

Board of Curators - Public Session

University of Missouri System

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

2025-04-17 08:00 - 11:00 CDT

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XI. Press Conference with Board of Curators Chair and UM President (time is approximate)	
11:10 AM (or upon conclusion of public session) Location: Havener Center, Turner/Carver Room Dial In Number: 848-999-1066	
XII. LUNCHEON BY INVITATION FOR THE BOARD OF CURATORS, PRESIDENT, UNIVERSITY OF MISSOURI SYSTEM LEADERS	
Time: 11:30 AM, time is approximate Location: Havener Center, St. Pat's Ballroom A&B	

XIII. BOARD OF CURATORS MEETING - EXECUTIVE SESSION (11:30 AM, time is approximate)

Location: Havener Center, Silver and Gold Room The Board of Curators will hold an executive session of the April 17, 2025 meeting, pursuant to Sections 610.021(1), 610.021(2), 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, real estate, personnel, litigation, contract items and confidential or privileged communications between a public governmental body and its auditor, all as authorized by law and upon approval by resolution of the Board of Curators.

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University of Missouri Board of Curators Meeting

April 17, 2025 - Public Session



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

Board Value Statement

Board of Curators of the University of Missouri establish the following statement of values to guide members in the governance of the University of Missouri pursuant to the Constitution and the Revised Statutes of the State of Missouri:

1. **Trustworthy & Transparent Communication.** We value an environment of openness, collaboration and honesty with each other above all else, and support open communication and the free expression of ideas. We will endeavor to communicate with each other and with all University stakeholders with honesty and integrity. We will perform our duties ethically and avoid conflicts of interest.
2. **Respect.** We are respectful of each other and all University stakeholders in our interactions. We believe that civility, courtesy, decency and tolerance are critical when engaging in discussions with others with whom we may not agree. We encourage independent judgment and the sharing of a diversity of thoughts, and accept others' unique perspectives as valuable contributions to governing discussions.
3. **Healthy Board Governance.** We are committed to a healthy culture of board governance, one that is dedicated to sustaining the trust and support for the University of Missouri. We will devote time and effort needed to responsibly and capably perform our duties. We will exercise responsible stewardship and uphold our fiduciary duties as Curators. We will fully prepare for, attend and participate in board meetings, and seek to continually increase our understanding of, and adherence to, the standards for effective board governance.
4. **Support and Hold Accountable Leadership.** We are committed to supporting the leadership throughout the University of Missouri, while also holding that leadership accountable for the effective management of the University. We will establish, communicate and monitor clear performance expectations for leadership directly reporting to the Board, and will hold such leadership accountable to maintain the highest standard of ethical behavior. In supporting University leadership, we will endeavor to avoid involvement in matters delegated to the Administration.
5. **Strategic Vision.** We are committed to fully understanding, supporting and, when appropriate, challenging the short and long-term strategic priorities of the University of Missouri's constituents. We will challenge University leadership to continually develop and assess strategic plans that will be effective in supporting the Missouri Compacts for Achieving Excellence: Excellence in Student Success, Excellence in Research and Creative Works, Excellence in Engagement and Outreach, Inclusive Excellence and Excellence in Operations, Planning and Stewardship.



Vision

To advance the opportunities for success and well-being for Missouri, our nation and the world through transformative teaching, research, innovation, engagement and inclusion.

Mission

To achieve excellence in the discovery, dissemination, preservation and application of knowledge. With an unwavering commitment to academic freedom and freedom of expression, the university educates students to become leaders, promotes lifelong learning by Missouri's citizens, fosters meaningful research and creative works, and serves as a catalyst for innovation, thereby advancing the educational, health, cultural, social and economic interests to benefit the people of Missouri, the nation, and the world.

Missouri Compacts for Achieving Excellence

The Missouri Compacts for Achieving Excellence provide unifying principles that inform and guide the four universities and their strategic plans. Learn more about the compacts, below, at <http://umurl.us/prespri>.



Excellence in
Student Success



Excellence in
Research and
Creative Works



Excellence in
Engagement and
Outreach



Inclusive
Excellence



Excellence in
Planning, Operations
and Stewardship

Core Values

Our institution collectively embraces a series of core values that serve as the foundation upon which we build new knowledge and provide outstanding programs for students and citizens of our state and beyond.



- Academic freedom
- Access
- Accountability
- Civility
- Collaboration
- Creativity
- Discovery
- Engagement
- Excellence
- Freedom of expression
- Inclusion
- Innovation
- Integrity
- Respect
- Responsibility
- Transparency

Guiding Principles

1. Support courageous and proactive leadership that is articulate, unified and committed to excellence in carrying out our existing core missions of teaching, research, engagement and economic development and in meeting the changing needs of the world and the state.
2. Establish a collaborative environment in which UM System universities work together to achieve collective results that cannot be achieved individually and are committed to each other and our mutual success.
3. Exercise central authority that recognizes and respects institutional distinctiveness, appropriate deference and accountability.
4. Enact informed decisions based on collaboratively developed strategic directions and planning.
5. Identify and promote systemwide core values, including respect for all people, transparency, accountability, stewardship and purposeful self-assessment of performance.

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 17, 2025



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

Missouri S&T and UMKC Earn Prestigious Carnegie R1 Designation

The Carnegie Classification of Institutions of Higher Education is the nation's leading framework for categorizing diverse U.S. higher education institutions.

UM Leadership Appointments



James Grimes
*Chief Audit
& Compliance Officer*



Steve Robinson
*Vice Provost for
Enrollment Management*



Angela King Taylor
*Vice Chancellor for
Student Affairs*



Debra Bourdeau
*Vice Provost of Online
Learning & Education Innovation*



Susan Murray
*Associate Provost, Teaching
& Curricular Excellence*



Tony Bruun
*Vice Chancellor of Finance
& Administration
& Chief Financial Officer*



Tréon McClendon
*Assistant Vice Provost
of Retention Initiatives*

Admissions Update

FTC Applicants

3/31/25	2023	2024	2025
MU	20,994	23,779	26,711 (12%)
UMKC	5,740	6,032	6,912 (15%)
S&T	7,642	7,447	7,866 (6%)
UMSL	3,895	5,399	6,227 (15%)

FTC Accepted

3/31/25	2023	2024	2025
MU	5,290	5,847	6,528 (12%)
UMKC	866	890	1,077 (21%)
S&T	1,039	1,144	1,255 (10%)
UMSL	359	365	622 (70%)

Admissions Update

Transfer Applicants

3/31/25	2023	2024	2025
MU	1,694	1,798	1,826 (2%)
UMKC	1,348	1,421	1,639 (15%)
S&T	559	1,121	841 (-25%)
UMSL	1,418	1,613	1,545 (-4%)

Transfer Accepted

3/31/25	2023	2024	2025
MU	529	572	570 (-0.3%)
UMKC	456	527	533 (1%)
S&T	162	251	221 (-12%)
UMSL	428	441	465 (5%)

Student Success Highlights



**(L-R): Luke Nutwell,
Eric Siemens and Austin Seiner**
Mizzou Law students



Mizzou Law students placed first at the prestigious Global Antitrust Institute annual moot court competition in Washington D.C.



(L-R): Ahmed Al-Hlaichi, Abhinav Medithi, Abdul Mujeeb, Sulaiman Bah, Nikhil Chodipilli
S&T PetroBowl Team



Placed highest in the U.S. and advanced to world championship



(L-R): Helene Slinker, Emma Piazza, Sidney Bach-Norman
Third-year law students



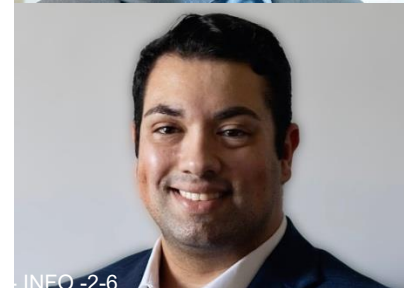
UMKC School of Law's Moot Court Competition team was one of the top eight teams in the country at the 2025 National Moot Court Competition



Tyler Brake, Ted Niemann
Senior business admin. majors



First place in the annual Career Exploration Competition on the Financial CoNEXTion Education Cruise



Faculty Success Highlights



Dr. Brian Kisida

Associate Professor, Truman School of Government & Public Affairs



Selected as a 2025 fellow of the prestigious Andrew Carnegie Fellowship.



Dr. Michael Moats

*Professor of Metallurgical Engineering
Chair of Materials Science & Engineering*



Elected to the Society for Mining, Metallurgy and Exploration (SME) 2025 class of Fellows



Carl Allen

William D. and Mary Grant/Missouri Endowed Professor of Jazz Studies



Named 2025 Ellis Marsalis, Jr. Educator of the Year by the Jazz Education Network



Dr. Jerome Morris

E. Desmond Lee Endowed Professor, Urban Education



Elected President of the American Educational Research Association.

2024 American Association for the Advancement of Science Fellows



Felix Fritschi
*College of Agriculture,
Food & Natural Resources*



Donald Burke-Agüero
*School of Medicine,
College of Agriculture, Food
& Natural Resources*



Scott Holan
College of Arts & Science



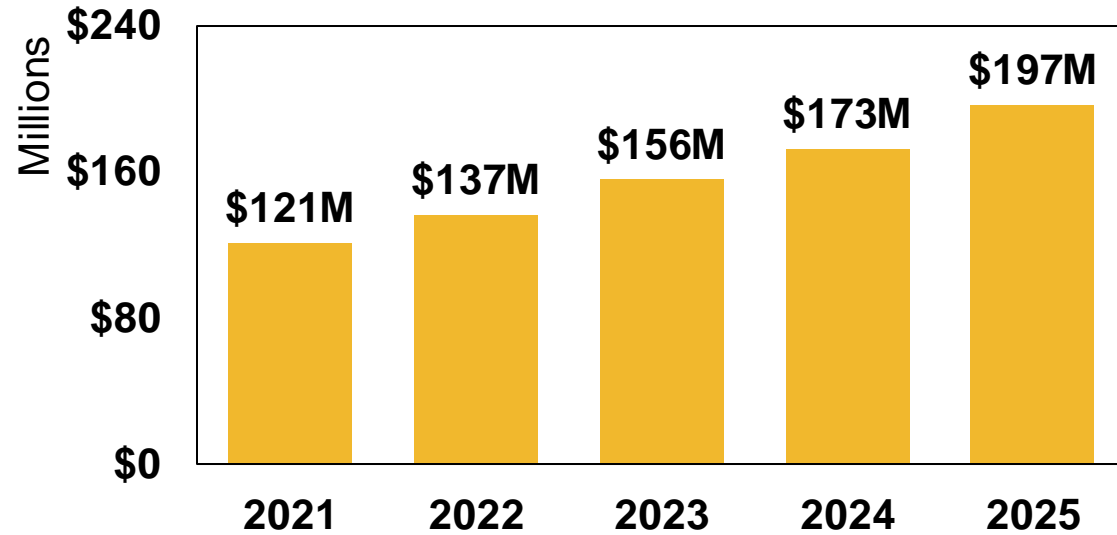
Richard Sherwood
School of Medicine



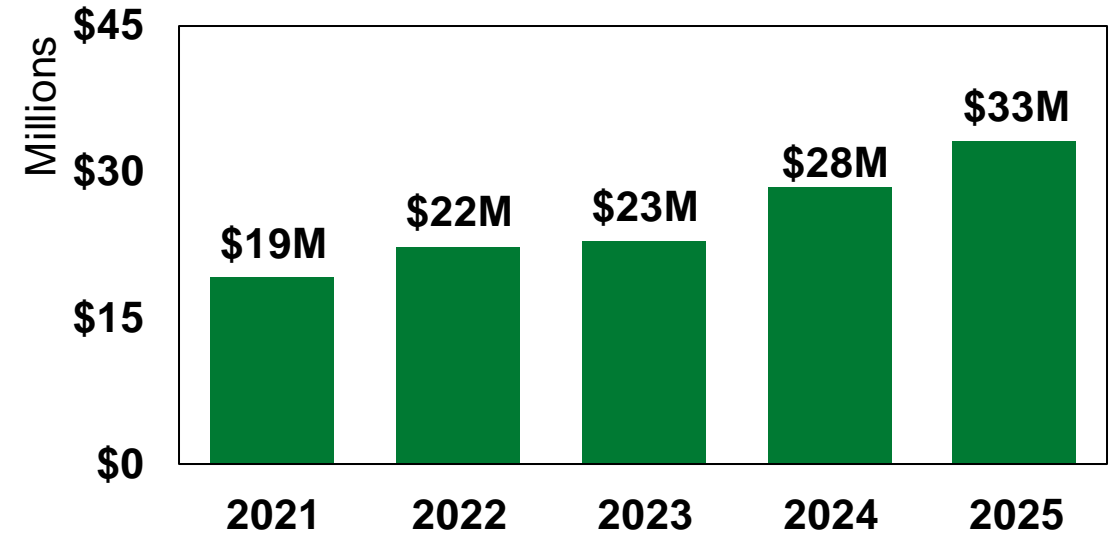
Gary Long
Professor Emeritus, Chemistry

FYTD Total R&D Expenditures

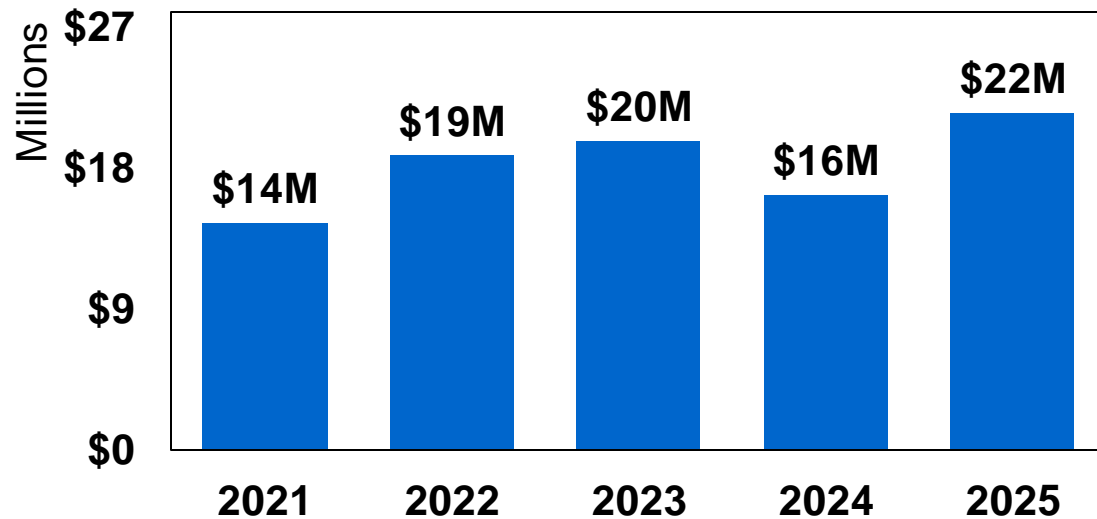
MU



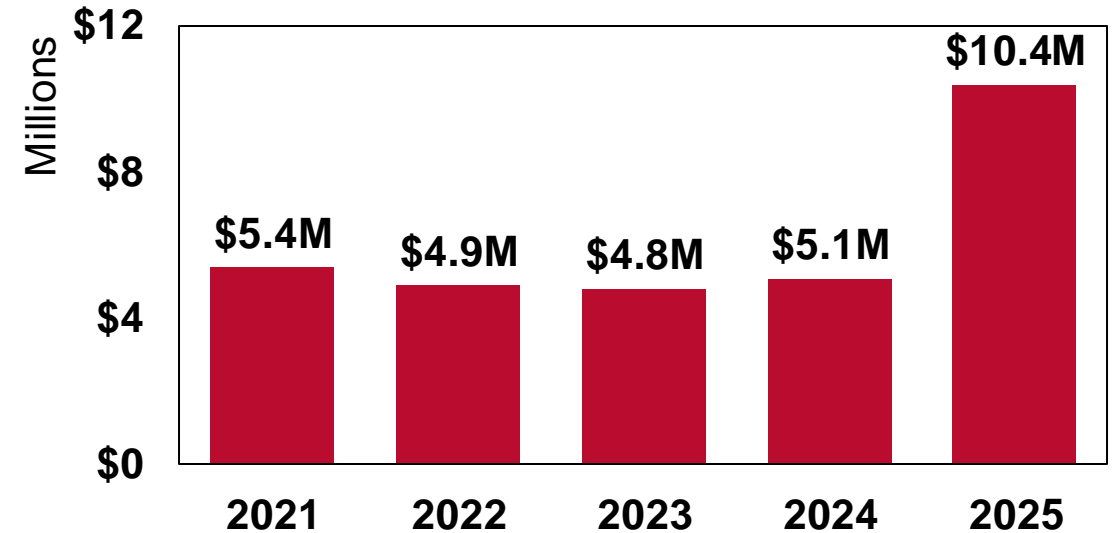
S&T



UMKC



UMSL



MU Major Grant



Optimizing Infrastructure to Improve Patient Outcomes

PI: Dr. James McClay, Professor, Biomedical Informatics, Biostatistics and Medical Epidemiology

Co-I: Abu Saleh Mohammad Mosa, *Associate Professor, Biomedical Informatics, Biostatistics and Medical Epidemiology*

Lisa Royse, *Assistant Research Professor, Orthopaedic Surgery*

Xing Song, *Assistant Professor, Biomedical Informatics, Biostatistics and Medical Epidemiology*

\$13.5M | Sponsor: Patient-Centered Outcomes Research Institute

Provides support for the Greater Plains Collaborative (GPC), a network of 13 leading medical centers in eight states committed to improving health care delivery.

This project develops governance, regulatory processes, technical infrastructure and patient-engagement strategies that can strengthen health care delivery in Missouri and beyond.

MU Major Grant



Air and Wastewater Pathogen Tracking

PI: Dr. Marc Johnson, *Professor Of Molecular Microbiology and Immunology*

\$10M | Sponsor: Inkfish, LLC, a marine research organization

This project will deploy air and wastewater pathogen testing technologies locally and nationally, while also promoting their use around the world.

Known as “Lungfish,” this project has wide application both for researchers studying outbreaks and for responding health care systems.

MU Major Grant



The Mutant Mouse Resource and Research Center (MMRRC) at Mizzou

PI: Dr. James Amos-Landgraf, *Associate Professor, Veterinary Pathobiology*

Co-I: Yuksel Agca, *Associate Professor, Veterinary Pathobiology*; Elizabeth Bryda, *Curators' Distinguished Professor, Veterinary Pathobiology, Director, Rat Resource and Research Center and Animal Modeling Core*; Lyndon Coghill, *Assistant Research Professor, Veterinary Pathobiology*; Aaron Ericsson, *Associate Professor, Veterinary Pathobiology*; Craig Franklin, *Professor Emeritus, Veterinary Pathobiology*; Hongsheng Men, *Research Assistant Professor, Veterinary Pathobiology*; Bret Ulery, *Associate Professor, Chemical Engineering*

\$7.9M | Sponsor: NIH Office of the Director

The primary goal of the center is to facilitate research by identifying, acquiring, evaluating, characterizing, cryopreserving and distributing mutant mouse strains to biomedical investigators.

S&T Major Grant



Smart Connected Farms: Revolutionizing Pest Management in Agriculture through AI and the Internet of Things (IoT)

PI: Dr. Sajal Das, *Daniel St. Clair Endowed Chair Professor, Computer Science*

\$1M | Sponsor: National Science Foundation

This project uses AI and internet-connected technologies to address global challenges of pest and disease management in agriculture. The goal is innovative, automated monitoring for early detection of pest activity that can be tailored for, but not limited to, underserved and small-to-mid-sized rural growers.

The UN Food and Agriculture Organization showed that pests and diseases are severe threats to food security and damage up to 40% of crops globally, causing an annual economic loss of \$290 billion.

UMSL Major Grant

UMSL

Unraveling the Molecular Interconnections Between Circadian Rhythms and Lipid Metabolism

PI: Dr. Xuemin (Sam) Wang, *E. Desmond Lee Endowed Professor in Plant Sciences*

\$2.2M | Sponsor: National Institutes of Health

Circadian clocks drive the 24-hour rhythms regulating many aspects of metabolism, whereas metabolic activities modulate the clock function. However, the molecular interplay between metabolism and this clock are not well understood. This research aims to fill knowledge gaps and to better understand how this interplay affects stress responses in organisms.

The study has potential to improve plant resilience to environmental stress. Because this clock function is shared between plants and humans, findings also have relevance to human health.



UMSL Major Grant

UMSL

Multimodal Integrated Analysis and Assessment Development for Neuro HIV Study

PI: Dr. Robert H. Paul, *Professor, Psychological Sciences, Director, Missouri Institute of Mental Health*

\$1.4M | Sponsor: The Emmes Company

Supports a consortium project to understand brain health disorders (BHDs) in people with HIV on suppressive antiviral therapy. The results will advance the field, support development of personalized medicine and lead to improvements in brain health outcomes in people with HIV.

Brain health disorders such as depression, anxiety and cognitive impairment affect a substantial proportion of the 39 million people with HIV, even when the virus is suppressed with antiretroviral therapy.



UMKC Major Grant



Radar Advances with Spatio-temporally-variant waveform Predictive planning (GRASP)

PI: Dr. Ahmed Hassan, *Associate Professor, School of Science & Engineering*

\$1.8M | Sponsor: Department of Defense/Defense Advanced Research Projects Agency

This collaboration aims to improve the performance of current radars. It explores a wide range of strategies to maximize the target's radar cross section.

Project aims to improve the detection capabilities of radar.

UMKC Major Grant



Regional Journalism Collaboration – Harvest Public Expansion

PI: Maria Altman, *Managing Editor, Harvest Public Media*

\$1M | Sponsor: Corporation for Public Broadcasting

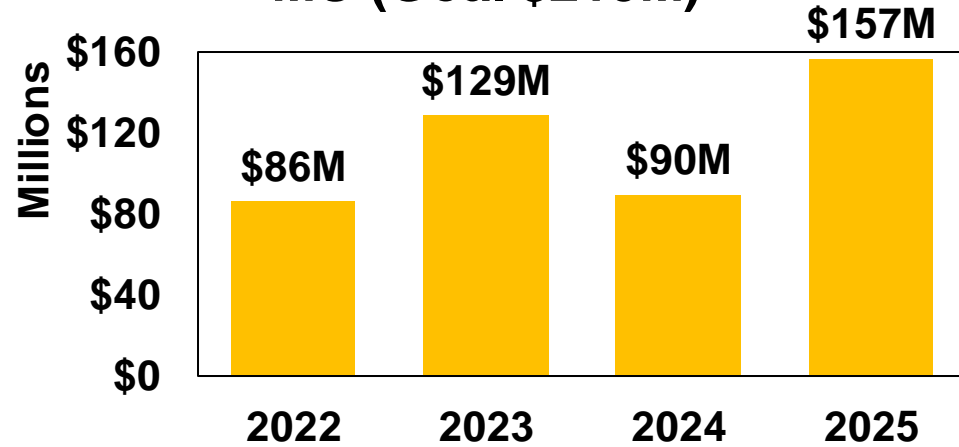
This grant supports the expansion of Harvest Public Media, a journalism collaboration launched in 2010 that produces original broadcast and multimedia content focused on agriculture, food production, environmental news, energy, health, and rural issues for regional and national audiences.

Project will add new partner stations and journalists to expand storytelling and grow their audience, among other improvements.

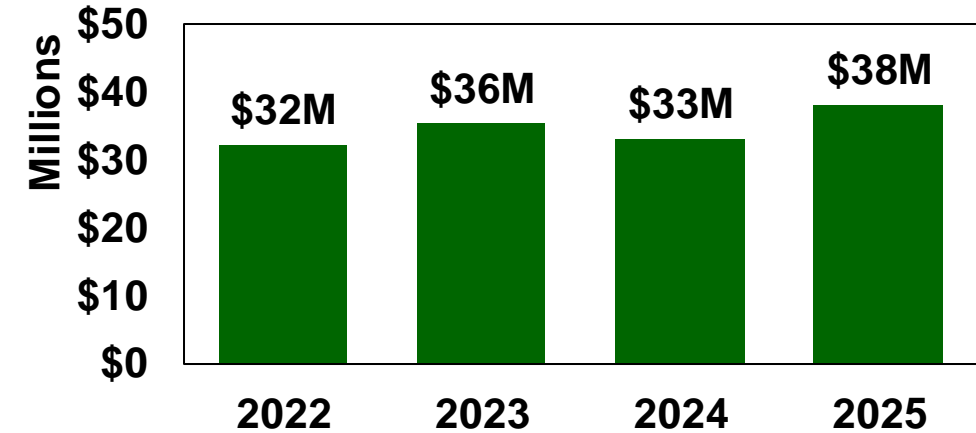


FYTD Philanthropy

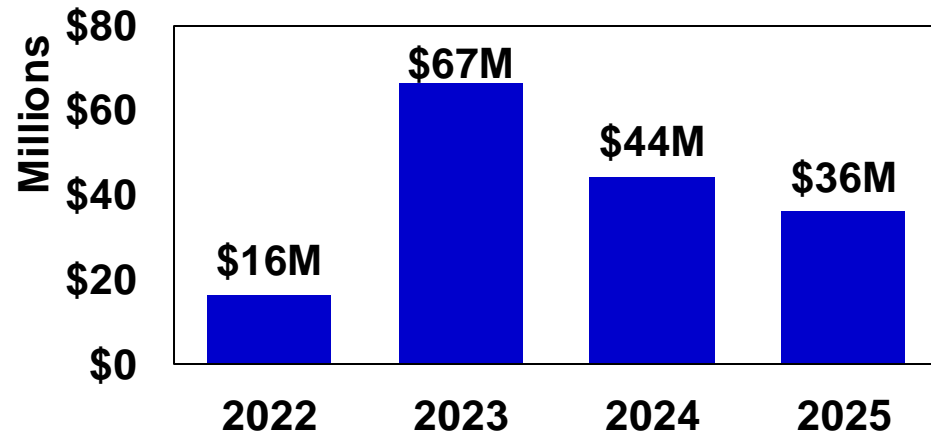
MU (Goal \$215M)



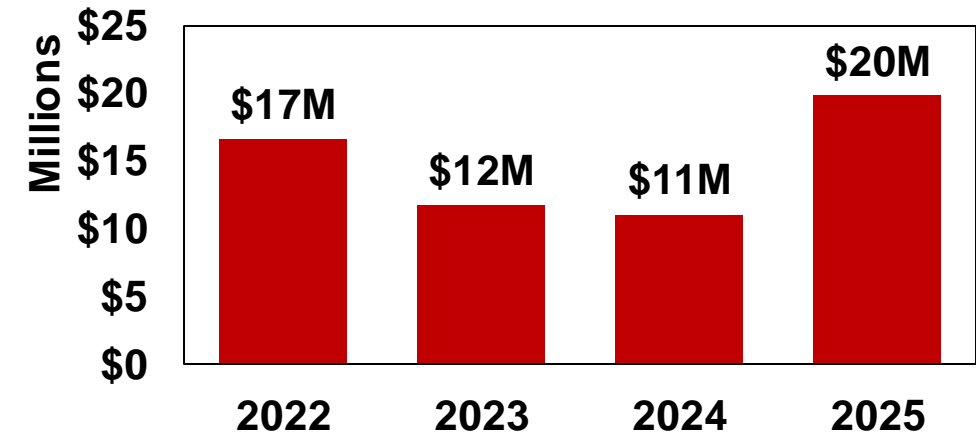
S&T (Goal \$49M)



UMKC (Goal \$55M)



UMSL (Goal \$25M)





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

MISSOURI S&T™

April 17, 2025

Missouri S&T's Path to Excellence and Innovation

University of Missouri Board of Curators



North Star Goals

S&T will be a world-class science and technology university for workforce development, research breakthroughs and economic development



**Carnegie R-1
University**

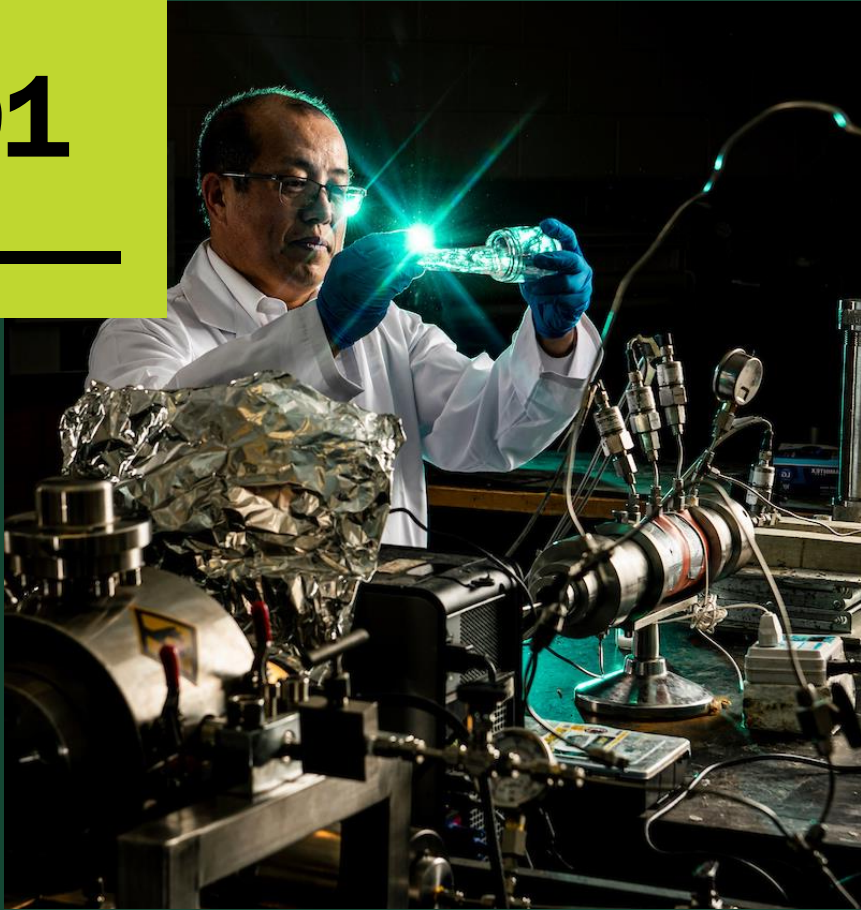


**Establish national
recognition**



12,000 enrollment

01



North Star Goal

Carnegie R-1 University

S&T earns R-1!



