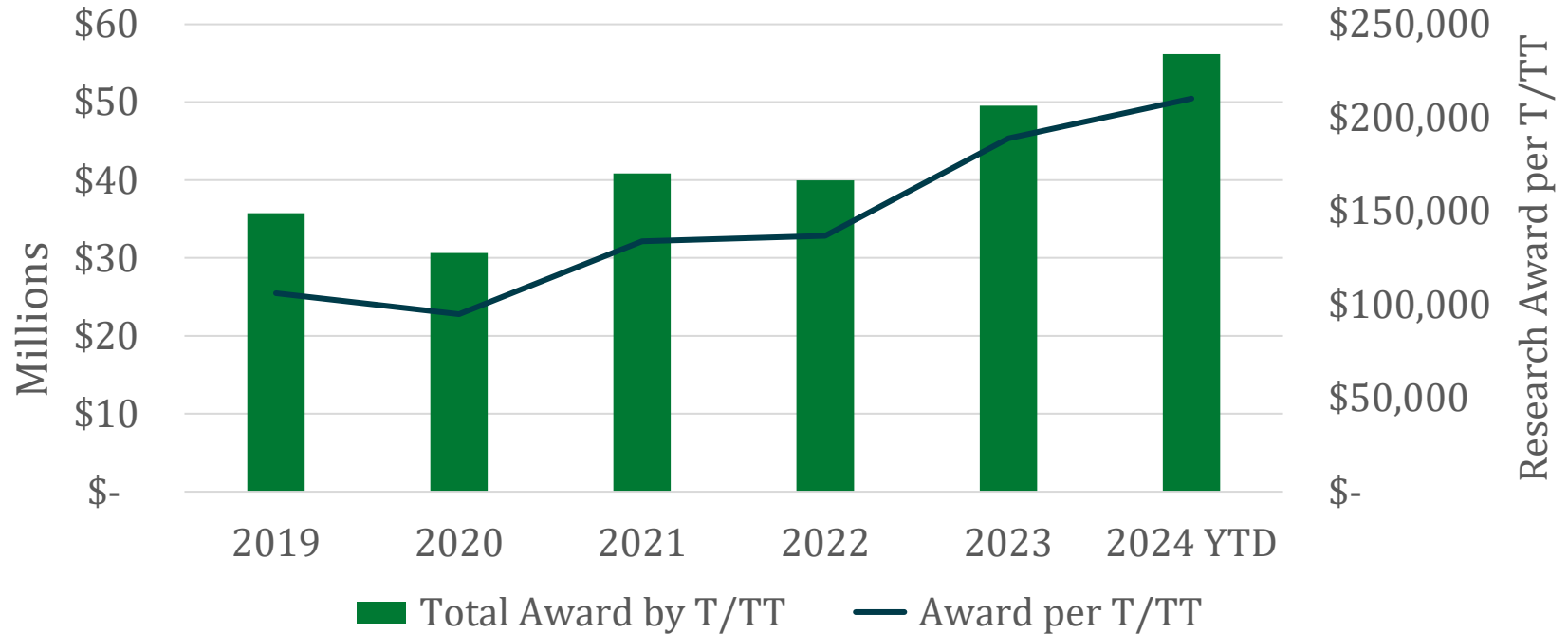
... 58% increase over FY2019 in the first eight months in FY2024

Total research awards by FY



Research Award by Tenure and Tenure Track Faculty

... an impressive upward trajectory



Transformational research

... developing critical contributions to meet critical challenges

Advanced Manufacturing

- ▶ Manufacture Missouri Ecosystem (MME)
- ▶ Innovation Campus
- ▶ Missouri Protoplex

Bio-thematic

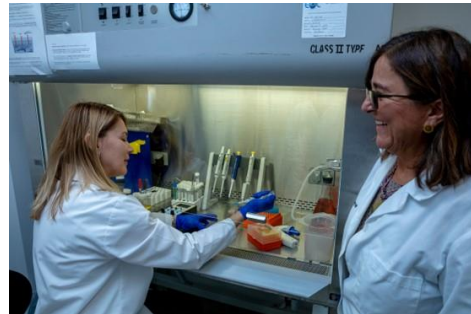
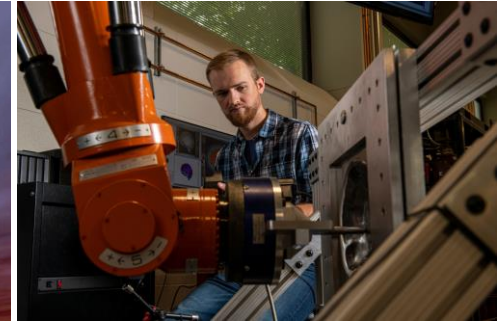
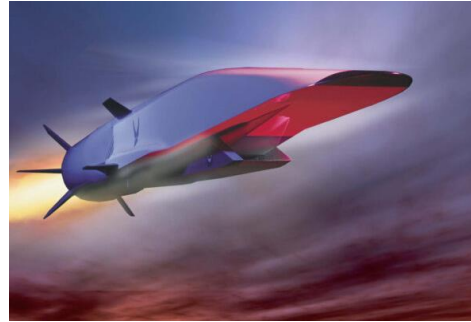
- ▶ Expanding S&T's footprint in biomaterials, biomedical engineering, bioinformatics, etc.