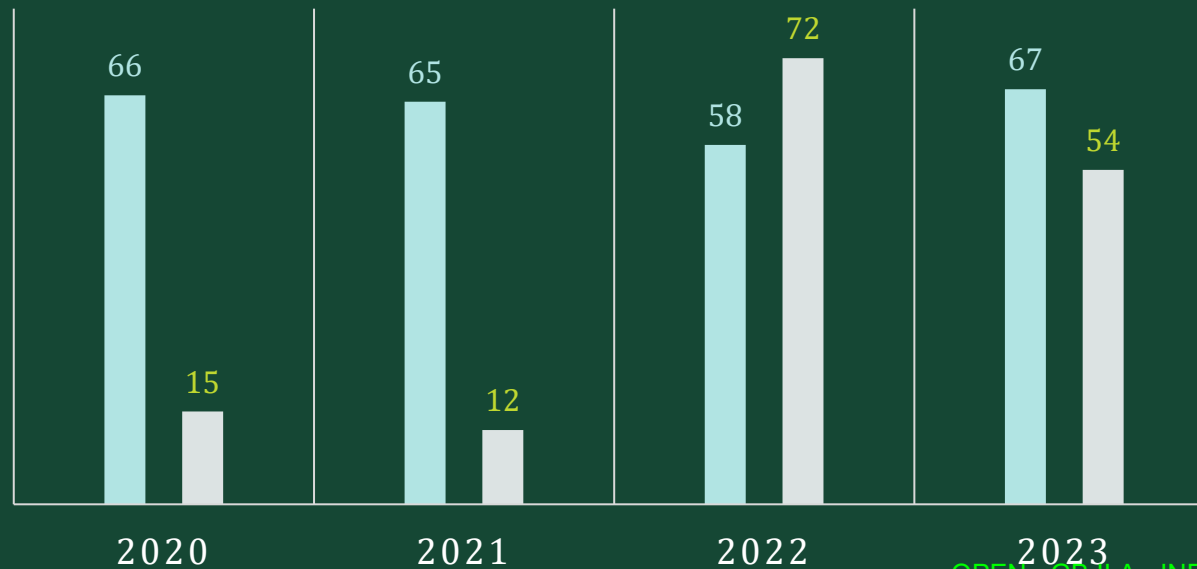
- ✓ Surpassed the requirements to earn highest research designation.
- ✓ Other R1 institutions:
 - Carnegie Mellon
 - Georgia Tech
 - Purdue University
 - Virginia Tech

S&T Researchers: Tops in their fields

S&T's commitment to groundbreaking research isn't just talk – it's backed by hard data and global recognition

Stanford University Top 2% List

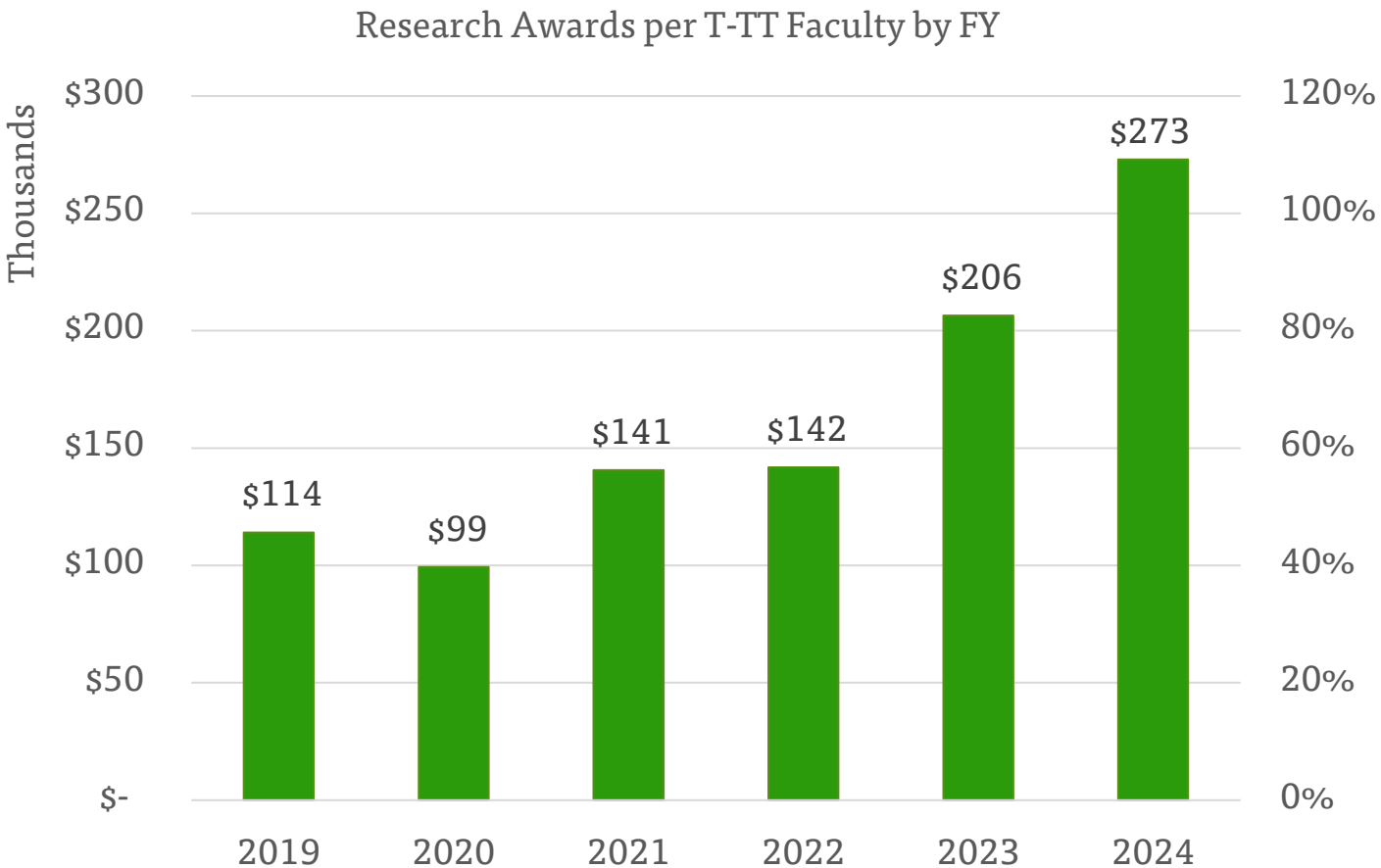
■ Career ■ Year



OPEN - GB II A - INFO -3-6



Research Awards



139%

Increase over
2019 in 2024

\$273k

Per T-TT faculty
in 2024

Research Awards

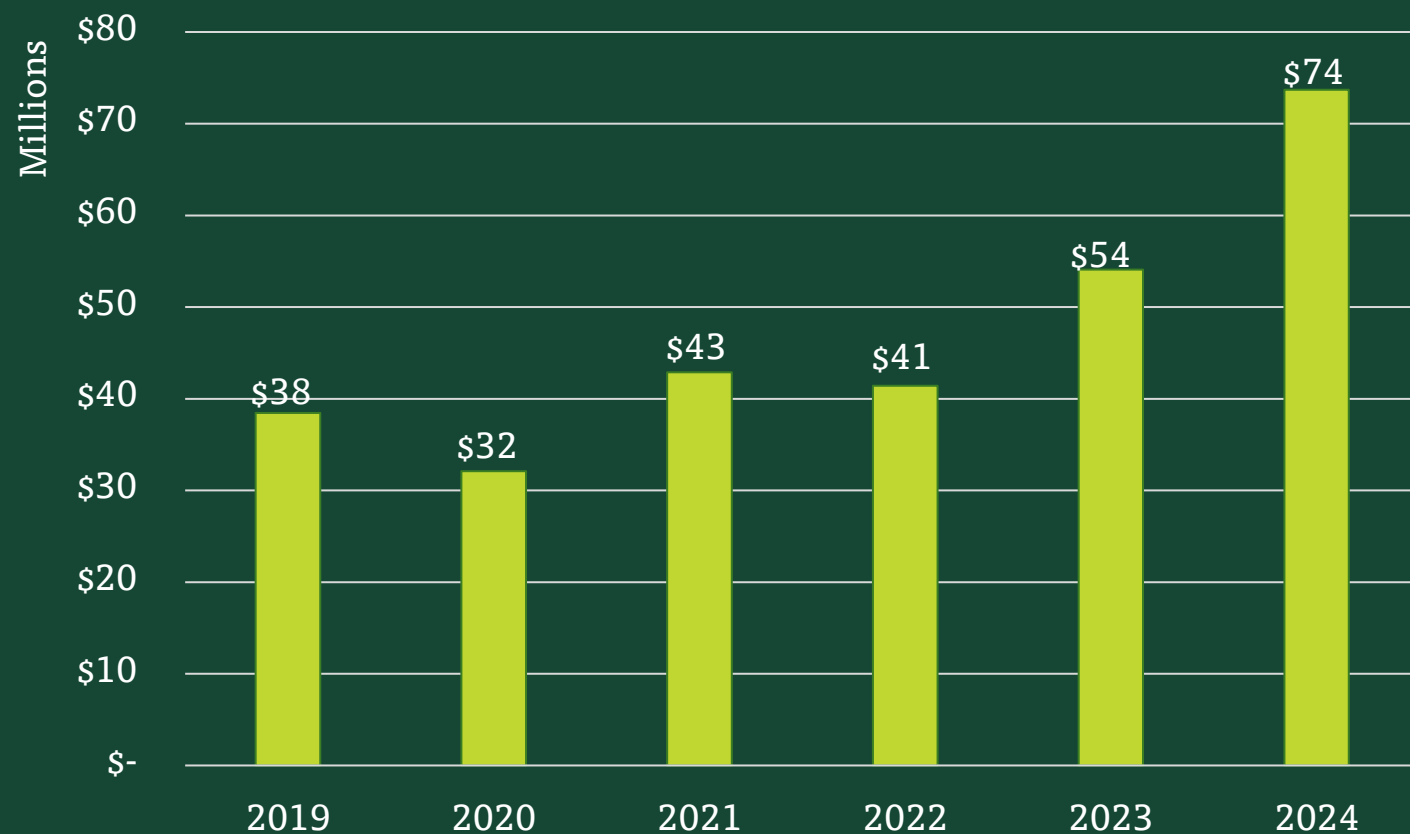
92%

Increase over
2019 in 2024

\$74M

In 2024

Total Research Awards by FY



02



North Star Goal

Establish National Recognition

Exceptional Outcomes, High ROI

- Average in-state student pays less than \$15,000 a year
- Ranked 8th for "High earnings + low price"
- Ranked 2nd for "High Earnings + Low Price + Less Selective"

No. 8

High earnings +
low price

Princeton University

MIT

Stanford

CUNY Baruch College

Georgia Tech

Yale

Harvard

Missouri S&T

University of Florida

Cal Tech

No. 2

High earnings + low
price + less selective

CUNY Baruch College

Missouri S&T

University of Florida

University of
Washington, Tacoma

CUNY Hunter College

CUNY City College

University of
Washington, Bothell

CUNY Brooklyn College

CUNY Queens College

Exceptional Outcomes, High ROI

- Ranked 9th in the nation for “Best Salaries”
- Ranked 18th in the nation for “Best Value”

THE WALL STREET JOURNAL.

No. 9

*1 of only 2 public
universities in the top 10*

Best Salaries

MIT
Stanford
Princeton
Georgia Tech
University of Pennsylvania
Cal Tech
Harvey Mudd College
Babson College
Missouri S&T
Carnegie Mellon

No. 18

No. 1 in Missouri

Best Value

The ranking combines
the average net price
of attending and the
value added to
graduates' median
salary.

One of the Nation's Best

No. 3

**Career
Placement**

Among nation's top
public universities



Second
consecutive year

No. 7

Internships

Among nation's top
public universities



Second
consecutive year

No. 17

Best Value (ROI)

*Princeton Review chose
390 colleges for its
2025 rankings.*

03



North Star Goal

12,000 Enrollment

Growing First-Year Enrollment

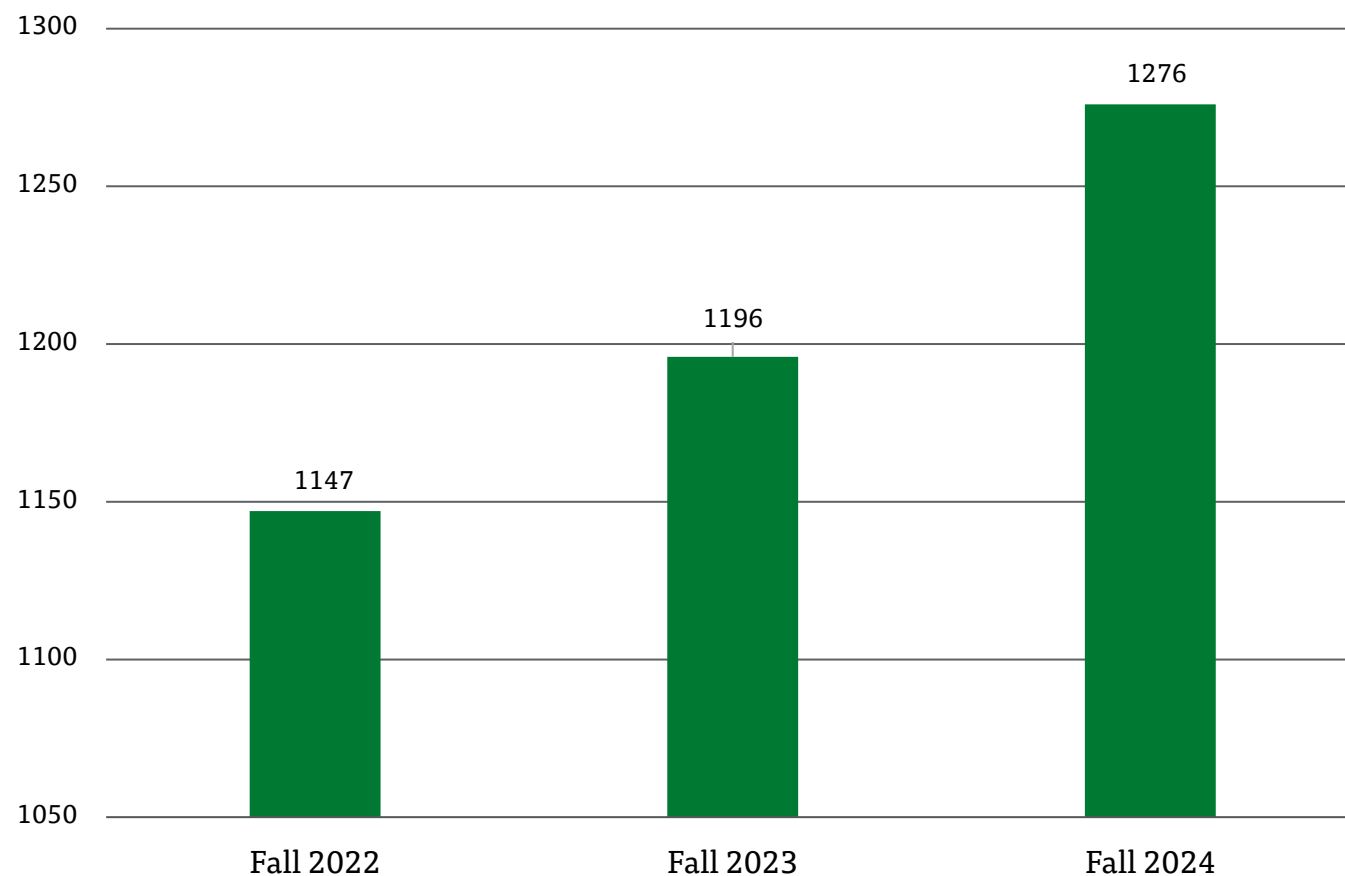
Upward trajectory for the first time since 2015

7,155

total enrollment
at census date

6.7%

increase in
first-year students



14 New Degree Programs to Solve Critical Issues

Bachelor's

Biochemistry *

Biomedical Engineering
(Started Fall 2024)

Data Science *

Robotics and Automation *

Semiconductor Engineering

Master's

Applied Artificial Intelligence *

Business Innovation *

Data Science *

Energy Economics and
Innovation

Geospatial Intelligence

Doctoral

Bioengineering
(Started Fall 2024)

Biological Sciences
(Started 2024)

Applied Psychology

Technical Communication *

Recognition for Transfer Admissions

S&T Makes National Transfer Honor Roll

- ✓ “S&T recognizes the needs and supports students who are transferring from community colleges to bachelor’s degree-granting institutions.”

Phi Theta Kappa

OPEN - GB II A - INFO .3-16



S&T Extends Beyond Campus Borders

Quality graduate education
and flexible instruction
solutions for St. Louis



04



Miners of Distinction

MISSOURI S&T™

05



Building the Future

Transforming Campus

\$500 million in facilities investments

- Applied Research Center
- Tim Bradley Way
- Protoplex
- Innovation Lab
- Underground Parking Garage
- Pedestrian Underpass
- Shrenk Hall
- Welcome Center



5 Years of Transformation



OPEN - GB II A - INFO -3-22

Project schedules

Welcome Center

Aug./Sept. 2025

Welcome Center on target to complete construction

October 2025

Open to the public

Havener Arrival District

October 2025

Arrival Court East of former State Street target completion (excluding some plantings)

Rolla Building renovation and exterior improvements scheduled completion



A one-stop shop for prospective students and families, S&T's new front door

Missouri Protoplex Phase 2

The first of six buildings for our Innovation Campus



Next: Missouri S&T's Bioplex



Bioplex

*Engaging engineering minds to
address human health care*

Schematic design review (in progress)

Design team: Christner/ZGF

Construction Manager (at risk): River City

**Construction logistics plan in progress;
mobilization planned in July for utility work**

Construction completion: March 2028



Biological Sciences was the third most popular major at S&T by applications in 2023, and the most popular for female applicants.

MISSOURI S&T™

Thank you!



No. 1

Recommended Action - 2026 Board of Curators Meeting Calendar

It was recommended by Chair Graves, endorsed by President Choi, moved by Curator _____ and seconded by Curator _____, that the proposed 2026 Board of Curators meeting calendar be approved as follows:

PROPOSED 2026 BOARD OF CURATORS MEETING CALENDAR

<u>DAY(S)</u>	<u>DATE(S)</u>	<u>LOCATION</u>
Thursday	February 5	UM – Kansas City
Thursday	April 16	Missouri S&T
Thursday	June 25	TBD
Thursday	September 10	UM – Columbia
Thursday	November 19	UM – St. Louis

Roll call vote:	YES	NO
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Curator Blitz
Curator Fry
Curator Graves
Curator Krewson
Curator Layman
Curator Luetkemeyer
Curator Raines
Curator Sinquefield
Curator Williams

The motion _____.

Proposed 2026 Board of Curators Meeting Calendar

Last meeting: November 20, 2025 (UMSL)

Day	Date	Location	Host	Material Due to BOC Office	Material Distribution to the Board
Thursday	February 5 (Health Affairs Jan 29)	Kansas City	UMKC	January 21	January 23
Thursday	April 16 (Health Affairs April 9)	Rolla	Missouri S&T	April 1	April 3
Thursday	June 25 (Health Affairs June 18)	TBD	Board of Curators & President	June 10	June 12
Thursday	September 10 (Health Affairs Sept 3)	Columbia	MU	August 26	August 28
Thursday	November 19 (Health Affairs Nov 12)	St. Louis	UMSL	November 4	November 5

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.
- 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.

April 17, 2025

No. 2

Recommended Action - Approval of Amended Board of Curators Executive Committee and Standing Committee Appointments, 2025

It was recommended by Chair Graves, moved by Curator _____ and seconded by Curator _____, that the following Board of Curators Executive Committee, Standing Committees and Mizzou Intercollegiate Athletics Special Committee appointments be approved for 2025:

Executive Committee

Todd P. Graves, Chair
Michael A. Williams, Vice-Chair
Jeff L. Layman

Academic, Student Affairs, Research and Economic Development Committee

Jeanne C. Sinquefield, Chair
Robert D. Blitz
Jeff L. Layman
Michael A. Williams

Audit, Compliance and Ethics Committee

John M. Raines, Chair
Lyda Krewson
Blaine Luetkemeyer
Jeanne C. Sinquefield

Finance Committee

Lyda Krewson, Chair
Robert D. Blitz
Robert W. Fry
Blaine Luetkemeyer

Governance, Compensation and Human Resources Committee

Robert W. Fry, Chair
Lyda Krewson
Jeff L. Layman

April 17, 2025

Health Affairs Committee

Michael A. Williams, Chair
Ronald G. Ashworth (non-curator)
Phillip Burger (non-curator)
Dan P. Devers (non-curator)
Robert W. Fry
Jeff L. Layman
John M. Raines
Dr. James H. Whitaker (non-curator)

Mizzou Intercollegiate Athletics Special Committee

Robert D. Blitz, Chair
Todd P. Graves
Jeff L. Layman

Roll call vote: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Krewson
Curator Layman
Curator Luetkemeyer
Curator Raines
Curator Sinuefield
Curator Williams

The motion _____.

April 17, 2025

REVIEW CONSENT AGENDA

There are no materials for this information item.

CONSENT

Recommended Action - Consent Agenda

It was endorsed by President Choi, moved by Curator _____ and seconded by Curator _____, that the following items be approved by consent agenda:

CONSENT AGENDA

Action

- A. Minutes, February 6, 2025 Board of Curators Meeting
- B. Minutes, March 5, 2025 Mizzou Intercollegiate Athletics Special Committee Meeting
- C. Minutes, March 17, 2025 Board of Curators Special Meeting
- D. Degrees, Spring Semester 2025 for all universities
- E. Annual Approval of Committee Charters
- F. Amendment, Collected Rules & Regulations 145.010, 145.015, 145.020, 145.030, Debt & Derivatives Policies, UM
- G. Project Approval - School of Engineering – Science Complex Renovation, UMSL
- H. Test Optional Admissions, MU, S&T, UMSL
- I. Amendment, Collected Rules & Regulation 200.010, Standard of Conduct, UM

Roll call vote of the Board: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion _____.

April 17, 2025

CONSENT AGENDA

Consent A

Recommended Action - Minutes, February 6, 2025 Board of Curators Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the February 6, 2025 Board of Curators meeting be approved as presented.

Roll call vote:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion _____.

Consent B

Recommended Action - Minutes, March 5, 2025 Board of Curators Mizzou
Intercollegiate Athletics Committee Meeting

It was moved by Curator _____ and seconded by Curator
_____, that the minutes of the March 5, 2025 Board of Curators Mizzou
Intercollegiate Athletics Special Committee meeting be approved as presented.

Roll call vote:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion _____.

April 17, 2025

OPEN – CONSENT – B-1

Consent C

Recommended Action - Minutes, March 17, 2025 Board of Curators Special Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the March 17, 2025 Board of Curators Special meeting be approved as presented.

Roll call vote:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion _____.

April 17, 2025

Consent D

Recommended Action – Approval of Degrees, Spring Semester 2025, 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 2025, 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 Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion_____.

Annual Approval, Board Standing Committee Charters

Executive Summary

Pursuant to Collected Rule and Regulation 10.050, Board Standing Committees, individual committee charters were developed that describe the following:

- The overall scope of the committee.
- Which University position serves as executive liaison to the committee.
- The responsibilities in reviewing and making recommendations on University matters.

The charters are to be reviewed by the individual committees and executive liaisons annually for any amendments and presented to the full Board for approval.

An annual review was conducted during January 2025, resulting in no recommended changes to the following charters:

- Executive
- Academic, Student Affairs, Research and Economic Development
- Audit, Compliance and Ethics
- Finance
- Health Affairs
- Mizzou Intercollegiate Athletics Special Committee

Changes are recommended to the following charters:

- Governance, Compensation and Human Resources

The committee charters will be presented to the full Board for approval at their April 17, 2025 meeting.