Critical Minerals

- ▶ Addressing supply chain, national security

Hypersonic Materials

- ▶ Addressing national security concerns



S&T Bio-thematic Initiative

... examples of ongoing research

Traumatic brain injury

- ▶ Jie Huang and Catherine Johnson collaborating with MU Health Care
- ▶ Over \$6M in US Army funding

Nanoparticle drug delivery systems

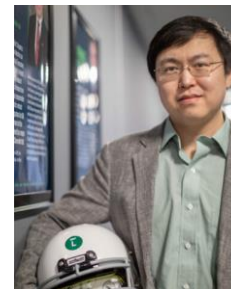
- ▶ Anthony Convertine, Risheng Wang, and Hu Yang
- ▶ \$1.5M in NSF funding; \$1M in NIH funding

Kidney transplantation

- ▶ Casey Canfield, \$1.8M in NSF funding

Bio-active glass for health applications

- ▶ Dick Brow and Delbert Day
- ▶ Led to the founding of the Mo-Sci Corporation
- ▶ S&T's largest source of patent royalties

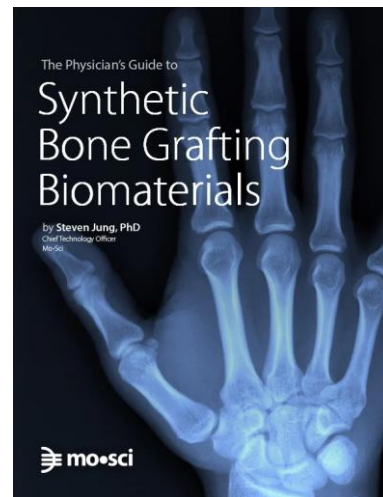
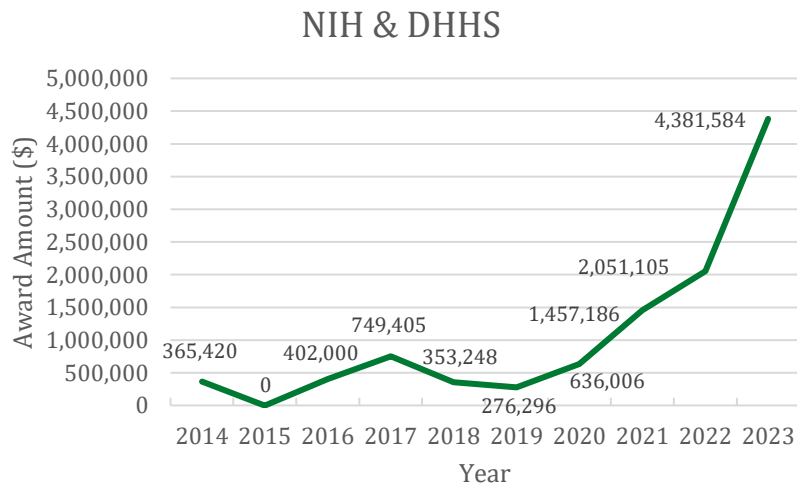


Renewed Focus on Biomedical Research

... federal funding for S&T is on the rise

Opportunity:

Rapidly growing research at the intersection of biomedical sciences and engineering, with strong potential for commercialization. 15-fold increase in DHHS funding since 2019.



Impact:

New technologies and businesses, such as Mo-Sci, a world leader in glass technology for health care applications including cancer treatment and wound healing.

Meeting Growing Demand

... bio-thematic programs are poised to address nation's health care challenges

Opportunity:

- ▶ Immense student demand, with over 1,000 students, majority female, applying annually to S&T's biology, biochemistry, and biomedical engineering programs.

Impact:

- ▶ Significant growth and diversification of S&T's student body, assuring a sustainable future.

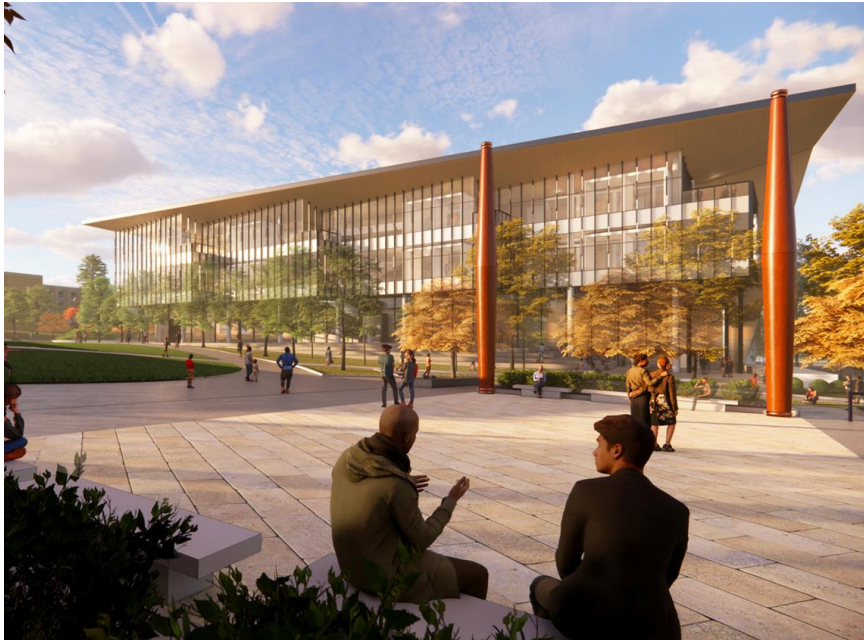
New Academic Programs:

- ▶ B.S. Biomedical Engineering
- ▶ Ph.D. Bioengineering
- ▶ Ph.D. Biological Sciences



BioPLEX: Missouri S&T's Launchpad to Bio-innovation

... engaging engineering minds in addressing human health

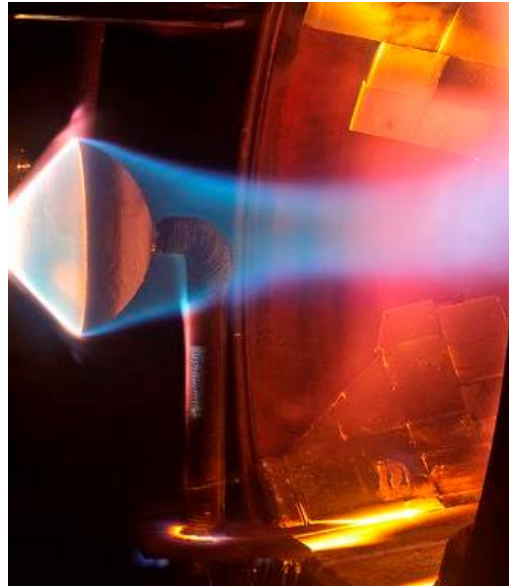


- ▶ BioPLEX — Missouri S&T's largest capital project ever, \$120M, to support advanced research and education in life sciences, biomedicine, and biological engineering.
- ▶ A research and education facility attracting exceptional faculty and students solving critical challenges at the intersection of engineering, medicine, and biology.

Hypersonic Materials

... cutting-edge research addressing national defense needs

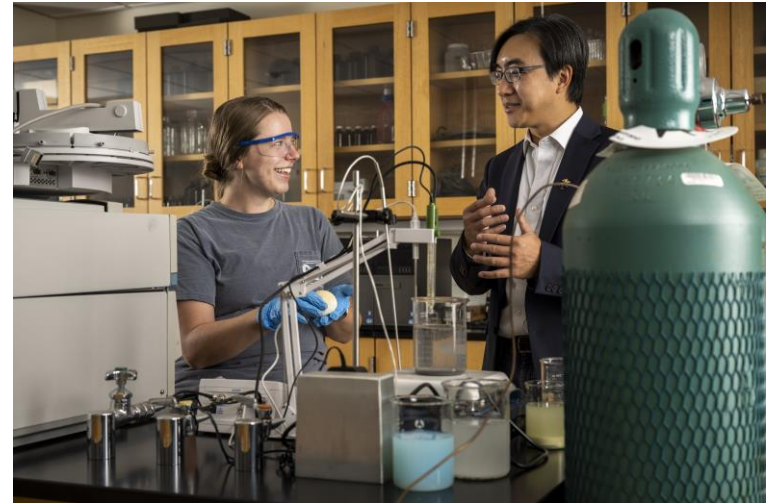
- ▶ 20-plus years of experience researching ultra-high-temperature ceramics
- ▶ \$2.6M Air Force Research Lab grant with GE Aviation and Clemson University (pending in FY24, \$10.2M awarded FY21-23)
- ▶ High-temperature ceramic matrix composites (HTCMCs) for thermal protection systems
- ▶ Ultra-high-temperature ceramic matrix composites for leading/trailing edges and scramjet components



Establishing an Engineering Research Center

... one of 10 institutions in competition for NSF funding

- ▶ Dr. Hongyan Ma is competing for \$26 million to establish an NSF Engineering Research Center.
- ▶ It would be the first NSF ERC in Missouri.
- ▶ Ma's work seeks to trap carbon into concrete, thus creating greener, carbon-negative industrial impact.
- ▶ Another project uses a carbon mineralization reaction to improve the yield of energy-relevant critical minerals recovered primarily from mine waste.

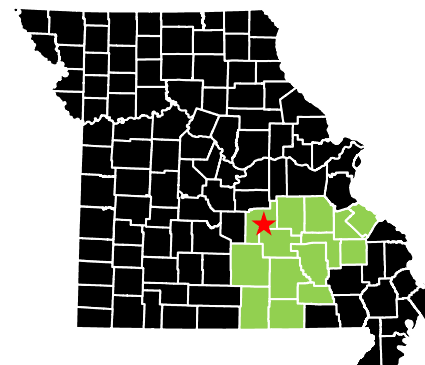


Dr. Hongyan Ma's work includes developing carbon-negative processes and materials for concrete production.

Leading the Way in Critical Minerals Research

... S&T selected as a Tech Hub through CHIPS and Science Act

- ▶ S&T is one of 31 Regional Innovation and Technology Hubs funded through the CHIPS and Science Act.
- ▶ Phase One: \$500,000 in funding from the Department of Commerce
- ▶ Phase Two: Submitted a \$70 million proposal
- ▶ Focus on strategic planning for test-bed construction, workforce development and business development in critical minerals and advance energy product manufacturing



14-county economic development collaboration with \$34 billion anticipated impact.

Highlighting Faculty

... prestigious grants for groundbreaking work

Bill Fahrenholtz received a \$7.5 million Multidisciplinary University Research Initiative (MURI) grant to develop heat resistant materials.



Rui Bo received an NSF CAREER Award to develop an agile process to plan for reliable power grids for the future.

Becoming an R1 Institution

... Carnegie proposed classification changes

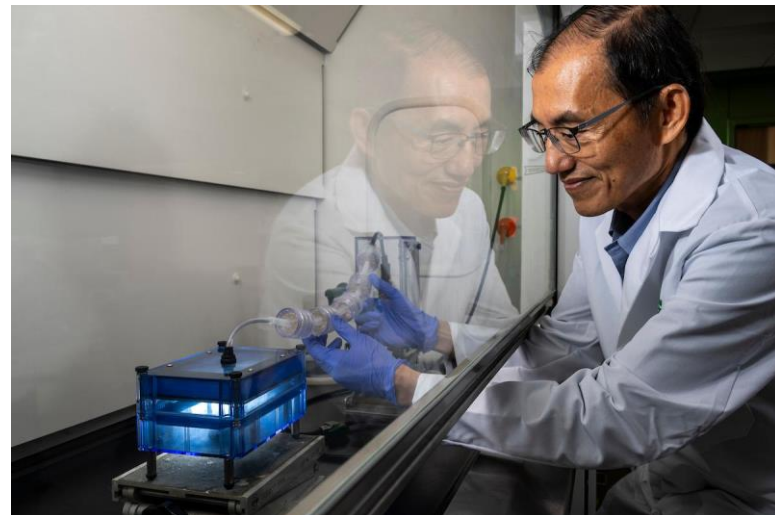
► Proposed 2025 changes: R1 classification

- Research spending: \$50M
- Doctoral degrees: 70 per year

Who Will (and Will Not) Be an R1

The *Chronicle* compiled this **projected list** of R1 institutions based on the new Carnegie classification guidelines. Search or use the filters below to see who would meet the new criteria if the list were assembled using the latest available data.

Institution Name	Fall 2021 Enrollment	Doctoral degrees	R&D Expenditures
U of Missouri, Columbia Public R1 Doctoral	31,401	351	\$388.78 M
Missouri U of Science and Technology Public R2 Doctoral NEW	7,241	117	\$54.44 M



Dr. Yue-Wern Huang's research team invented a simulated respiratory system to study secondhand effects from vapes.