Consent E

Recommended Action - Board Standing Committee Charters

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

that the Board Standing Committee Charters, as reviewed by the Committee Chairs and Executive liaisons, be approved as attached.

Roll Call vote of the Board:	YES	NO
------------------------------	-----	----

Curator Blitz
Curator Fry
Curator Graves
Curator Krewson
Curator Layman
Curator Luetkemeyer
Curator Raines
Curator Sinuefield
Curator Williams

The motion _____.

CHARTER FOR EXECUTIVE COMMITTEE

The Executive Committee (“Executive Committee”) shall be comprised of three members of the Board of Curators (the “Board”). Each calendar year, 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.

I. Scope & Powers

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.

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.

II. Executive Liaison

The General Counsel, the Vice President and Chief Human Resources Officer and the Secretary of the University or some other person(s) designated by the Chair of the Board, shall be the executive liaisons to the committee.

III. Responsibilities

In addition to the overall “Scope & Powers” of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall also include:

A. Reviewing and making recommendations to the Board in the following matters:

1. University Marketing and Communications, as necessary; and
2. Performance and compensation of individuals reporting directly to the Board:
 - a. President
 - b. General Counsel
 - c. Secretary of the Board of Curators

IV. Board Review & Approval/Ratification/Modification

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.

Approved by the Board of Curators: 4-17-25

CHARTER FOR ACADEMIC, STUDENT AFFAIRS, RESEARCH & ECONOMIC DEVELOPMENT COMMITTEE

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.

Approved by the Board of Curators:

4-09-20; Amended 2-4-21; 2-3-22; Amended 2-9-23; 2-8-24; 4-17-25

CHARTER FOR AUDIT, COMPLIANCE AND ETHICS COMMITTEE

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.

Approved by the Board of Curators:

4-09-20; 2-04-21; 2-3-22; 2-9-23; Amended 2-8-24; 4-17-25

CHARTER FOR GOVERNANCE AND HUMAN RESOURCES COMMITTEE

I. Governance and Human Resources Committee

The Governance 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. 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

2. 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.

3. 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.
4. Additional employee benefits including the Education Assistance Program for University Employees, CRR 230.070, and Layoff and Transition Assistance, CRR 350.051.
5. Labor Union Recognition and matters as further defined in Section 350.020, Labor Union Recognition, of the Collected Rules and Regulations.
6. Employment related policies including those related to employee absences, conduct and grievances.
7. Additional matters customarily addressed by the compensation and human resources committee of a governing board for an institution of higher education.

Approved by the Board of Curators:

4-09-20; Amended 2-04-21; 2-3-22; Amended 2-9-23; Amended 2-8-24; Amended 4-17-25.

CHARTER FOR HEALTH AFFAIRS COMMITTEE

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;
- Coordination of the clinical, teaching, and research missions; and
- 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:

- B. 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
- C. 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
- D. 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.

Approved by the Board of Curators:

4-09-20; Amended 2-04-21; 2-3-22; 2-9-23; 2-8-24; 4-17-25.

April 17, 2025

MISSOURI INTERCOLLEGIATE ATHLETICS SPECIAL COMMITTEE

The University of Missouri Board of Curators has created a Missouri Intercollegiate Athletics Special Committee.

Through our Huron engagement, personal experiences, observation, and feedback, we are aware that the fundamental aspects of Collegiate Athletics are undergoing significant and ongoing changes. These include, but are not limited to, shifts in athlete acquisition and retention methods and costs, the changing landscape of coach salaries and mobility, as well as the rising expenses associated with maintaining, upgrading, and constructing facilities. These changes bring about various challenges with broader implications.

Professional studies suggest, and other universities have mandated, that effective leadership and active involvement of governing boards in decisions related to collegiate athletics are considered best practices. Particularly at this critical moment in the evolution of key programs and with major planned investments in MU Athletics imminent, accountability to the Board and the State through this new committee is more important than ever.

This special committee will be charged, but not limited to, the following:

- A. To obtain, monitor, and gather all information the committee deems necessary to assess progress of athletic funding, efforts and results of funding.
- B. To obtain, monitor and gather all information regarding the progress of the Memorial Stadium Project, any other athletic facilities or plans and the progress of the Huron Roadmap.
- C. To be advised of regularly or upon request of the committee on matters concerning NCAA, SEC or any legal matters pending or on the horizon regarding the foregoing and NIL, Title IX, taxable status of contributions or other matters that may affect Athletics at MU.
- D. To do whatever is necessary to aid the committee in measuring, understanding and keeping current on any matters related to MU athletic activities that exist or what is foreseeable when it becomes foreseeable.

The Board of Curators directs the following actions by the University of Missouri administration: recognize and execute all things necessary to cooperate and adhere to the requests and directives of this special committee in a timely manner so the committee can accomplish its activities.

Approved by the Board of Curators: 2-08-24; 4-17-25

April 17, 2025

CHARTER FOR GOVERNANCE, ~~COMPENSATION~~ AND HUMAN RESOURCES COMMITTEE

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

C. 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.

D. 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.

Approved by the Board of Curators:

4-09-20; Amended 2-04-21; 2-3-22; Amended 2-9-23; Amended 2-8-24; Amended 4-17-25.

Approval of Collected Rules & Regulations 145.010, 145.015, 145.020, 145.030
Debt & Derivatives Policies
UM

Management recommends for Board approval changes in Debt & Derivatives Policies which are primarily administrative in nature. These changes have been reviewed by the University's Financial Adviser and have been recommended for approval by the University's Central Bank Committee.

The following outlines the proposed changes in detail:

145.010 – Policy for Management and Oversight of Debt and Derivatives

- Establishes a \$5,000,000 threshold for Board of Curators approval of new internal debt financing for capital projects.
- Requests for internal debt less than \$5,000,000 will be approved by the Executive Vice President of Finance & Operations, Chief Financial Officer and Treasurer.
- All external debt issuances under the System Facilities Revenue Bond Program continue to require Board of Curator approval.

145.015 – Debt Management Guidelines

- Consolidates relevant debt policy language to streamline guidelines and reduce redundancy.

145.020 – Derivatives Policy

- Removes LIBOR references and replaces them with a more current and appropriate benchmark.
- Updates Missouri State Statute references to ensure citations are correct.
- Adds Amortization Risk as a key risk consideration for potential future derivative transactions.
- Incorporates enhanced reporting requirements, including mandatory disclosures and the role of a Qualified Independent Representative (QIR) in advising on derivative transactions.

145.030 – Non-Debt Derivatives

- Updates Missouri State Statute references to ensure citations are correct.

Consent F

Recommended Action - Approval of Collected Rules & Regulations 145.010, 145.015, 145.020, 145.030, Debt & Derivatives Policies, UM

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

Existing debt & derivatives policies, Sections 145.010, 145.015, 145.020, 145.030, be amended, as noted in the attached documents:

Roll call vote:	YES	NO
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Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion _____.

Chapter 145: Debt and Derivatives

145.010 Policy for Management and Oversight of Debt and Derivatives

Bd. Min. 1-31-13, [Amended Bd. Min. 4-17-25](#)

A. Introduction – This policy establishes guidelines for the management and oversight of external debt and derivatives. The authorities, responsibilities and reporting requirements outlined in this section shall be informed by the guidelines contained within the following (collectively, “Debt and Derivative Policies”):

1. CRR 145.015 Debt Management Guidelines
2. CRR 145.020 Derivatives Policy

B. Overview of Borrowing Programs – The following provides a basic overview of the two primary external borrowing programs approved by the Board of Curators. The detailed applicable provisions of each program, including applicable issue-specific issuance, payment and related logistical matters, are contained within board resolutions approved by the Board of Curators from time to time authorizing issuances of debt under such programs, and the associated offering documents.

1. System Facilities Revenue Bonds Program – Provides generally long-term financing for acquisition, construction, renovation or expansion of various University facilities. The principal and interest of the bonds are payable from, and secured by a first lien on and pledge of, designated revenues of the University’s revenue-producing system facilities, including campus bookstore receipts, housing and dining charges, hospital and patient services, and parking collections, as well as certain assessed fees, such as recreational facility fees, stadium surcharges, and student activity fees, and a portion of tuition and fees attributable to such facilities (collectively, “System Facilities Revenues”).

The University must continuously operate and maintain the facilities financed by the bonds and maintain sufficient rates and charges for use of such facilities as will allow the University to meet annual debt service requirements. Additionally, System Facilities Revenues, in aggregate, must at all times exceed 200% of the annual debt service

requirements for the bonds in any given fiscal year.

2. Commercial Paper Program – Provides flexibility in managing the University's overall debt program and may be utilized for various University financing needs including, but not limited to: a) capital projects, including the acquisition, construction, renovation or expansion of various University facilities, infrastructure or equipment, and b) providing a readily accessible source of funds for various working capital purposes.

Commercial Paper Notes ("CP Notes") may be issued in taxable or tax-exempt form under the Commercial Paper program up to an aggregate amount authorized by the Board of Curators. Only taxable CP Notes may be utilized for working capital purposes. The maximum term of any CP Note is 270 days, and no more than \$100 million in CP Notes may mature within any seven calendar days.

CP Notes are limited obligations of the University payable solely out of and secured by a pledge of the University's unrestricted revenues, which generally include state appropriations for general operations, student fee revenues, and all other operating revenues of the University other than System Facilities Revenues.

C. Authorities – The Board of Curators of the University of Missouri has the ultimate authority to determine the proper means for the management and oversight of the University's debt and derivatives. Through this policy, the Board delegates certain specific authorities and responsibilities with respect to the management and oversight of debt and derivatives, which it has determined to be appropriate as described herein.

1. The following actions shall require Board of Curators approval after consideration of recommendations from University staff:

- a. Approval of debt financing for individual capital projects with a total cost of \$5,000,000 or more, including the acquisition, construction, renovation or expansion of University facilities, infrastructure or equipment. ~~In addition to specific System Facilities Revenues and various other sources of funding, Facilities and Administrative Cost Recovery ("FACR") may be used as an identified funding source for~~

~~internal debt service on debt issued to build University research and academic buildings, while not technically pledged to secure external debt. The total amount of FACR authorized for this purpose shall not exceed 20% of the annual average total FACR generated by the University over the three most recent fiscal years; and, the total amount approved for a campus' projects shall not exceed 20% of the annual average total FACR generated by the respective campus over the three most recent fiscal years. Exceptions to this policy can be made at the discretion of and by a vote of the Board of Curators.~~

- b. Issuance of debt, in any amount, under the System Facilities Revenue Bond Program.
- c. Determination of the maximum aggregate amount of CP Notes that may be outstanding at any one time under the Commercial Paper Program ("authorized amount").
- d. Approval ~~of~~ to engage in Derivative Transactions as defined in CRR 145.020 "*Derivatives Policy*." The authorizing resolution should clearly state the objective to be achieved by the transaction and the execution parameters should be consistent with the objective.

- 2. The following authority is hereby delegated by the Board to the Executive Vice President ~~for of Finance and Administration or the~~ Operations, Chief Financial Officer and Treasurer:

- a. Within the Commercial Paper Program, issuance of CP Notes within the authorized amount of aggregate principal amount outstanding.

D. Responsibilities – The Executive Vice President ~~for of Finance and Administration & Operations, Chief Financial Officer and Treasurer~~ or her/his designees are responsible for the following:

- 1. Implement and monitor Debt and Derivative Policies.
- 2. Review Debt and Derivative Policies on an annual basis, with policy amendments submitted to the Board of Curators as necessary.
- 3. Maintain accurate records and monitor compliance with any requirements for debt and derivatives.
- 4. Establish procedures to monitor the financial exposure and other risks

associated with any Derivative Transaction as defined in CRR 145.020
“*Derivatives Policy*.”

5. Periodic reporting to the Board as outlined in Section E of this policy.

E. Reporting – At minimum, the following reporting to the Board shall be required:

1. Quarterly: Summary of external debt and derivatives outstanding with appropriate metrics; listing of amount and general purpose of each CP Note currently outstanding (if any) under the Commercial Paper program.
2. Annually: Report of external debt authorized and outstanding by project; updated projections with respect to the University’s estimated debt capacity; and, current credit ratings.

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Chapter 145: Debt and Derivatives

145.015 Debt Management Guidelines

Bd. Min. 1-31-13, [Amended Bd. Min. 4-17-25](#)

- A. **Introduction** - These debt management guidelines are designed to provide a framework for implementing the University's debt issuances, to impose discipline on capital financing and operating budget decisions, to manage interest rate risk and to assist in the continued investment in the University's facilities. Further, these guidelines shall help ensure adequate financial strength to service existing and proposed debt, to maintain leverage within an acceptable risk tolerance while investing in strategic capital and other initiatives, and to enhance a strong financial profile to ensure continued access to the capital and money markets. Finally, this guidance will aid management in ensuring that an appropriate mix and type of funding resources are utilized and that the University's debt capacity continues to be used strategically.
- B. **Responsibilities and Authorities** – See CRR 145.010 “Policy for Management and Oversight of Debt and Derivatives.”
- C. **Approach to Debt Issuance** - While the University attempts to maximize the use of philanthropy, grants, internal funds and state and federal appropriations to fund capital projects, the strategic use of both taxable and tax-exempt debt can provide additional support for mission-critical investments and increase financial flexibility.

The University recognizes that debt is a limited resource. Debt should be used

prudently within the University's constitutional and statutory authority for capital projects that are consistent with the mission and vision of the University. To assure that this criteria is met, an analysis of the ongoing impact of the projects on the University's finances must be performed in connection with any incurrence of debt.

Debt will be managed on a portfolio-wide basis with the goal of achieving the most favorable cost of capital within acceptable risk parameters.

The University recognizes that there is a relationship between debt and overall University liquidity. The University needs appropriate liquidity for its operations and debt and investment obligations. In order to manage this relationship, regular analysis of the on-going impact of debt on the University's liquidity must be performed.

The University will manage its exposure to lenders, debtholders and other similar external parties by diversifying its financial service providers in the roles of bond sales, variable rate bond remarketing, commercial paper dealers, swap counterparties, and providers of other banking services or others forms of credit enhancements.

- D. **Debt Capacity and Debt Affordability** - The University intends to maintain a debt rating that ensures adequate funding for University capital projects and provides ready access to the capital markets at attractive rates relative to market conditions then existing. It is understood that higher credit ratings provide market access at lower interest rates but also limit the amount of debt that may be issued.

Debt capacity is a subjective measure, typically associated with balance sheet leverage. The University's risk tolerance and capital needs will inform how much leverage can comfortably be assumed. Debt affordability is in part a subjective measure, in this case associated with income statement leverage as well as ability to cover debt service from operations. Therefore the University's operating performance – either on a University, campus or project basis, as appropriate in the specific circumstance - along with projections of new revenue associated with debt-financed projects, will determine the affordability of additional debt.

The following ratios are intended to be guidelines for use in determining the

University's tolerance for additional debt and not to be an impediment to achieving the University's strategic objectives.

These ratios are used to measure the amount of outstanding debt compared to University's balance sheet resources (debt capacity) and the ability to service debt annually from operations (debt affordability). Such ratios shall be:

- Derived from audited financial statements;
- Calculated consistent with industry standards and peer institutions;
- Monitored on an on-going basis (annually and at the time of debt issuance);
- Re-evaluated as the University's capital needs and strategic initiatives evolve; and
- Compared with peer institutions.

1. Expendable Resources to Debt (Debt Capacity)

$$\text{Unrestricted Net Assets} + \text{Restricted Expendable Net Assets} / \text{Outstanding Debt}$$

This ratio is considered one of the most basic determinants of financial health by measuring coverage of direct debt by expendable financial resources. This ratio typically corresponds strongly with credit rating categories for rated institutions, so it is considered a good measure of *debt capacity* at a given rating level.

2. Debt to Revenue (Debt Capacity)

$$\text{Outstanding Debt} / \text{Operating Revenues}$$

This ratio measures the University's debt as a percent of total revenue and provides an overall measure of income statement leverage.

3. Debt Service to Operations (Debt Affordability)

$$\text{Annual Debt Service} / \text{Total Operating Expense}$$

This ratio measures the burden of debt service on the University's budget. This ratio is monitored to maintain the University's long-term operating flexibility to fund existing requirements and new initiatives.

4. Debt Service Coverage (Debt Affordability)

Operating Surplus (Deficit) + Interest and Depreciation Expense/Annual Debt Service

Debt service coverage measures the margin by which the University can repay its outstanding debt obligations. When assessing the potential incurrence of new debt, the additional revenues expected to be received by the University as a result of a debt-financed project may be considered in calculating the debt service coverage ratio if appropriately stress-tested.

- E. **Debt Portfolio Risk Management** - Risk management is an enterprise-wide endeavour and understanding the University's exposure to various risks requires an integrated view of assets, liabilities and operations. Debt portfolio risks exist within this wider context and must inform and be informed by it.

Risks in the debt portfolio can broadly be categorized as interest rate risks or liquidity risks. The former impacts the budget and its ability to absorb volatility in interest expense. The latter impacts the balance sheet and its ability to absorb unexpected calls on liquidity. The following risks will be assessed at the time of each debt or derivatives transaction and will be routinely monitored and managed on a portfolio-wide basis.

The components of interest rate risk include the following:

1. Market Rate Risk: The risk of rising interest rates on variable rate exposure from bank lines, bonds, commercial paper or Derivative Transactions. Although not part of the then-current debt portfolio at a given point in time, the University recognizes that debt yet to be issued for future projects also represents interest rate exposure.
2. Tax Risk: The risk that tax-exempt bond rates may unexpectedly increase or fluctuate due to changes in the tax code.
3. Bank Facility Re-pricing Risk: The risk that the pricing for bank lines or letters of credit (if any) used to support variable rate bonds or commercial paper will increase after expiration.
4. Credit Risk: The risk that the University's underlying credit ratings and/or the credit ratings of a bank providing bank lines or letters of credit to support variable rate bonds or commercial paper are downgraded.
5. Basis Risk (swap related): The risk that any swap receipts do not fully offset

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borrowing costs.

6. Counterparty Performance Risk (swap related): The risk that a swap counterparty fails to perform under a swap agreement.

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The components of liquidity risk include the following:

7. Remarketing Risk: The risk that variable rate demand bonds, put bonds or commercial paper cannot be remarketed and the Remarketing Agent puts the debt back to the University or the bank providing a bank line or letter of credit.
8. Roll Risk: The risk that bullet maturities, commercial paper or other balloon payments cannot be refinanced at maturity.
9. Bank Facility Renewal Risk: The risk of acceleration from the failure to renew an existing bank facility or to find a substitute facility.
10. Liquidity Provider Performance Risk: The risk that a liquidity provider fails to perform under an applicable bank line, letter of credit, or other liquidity agreement.
11. Swap Collateralization Risk: the risk that the mark-to-market of a swap declines and triggers a collateral posting requirement.
12. Swap Termination Risk: the risk that an automatic termination event from a counterparty results in a swap termination in which the University must pay to settle the swap.

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The University will quantify its potential exposure to interest rate and liquidity risks under various risk scenarios. The University recognizes that risk can change rapidly in response to external and internal factors, and that adequate contingency plans need to be in place to address different environments.

The University recognizes that there is a trade-off between pursuing the lowest cost of funds and assuming risk in the debt portfolio. The amount of risk that the University will be willing to assume within its debt portfolio will be evaluated in the context of other risk factors affecting the institution, including investment risk, operational risk, and external economic factors.

- F. **Structuring Guidelines** - The University will review all potential funding

sources for its projects, with the goal of achieving the lowest overall cost of capital that is consistent with the University's risk profile. In determining the structure for a specific financing, the University will take into account a number of factors, including prevailing market conditions and its existing debt portfolio.

1. Fixed / Variable Mix: In general, fixed rate financing is used in order to avoid unexpected increases in interest costs in the future. Variable rate debt may be considered for funding in anticipation of gifts or when prepayment/restructuring flexibility is desired, or when long-term fixed interest rates are considered undesirable for locking in long-term rates, or for diversifying the University's debt portfolio. Since the use of variable rate instruments may require liquidity, the University will take such requirements into consideration when using variable rate debt and will manage its liquidity needs considering the entire asset and debt portfolio as well as different variable rate instruments, which may or may not require liquidity support. Exposure to and reliance on external parties, such as remarketing agents, commercial paper dealers and liquidity providers, will be considered on a comprehensive, ~~University-wide~~ basis.
2. Tax-Exempt/Taxable Debt: The University will evaluate the use of tax-exempt versus taxable debt based on market conditions at the time of issuance, type of facility being financed (as not all projects qualify for tax-exempt financing) and taking into account other strategic considerations, such as restrictions (or lack thereof) on the use of debt proceeds.
3. Refunding Criteria: The University will continuously monitor its outstanding debt for refunding and/or restructuring opportunities. For refundings, the University will consider transactions that produce appropriate present value savings, taking into account the level of interest rates, the remaining time before the call date and costs of issuance. Additional factors to be considered include negative arbitrage (if any) and the use of derivatives or non-traditional bond structures.
4. Other Financing Sources: Opportunities for alternative and non-traditional transaction structures may be considered, including off-balance sheet financings. The University recognizes that these types of transactions can often be more expensive than traditional University debt structures; therefore, the benefits of any potential transaction must outweigh any potential costs

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and risks. Non-traditional structures should only be considered once the benefits have been identified and the likely impact on the University's debt capacity and credit has been determined.

5. Derivative Products: The University recognizes that derivative products may enable more opportunistic and flexible management of the debt portfolio. The University will consider the utilization of derivative products, subject to the provisions of CRR 145.020 "*Derivatives Policy*."

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- G. **Methods of Debt Issuance** – The University will select the preferred method of issuance for each debt sale dependent upon the type of transaction, market conditions, and the projects to be financed. The most common types of sale are negotiated, using one or more selected underwriters; competitive; or ~~via~~ private placements. When using a negotiated transaction, the University may either select one or more underwriters for an individual transaction or a series of transactions, or establish a pool of qualified underwriters from which the University will select one or more specific underwriter(s) for each transaction. In all cases, underwriters shall be selected as part of a competitive process based on a variety of factors, including but not limited to, the execution capabilities of the firm, service provided to the University, fees, and other strategic considerations. If utilized, an underwriting pool shall last no longer than five (5) years before a new competitive process establishes another pool.

- H. **Rating Agency and Investor Relations** - The University recognizes that an active program of credit rating agency and investor relations is critical for maintaining favorable capital market access. While the University recognizes that changes to its credit rating can affect its borrowing costs, decisions related to borrowing and structure will be driven first and foremost by strategic issues, including the University's capital needs and its ability to afford debt, and not governed by issues relating to a specific credit rating.

- I. **Compliance** - The University will comply with all legal and contractual requirements for ongoing continuing disclosure related to its debt portfolio, including disclosure requirements under applicable SEC or MSRB rules and regulations contained in applicable continuing disclosure undertakings. The University may employ one or more dissemination agents to assist it in compliance with such requirements.

The University will comply with all applicable legal, contractual and other requirements for post-issuance compliance related to tax-exempt or other debt, including any applicable University policy and/or procedures adopted from time to time in order to so comply. Matters to be monitored and complied with pursuant thereto may include the investment, use and expenditure of proceeds of such debt; restrictions on the use of projects financed thereby; record retention and maintenance; ongoing compliance monitoring; interaction with bond counsel and/or disclosure counsel; monitoring of tax-exempt bond expenditures; arbitrage rebate monitoring, compliance and filings, and private business use monitoring and compliance.

Chapter 145: Debt and Derivatives

145.020 Derivatives Policy

Bd. Min. 1-31-13, [Amended Bd. Min. 4-17-25](#)

- A. **Introduction** - This policy is designed to provide a framework for the management of risk associated with derivative instruments and hedging activities in connection with debt transactions. This policy is adopted pursuant to and is intended to be compliant with Section

108.170(87)(3) of the Revised Statutes of Missouri, as the same may be amended from time to time.

This policy shall be applicable to agreements providing for payments based upon levels of or changes in interest rates, including without limitation derivative agreements commonly referred to as interest rate swaps, hedges, caps, floors or collars, entered into in connection with bonds, notes or other obligations issued by or on behalf of the University, which bonds, notes or other obligations are either presently outstanding or expected to be issued, and bearing interest at fixed or variable rates of interest (individually a “Contract”, “Agreement” or “Derivative Transaction”, and collectively “Contracts”, “Agreements” or “Derivative Transactions”).

B. **Responsibilities and Authorities** – See CRR 145.010 “*Policy for Management and Oversight of Debt and Derivatives.*”

C. **General Guidelines** - The following non-exclusive list provides certain guidelines that the University will follow in the evaluation and recommendation of Derivative Transactions as defined in this policy:

1. Legality - Any proposed Contract must comply within the legal constraints imposed by state laws, University resolutions, and existing covenants, bond resolutions, indentures and other contracts.

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2. Permitted Purposes and Financial Strategy - Derivative Transactions may be used to manage the University’s risk profile, including but not limited to tax risk, liquidity risk, and interest rate risk. The University will evaluate Derivative Transactions on a standalone basis, in the context of the debt portfolio, and in the context of the University as a whole (e.g., institutional tax risk and interest rate risk).

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3. Mitigation of Risk Factors - The University recognizes that certain risks will be assumed if it enters into a Derivative Transaction. In order to mitigate the associated risks, the University will follow the guidelines described below:

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a. *Counterparty Risk*: Counterparty risk is the risk that a counterparty fails to meet its obligations as described in the Contract. The University will seek to mitigate this risk by (a) evaluating the credit quality of any counterparty, including, but not limited to, public credit ratings, preferring higher creditworthiness for transactions

which may have a significant financial impact, (b) diversifying its counterparty exposure among different financial institutions and (c) including, when appropriate, swap collateralization requirements which protect the University and counterparty.

- b. Termination Risk:* Termination risk is the risk that an event of default or credit rating downgrade below a set threshold triggers a termination event. Except for extenuating circumstances, it is the intent of the University not to make a termination payment to a counterparty that has failed to meet its contractual obligations. At a minimum, prior to making any termination payment, the University will determine whether it is financially advantageous to obtain a replacement counterparty.
- c. Collateralization Risk:* Collateralization risk is the risk that the University must post collateral to secure a negative mark-to-market (or manage the receipt of collateral from a counterparty). Collateral thresholds will be selected to avoid significant portfolio burden arising from posting of collateral.
- d. Interest Rate Risk:* Many Derivative Transactions involve the assumption or removal of interest rate risk. Portfolio impact must be evaluated as well as institutional asset positions (or other investments) which may be impacted by changes in short or long interest rate risks.
- e. Basis Risk:* Basis risk is the risk that the index chosen as the basis for floating rate payments in the Derivative Transaction does not match the floating rate of the underlying liability. The University will mitigate this risk by requiring that any index chosen as part of a Derivative Transaction must be a recognized market index, including but not limited to Securities Industry and Financial Markets Association ("SIFMA") or Secured Overnight Financing Rate ("SOFR")~~London-Interbank Offering Rate ("LIBOR")~~. The University will not enter into a Derivative Transaction without considering the potential incremental cost and risk to the University of basis risk.
- f. Tax Risk:* Tax risk is the risk that tax-exempt bond rates may unexpectedly increase or fluctuate due to changes in the tax code. Tax risk is present in all tax-exempt debt issuances. When entering into Derivative Transactions associated with tax- exempt bonds, tax risk involves tax-exempt bond rates

consequently diverging from the specified swap index (a form of basis risk), resulting in a reduction in the derivative's effectiveness as a hedge or as a risk management financial product. The University will mitigate this risk by managing the total tax risk that the University assumes in its overall debt portfolio.

g. *Bankruptcy Risk*: Bankruptcy risk is the risk that the University may fail to recover any amount due, potentially including collateral that has been posted, due to bankruptcy proceedings of a counterparty. The University will mitigate this risk by:

(a) evaluating the credit quality of any counterparty, including, but not limited to, public credit ratings, preferring higher creditworthiness for transactions which may have a significant financial impact, (b) diversifying its counterparty exposure among different financial institutions and (c) including reasonable swap collateralization requirements.

h. *Amortization Risk*: Mismatched amortization schedules between the debt principal and the associated swap notional can result in a less than satisfactory hedge and create unnecessary risk by exposing the University to cash flows that do not offset. To mitigate this risk, the notional amount of the swap and principal should be aligned at inception and throughout the life of the instruments.