Gaining National Recognition

Exceptional Outcomes, High Return on Investment (ROI)

... S&T is nationally recognized for tremendous value, high earning potential

The New York Times

Priorities: High Earnings

1. Caltech
2. MIT
3. Harvey Mudd College
4. Bentley University
5. University of Pennsylvania
6. Carnegie Mellow University
7. Stevens Institute of Technology
8. Stanford University
9. Georgetown University
10. Princeton University

Frank Bruni, "There's Only One College Rankings List That Matters," *The New York Times*, March 27, 2023

Priorities: High Earnings + Low Price

1. Princeton University
2. MIT
3. Stanford University
4. CUNY Bernard M Baruch College
5. Georgia Tech
6. Yale University
7. Harvard University
- 8. Missouri S&T**
9. University of Florida
10. Caltech

Among these high-value institutions are public research universities, like Missouri University of Science and Technology, where the average in-state student pays less than \$15,000 a year.

Priorities: High Earnings + Low Price + Less Selective

1. CUNY Bernard M Baruch College
- 2. Missouri S&T**
3. University of Florida
4. University of Washington, Tacoma
5. CUNY Hunter College
6. CUNY City College
7. University of California, Irvine
8. University of Washington, Bothell
9. CUNY Brooklyn College
10. CUNY Queens College

Exceptional Outcomes, High Return on Investment (ROI)

... exceptional career outcomes, increased national recognition

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WSJ/ COLLEGE PULSE RANKINGS

2024 Best Colleges in the U.S.

College Rankings Student Experience Salary Impact Social Mobility

- ▶ Missouri S&T 18th nationally among public universities
- ▶ No. 1 in Missouri
- ▶ S&T is **the only public university** in the Wall Street Journal top 10 list of best “Salary Impact” universities

Salary Impact

Rank	School	Type	State	Score
1	University of Pennsylvania	Private	PA	99.1
2	Princeton University	Private	NJ	98.9
3	Columbia University	Private	NY	98.4
4	Massachusetts Institute of Technology	Private	MA	98.2
5	Harvard University	Private	MA	97.3
6	Stanford University	Private	CA	97.1
7	Missouri S&T	Public	MO	96.9
8	Claremont McKenna College	Private	CA	96.7
9	Yale University	Private	CT	96.3
10	Babson College	Private	MA	96

Exceptional Outcomes, High Return on Investment (ROI)

... Missouri S&T continues to place high on national rankings that matter most

#1

THE WALL STREET JOURNAL.

Best Colleges in the U.S.
Salary Impact, Public Universities

#2

The New York Times

High Earnings + Low Price
+ Less Selective

#3

The
Princeton
Review®

Career Placement, Public Universities

#5

Money

Best Engineering Programs

#6

smartasset™

Best Value Universities

#12

DEGREE
CHOICES

Best Colleges

Record-breaking Career Fairs

... Fall 2023 and Spring 2024

Spring Career Fair on Feb. 20

- ▶ 363 employers
- ▶ 1,400+ recruiters
- ▶ 22,000 jobs posted (full-time, internships and co-ops)

Fall Career Fair on Sept. 26

- ▶ 481 employers
- ▶ 1,600 recruiters
- ▶ 15,500+ jobs posted (full-time, internships and co-ops)



About 85% of our students are from Missouri, and 90% of them remain in Missouri to work after graduation.

Exceptional Graduate Outcomes

... Our grads earn high starting salaries and graduate with a low debt load.

Earnings

\$74,308

Average starting salary, undergraduates (2022-23)

\$91,606

Average starting salary, master's degree

\$99,823

Average starting salary, Ph.D.



Tuition / Debt

\$28,667

Average student debt – less than half the average starting salary

\$13,000

First-year tuition (in-state, 12-18 hours a semester)

\$30,400

First-year tuition (out-of-state, 12-18 hours a semester)

Top Employers

... well-known and respected companies seek our students

- ▶ Amazon
- ▶ Ameren
- ▶ Apple
- ▶ AT&T
- ▶ Boeing
- ▶ Caterpillar
- ▶ Dell Technologies
- ▶ Ford Motor Company
- ▶ Garmin
- ▶ Google
- ▶ Honeywell
- ▶ Intel Corporation
- ▶ Microsoft
- ▶ Naval Nuclear Laboratory
- ▶ Northrup Grumman
- ▶ Pfizer
- ▶ Sandia National Laboratories
- ▶ Tesla
- ▶ Thermo Fisher Scientific



Record-breaking numbers of recruiters and participating students at the Career Fair have required overflow space to be added each year.

Successful Satellite Launch

... NASA's Multi-Mode Mission

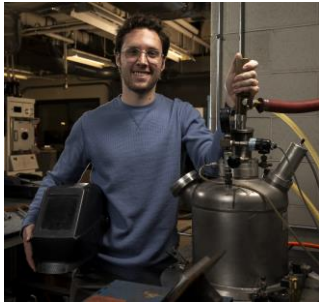
- ▶ Project started in 2016
- ▶ Developed by student-run Satellite Research Team



Hundreds of students, faculty and staff watched in Toomey Hall as the satellite launched successfully on March 4 from SpaceX's Falcon 9 rocket. The launch was part of the Transporter-10 mission.

Students Make Their Mark

... receiving national and international attention for their work



- ▶ Matthew Sherman, a junior in metallurgical engineering, received the Acta Materialia Undergraduate Scholarship from The Minerals, Metals and Materials Society Foundation. He is one of two recipients nationwide.
- ▶ S&T students won the Metallic Student Design Competition at the 2024 SME Annual Conference and Exhibition.

- ▶ The National Society of Black Engineers was named Chapter of the Year for the second consecutive year. The group competed with more than 50 other chapters.



Celebrating Faculty Achievements

... exemplary contributions to their field of expertise



Daryl Beetner named Fellow of the Institute of Electrical and Electronics Engineers.



Sajal Das named Fellow of the National Academy of Inventors.



Christi Luks named president-elect of the American Society for Engineering Education.



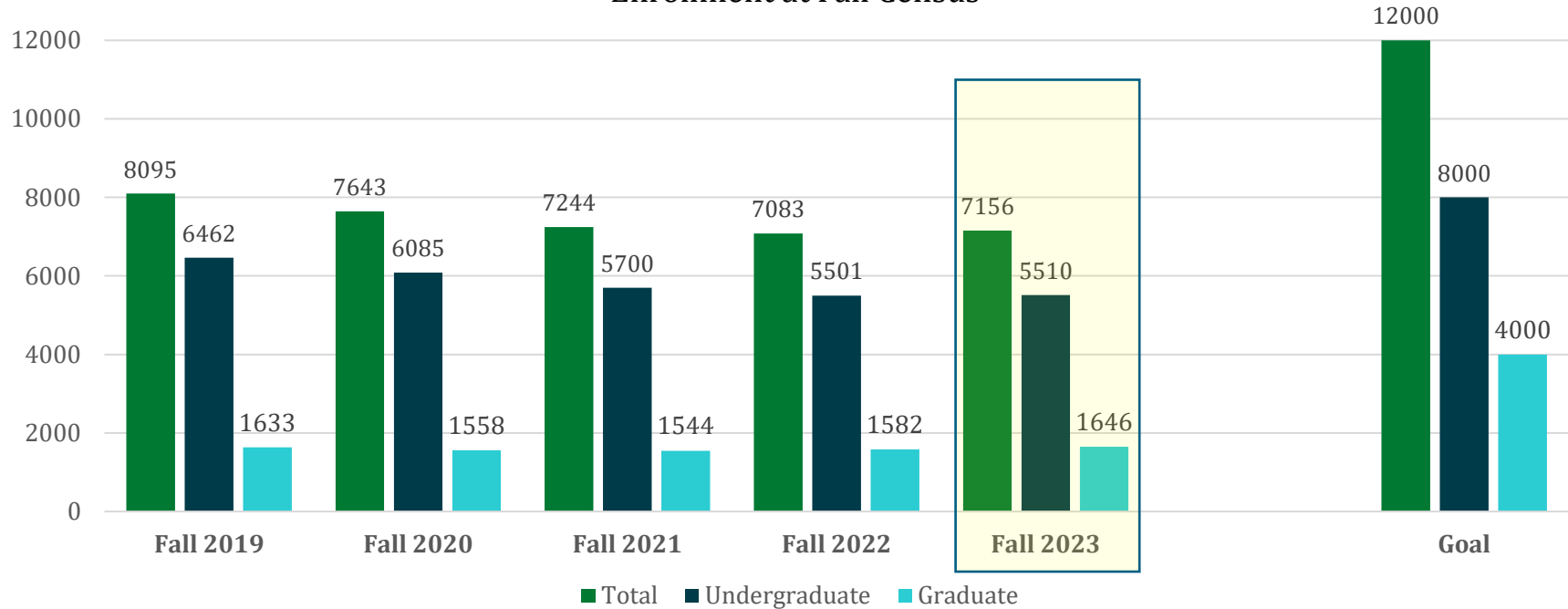
Joseph Smith named president-elect for American Institute for Chemical Engineers

Growing Enrollment

Enrollment Trends and Goals

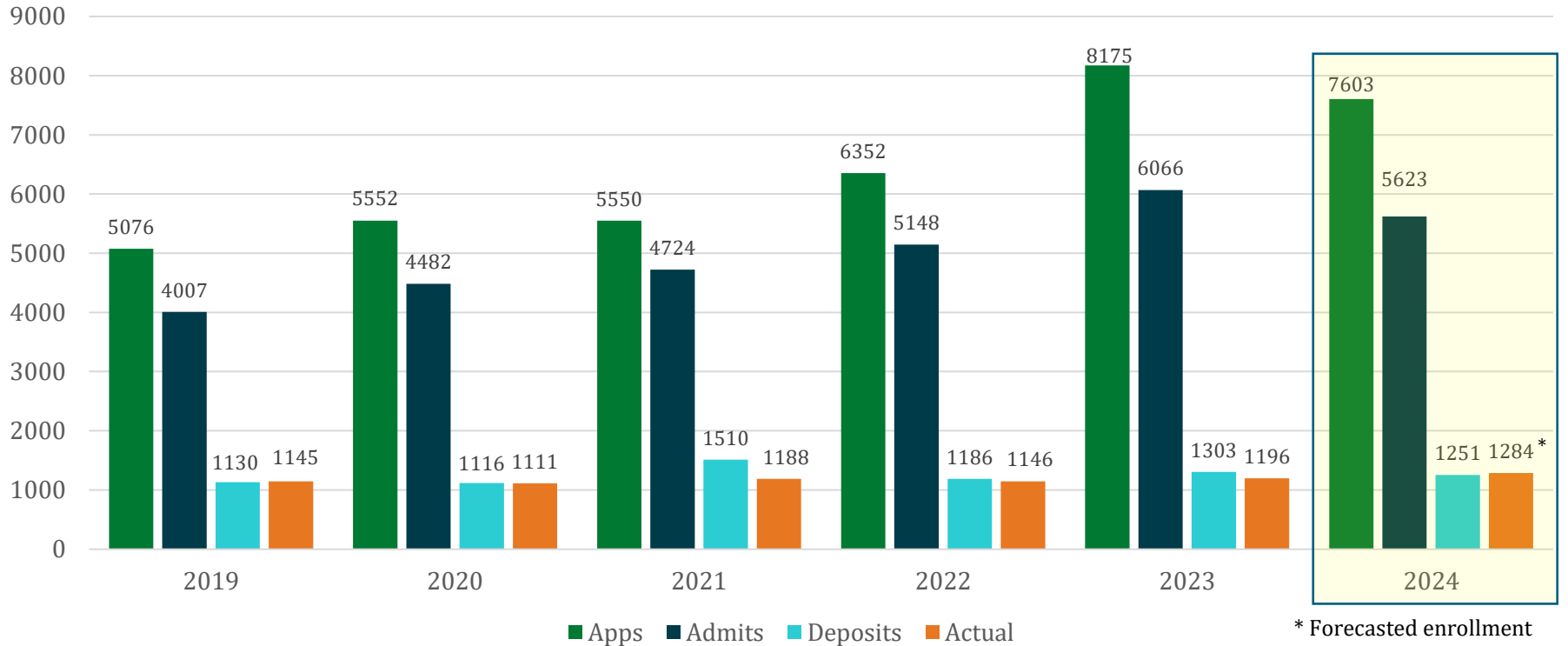
... a look at total, undergraduate and graduate (master's and Ph.D.) enrollment