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As part of its efforts to mitigate risk, the University will also require the counterparty to disclose in writing the potential costs and risks associated with any Derivative Transaction.

In addition, in its consideration of whether or not to enter into a Derivative Transaction, and in the actual entrance into such a Derivative Transaction if so determined, the University shall consider recommended practices with respect to the use of debt-related derivative products published by the Government Finance Officers Association.

D. Reporting – The Annual Financial Report prepared by the University and presented to the Board of Curators will discuss the status of all swaps. The report shall include a list of all swaps with notional value and interest rates, and other key terms.

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E. Qualified Independent Representative (QIR) – In connection with Futures Trading

Commission Rules, a qualified independent representative (QIR) will be selected to advise the University on derivative transactions, and staff will monitor the performance of such QIR on an ongoing basis. The University will consult with the QIR prior to entering into or modifying any derivative transaction.

D.F. Market Disclosure - The Treasurer will establish procedures to provide timely disclosure of material information related to executed Derivative Transactions to credit rating agencies and investors. Audited financial statements will include disclosure of any Derivative Transactions consistent with accounting practice. Any offering documents used in connection with new debt financings will include disclosure of any material information related to Derivative Transactions expected or anticipated at the time of issuance of the obligations.

E.G. Exclusions - Nothing in this policy shall be applied or interpreted to diminish or alter the special or general power the University may otherwise have under any other provisions of law to use derivative instruments and engage in hedging activities other than Derivative Transactions covered by this Policy as defined in Section A.

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145.030 Non-Debt Derivatives Policy

Board Min. 4-12-13, [Amended Bd. Min. 4-17-25](#)

A. **Introduction** - This policy is designed to provide a framework for the management of risk associated with non-debt derivative instruments and similar hedging activities utilized by the University and its component units in connection with:

1. the purchase of fuel, electricity, natural gas, animal feed, livestock, agricultural products or other commodities (“commodities”) used in the ordinary course of the University’s lawful operations; and/or,
2. transactions in commodities for educational or research purposes or programs and/or service activities of the University provided in the ordinary course of its lawful operations.

This policy shall be applicable to option contracts, hedges, forward purchase agreements and similar derivative agreements (individually a “Contract”, “Agreement” or “Derivative Transaction”, and collectively “Contracts”, “Agreements” or “Derivative Transactions”). This policy is intended to be compliant with Section 108.170(~~87~~)(3) of the Revised Statutes of Missouri, as amended from time to time, to the extent, if any, that such section is applicable to the University.

B. **Authorities** - The Board of Curators of the University of Missouri has the ultimate authority to determine the proper means for the management and oversight of the University’s non-debt derivatives. Through this policy, the Board delegates certain specific authorities and responsibilities with respect to the management and oversight of non-debt derivatives, which it has determined to be appropriate as described herein.

Subject to the Guidelines contained in Section D of this policy, the authority to approve the usage of Derivative Transactions as defined in this policy is hereby delegated by the Board to the Vice President for Finance and Administration or her/his designee.

C. **Responsibilities** - The Vice President for Finance and Administration or her/his designees are responsible for the following:

1. Implement and monitor the Non-Debt Derivative Policy.
2. Review the Non-Debt Derivative Policy on an annual basis, with policy amendments submitted to the Board of Curators as necessary.
3. Maintain accurate records and monitor compliance with any requirements for non-debt derivatives.
4. Establish procedures to monitor the financial exposure and other risks associated with Derivative Transactions subject to this policy.

D. **Guidelines** - The following non-exclusive list provides certain guidelines that the University will follow in the evaluation and approval of Derivative Transactions as defined in this policy:

1. Legality - Any proposed Contract must comply within the legal constraints imposed by state laws, University resolutions, and existing covenants, board resolutions, indentures and other contracts.
2. Permitted Purposes and Corresponding Limitations
 - a. Derivative Transactions may be used to manage the cost to the University and its component units of purchasing commodities used in the ordinary course of the University's operations. Options, futures contracts and similar Agreements entered into pursuant hereto shall be limited in the financial risk to the University to the amount paid or invested by the University. The maximum aggregate notional amount (i.e., amount

at risk) of any outstanding Agreements entered into pursuant to this purpose shall not exceed \$500,000 at any point in time, without Board approval.

- b. Derivative Transactions may also be used as an educational tool in connection with University course offerings, research and/or University Extension programs. Such Transactions shall be utilized for the purpose of instructing students and program participants in the use of such Transactions, and the management and minimization of risk.
The maximum aggregate notional amount (i.e., amount at risk) of Agreements entered into pursuant to this authority shall not exceed: (i) as to Agreements which the University has established a funded reserve account related thereto funded from participant fees or contributions, the amount of such reserves, or (ii) as to Agreements without a funded reserve as set forth in clause (i), the aggregate amount of any outstanding Agreements entered into pursuant to this purpose shall not exceed \$100,000 at any point in time, without Board approval.

- 3. Mitigation of Risk Factors - The University recognizes that certain risks will be assumed if it enters into a Derivative Transaction. Potential risks could include counterparty risk, termination risk, collateralization risk, basis risk and bankruptcy risk. In its consideration of whether or not to enter into a Derivative Transaction, and in the actual entrance into such a Derivative Transaction if so determined, the University shall consider recommended practices with respect to the use of derivative products similar to the relevant recommended practices published by the Government Finance Officers Association, if any.

- E. **Exclusions** - Nothing in this policy shall be applied or interpreted to diminish or alter the special or general power the University may otherwise have under any

other provisions of law to use derivative instruments and engage in hedging activities other than Derivative Transactions covered by this Policy as defined in Section A. Furthermore, this policy shall not be interpreted to govern or limit transactions and agreements governed by the University's Debt and Derivatives policies and/or Investment policies or, in the case of transactions not derivative in nature between the University and supplier or purchaser of commodities, the University's general regulations applicable to the procurement or sale of goods and services.

Project Approval
UMSL School of Engineering – Science Complex Renovation
UMSL

The University of Missouri – St. Louis requests Project Approval for the UMSL School of Engineering – Science Complex Renovation project. The total project budget of \$15,000,000 will be funded by the State.

The School of Engineering intends to enhance the engineering programs currently offered through the university's 30-year joint undergraduate initiative with Washington University, addressing the regional demand for engineering talent. UMSL's Science Complex is prominently located at the main entrance to UMSL's North Campus and provides an excellent opportunity to create a "front door" for the newly formed UMSL School of Engineering. This project is aligned with UMSL's ten-year Master Plan by focusing growth on the North Campus and leveraging underutilized space. State funding will be utilized for dedicated lab spaces and facilities to support the new on-campus engineering program. Local business leaders with Greater St. Louis Inc., the Regional Business Council, and top employers such as Ameren, Boeing, Emerson, Nidec, and Thermo Fisher Scientific advocated for the project funding.

This project will renovate underutilized space within UMSL's science complex to support the creation of a new on-campus UMSL School of Engineering. The project will convert aging lab and classroom space to new engineering labs, classrooms, and support spaces to recruit and retain engineering students in the region. Currently, there is limited natural lighting, ADA challenges, and uninviting lab and classroom space in Stadler Hall. New collaborations zones will be created to promote collaboration between researchers, students, and faculty and ADA improvements will be made throughout the renovated spaces.

Patterhn Ives LLC, St. Louis, Missouri is the recommended architect for this project. The Patterhn Ives team has completed multiple relevant projects of similar size. The design team includes lab planner Perkins Eastman, New York, New York, and Mechanical, Electrical, Plumbing and Fire Protection Engineer McClure Engineering, St. Louis, Missouri.

The fee for basic architectural and engineering services has been determined by referencing the University of Missouri's "Architectural and Engineering Basic Services Fee Estimating Guidelines." The project is considered a Type IV - Renovation (More Than Average Complexity) and the calculated basic services fee is \$920,974 based upon 8.6% of the estimated \$10,709,000 construction cost. Pre-approved additional services include existing facility drawings & conditions analysis, strategic visioning & benchmarking, facility programming & feasibility study, specialty laboratory consultant, specialty elevator consultant, and owner AV consultant coordination. A total of \$360,290 in pre-approved additional services and \$39,500 in reimbursables have been added to the basic services fee amount to arrive at a total maximum fee of \$1,320,764.

The project will be delivered traditional Design-Bid-Build and is expected to be complete by August 2026.

Consent G

Recommended Action – Project Approval, UMSL School of Engineering – Science Complex Renovation, UMSL

It was recommended by Chancellor Sobolik, endorsed 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 School of Engineering – Science Complex Renovation, UMSL

Funding of the project budget is from:	
State	\$15,000,000
Total Funding	\$15,000,000

Roll call vote Full Board:	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Krewson		
Curator Layman		
Curator Luetkemeyer		
Curator Raines		
Curator Sinuefield		
Curator Williams		

The motion _____.

Meeting Date	April 17, 2025
Action Title	Test Optional Undergraduate Admissions Pilot 1-Year Extension
Action Type	Open Consent Item

Summary

This is a request to approve a 1-year extension to the Test Optional Undergraduate Admissions Pilot at MU, S&T, and UMSL.

Table of Contents

- 1. Executive Summary [OPEN – CONSENT – H-1-1]**
 - *Provides a high-level overview of the test optional admissions pilot.*
- 2. Recommended Action & Roll Call Vote [OPEN – CONSENT – H-1-2]**
 - *The formal approval of the recommendation to extend the test optional admissions pilot for MU, S&T, and UMSL for one year.*

EXECUTIVE SUMMARY

Test Optional Undergraduate Admissions Pilot 1-Year Extension

The University of Missouri – Columbia (MU), Missouri University of Science and Technology (S&T), and University of Missouri – St. Louis (UMSL) request that the existing test optional pilot be extended for an additional year to cover the Fall 2026 recruitment cycle. The test optional pilots were enacted in 2020 due to the COVID-19 pandemic. The University of Missouri – Kansas City (UMKC) announced an ongoing test optional policy in early 2020.

The Board last extended the pilot in February 2024 and received information regarding the status of test optional at a special meeting of the Academic, Student Affairs, Research and Economic Development (ASARED) Committee in December 2024.

The purpose of the extension is to allow for continued assessment of the effects of test optional admissions on student outcomes and to remain competitive with other universities. Most UM System peers have decided to continue test optional admissions on a permanent basis or have extended an existing pilot, including all Missouri public four-year universities and the majority of AAU and SEC institutions.

The proposed extension through the Fall 2026 recruitment cycle has received the approval of each institution's Chancellor and Provost. The measure was approved by the UMSL Faculty Senate on January 21, the MU Faculty Council on February 13, and the S&T Faculty Senate on February 27.

Consent H

Recommended Action – Test Optional Undergraduate Admissions Pilot 1-Year Extension

It was recommended and endorsed by President 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 University of Missouri – Columbia, Missouri University of Science and Technology, and University of Missouri – St. Louis extend the test optional undergraduate admissions pilot by one year to encompass the Fall 2026 admissions cycle.

Roll call vote:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion _____.

Meeting Date	April 17, 2025
Action Title	CRR 200.010, Standard of Conduct Amendment
Action Type	Open Consent Item

Summary

This is a request to approve amendments to CRR 200.010 to align the definition of “hazing” with the federal “Stop Campus Hazing Act”.

Table of Contents

1. Executive Summary [OPEN – CONSENT – I-1]

- *Provides a high-level overview of the revisions needed to ensure CRR 200.010 “Standard of Conduct” is in compliance with federal definitions in the “Stop Campus Hazing Act”.*

2. Recommended Action & Roll Call Vote [OPEN – CONSENT – I-2]

- *The formal approval of revisions to CRR 200.010 “Standard of Conduct”.*

3. Standard of Conduct Amendments_Redline [OPEN – CONSENT – I-3-9]

- *Provides the redline version showing all revisions made to current CRR 200.010.*

Appendix

1. Standard of Conduct Amendments_Final Version [OPEN – CONSENT – I-10-16]

- *Provides the final version of the CRR after revisions are approved.*

EXECUTIVE SUMMARY

AMENDMENT TO CRR 200.010, STANDARD OF CONDUCT

CRR 200.010, Standard of Conduct, establishes the standards of conduct for students and student organizations, which includes language related to hazing.

This is a proposal that CRR 200.010 be slightly amended to align the definition of “hazing” with the definition set forth in the recently enacted federal “Stop Campus Hazing Act” (the “Act”), which requires the University to collect and disclose information about campus hazing incidents. Our current CRR’s definition of “hazing” is substantially similar to the Act’s definition. Aligning the two definitions will simplify compliance with the Act’s reporting requirement.

The proposed revisions adopt the Act’s definition of “hazing” and preserve the University’s policy of holding group and organization leaders responsible for preventing, discouraging, and/or reporting hazing of which they are or reasonably should be aware.

The proposed revisions were prepared by the Offices of the General Counsel and Ethics, Compliance, and Audit Services, and they have been shared with multiple stakeholders, including student affairs staff from the four universities.

Consent I

Recommended Action – Amendment to Collected Rules and Regulations 200.010, Standard of Conduct

It was recommended and 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 amendment to Collected Rules and Regulations 200.010: Standard of Conduct as presented, be approved.

Roll call vote of Board:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion_____.

200.010 Standard of Conduct

Amended Bd. Min. 3-20-81; Bd. Min. 8-3-90, Bd. Min 5-19-94; Bd. Min. 5-24-01, Bd. Min. 7-27-12; Bd. Min. 12-7-12; Bd. Min. 6-19-14; Revised 9-22-14 by Executive Order 41; Revised 11-3-15 by Executive Order 41; Amended 2-9-17; Bd. Min. 9-24-20; Bd. Min. 11-19-20; Amended 6-29-23; Amended 9-7-23.

The Standard of Conduct exists to support the mission of the University of Missouri as an educational institution. The following expectations have been established in order to protect a specialized educational environment conducive to learning which fosters integrity, academic success, personal and professional growth, and responsible citizenship.

A student at the University assumes an obligation to behave in a manner compatible with the University's function as an educational institution and voluntarily enters into a community of high achieving scholars. A student organization recognized by the University of Missouri also assumes an obligation to behave in a manner compatible with the University's function as an educational institution. Consequently, students and student organizations must adhere to community standards in accordance with the University's mission and expectations. Students and student organizations are expected to demonstrate responsibility for their actions; respect the rights and property of others; and observe federal, state, and local laws, as well as University rules and policies.

The Standard of Conduct is implemented through Section 200.020 Rules of Procedures in Student or Student Organization Conduct Matters. It is to be implemented and interpreted in a manner that supports the University's mission as an educational institution and protects the University's educational environment.

- A. **Jurisdiction of the University of Missouri** generally shall be limited to conduct which occurs on the University of Missouri premises or at University-sponsored or University-supervised functions. However, the University may take appropriate action, including, but not limited to the imposition of sanctions under Section 200.020 and Chapter 600 of the Collected Rules and Regulations against students and student organizations for conduct occurring in other settings, including off campus, for the following purposes: (1) in order to protect the health, safety, welfare, and well-being of students, employees, and other members of the University community, or (2) if there are effects of the conduct that materially interfere with or limit any person's or entity's ability to participate in or benefit from the University's educational programs, activities, or employment. Jurisdiction of conduct occurring in other settings, including off campus, may be exercised at the discretion of the University for these stated purposes, but shall not be exercised in any way that would interfere with a student's protected constitutional rights.
- B. A **student organization** is a recognized student organization which has received official approval in accordance with Section 250.010 of the Collected Rules and Regulations. Action against student organizations under the Standard of Conduct and Rules of Procedure may be separate from action taken against individual members. A student organization will be considered responsible for conduct outlined in Section 200.010.C only when there are circumstances indicating that the organization should bear collective responsibility for the conduct, and not solely because its individual members engaged in prohibited conduct. To determine whether a student organization is responsible for conduct outlined in Section 200.010.C and the extent to which it should be sanctioned, all relevant circumstances will be considered, including but not limited to

the following:

1. Factors weighing in favor of organizational responsibility:

- a. The student organization, through its officers or practices or customs, by any means approved, condoned, allowed, encouraged, assisted or promoted such prohibited conduct;
- b. The prohibited conduct was committed, permitted, encouraged, aided, or assisted by one or more student organization executive officers or by one or more members while acting with authority on behalf of the student organization;
- c. Student organization resources, such as funds, group communications, information technology resources, or organization property or venues, were used for the prohibited conduct;
- d. The student organization, through its officers or advisers, materially interferes or interfered with any investigation or conduct proceedings related to the prohibited conduct;
- e. A policy, protocol, or official practice of the student organization caused or materially contributed to the prohibited conduct; and/or
- f. In the absence of any evidence of the factors listed in subdivisions a. – e. above, the prohibited conduct was committed, participated in, encouraged, aided, or assisted by twenty-five percent or more of the student organization's members;

2. Factors weighing against organizational responsibility:

- a. The student organization had policies, protocols, or official practices in place to prevent or deter the prohibited conduct;
- b. The student organization had provided guidance, education, or training to the individual members involved to prevent or deter the prohibited conduct;
- c. The student organization took prompt and effective action to prevent or stop the prohibited conduct or mitigate its effects once the organization or its officers became aware or reasonably should have become aware of the prohibited conduct;
- d. The student organization or its officers promptly reported the prohibited conduct to an appropriate University official and any other appropriate authorities; and/or
- e. The student organization addressed any prohibited conduct of its members through an organizational sanction or punishment.

C. **Prohibited Conduct** for which students and student organizations, when applicable, are subject to sanctions falls into the following categories:

- 1. **Academic dishonesty**, including but not limited to cheating, plagiarism, unauthorized use of artificially generated content, or sabotage. The Board of Curators recognizes that academic honesty is essential for the intellectual life of the University. Faculty members have a special obligation to expect high standards of academic honesty in all student

work. Students have a special obligation to adhere to such standards. In all cases of academic dishonesty, the instructor shall make an academic judgment about the student's grade on that work and in that course, which shall not be considered a sanction for prohibited conduct under this rule. The instructor shall, consistent with other policies, report the alleged academic dishonesty to the Primary Administrative Officer.

- a. The term **cheating** includes but is not limited to: (i) use of any unauthorized assistance in taking quizzes, tests, examinations or other assessments; (ii) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (iii) acquisition or possession without permission of tests or other academic material belonging to a member of the University faculty or staff; or (iv) knowingly providing any unauthorized assistance to another student on quizzes, tests, examinations, or other assessments.
- b. The term **plagiarism** includes, but is not limited to: (i) use by paraphrase or direct quotation of the published work of another source without properly crediting the author with footnotes, citations or bibliographical reference; (ii) unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; or (iii) unacknowledged use of original work/material that has been produced through collaboration with others without release in writing from collaborators.
- c. The term **unauthorized use of artificially generated content**, includes, but is not limited to (i) use of artificial intelligence tools or other tools that generate artificial content in taking quizzes, tests, examinations, or other assessments without permission from the instructor; (ii) submitting work for evaluation as one's own that was produced in material or substantial part through use of artificial intelligence tools or other tools that generate artificial content without permission from the instructor; (iii) using artificial intelligence tools or other tools that generate artificial content in a manner contrary to instructions from the instructor; or (iv) using artificial intelligence tools or other tools that generate artificial content in a manner that violates any other provision of these rules concerning academic dishonesty. Use of commonly available tools such as spelling or grammar checking software or features of software that propose anticipated words or phrases while text is being written will not be considered unauthorized use of artificially generated content unless such use is contrary to instructions from the instructor.
- d. The term **sabotage** includes, but is not limited to, the unauthorized interference with, modification of, or destruction of the work or intellectual property of another member of the University community.

2. **Forgery, alteration, or misuse of University documents, records or identification, or furnishing information to the University that the student or student organization knows or reasonably should know is false.**
3. **Physical abuse or other physical conduct which threatens or endangers the health or safety of any person.**
4. **Stalking** another by engaging in a course of conduct directed at a specific person knowing or consciously disregarding a substantial and unjustifiable risk that the course of conduct would cause a reasonable person to —(A) fear for their safety or the safety of others; or (B) suffer substantial emotional distress.
5. **Violation of the University's Equal Employment/Education Opportunity and Nondiscrimination Policy** located at Section 600.010 of the Collected Rules and Regulations.
6. **Violation of the University's Sexual Harassment under Title IX Policy located at Section 600.020 of the Collected Rules and Regulations.**
7. **Threats**, defined as communication of a serious expression of intent to commit an act of unlawful violence against an individual or identifiable group, such that the individual or group would reasonably fear violence, regardless of whether the communicating individual actually intends to carry out the threat, and in which the person engaging in the communication knew or consciously disregarded a substantial and unjustifiable risk that it would have such an effect on the individual or identifiable group.
8. **Participating in attempted or actual taking of, damage to, or possession without permission of property of the University or of a member of the University community or a campus visitor.**
9. **Unauthorized possession, duplication or use of keys or other means of access to any University facilities or unauthorized entry to or use of University facilities, property or resources.**
10. **Misuse of University or personal property in a manner that creates a safety hazard or unauthorized use of safety equipment.**
11. **Deliberately setting off a fire or other emergency alarm without justified reason or knowingly giving a false report of a crime or emergency.**
12. **Violation of the available written policies, rules or regulations of the University or any of its units applicable to the student under the circumstances or of material conduct standards identified in contracts or agreements the student has entered into with the University**, including, but not limited to, those governing residence in the University-provided housing, or the use of University facilities, or student organizations, or the time, place or manner of public expression.
13. **Violation of applicable federal, state, foreign or local law or ordinance**, that directly impacts the University's activities, programs, property, students, employees, or volunteers or indicates that the individual poses a risk to the safety, welfare, or well-being of the University's students, employees, or volunteers.
14. **Manufacture, use, possession, sale or distribution of alcoholic beverages or any controlled substance under state or federal law without proper prescription or required license or as expressly permitted by law or University regulations**, including operating a vehicle on University property, or on streets or roadways adjacent to and

abutting a campus, under the influence of alcohol or a controlled substance as prohibited by law of the state of Missouri. To the extent there is any inconsistency between state and federal law as to circumstances in which manufacture, use, possession, sale or distribution of a substance is expressly permitted, federal law will govern to the extent appropriate to facilitate the University's compliance with the Drug Free Schools and Communities Act and any other applicable federal law.

15. Substantially disrupting, or inciting others to substantially disrupt:

- a. University operations, functions or activities including, but not limited to classes or other teaching, research, study, lectures, performances, meetings, interviews, living or learning communities, administrative business, or ceremonies or other public events, regardless of whether such operations, functions or activities are conducted in-person or through information technology resources; or
- b. Authorized or permissible non-University activities that occur at a location owned or controlled by the University or through information technology resources provided by the University.

16. Failure to comply with lawful directions of University officials acting in the performance of their duties or failure to identify one's self to University officials acting in the performance of their duties when reasonably requested to do so and upon reasonable explanation of the reason for the request for identification.

17. Failure to comply with and complete all sanctions and remedial actions applied under Section 200.020 or Chapter 600 within the time frame specified.

18. The possession or use of firearms, explosives, other weapons, or hazardous chemicals that violates federal or state law or applicable foreign law or University rules.

19. Hazing, defined as ~~an act that endangers the mental or physical health or safety of a student, or an act that is likely to cause physical or psychological harm to any person within the University community, or that destroys or removes, damages, defaces, or tampers with public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for continued membership in a group or organization.~~ Participation or cooperation by the person(s) being hazed does not excuse the violation. any intentional, knowing, or reckless act committed (whether individually or in concert) against another person or persons regardless of the willingness of such other person or persons to participate, that:

- a. Is committed in the course of an initiation into, an affiliation with, or the maintenance of membership in a group or organization; and
- b. Causes or creates a risk, above the reasonable risk encountered in the course of participation in the University or the organization (such as the physical preparation necessary for participation in an athletic team), of physical or psychological injury, including:
 - i. Whipping, beating, striking, electronic shocking, placing of a harmful substance on someone's body, or similar activity;

- ii. Causing, coercing, or otherwise inducing sleep deprivation, exposure to the elements, confinement in a small space, extreme calisthenics, or other similar activity;
- iii. Causing, coercing, or otherwise inducing another person to consume food, liquid, alcohol, drugs, or other substances;
- iv. Causing, coercing, or otherwise inducing another person to perform sexual acts;
- v. Any activity that places another person in reasonable fear of bodily harm through the use of threatening words or conduct;
- vi. Any activity against another person that includes a criminal violation of local, State, Tribal, or Federal law; and
- vii. Any activity that induces, causes, or requires another person to perform a duty or task that involves a criminal violation of local, State, Tribal, or Federal law.

~~19.~~ Failure by a group's or organization's executive officers to intervene to prevent, discourage, and/or report hazing of which they are aware or reasonably should be aware also will be deemed a violation of this policy.

20. Misuse of information technology resources in accordance with University policy, including but not limited to:

- a. Actual or attempted theft or other abuse;
- b. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose;
- c. Unauthorized transfer of a file;
- d. Unauthorized use of another individual's identification and password;
- e. Use of information technology facilities to interfere with the work of another student, faculty member, or University official;
- f. Use of information technology facilities to interfere with normal operation of any University information technology system;
- g. Knowingly causing a virus, malware, or other means designed to disrupt, damage or gain unauthorized access to become installed in any information technology system or file; or
- h. Violation of Section 110.005 of the Collected Rules or Regulations or other University policy governing use of computing resources.

21. Retaliation, False Reporting, Witness Intimidation or Harassment, and Interference.

- a. Retaliation is any adverse action taken against a person because of that person's participation or refusal to participate in the process set forth in CRR 200.020, provided that the exercise of rights protected under the First Amendment does not constitute retaliation prohibited under this section. Any person who engages in such retaliation

shall be subject to disciplinary action, up to and including expulsion or termination, in accordance with applicable procedures. Any person who believes they have been subjected to retaliation is encouraged to notify the Primary Administrative Officer. The University will promptly respond to all claims of retaliation in accordance with this policy.

- b. False reporting is making an intentional false report or accusation in relation to this policy as opposed to a report or accusation, which, even if erroneous, is made in good faith. False reporting is prohibited.
- c. No individual, directly or through others, may take any action which attempts to or actually intimidates any potential Party or witness in the student conduct process, or which may interfere with the student conduct process.
- d. All University employees and students must be truthful and candid when making any statement or providing any information or evidence to the University throughout the student conduct process, and all documentary evidence must be genuine and accurate. The fact that a determination has been made that a student has or has not engaged in prohibited conduct is not sufficient grounds, by itself, to declare that a false statement or fraudulent evidence has been provided by a Party or witness.
- e. Charging an individual with a policy violation for making a materially false statement in bad faith in the course of any proceedings under this policy does not constitute retaliation provided, however that a determination regarding responsibility, alone, is not sufficient to conclude that any Party made a materially false statement in bad faith.

22. Attempting to commit or intentionally and materially aiding or inciting others to commit any of the forms of prohibited conduct stated in this rule.

FINANCE COMMITTEE

Lyda Krewson, Chair

Robert D. Blitz

Robert W. Fry

Blaine Luetkemeyer

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 2026 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) 2026. The FY2026 operating budget will be presented for approval at the June meeting.

The FY2026 budget update will highlight:

- 1) FY2026 Budget Process Key Drivers
- 2) Key initiatives and results to address financial challenges over the past decade
- 3) Changes in the public higher education fiscal and economic landscape
- 4) Framework for leading in a changing fiscal environment

Executive Summary

The University remains well positioned financially, with a sound balance sheet, a good credit rating and a history of positive operations. If financial performance continues the trend through the first two quarters of FY2025, the University's consolidated operating margin performance will remain be positive and at or above target. However, in planning for FY2026 and beyond there is uncertainty and challenges to key revenue streams that will require proactive action. In the near term the University is focused on limiting hiring, restricting administrative units to improve efficiency and effectiveness, and limiting capital outlays. For the FY2026 budget the University is planning on the following:

- Moderate increases in tuition
- State appropriations in line with Governor's budget recommendation
- Merit/Market salary pools will be determined within the financial capacity available to support at each University
- Capital investments will slow to ensure certainty in funding streams
- Match spending reductions to known revenue losses

The primary revenue drivers for academic growth in the post-pandemic period include research grants, state appropriations, and net tuition. Since the pandemic, research revenues have experienced a twofold increase, while state support has kept pace with inflation. Although enrollment trends vary by university, there has been an overall decline in total enrollment as well as net tuition per student. MU Healthcare continues to improve its financial performance but could face challenges related to potential policy changes at the national level. Evolving conditions in the higher education and healthcare marketplace may disrupt these revenue streams.

The University is prepared to address these challenges, but it requires ongoing monitoring and proactive measures. The University has a sound balance sheet, a good credit rating, and a track record of positive operations. Since 2017, the University has been focused on continuous improvement to support the pursuit of excellence in student outcomes, research and outreach and engagement. The first challenge was a 18% decline in total enrollment Mizzou, which was then followed by the onset of a global pandemic which challenged the budgets of all four Universities and MU Healthcare.

The University responded by acting, and reshaping operations to meet the challenge:

- Eliminated layers of leadership
- Centralized many administrative functions
- Demolished old buildings
- Changed tuition models
- Cut book costs for students
- Outsourced non-valued added services
- Closed 96 academic programs.
- Closed and merged colleges and departments
- Reshaped employee benefits
- Improved financial planning and accountability

Using MU as an example, the results of these decisions are summarized below:

- Reduced clerical headcount by 500+ positions.
- Saved \$232 million in administrative salaries over the starting point, spending \$707 million less than the peer average
- Reduced benefit liabilities by over \$700 million
- Improved revenues by \$151 million from changes in tuition and investment management
- Reduced the cost per degree issued by 20% since 2017

The net result of these changes generated \$222 million for reinvestment in key priorities at MU. For example, by focusing on sustainable excellence, MU was able to achieve:

- 74% growth in total federal research.
- 44% growth in first-time college cohort size.
- 20% drop in the amount spent per degree.
- 10% improvement in 6-year graduation rate.
- 27% improvement in 4-year graduation rate.
- 7% improvement in retention.

The uncertainty facing key revenue streams will differ from past challenges but will provide a framework to monitor and address proactively. The University is committed to making the necessary decisions to achieve its financial goals and sustain investments in student outcomes, research, and engagement and outreach.

Beyond the actions being taken in FY2025 and through the FY2026 budget process, the University will continue to monitor and proactively prepare potential for revenue disruptions. To address the longer-term challenges, the University will work on the continuous improvement initiatives to achieve excellence in 2026 and beyond. The University's financial strength, strong brands and sound financial planning processes and policies position it to lead public higher education in the state.

University of Missouri System Board of Curators April 17, 2025 FY2026 Budget Update



UMKC

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S&T

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April 17, 2025

Summary

- FY 2026 Budget Process and Key Drivers
- Key initiatives and results to address financial challenges over the past decade
- Changes in the public higher education fiscal and economic landscape
- Framework for leading in a changing fiscal environment



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FY2026 Budget Process & Key Drivers



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Current economic uncertainty

- University remains well positioned with strong balance sheet
- Moody's moved sector outlook negative in response to industry and economic headwinds
- University has taken immediate actions in FY25 to Respond:
 - Hiring restrictions
 - Purchasing controls
 - Freeze/deferral of capital spending and leases



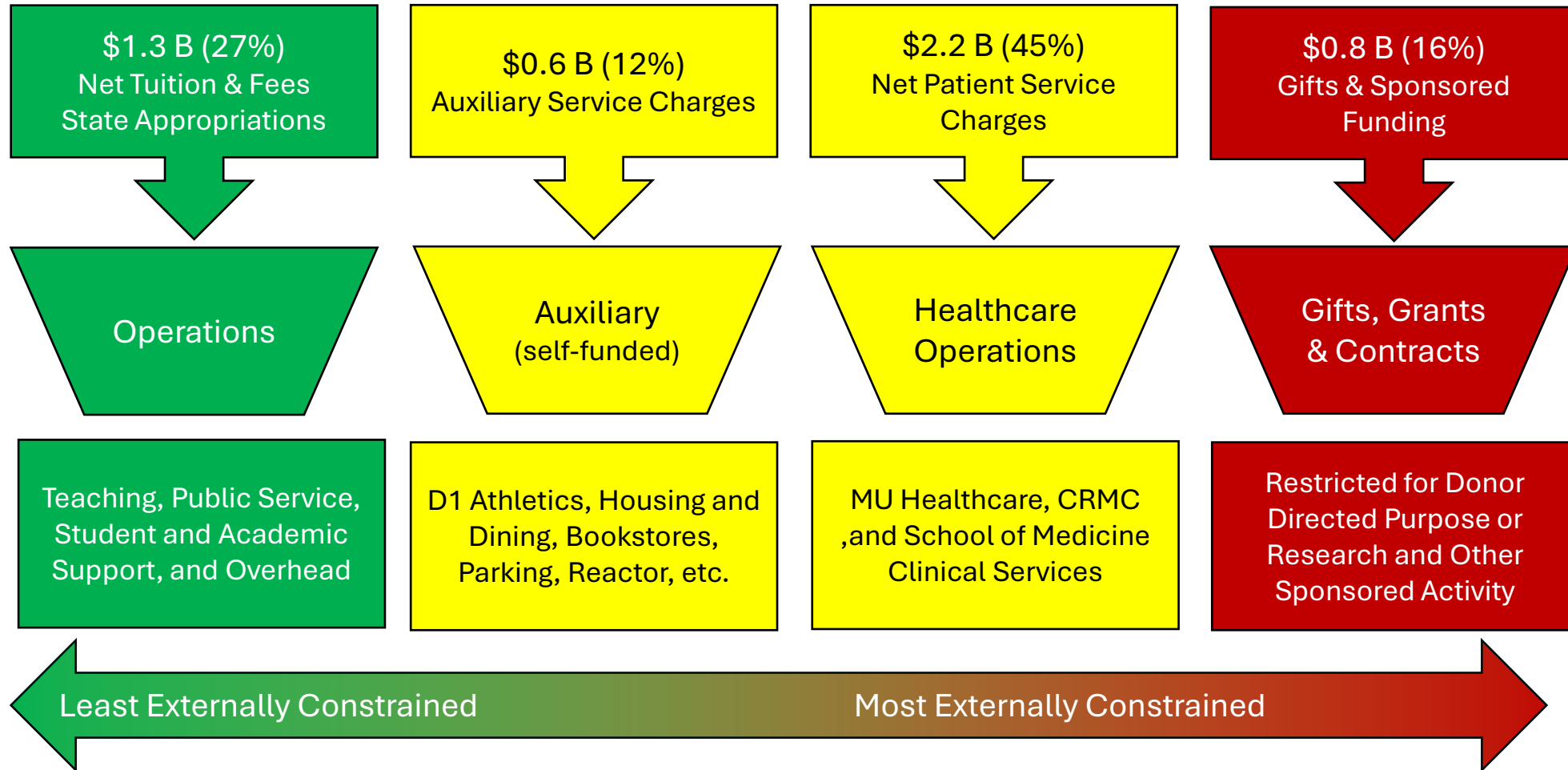
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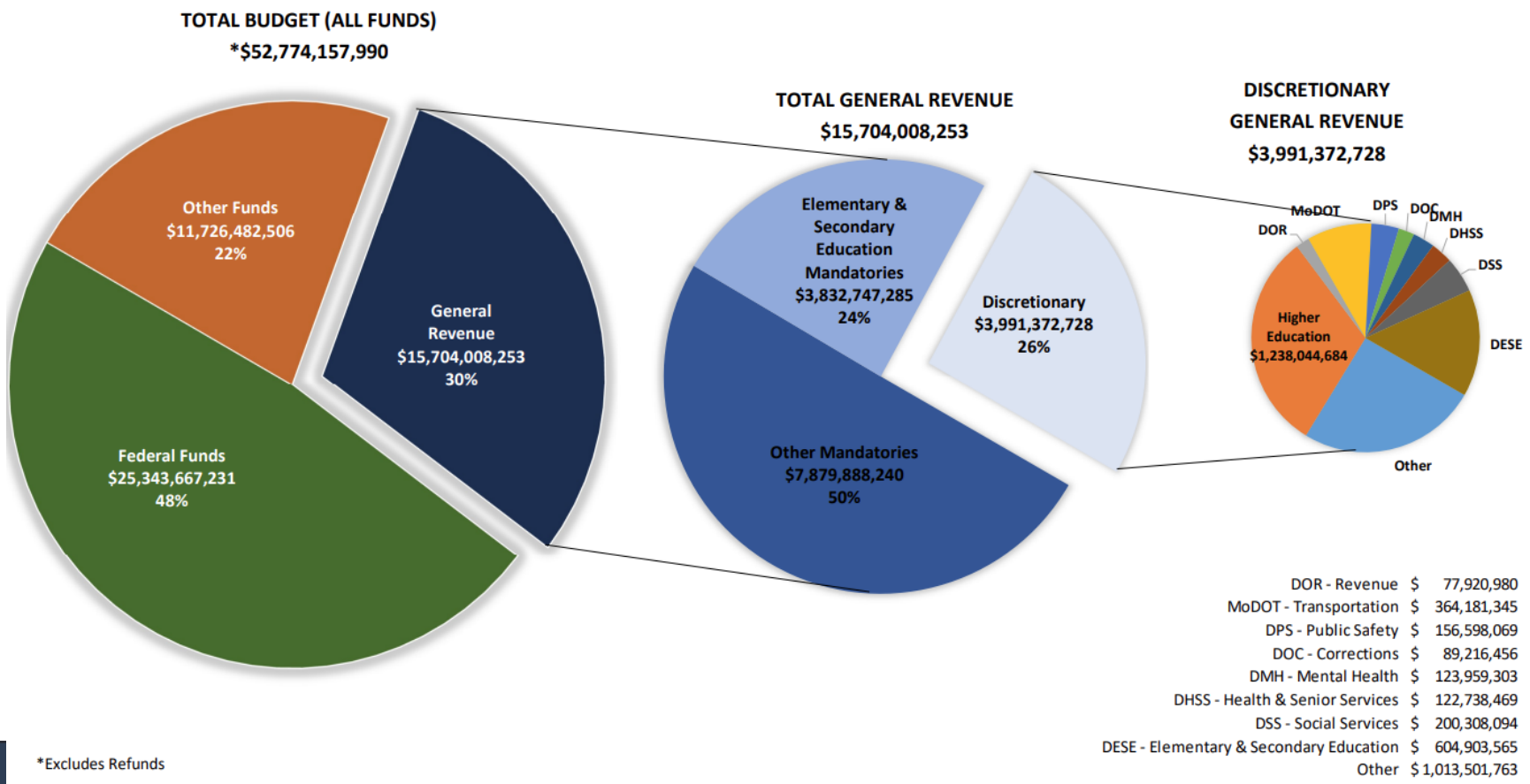
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Colors of Money



Governor's Budget includes 1.5% increase

FISCAL YEAR 2026 GOVERNOR'S RECOMMENDED OPERATING BUDGET



Key planning assumptions

- Enrollment will be budgeted based on key drivers and known trends
- Moderate increases in tuition
- State Appropriations at 1.5%
- Compensation budgets will reflect labor market and resource availability
- Capital budgets will reflect approved plans



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Key Initiatives & Results to Address Financial Challenges Over the Past Decade



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Key Initiatives to Drive Financial Sustainability

- Administrative Efficiency
 - Shared and Centralized Services
 - Leadership Restricting
 - Benefit Plan Changes
- Resource Utilization
 - Financial Planning & Accountability
 - Divestment of non-mission critical assets
- Revenue Enhancement
 - Tuition model changes
 - Strategic Dividend
- Academic Excellence
 - Faculty Productivity Improvements
 - Academic Consolidations



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Outcomes from Initiatives:

MU Taking a Closer Look



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Reduction in clerical staffing

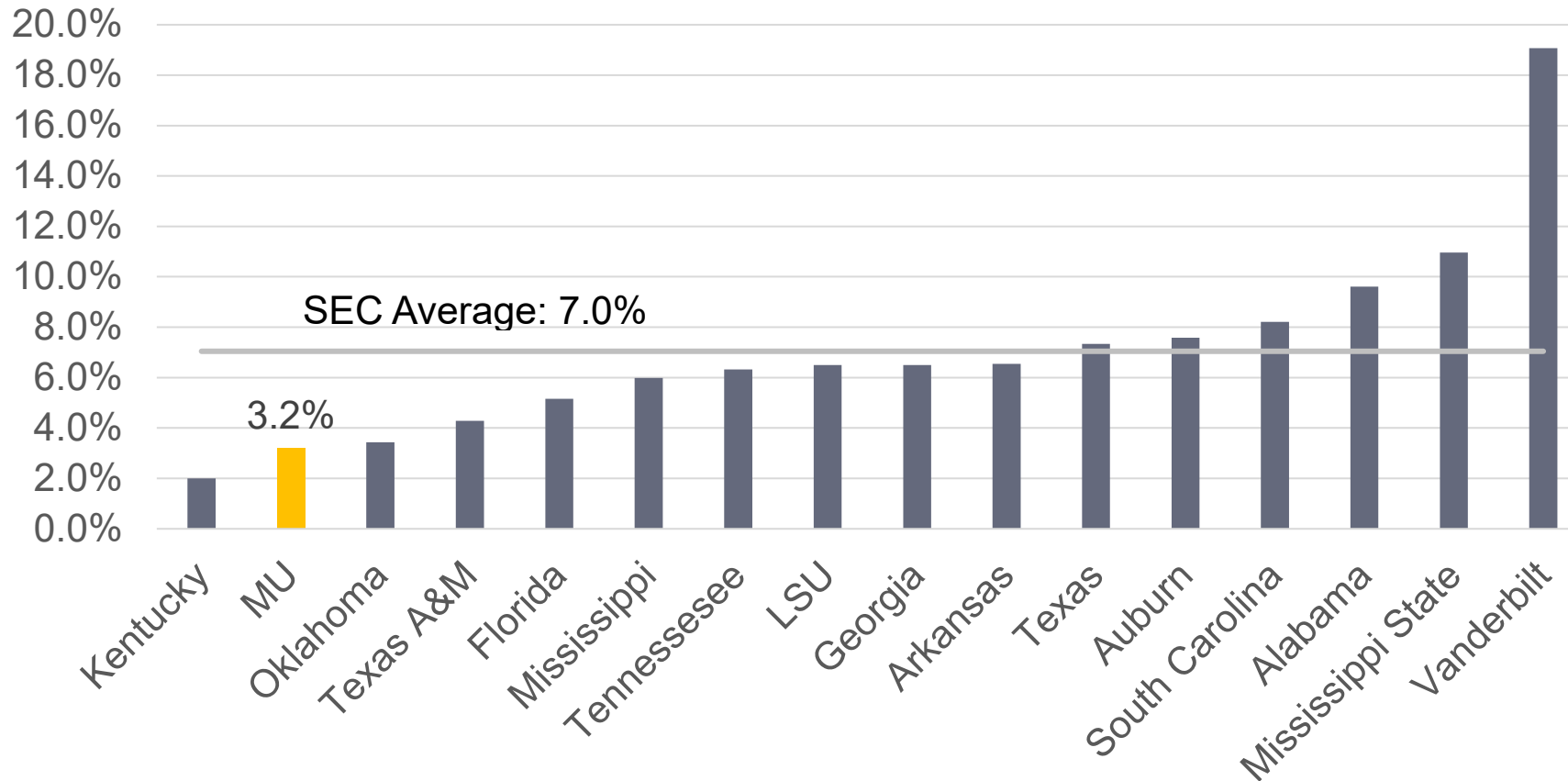
Change in Full Time Staff Jobs at MU Fall 2016 -2023

	Fall 2023	Change from Fall 2016	
Office & Admin Support	962	-594	-38.2%
Maintenance, Construction, Transportation	346	-108	-23.8%
Instructional Support	211	-66	-23.8%
Service	458	-54	-10.5%
Other	83	4	5.1%
Community Service & Arts	736	64	9.5%
Healthcare Practitioners & Technicians	636	146	29.8%
Business Ops & Management	1,432	199	16.1%
IT / Engineering / Science	1,416	440	45.1%
Total	6,280	31	0.5%



MU 2nd lowest in SEC on admin as % total

Institutional Support as a % of Total Spend



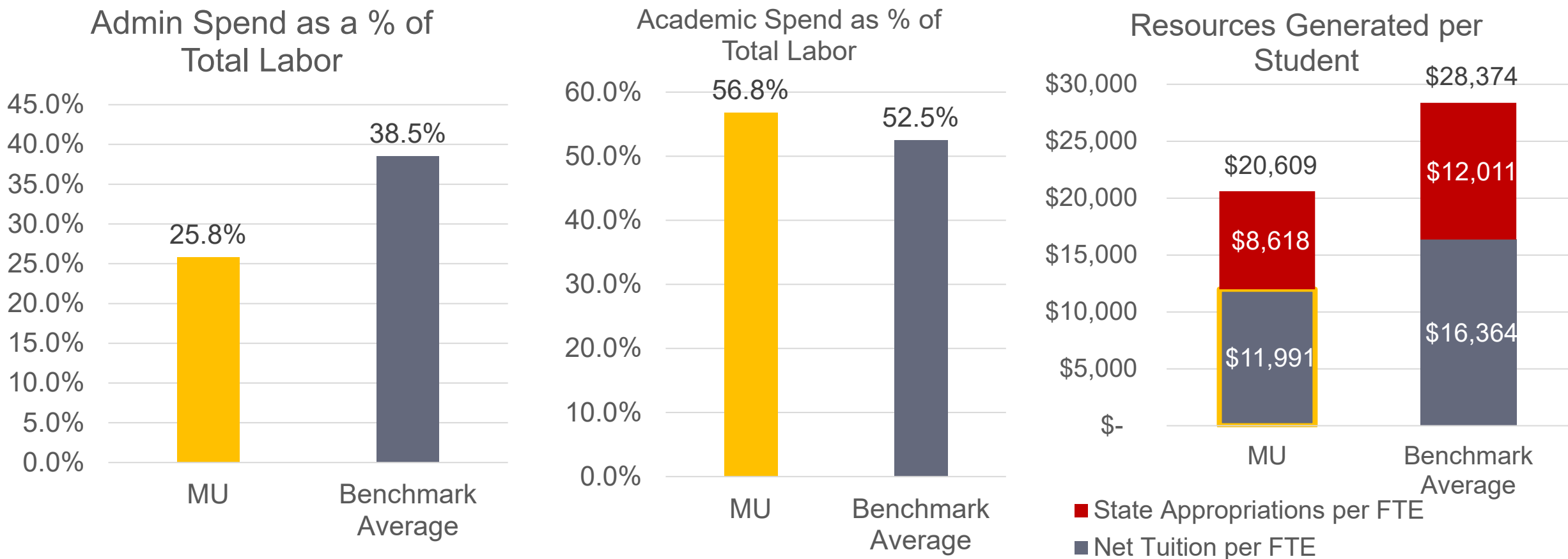
- MU spends \$40M less than the SEC Average.
- MU is the 2nd lowest as a percent of total spend.
- Only 3 SEC institutions spend less in gross dollars (all are smaller than MU).

Note: Institutional support includes central administrative activities (Executives, Finance, HR, IT, procurement, legal, etc).

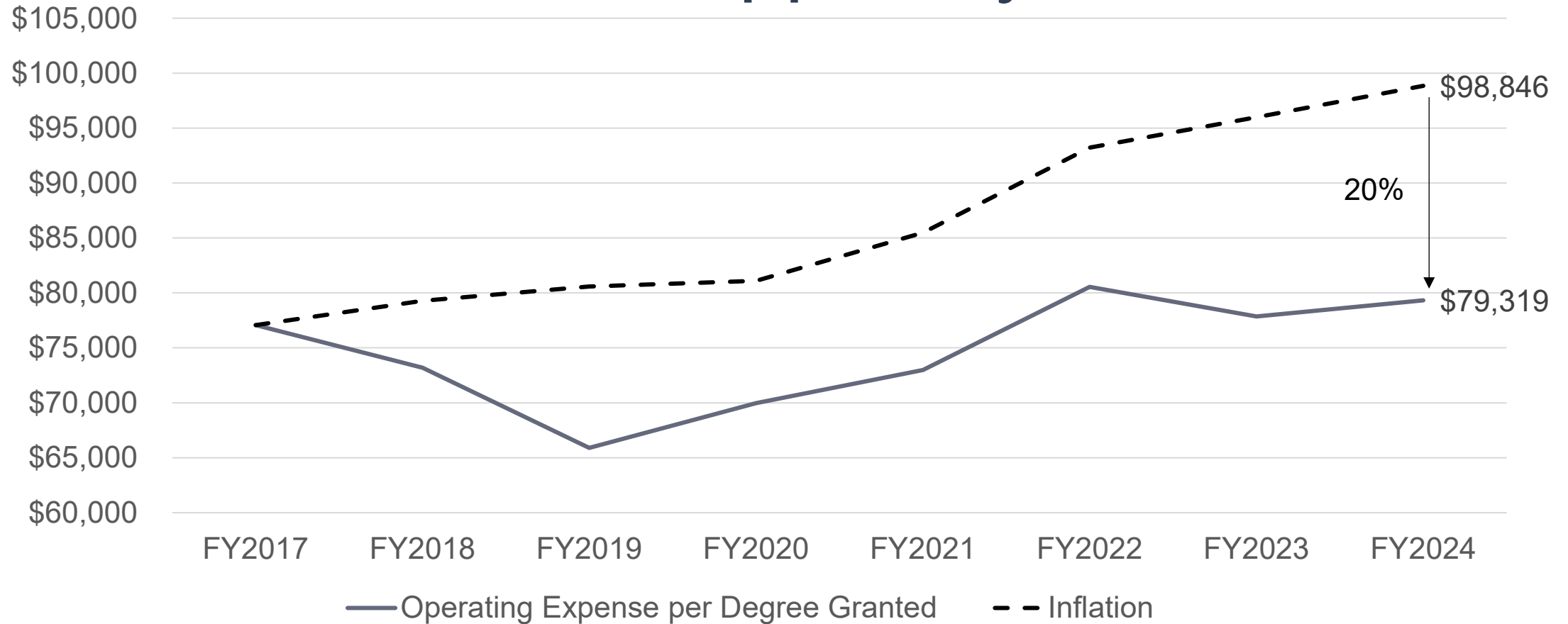


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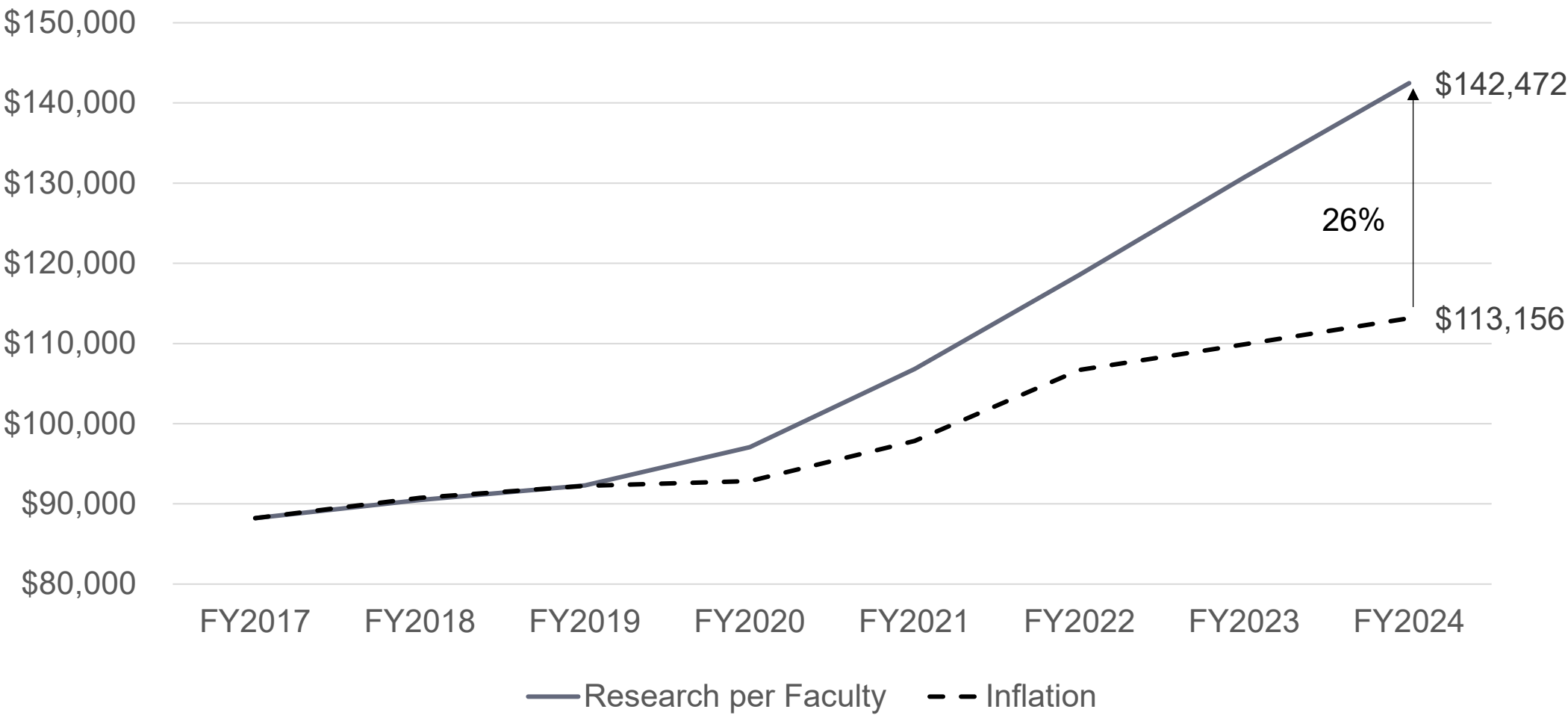
MU spends less on admin, more on academics as % of total with less resources per student.