Enrollment at Fall Census



Enrollment Trends and Goals

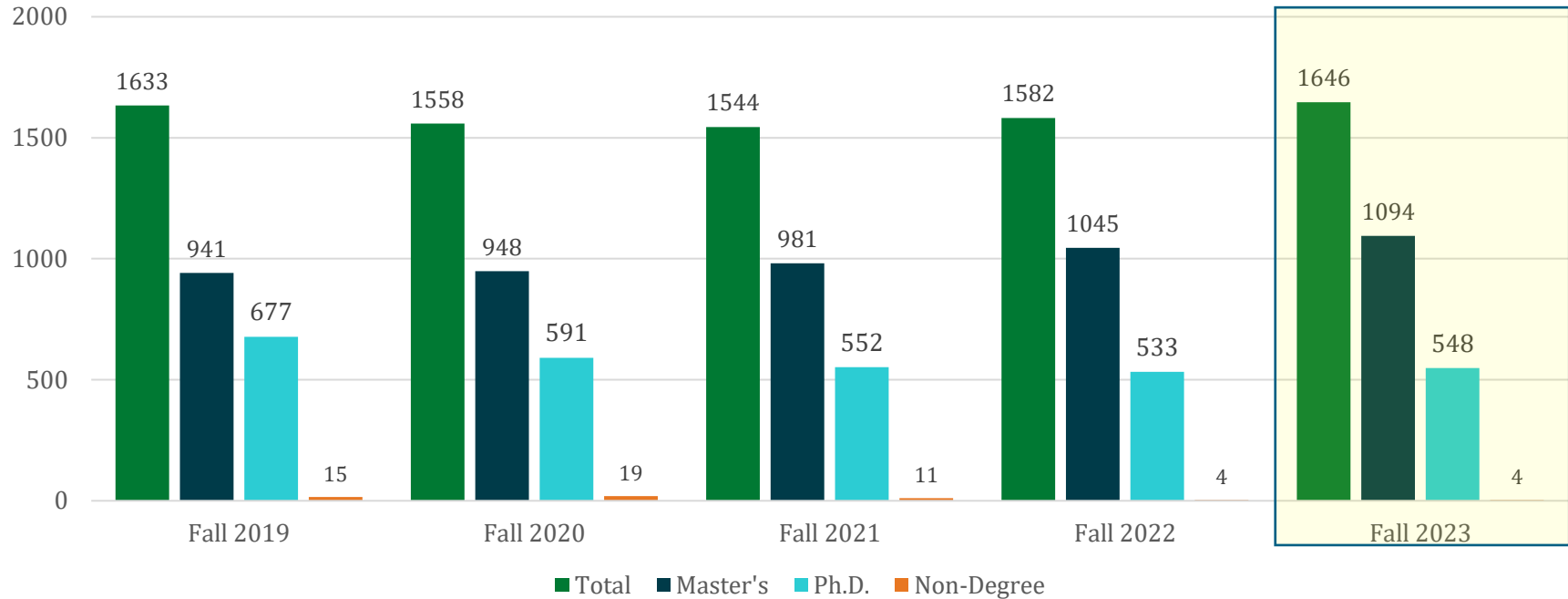
... applications, admits, deposits and actual students for first-time in college