MU educational expense per degree awarded dropped by 20%



MU research revenue per faculty grew 26% over inflation



In Summary

- MU addressed previous \$373M in budget shortfalls with \$443M in cost reductions and \$151M in revenue enhancements.
- This \$222M was reinvested to generate:
 - 74% growth in federal research
 - 44% growth in first time college enrollees
 - 20% drop in amount spent per degree granted
 - 10% improvement in 6-year graduation rate
 - 27% improvement in 4-year graduation rate
 - 7% improvement in retention rate



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Changes in the Public Higher Education Fiscal and Economic Landscape



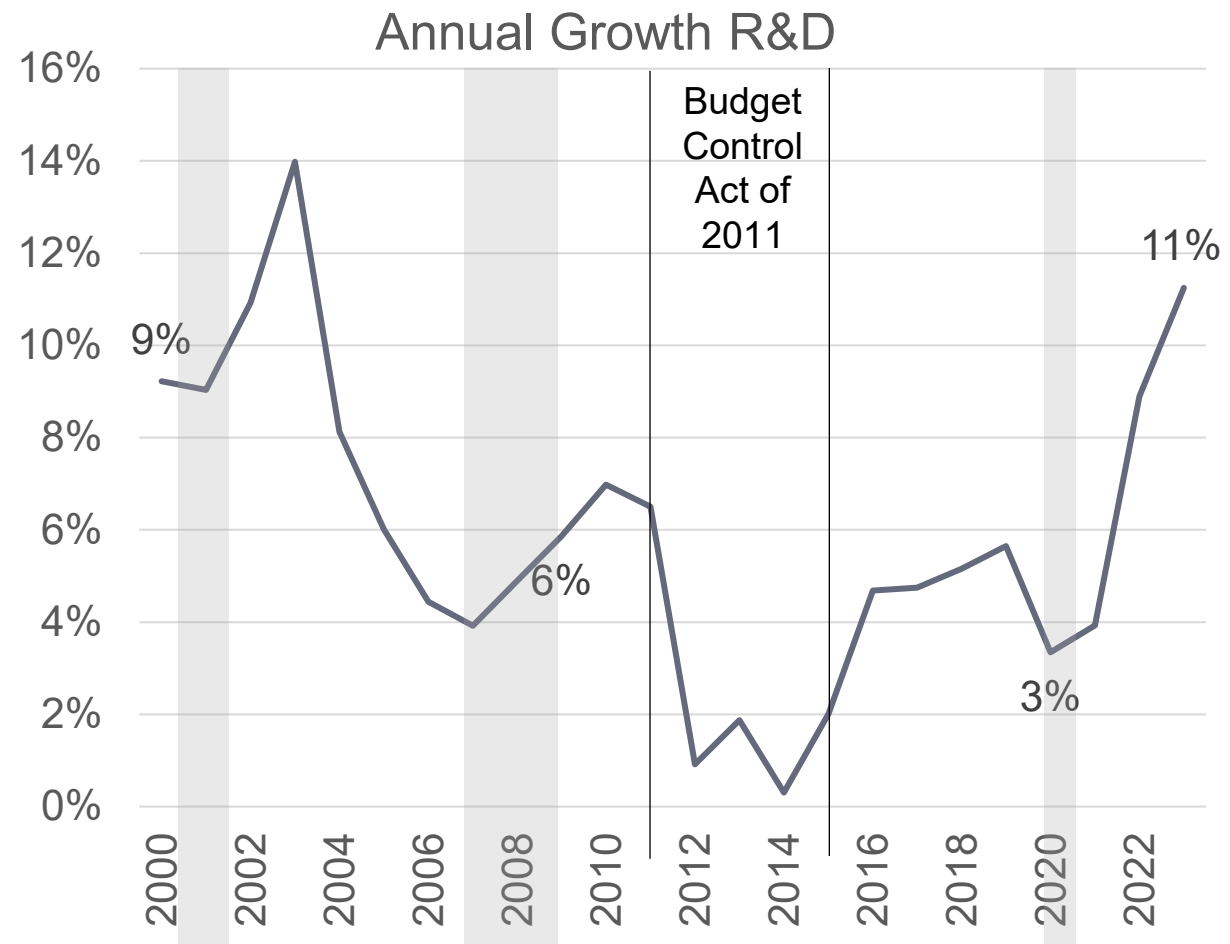
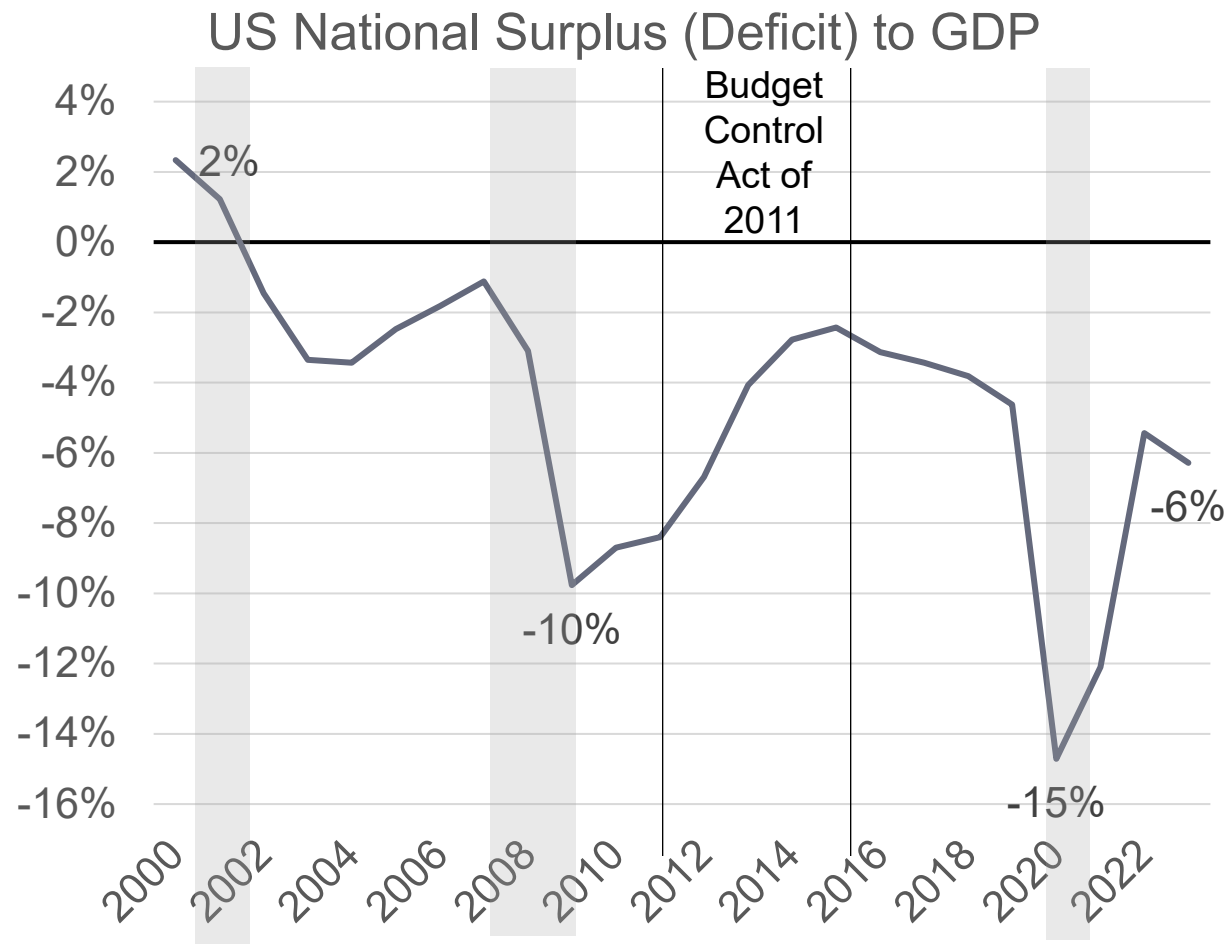
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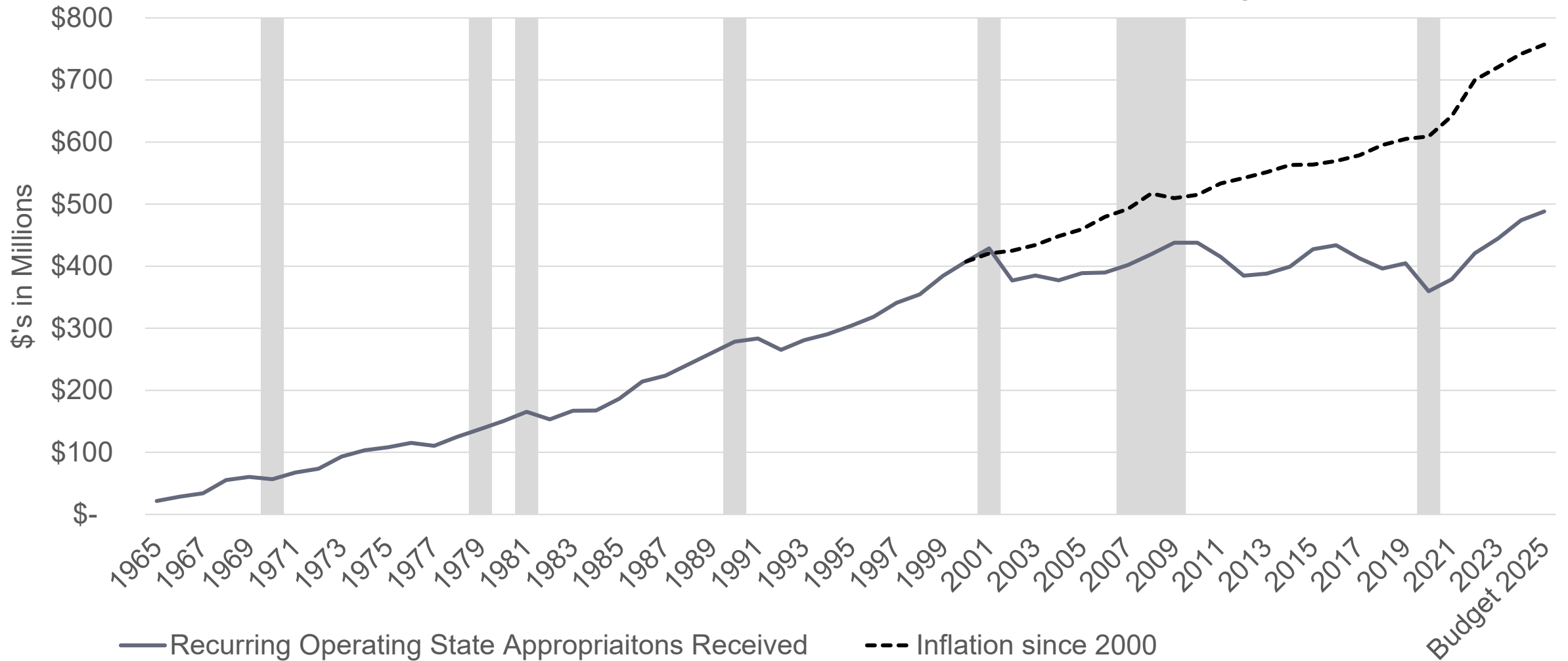
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Federal research revenues will be challenged



State Appropriations History



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Looking back to previous state budget cuts

- In the absence of a recession, appropriations usually trail inflation by about 2%.
- During a recession, a reduction of 10-15% is probable.

	Cut	Cut Fiscal Year	GR Cash Balance Prior to Cut
2001 Recession	-12.1%	2002	-\$83.3M
2007-09 Great Recession	-12.5%	2011-12	-\$100.4M
2016-2017 Austerity	-8.8%	2017-18	-\$148.0M
2020 COVID Recession	-11.1%	2020	\$253.8M

Current General Revenue Fund Balance is \$4.1 billion



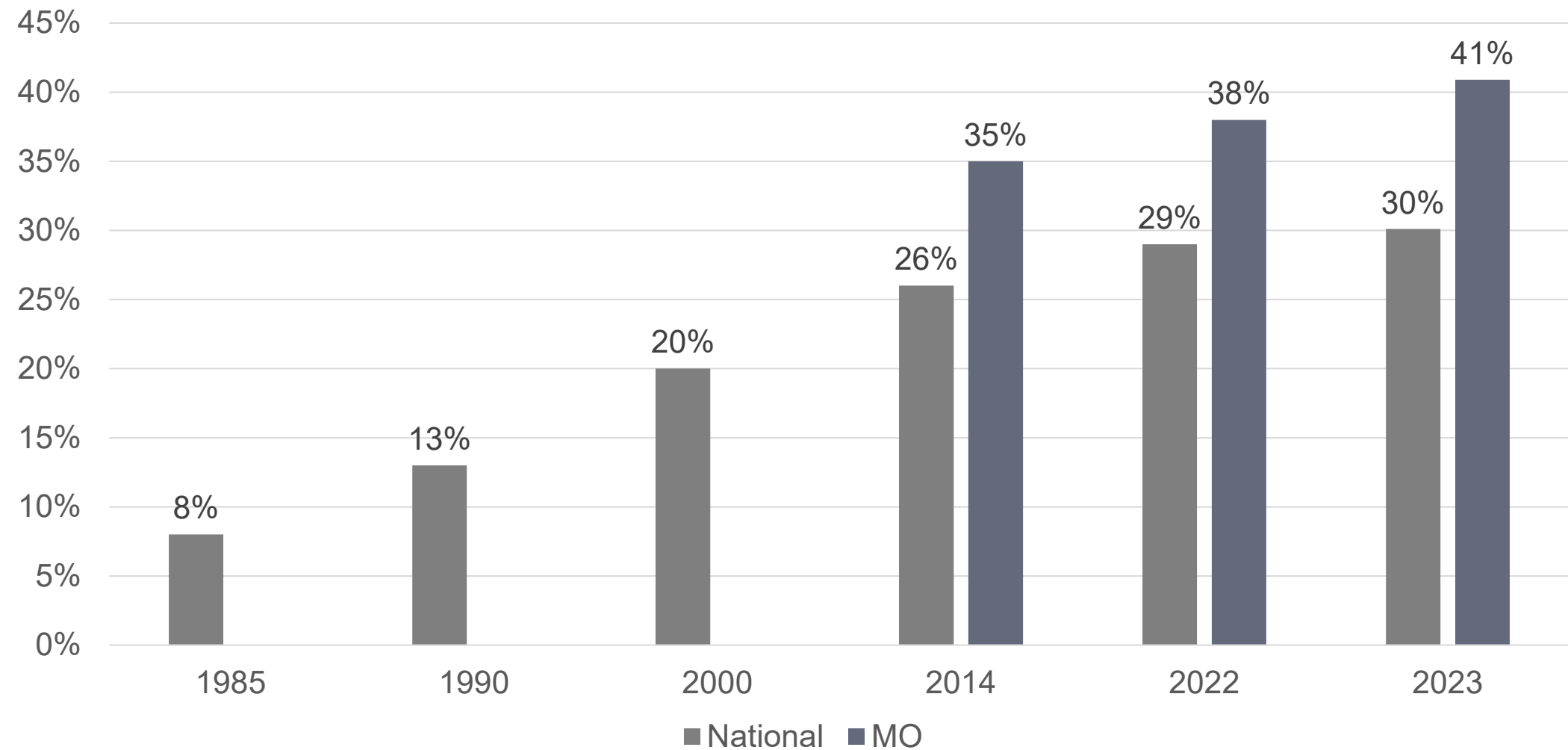
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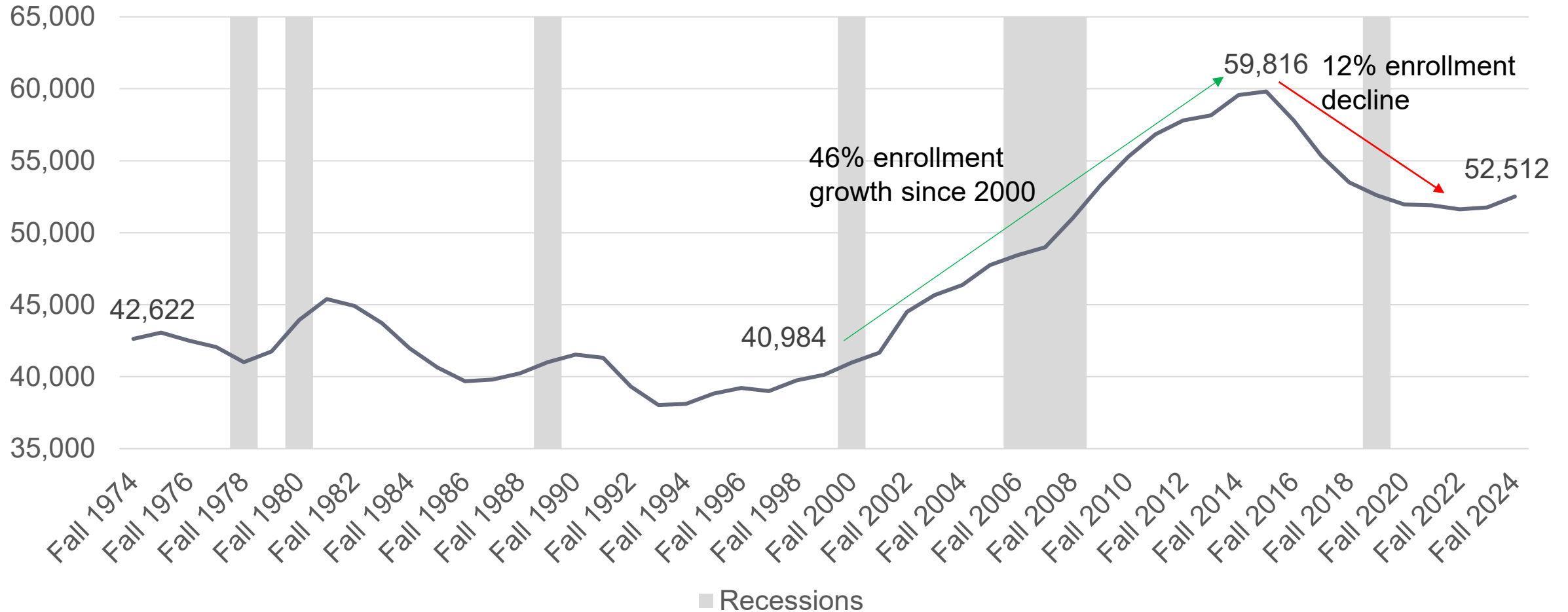
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Medicaid spend as % of total state budgets



Historical UM Enrollment Trends



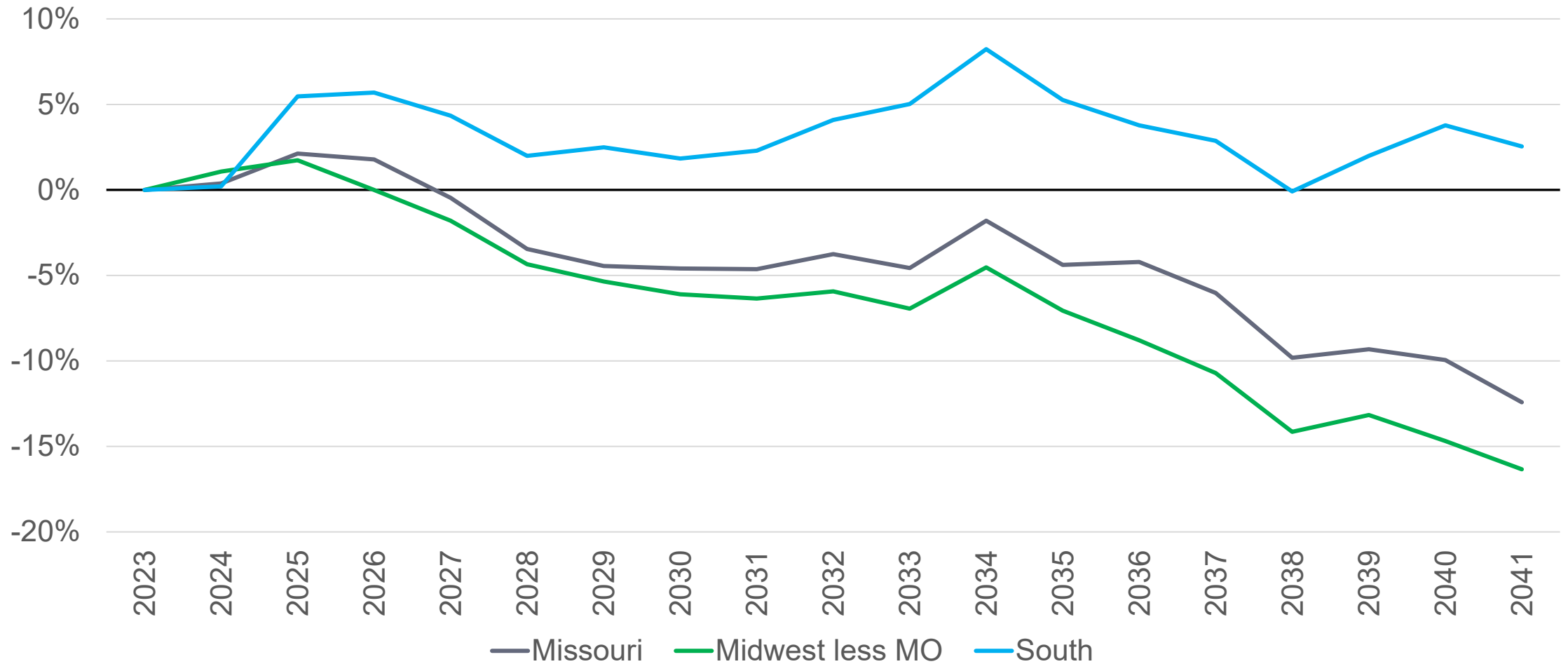
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Projected High School Grads by Region



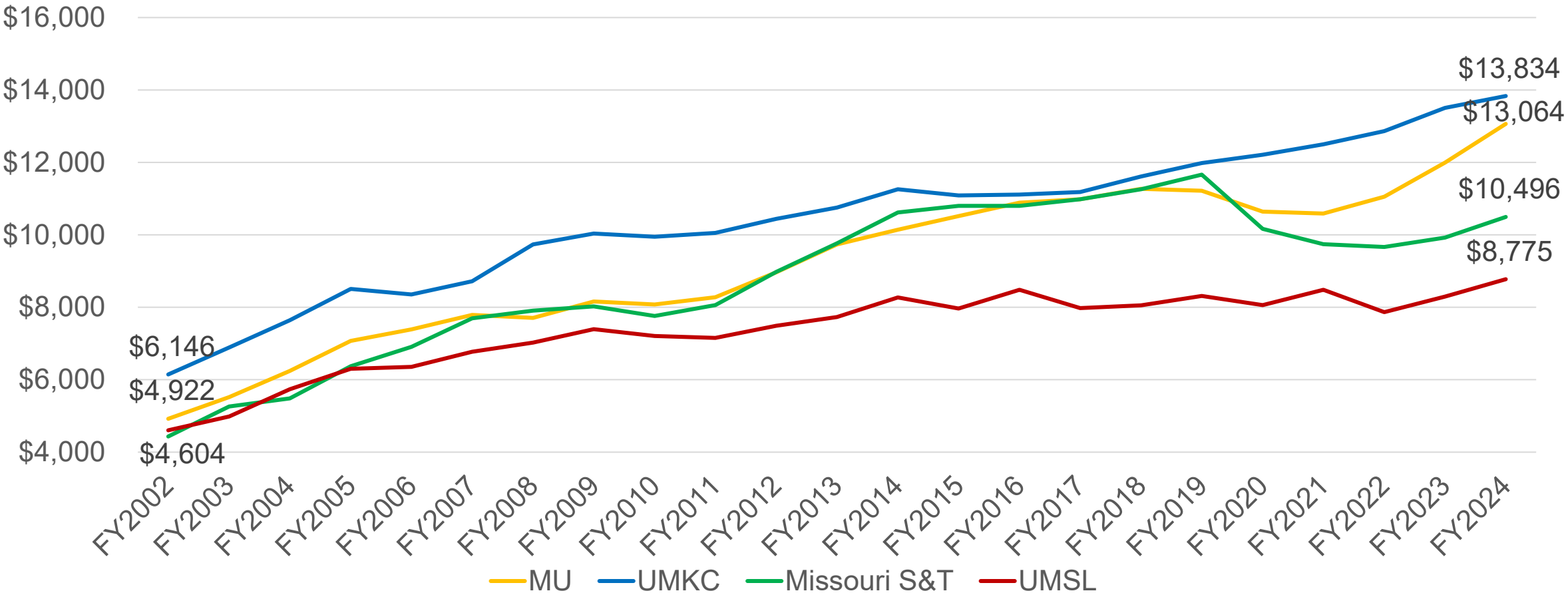
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Net Tuition per FTE Student



Framework for Leading in a Changing Fiscal Environment: Continuous Improvement



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Key platforms for Continues Improvement

Academic Excellence

- Degree/Certificate Market Analysis
- Program/Department Review
- Academic Productivity
- Research Funding Adaptation

Reinvestment

Reinvestment

Revenue Enhancement

- Pricing to Demand/Market for Auxiliaries
- Scholarship Strategy
- Retail Operations Evaluation
- Real Estate Monetization
- Tuition & Additional Fees
- Entrepreneurial & Industrial Partnerships

Future Academy

- Research & Creative Works
- Outreach & Engagement
- Student Success

Resource Utilization

- Space Utilization Study/Planning
- Capital Planning Improvement
- Construction Delivery Review
- Utility Infrastructure Review

Reinvestment

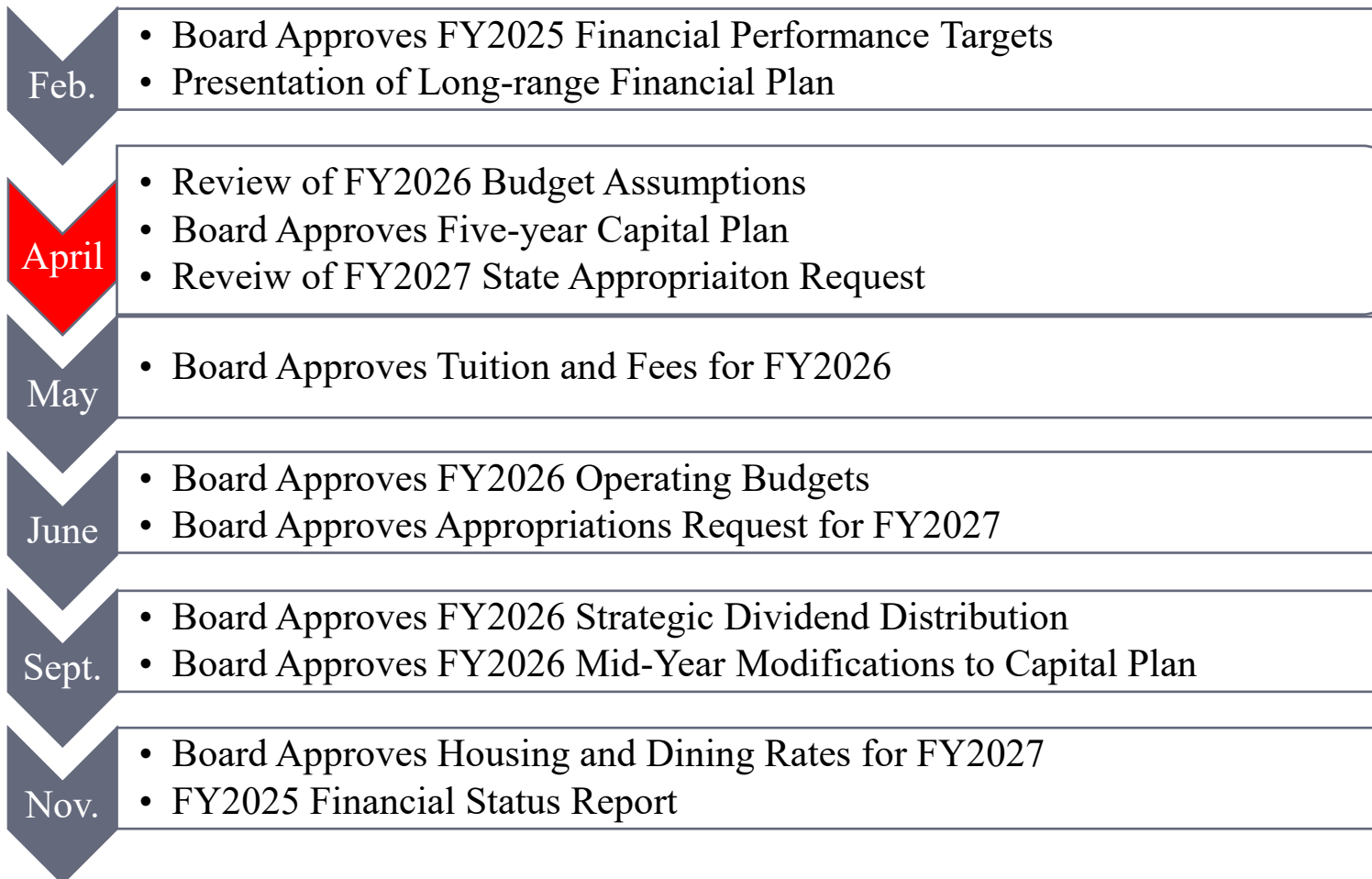
Reinvestment

Administrative Efficiency

- Functional Effectiveness
- AI Investment & Return Opportunities
- Medical Plan Optimization
- Review of Recharge Operations
- Shared Services Study & Mandate



Next Steps





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

FY2026 Budget Process Key Drivers

Risks in the Higher Education sector are increasing as noted in the Moody's Sector Outlook downgrade. The key exposures will be monitored through the FY2026 budget process, with known items incorporated into budgets. Each unit will identify and implement cost reductions in response to known revenue declines through the budget process. The sizing of reductions will be primarily dependent on known changes in Net Tuition, State Support, Grants & Contracts, and Auxiliary Revenues.

Immediate Actions

In response to the federal policy changes and anticipated declines in state revenue growth, the University leadership team has implemented the following measures.

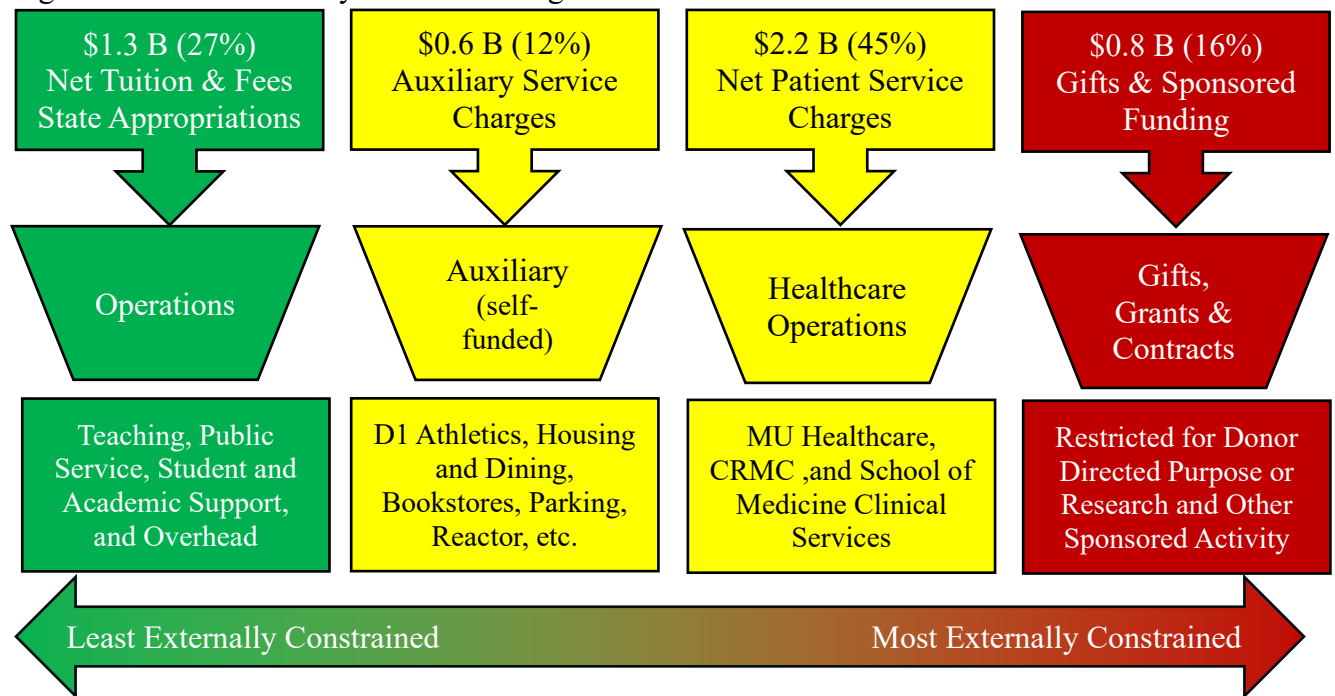
- Hiring restrictions for new positions, budgeted positions and replacement positions may continue
- Accelerating restructuring decisions
- Purchases between \$10,000 and \$100,000 require Dean/Director approval
- Purchases greater than \$100,000 require CFO approval
- Freeze on new capital projects
- Freeze on new leases, unless lease generates revenue

These measures are meant to hold spending in place as the policy environment remains uncertain. As more information becomes available, the University will leverage both the budget process and new information on the size of disruption to inform permanent reductions and restructuring.

Key FY2026 Budget Drivers

The University benefits from a diverse revenue stream. The "Colors of Money" illustration in Figure 1, 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 like 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 1: Colors of Money - FY2025 Budget



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.). 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. These activities comprise 57% of the current fund budget.

Third parties, primarily donors and granting agencies, restrict the remainder of the current funds between Gifts and Grants & Contracts. These funds are shown in red on the chart because there is very little flexibility in how the funds are spent. Gift funds must be spent within donor stipulations. Grants and Contracts require delivery on a set scope of work. Restricted funds contribute to 16% of the current funds budget.

Net Tuition & Fees are essential for maintaining a high-quality research university and securing a strong market position. Combined with state support, tuition forms the foundation of funding for academic operations as they are the primary sources of funding without restrictions related 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 2: Change FTE Enrollment Fall 2018 to 2024 for Missouri Public four-year Institutions.

Institution	Fall 2018	Fall 2024	Student Change	Percent Change
Total UM	53,503	52,512	(991)	-1.9%
Northwest Missouri State	5,594	5,929	335	6.0%
UCM	8,852	8,318	(534)	-6.0%
Missouri State	18,195	16,281	(1,914)	-10.5%
SEMO	8,519	7,304	(1,215)	-14.3%
Lincoln University	1,899	1,593	(306)	-16.1%
Missouri Southern State	4,682	3,015	(1,667)	-35.6%
Missouri Western State	4,154	2,540	(1,614)	-38.9%
Harris Stowe	1,523	883	(640)	-42.0%
Truman	5,098	2,818	(2,280)	-44.7%
Total Other 4 Years	58,516	48,681	(9,835)	-16.8%

Source: Missouri Coordinating Board for Higher Education

Figure 2 illustrates the total Full Time Equivalent (FTE) enrollment change over the same period for Missouri's four-year public institutions. The decline is not consistent across all institutions. Compared to pre-pandemic enrollment figures, only MU and Northwest Missouri State experienced growth in enrollment. The remaining 11 institutions saw a decrease in enrollment, with the majority of these experiencing a double-digit reduction. Institutions within the UM System have shown less decline than the average for regional four-year institutions, indicating relative brand strength.

For the FY2026 budget process, the University remains focused on the key leading indicators on fall 2024 enrollment, including applications, acceptances and deposits.

Figure 3: First-time Freshman Cohort Trends (FTC) by University

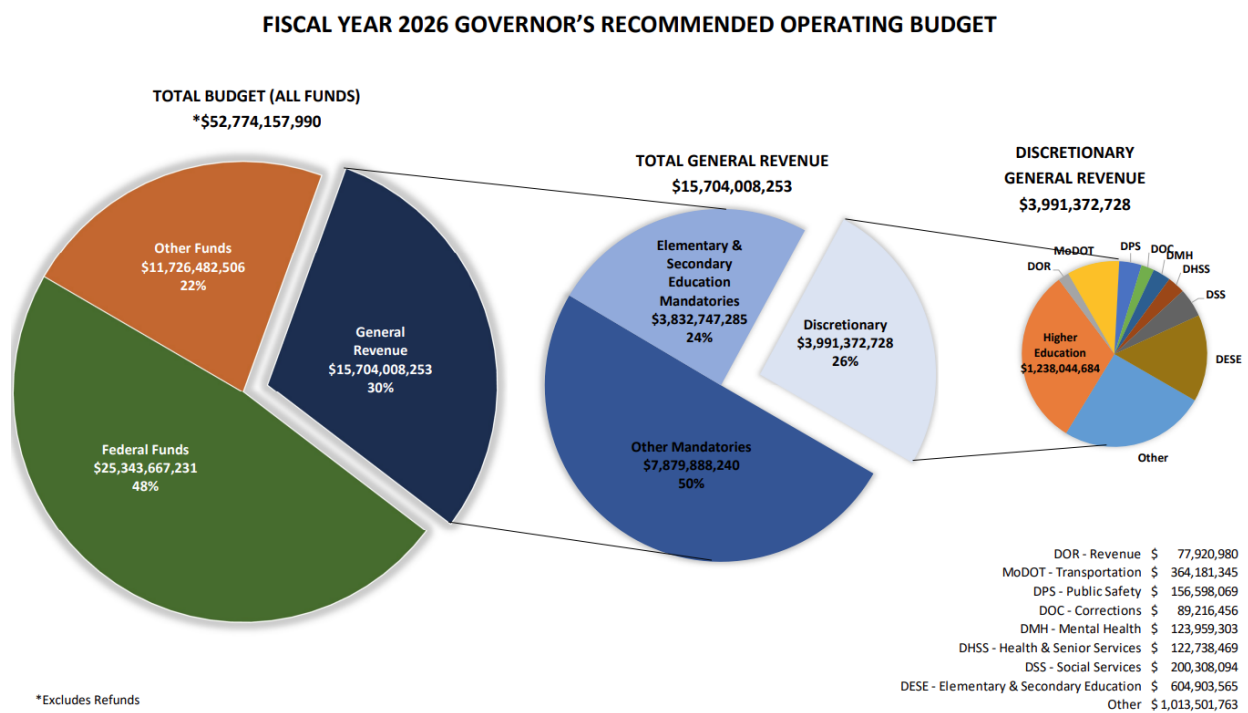
	MU	UMKC	S&T	UMSL
FTC Change from PY in				
Applications	12.3%	14.7%	6.3%	15.3%
Admits	8.4%	13.3%	13.7%	46.5%
Deposits	12.8%	19.4%	5.5%	71.8%
FTC Active Accepts Fall 2025	6,386	963	1,178	589

As of March 2025, application, admission, and deposit trends continue to be favorable for incoming first-time college students across the four universities. The number of current students who have been admitted and paid their deposits has increased at all four institutions. Should these positive trends persist through the spring, overall enrollment across the System will rise. Student persistence is also a key driver of revenue. Fall 2024 reported a decade-high retention rate of 92% for MU and 87% for the System. Enhanced retention contributes grows both enrollment and is a

leading indicator of improved graduation rates. The Universities are committed to achieving positive outcomes for students, starting with admitting a high-caliber class, retaining them throughout their academic career, graduating them on time, and ensuring they secure employment with earnings sufficient to justify the cost of their education.

The University continues to receive inflationary increases in *State Appropriations*. For FY2025, the Governor’s budget includes a 1.5% increase in recurring core appropriations. This stacks upon multiple increases close to inflation since FY2020. The University represents a significant portion of the state’s “Discretionary” general revenue.

Figure 4: Governor’s Operating Budget by Funding Restrictions



Higher education constitutes 31% of discretionary spending for the State. Discretionary budgets tend to increase more in times of abundance but decrease more in times of scarcity. This is why higher education is termed to be the “balance wheel” of state budgets. State revenue growth is slowing and there is an unknown impact of potential changes in federal policy. Given potential state constraints, it is advisable for universities to be prudent in growing recurring costs against state revenues. If the State experiences economic downturns or revenue reductions, the University will likely be one of the first state expenditures impacted.

Auxiliary Enterprises are self-supporting operations that must operate at a breakeven or better. Many auxiliary revenues (student housing, dining, student unions, bookstores, etc.) have revenues that trend with student enrollment. It is important for these operations to match pricing with both volumes and the cost of services, including appropriate funding for capital. Auxiliary revenues for the FY2026 budget will reflect appropriate revenues given enrollment and moderate price increases necessary to maintain student services.

Grants & Contracts represent contractual revenues to perform activities related to the University's core mission, typically on a cost-reimbursement basis. These revenues account for 11% of the University's total operating revenues and are a key risk in the FY2026 budget process. The continuation of current grants and contract volumes will depend on the federal budget and availability of funding to make new awards. Expenditures will be adjusted downwards as funded awards expire. Faculty and administrators will shift funding requests to align with the priorities of the funding agencies as new funding priorities are delineated.

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 FY2026 expenditures.

Given the changing conditions in the higher education marketplace, it is crucial to prioritize resource allocation in an environment of constrained revenue growth, reallocate internal resources, and/or identify reductions. Administrative units at MU and UM System have been requested to identify 5% and 10% budget reduction scenarios. UMKC, UMSL and Missouri S&T are all also working on their own budget scenarios that will identify and track necessary cuts. These cuts will not be uniform across all units but will instead be based on institutional priorities, benchmarking data, and an assessment of risk informed by ongoing monitoring. Each university and MU Healthcare is expected to submit a balanced budget for approval at the June meeting. The budget should generate operating cash flows to enable the unit to support capital investments and initiatives outlined in the financial plan. The size of cuts implemented will depend on the risks expected to be realized through the FY2026 budget. If actual revenues drop below the assumptions in the budget, the University will take additional action to maintain balanced financial performance.

Planning Assumptions

Each university and MU Healthcare is currently underway in building budgets, utilizing the following key assumptions:

- Tuition and Fees rates will increase moderately. Price increases will reflect the services and support necessary to attract each individual institution's student population.
- State Appropriations will be budgeted at a 1.5% increase based on the level set within the Governor's recommended budget. Any increase received above the governor's budget would go towards one-time needs as a contingency towards future budgets.
- Compensation budgets will reflect labor market conditions and availability of resources. Merit/market pools will be determined in accordance with the risks identified through the budget process. Any pay increases will be performance and market based. Any staffing reductions will reflect priorities and tracked to reflect where the university is making decisions to reduce spending.
- Capital budgets will reflect the University's approved capital plans. In areas of revenue risk, planned capital investments will be deferred until revenue sources are certain.

- Universities will track cuts not taken during the budget cycle in case deeper cost management action becomes necessary as additional information is known throughout FY2026.

Budgets for the universities are built upon consideration of the following factors:

- Increasing competition for students will continue and budgets should consider the impact of both enrollment and price on planned tuition.
- The State is entering a period of flat to declining revenue growth with fewer resources available for capital projects. While this has not flowed into the operating budget yet, Universities should be careful to keep recurring cost increases within long-term available resources.
- Federal stimulus funding concluded and the continuation of current grants and contract volumes will be contingent on the federal budget. Expenditures will be adjusted downwards as funded awards expire. Faculty and administrators will be expected to adapt to the priorities of the funding agencies as plans are published.

Given these limitations, it is crucial to prioritize resource allocation in an environment of challenging revenue growth. This will require the reallocation internal resources and reductions support student outcomes, research and outreach and engagement. Administrative units at MU and UM System have been requested to identify 5% and 10% budget reduction scenarios. UMKC, UMSL and Missouri S&T are all also working on similar budget scenarios that will identify and track necessary cuts. These cuts will not be uniform across all units but will instead be based on institutional priorities, benchmarking data, and an assessment of risk informed by ongoing monitoring. Each university and MU Healthcare is expected to submit a balanced budget for approval at the June meeting. The budget should generate operating cash flows to enable the unit to support capital investments and initiatives outlined in the financial plan.

Key initiatives and results to address financial challenges over the past decade

The University has approached financial challenges with a framework to achieve sustainable excellence, addressing each unique situation with consistent strategies.



- **Academic Excellence** reviews the productivity and demand of the academic enterprise, connecting revenues and related costs to the prioritization of mission.
- **Revenue Enhancement** reviews new revenue streams or price increases on existing revenue streams to generate resources for investment.
- **Resource Utilization** covers how the University utilizes assets and allocates resources in line with mission. It also encompasses planning, budgeting, and accountability for delivery of financial results.
- **Administrative Efficiency** encompasses a review of overhead areas and seeks to deliver effective administrative functions at scale for the enterprise.

Administrative Efficiency

Centralized Functions

The University has centralized previously disparate functions to gain administrative scale and efficiency.

Location	Key Administrative Functions	Initiative
<i>Campus to System:</i> Moved from the four distinct campuses and centralized at the System	Procurement	Aims to maximize savings, cost avoidance, and discounts/rebates.
	Accounts Payable	Created electronic workflows, established shared services, and defined payment methods for the University.
	Payroll Processing	Developed electronic workflows, resulting in fewer errors, enhanced compliance, and better fiscal oversight.
<i>Decentralized to Campus:</i> Centralized redundant functions from colleges and units into central campus shared services.	Technology Support at MU	Improved management of software and support at an enterprise level has enhanced security, as colleges have moved away from building their own infrastructure to support their technology.
	University Shared Services (USS) Finance and HR Processing	Routine fiscal and human resources transaction processing is centralized into a high-volume center to provide timely, efficient, and accurate services to each department.

Leadership Restructuring

Significant restructuring of the President, Chancellor, Vice President and Vice Chancellor roles have occurred since 2018. This has included the elimination of and combination of several roles at this level. As part of this restructuring, performance incentives and automobile allowances for senior leaders were eliminated in 2018. Additionally, the merger of the President and MU Chancellor role in 2020 was accompanied by an increase in responsibility for the other three Chancellor roles and a shift of System functions to providing administrative services at scale.

Pension Plan

The Pension Plan remains the University's largest liability. Multiple actions have been taken to reduce risk from the plan and manage plan costs while maintaining a competitive benefit. The following changes have been made to the plan:

- Employee contributions were added to the plan (2009).
- A hybrid plan was created with a defined benefit that is 55% less than the original defined benefit.
- The pension plan closed to new entrants, moving all University employees to defined contribution. This closure did not allow for re-entry after separation. Approximately 50% of public plans have modified defined benefit amounts. Only 2% of public plans that modified only offered a defined contribution plan after the change.

- The University continues to run programs allowing employees to roll the current value of their vested pension benefit into a retirement account. These programs reduce liability and give participants the ability to manage their own money and control their own outcomes. The University eliminates liability through these programs.

Retiree Medical

In 2017, the University cut retiree medical benefits for active employees. Employees with less than five years of service became ineligible for retiree insurance. Those closer to retirement kept their benefits, while others faced reductions with the implementation of a defined contribution type plan. The University then switched retiree medical insurance to a lower cost Medicare Advantage plan that transferred the actuarial risk to a third party. Without change, the OPEB plan was on pace to surpass \$1 billion in unfunded liability.

Medical Plan

The University developed the Custom Network Plan, which features a limited provider network focused on the University's healthcare system. This plan incentivizes providers based on improvements in quality and utilization rather than the quantity of services provided. The partnership with MU Healthcare is designed to improve healthcare management for employees. University employees benefit from reduced costs and increased access to care, while the health system benefits from a higher patient volume. This plan decreases both out-of-pocket expenses for employees and overall University costs compared to the traditional PPO option. By partnering with MU Healthcare, it effectively manages healthcare costs and shares associated risks.

Elimination of Wellness Incentive and Service Awards

In 2020, the University discontinued the Wellness Incentive program. The program was a cost component of the University's medical plans, affecting the premiums paid by both employees and the institution. Additionally, the program did not result in a reduction of overall health care costs for the University and its employees as originally intended. During this period, the University also stopped monetary service award payments due to budget shortfall.

Outcomes from the above actions include:

- Administrative labor decreased from 30.7% to 25.8% of total spending, saving \$232 million in salaries cumulatively. Meanwhile, peer¹ labor increased from 37.5% to 38.5%.
- MU's administrative costs are 33% lower than the average university¹ with over \$1 billion in revenue, being over \$700 million more cost-efficient than the benchmark.
- Ninety units across the system have elected to use University Shared Services.
- The closure of the pension plan has decreased the overall pension liability by \$250 million.
- Reduced the University's Other Post-Employment Benefits (OPEB) unfunded liability by \$466 million.

Note 1: Peer group includes Alabama, Arizona State, Tennessee, Buffalo, UC-Irvine, Cincinnati, University of Connecticut, Houston, Utah, University of Pittsburg, Temple, University of New Mexico, University of Wisconsin-Madison

Resource Utilization

Scaling Administrative Services

The following operations have leveraged shared resources across the System, resulting in cost savings, administrative scale, and enhanced efficiency.

Operation	Action	Outcome
Libraries	Libraries within the system work to buy collections together and reduce duplication through interlibrary lending, allowing each individual library to provide faculty with access to a broader array of materials on a smaller budget.	The UM libraries also lead the MOBIUS consortium, which shares library resources across the state. Total library lending and sharing exceeds 30,000 transactions annually.
MoreNet	Consolidated public broadband services to reduce local administrative costs and efficiently delivers value.	Manages a statewide fiber network spanning over 3,600 miles, connecting more than 730 Missouri organizations, including K-12 schools, higher education institutions, public libraries, health care facilities, state agencies, and nonprofits.
Bookstores	The four universities jointly manage the campus bookstores, allowing them to scale efficiently and respond promptly to potential market disruptions.	35% reduction of overhead costs for all system stores.
Online Offerings	Consolidated university contracts for Canvas and Panopto into system-wide agreements. Enhanced academic tech services and support for online programs while maintaining a stable staff-to-student revenue ratio.	Allows for flexible staffing, reallocating employees as needed to different areas based on the demands for the four universities.

Divesting from Underutilized or Unprofitable Assets

MU's Space Consolidation aims reduced deficient facility space to reallocate savings for student success, outreach, and research. MU removed over 730,000 gsf of space, saving \$147 million in deferred maintenance and capital renewal, and cutting annual operating costs by \$5.1 million. The initiative demolished 18 buildings, creating greenspace for future growth.

Both MU and UMSL have divested from residential life operations with low student demand. In both instances, the buildings were decommissioned, resulting in savings on operational costs and deferred maintenance. Besides offloading underperforming assets, the universities continue to contract with existing third-party housing stock to provide flexibility during periods of high demand. While the University will maintain ownership of its housing stock, contracting with privately owned buildings offers flexibility and allows the university to allocate capital towards other investments.

The Missouri Research Park in St. Charles underwent restructuring to ensure that tenants fully funded the common areas. Additionally, the University sold unused land at the St. Charles location to a developer, who is constructing high-end housing around a golf course on the park's property. Furthermore, the University divested of the Research Park in Fort Leonard Wood, thereby eliminating an operation was incurring annual losses.

In addition to the offloading of assets, the University has also outsourced previously insourced functions where there is a difference in demand or better operations in the private market. Examples include the outsourcing of previous in-house printing with multiple vendors who specialized in the wide range of printing needs for the institution. Another key example includes dining, where the University continues to bring in name brand operations to meet student and employee needs for on-campus dining, rather than insourced operations.

Implemented Financial Planning and Improved Financial Accountability

Previous financial planning and budget processes focused on individual budget cycles rather than a long-term framework linking financial outcomes to the strategic plan. CRR 140.025 Financial Performance and Accountability, established a financial accountability framework for University and Health System leaders' financial performance and planning. The plans connect strategic plans, budget cycles, and capital plans, supporting each institution's priorities and mission. This multi-year view allows the University to make tradeoffs and invest strategically over time, rather than treating each budget cycle independently.

Changes in Resource Allocation with Creation of Council of Chancellors

Before the establishment of the Council of Chancellors, a portion of general pool investment was used to support the operations of System Administration, and some was allocated to universities under the direction of the President. Since the formation of the Council of Chancellors, the general pool strategic dividend and general investment income is now distributed based on each university's proportion of assets that generated the income. The Board retains approval rights over the use of the general pool dividend by each University.

Additionally, the system administration budget turned into a cost center that is paid by the campuses. The budget model includes a governor on the total cost of System Administration to ensure that it grows at a slower pace than revenue. System Administration has fallen from 2.02% of total expenditures in 2017 to 1.44% of total expenditures in the FY2025 budget (a 28% drop). The model is built to ensure this percentage continues to decline over time, unless the chancellors approve additional services to be offered at scale.

Revenue Enhancement

Tuition Model Changes - Differential Tuition

Through collaboration with the UM System Review Commission and the Legislature, the University successfully advocated for the repeal of Senate Bill 389. Senate Bill 389 capped tuition increases at inflation and was enacted following several years of double-digit percentage increases in the early 2000's to offset declines in state support. Following the repeal, the University implemented differential tuition. Differential tuition offers students a more predictable pricing structure by charging a standard rate based on their chosen major. The implementation eliminated

over 64 separate supplemental course fees. Since the implementation of differential tuition, first-time college student enrollments have increased 19%.