Graduate Enrollment Trends

... master's and doctoral enrollment improved 2023

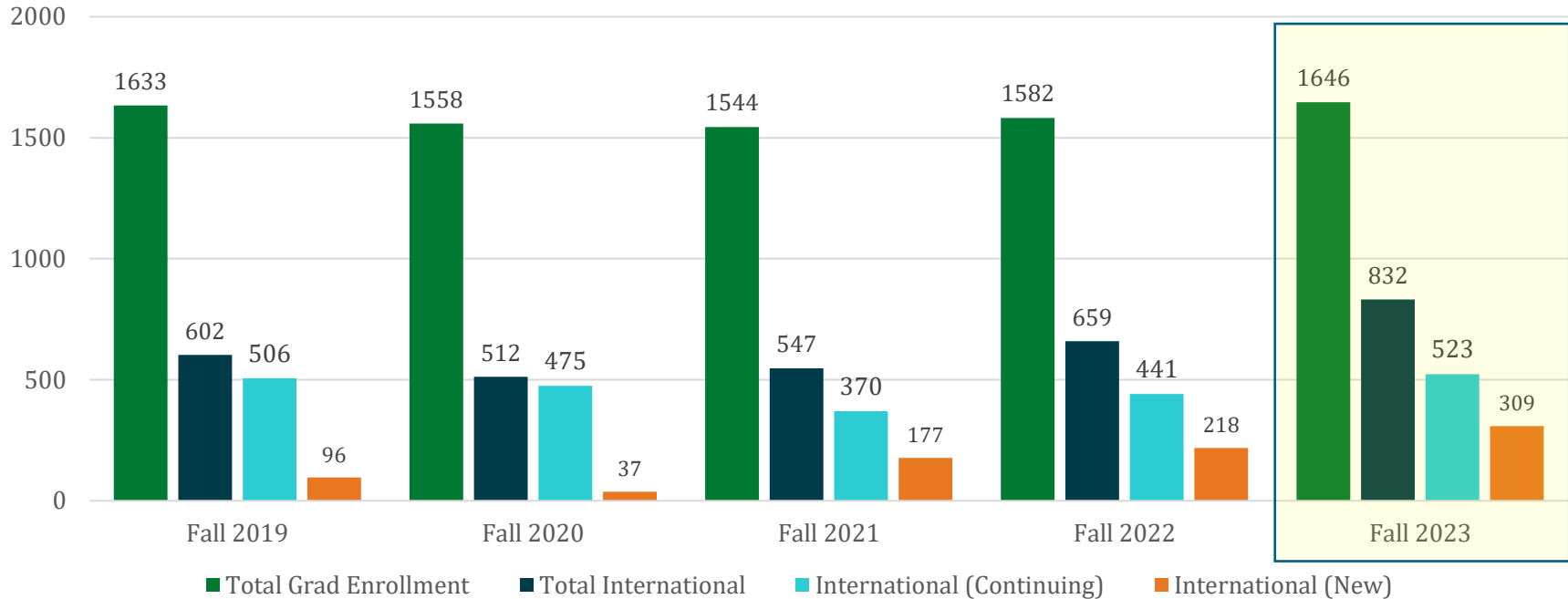
Graduate Enrollment at Fall Census



International Graduate Enrollment

... significant international growth following the pandemic

Graduate International Enrollment at Fall Census



Enhancing Enrollment and Retention Efforts

... to reach our North Star goal

- ▶ Engaged departments in yield strategies
 - ▶ Email and physical mailers
 - ▶ Workshops
 - ▶ Outreach
- ▶ Engaged current students in outreach
 - ▶ Army of Champions
- ▶ Expanded programs in St. Louis
- ▶ Organizational realignment (Office of Student Success)
- ▶ Cornerstone Peers (peer mentoring)
- ▶ Expanded engagement opportunities

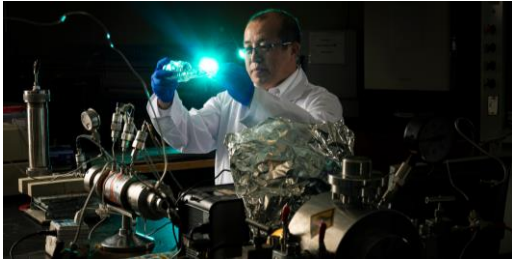


Kummer Update and STEM Outreach

About the Kummer Gift

... fulfilling June and Fred's threefold mandate

Elevate Missouri S&T



- ▶ Endowed faculty, research center directors, and department chairs
- ▶ Kummer College for Innovation, Entrepreneurship, and Economic Development
- ▶ Faculty Ignition Grants
- ▶ Entrepreneurship and Innovation (I&E) Doctoral Fellows

Create Broad STEM Outreach



- ▶ Center for STEM Education
- ▶ Summer camps
- ▶ Community engagement and outreach, including STEM Mobile
- ▶ Field trips for K-12 students
- ▶ Teacher education and training

Drive Economic Development



- ▶ Missouri Protoplex
- ▶ Manufacturing Technology and Innovation Campus
- ▶ Research centers: Advanced Manufacturing, Resource Sustainability, Artificial Intelligence and Autonomous Systems, and Advanced and Resilient Infrastructure

Kummer College

... at the intersection of engineering, science and business

- ▶ Dr. James Sterling begins June 1.
- ▶ He brings deep experience and knowledge in entrepreneurship and bioengineering.
- ▶ Innovation and entrepreneurship is at the core of Kummer College.
- ▶ Under Dr. Sterling's leadership, Kummer College will develop new programs and leadership opportunities for students.



Dr. James Sterling will join S&T from the Keck Graduate Institute, a member of the Claremont University Consortium.

Outreach on Campus and on the Road

... successful summer camps, STEM Day and a new STEM Mobile

- ▶ Offering 29 summer camps in 2024
- ▶ Events this year brought 1,750 students to campus so far
- ▶ Upcoming – May the 14th Be With You (1,100 registered)
- ▶ STEM Mobile visited 18 schools
- ▶ Increase S&T presence at the Missouri State Fair in 2023 and 2024



S&T welcomed 1,257 campers during summer 2023.

Endowment Update

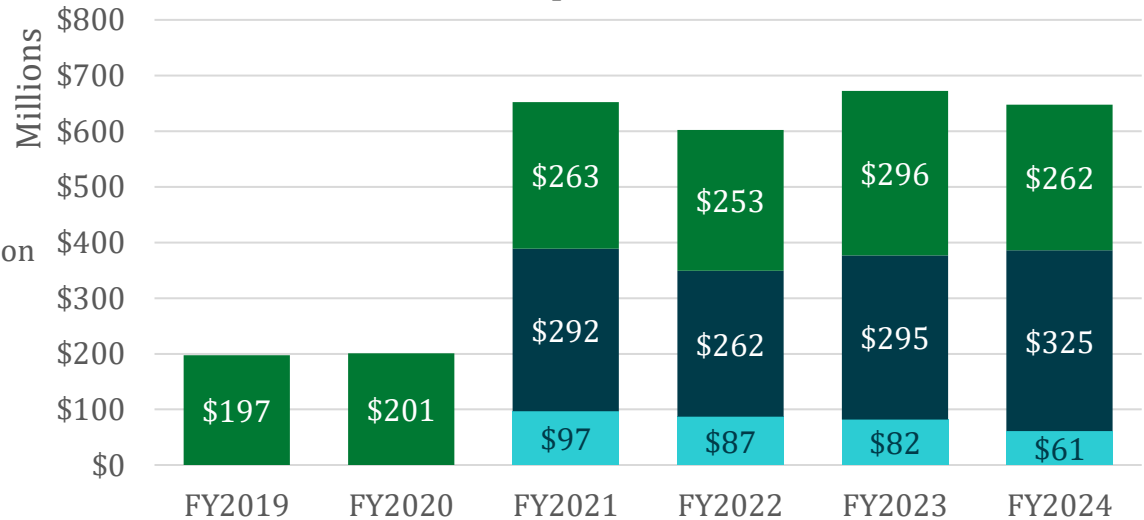
Endowment Growth

... supporting strategic campus priorities

\$100M of capital investments from Kummer support more than \$300M of capital projects underway

- S&T and Miner Alumni Association Endowments
- KIF Long-term Fund
- KIF Support of Capital

Total Endowment Total and KIF Capital Investments



Capital Projects Update

Current Capital Projects

... progress on our new Arrival District and Innovation Campus

- ▶ Subsurface Parking Structure, Complete
- ▶ Innovation Lab, Open
- ▶ Welcome Center, Completion by March 2025
- ▶ Missouri Protoplex, Completion by November 2025



Innovation Lab
(retention)



Welcome Center
(recruitment)



Missouri Protoplex
(economic development)

Innovation Lab

... a hub of creativity and possibility thinking for all students

- ▶ Opened February 2024
- ▶ Supports experiential learning, creativity and community building
- ▶ Areas for cross-disciplinary work, maker spaces, group and individual study and a digital content studio
- ▶ Also features Miner Brew, our new coffee shop
- ▶ 50,000 square feet



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Innovation Lab
(retention)



Welcome Center
(recruitment)



Missouri Protoplex
(economic development)

Welcome Center

... a one-stop shop for students and their families

- ▶ Signature component of Arrival District
- ▶ First stop for visitors to campus
- ▶ State-of-the-art facility to immerse future Miners and their families in the S&T experience
- ▶ 32,000 square feet



Current Capital Projects

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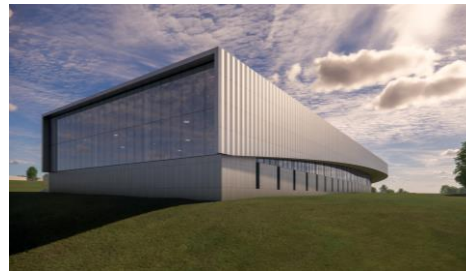


Missouri Protoplex
(economic development)

The Missouri Protoplex

... gaining momentum in the manufacturing ecosystem

- ▶ Recent awards: \$18 million
- ▶ MME established
 - ▶ Includes universities, community colleges, manufacturing trade associations, economic development agencies
- ▶ Workforce Development
 - ▶ K-12 Outreach for nearly 10,000 rural students
 - ▶ Promoting careers in manufacturing to youth
- ▶ Missouri Industry Upskilling Workshops in development with:
 - ▶ Boeing
 - ▶ Caterpillar
 - ▶ Lockheed Martin



The Missouri Protoplex

... Manufacture Missouri Ecosystem (MME)

- ▶ Statewide network to support small manufacturers, job growth and economic progress
- ▶ Enabling testing and prototyping for Missouri manufacturers
- ▶ Collaboration space for entrepreneurs and researchers
- ▶ Corporate partnerships with major aerospace, advanced manufacturing companies

MISSOURI CONCENTRATION OF MANUFACTURING FIRMS



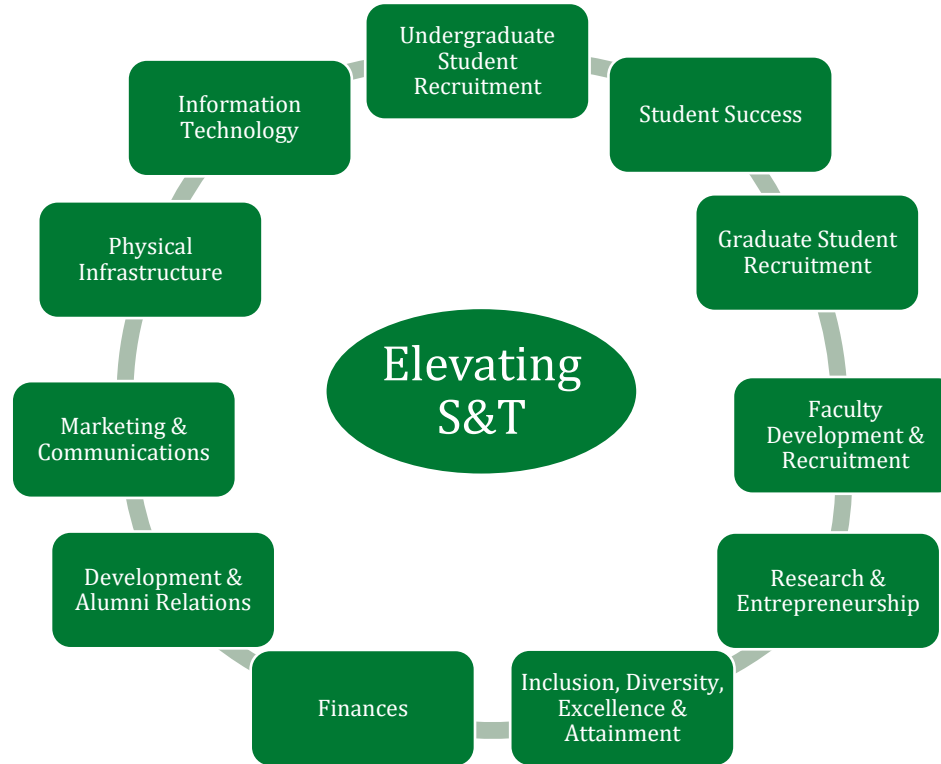
Future Economic Impact

... opportunities for rural development



Monitoring Progress

... our dashboard for tracking success





Thank you

EVOLVING LANDSCAPE OF HIGHER EDUCATION
AI RESEARCH, MISSOURI S&T

Materials for this information item will be
distributed prior to the meeting.

Resolution, Memorial Stadium Project, MU

Materials for this information item will be distributed prior to the meeting.

GOOD AND WELFARE
OF THE BOARD

There are no materials for this information item.

No. 1

Recommended Action – Resolution for Executive Session of the Board of Curators Meeting April 18, 2024

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Board of Curators meeting April 18, 2024 for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(2), RSMo**, relating to matters identified in that provision, which include leasing, purchase, or sale of real estate; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021(12), RSMo**, relating to matters identified in that provision, which include sealed bids and related documents and sealed proposals and related documents or documents related to a negotiated contract; and
- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment; and

Roll call vote of the Board: YES NO

Curator Blitz

Curator Brncic

Curator Fry

Curator Graves

Curator Holloway

Curator Layman

Curator Sinuefield

Curator Wenneker

Curator Williams

The motion _____.