Tuition Model Changes - Plateau Tuition

MU and Missouri S&T have implemented a plateaued tuition model where students are charged a constant rate for 12 to 18 credit hours. This model aims to incentivize students to take a full course load and graduate within four years, thereby potentially reducing the overall costs of obtaining a degree.

Open Educational Resources

The Affordable & Open Educational Resources (AOER) initiative was established by the University to reduce the cost of course materials. By approaching vendors and publishers as a system of four universities with standard materials, the bookstore utilized its collective size and purchasing power to negotiate significant discounts on course materials for students. The initiative has decreased the average cost of materials per class by 22%, resulting in savings of over \$2.3 million for students system-wide since its launch in 2017. The initiative provided seed funding for faculty to rewrite course materials using open source or free texts, further reducing costs for students. These savings are reflected in lower costs of degree completion.

Formation of the Central Bank

The University has developed a central bank management method that provides flexibility and stability for campus working capital, investment returns, and capital project finance. This approach manages both assets and liabilities to build institutional resources. On the asset side, it addresses market risks and delivers steady returns on eligible working capital. On the liability side, it ensures predictable and equitable capital costs for projects and enhances internal financing capacity. The bank has distributed over \$130 million in dividends and generated a stable cost of debt for units since 2017.

Academic Excellence

Academic Program Review

Over the past eight years, each University utilized the program review process to reshape offerings and structures to meet the needs of students. Academic Affairs provides the board with an annual report detailing new and discontinued programs. New programs require Board approval. The program review process encompasses all academic activities, including teaching, research and service. The UM System discontinued 96 separate degree-level programs since 2012.

The closures by campus include:

- MU: 53 degree programs
- UMKC: 19 degree programs
- S&T: 6 degree programs
- UMSL: 18 degree programs

College Consolidations

MU and UMKC have closed colleges in the past decade due to financial challenges. MU closed the College of Human Environmental Sciences (HES). The HES closure eliminated a dean position

and related administrative support and moved departments formerly within HES to the College of Arts and Sciences, College of Education and Human Development, and College of Health Sciences. UMKC went through a multi-year academic realignment process due to ongoing financial challenges. The realignment closed one college, eliminated three dean positions, eliminated six department chair positions, and closed 15 academic programs. The organizational changes aimed to enhance student retention rates, graduation rates, and career outcomes. Further, the restructuring generated funding to reinvest in faculty and research support.

Faculty Productivity

In Fall 2020, the MU Office of the Provost formed a task force to develop university-level guidance on workload expectations. The recommendations from this University Workload Expectations Task Force established guidelines for faculty workload in teaching, research, and service areas, creating a university standard for all workload policies while accommodating the disciplinary diversity reflected in unit-level policies. The Workload policy effective August 2023 includes an annual review of faculty workload with improvement plans for unsatisfactory ratings that include workload adjustments. Accountability to the standard is driven by institutional reporting to benchmarks, reviewed by the Provost, with Deans conducting selective reviews of underperforming faculty.

Research Productivity Growth

Extramural research funding per faculty has exceeded inflation by 26% since 2017 at MU. Both existing faculty and new hires have contributed to this growth in productivity. Mizzou Forward has resulted in the recruitment of 40 new faculty members and significant investments in key areas aimed at improving research productivity. These faculty members have brought research awards totaling more than \$83 million to the university. Additionally, since joining the campus, Mizzou Forward researchers have secured 120 competitive awards, generating an additional \$82 million in funding.

Furthermore, the Roy Blunt NextGen Precision Health building facilitates collaborative research and education in precision medicine across various disciplines, enabling much of the more recent growth. As a result of these efforts, MU has doubled its research expenditures, growing by \$201 million from FY 2019 to 2024.

MU Taking a Closer Look: Results from Key Initiatives and Benchmarking

The preceding sections detailed the actions implemented under each key platform to address financial challenges while continuing to invest in the overall mission of the University. The following section highlights outcomes at MU by these actions including:

- Over 500 clerical positions eliminated.
- MU spends less than half the SEC Average on central administration.
- Only one quarter of MU's labor is spent on administrative labor while the peer average is over 38%.
- MU reduced the cost per degree issued by 19% since 2017.
- While increasing research per faculty by 26% over inflation.

- With the cost declines, MU has improved: graduation rates, retention rates, grew enrollment, and improved research rankings.

Shift in Staff Workforce

The University has made progress in implementing technology to make processes easier and reducing the amount of touch (e.g. creating electronic expense reports). The implementation of shared services functions further reduced the need for individual units to carry clerical support. The following change in full time staff demonstrates the administrative efficiency actions impact on clerical staff from FY2017-2024.

Change in Full Time Staff Jobs at MU Fall 2016 -2023			
	Fall 2023	Change from Fall 2016	
Office & Admin Support	962	-594	-38.2%
Maintenance, Construction, Transportation	346	-108	-23.8%
Service	458	-54	-10.5%
Instructional Support	211	-66	-23.8%
Other	83	4	5.1%
Community Service & Arts	736	64	9.5%
Healthcare Practitioners & Technicians	636	146	29.8%
Business Ops & Management	1,432	199	16.1%
IT / Engineering / Science	1,416	440	45.1%
Total	6,280	31	0.5%

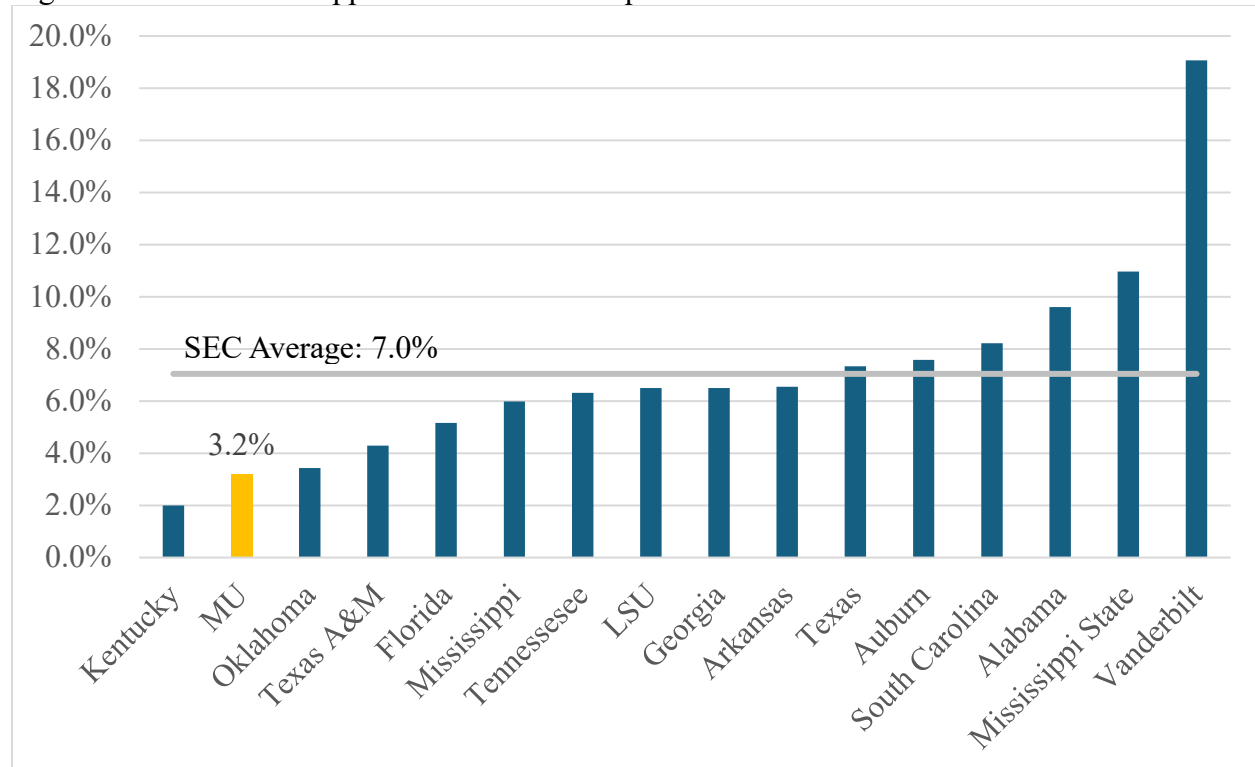
Source: IR Table 3.10

Staffing reductions were accomplished through Shared Services, organizational consolidations, building demolition, and the use of technology for administrative processes. Staff areas which expanded were in response to revenue growth. From FY2016-2024, MU's clinical revenues rose by 70%, research revenues increased by 74%, and revenues from the MU Research Reactor tripled.

Administrative Spend Low Amongst Peers

Institutional support is a functional expense category that encompasses general administration including finance, HR, legal, and other central administration.

Figure 5: Institutional Support as a % of Total Spend for SEC Institutions

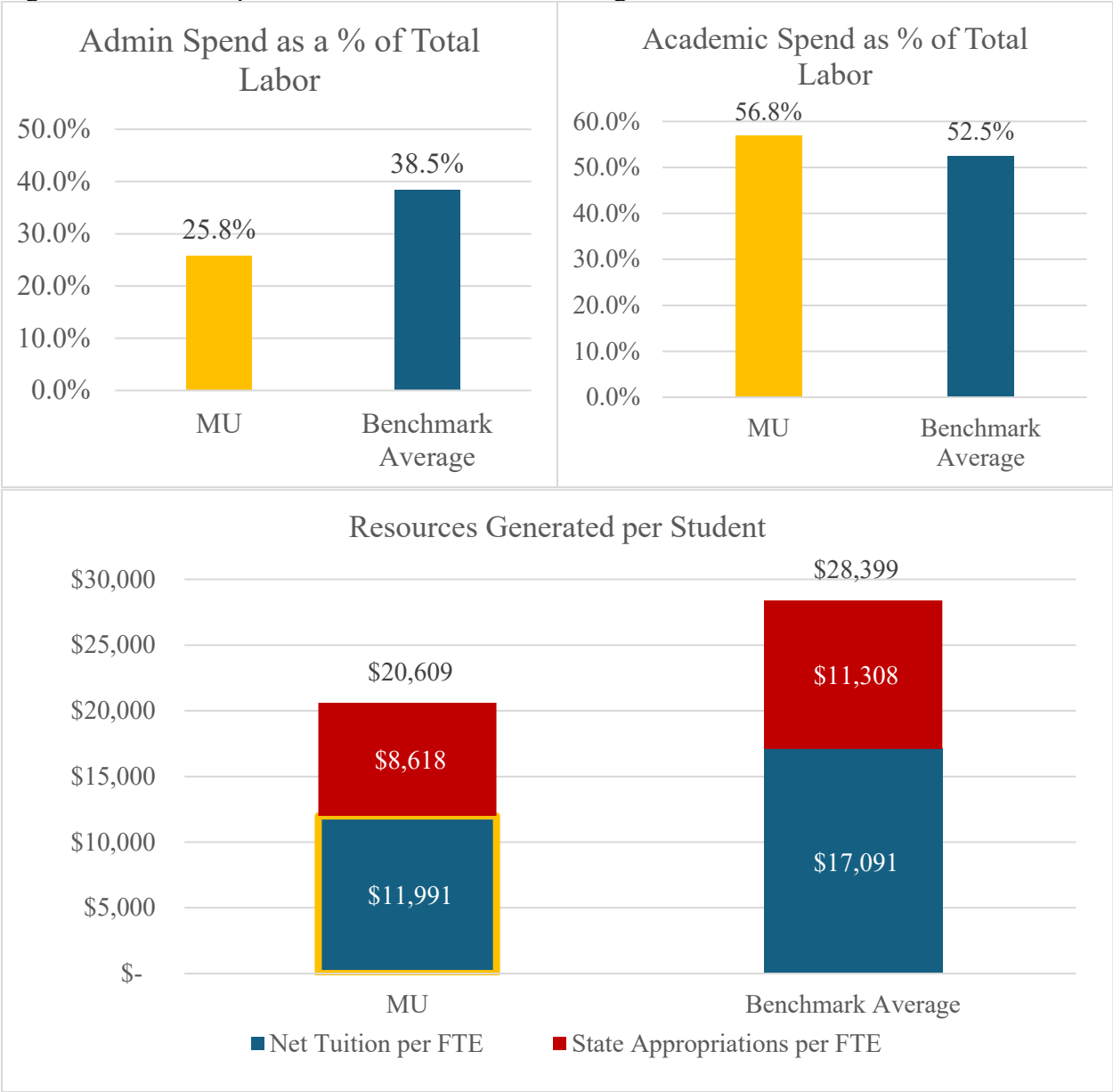


Source: Integrated Postsecondary Education Data System (IPEDS)

Figure 5 illustrates the proportion of institutional support relative to the total expenditure base for SEC institutions. MU spends \$40 million less on institutional support compared to the average SEC institutions. This places MU as the second lowest in terms of spending as a percentage of total expenses among its peers. Additionally, only three SEC institutions, all smaller than MU, have lower gross expenditures. Kentucky is the only institution with lower spending on central administration, and they are \$2.6 billion larger than MU in terms of total revenues.

MU also subscribes to Helio Campus Administrative Benchmarking, which benchmarks all labor spend in detail to a set of participating peers. The Helio Benchmarking assists in quantifying the amount of decentralized administrative spend and benchmarking to similar institutions. When compared to peers (institutions >\$1 billion operating expense), MU's administrative spending in relation to total labor is lower than the benchmark average. MU allocates 25.8% of its labor spend towards administration, while the benchmark average is 38.5%. Conversely, MU's academic labor spend is 56.8%, which is 4.3% higher than the benchmark average. Furthermore, the educational resources (net tuition and appropriations) per student at peer institutions are 27% higher than those at MU.

Figure 6: Helio Campus Administrative Benchmarking

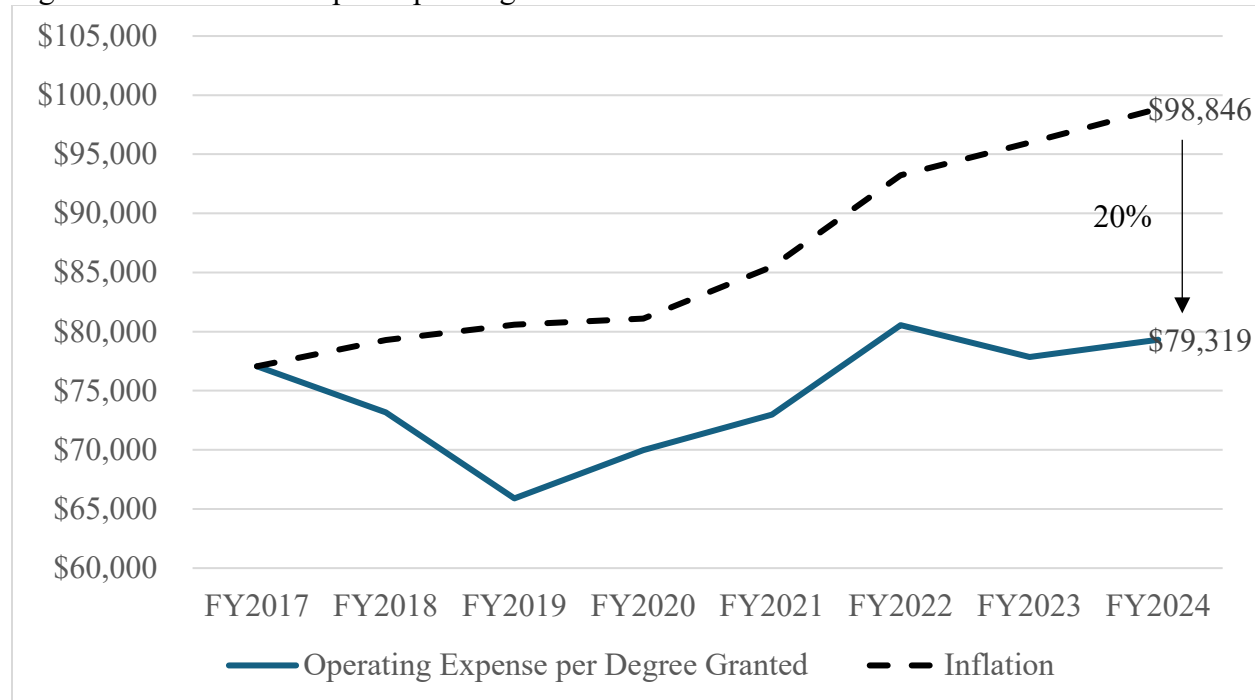


Source: Helio Campus Administrative Benchmarking and Integrated Postsecondary Education Data System (IPEDS) Admin Benchmark group includes Alabama, Arizona State, Tennessee, Buffalo, UC-Irvine, Cincinnati, University of Connecticut, Houston, Utah, University of Pittsburg, Temple, University of New Mexico, University of Wisconsin-Madison. At the time of pulling the information not all of the peer data for academic spend was available, the following did not have information posted: Cincinnati, University of New Mexico, University of Wisconsin-Madison.

Results of Educational Expense Management

The focus on cost management also generates value for students. These changes reduced the cost per unit of output (degrees granted).

Figure 7: Educational Expense per Degree Awarded



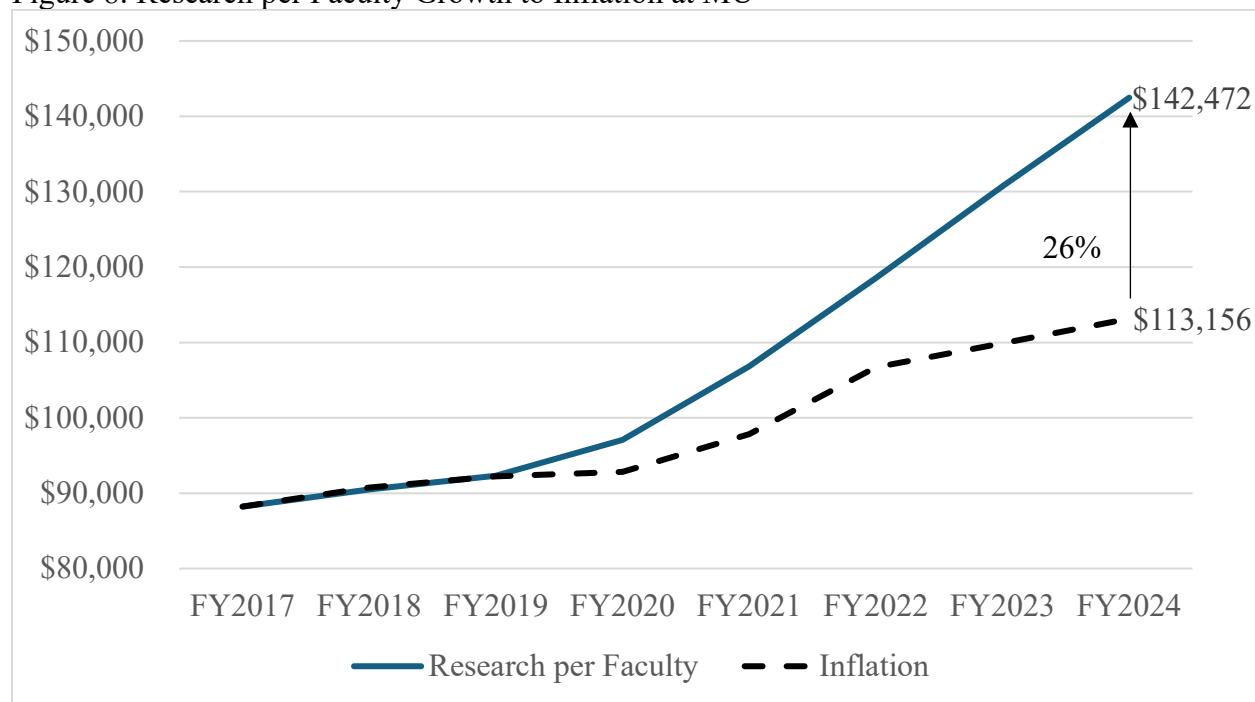
Source: Educational Expenses = operating expenses excluding grants and auxiliary operations. Financial information sourced from detailed financial statements. Degree source – IR Table 2.10

Between FY2017-2024, the University's educational cost per degree granted (spending on instruction, public service, and administrative functions) declined by 20% when compared to inflation. It is important to note the enrollment drop from the smaller freshman class in Fall 2017 takes four years to show up in the degrees granted, meaning the smaller class did not start to show up as a degree reduction until 2020. Degrees produced fell by 16% to their low in FY2021, but expense cutting still exceeded inflation resulting in a lower cost for students than the 2017 baseline.

Results from Improved Faculty Productivity

Research revenues have increased by 67% since FY2017. Mizzou Forward improved MU's research profile and led to significant productivity improvements. Figure 8 illustrates the increase in research revenue per full-time faculty from FY2017 through FY2024 in comparison to inflation. The 26% growth above inflation signifies that current and new faculty have become more productive in generating extramural research at MU.

Figure 8: Research per Faculty Growth to Inflation at MU



Source: Detailed financial statements grants and contract revenue, full-time faculty per IR table 3.10

University Maintained Excellent Outcomes while Managing Cost

The University proactively addressed a \$373 million budget shortfall from the previous revenue disruptions. These actions resulted in \$443 million in cost reductions and \$146 million in revenue enhancement initiatives, generating \$212 million in recurring resources for reinvestment. These investments coupled with the federal and state capital funding resulted in the following outcomes of excellence.

- 74% growth in total federal research
- 44% growth in first-time college cohort size
- 20% drop in the amount spent per degree
- 10% improvement in 6-year graduation rate
- 27% improvement in 4-year graduation rate
- 7% improvement in retention

Changes in the public higher education fiscal and economic landscape

Early indicators show that several trends that enabled revenue growth over the past five years are beginning to reverse. Key revenue drivers for academic growth post-pandemic included growth in federal research grants, state appropriations, and net tuition with stable enrollment. Since the pandemic, research revenues have doubled, and state support has kept pace with inflation. Enrollment trends vary by university, but MU has been able to maintain enrollment and grow net tuition with inflation over the past several years. However, conditions in the broader economic environment appear to be tightening and this will flow through to higher education.

In March 2025, Moody's revised the outlook for the US higher education sector to negative, citing federal policy changes that have resulted in a more challenging operating environment. Actions and potential changes include research funding cuts, staff reductions at the Department of Education, federal student aid uncertainty, potential for reductions or eliminations of visas for international students, and possible expanded endowment taxes. Institutions are pausing investments, freezing hiring, and reducing spending. Institutions with strong demand and ample financial resources will be better positioned to handle these challenges than those with weaker brands and limited reserves.

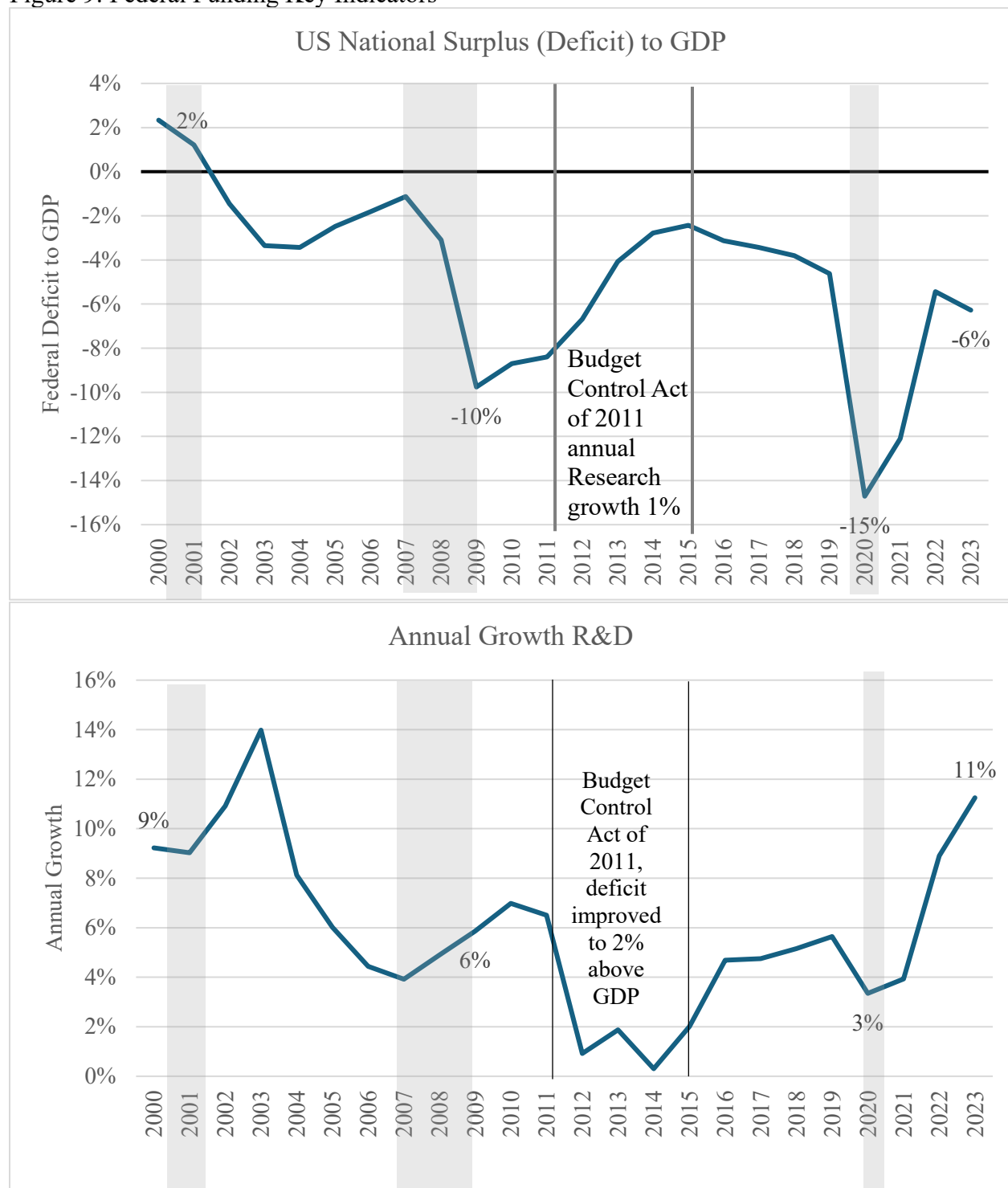
The University of Missouri's research base will be impacted by potential reductions in federal indirect cost reimbursement and research grants. Flow through impact on the state from federal austerity measures could impact both academic and healthcare operations. Enrollments can remain a stable source of income, but students have become more cost conscious, and institutions will need to work to ensure pricing and scholarship strategies to remain successful in a competitive market.

Federal Research Grants and Contracts

National support for research and development (R&D) grew by 11% in 2023, the highest growth since 2003's 14% increase. The difference between now and 2003 is that the federal budget had a surplus prior to 2002, as presented in Figure 9. The ongoing substantial revenue growth in federal R&D investment will be a target for cuts, as it is part of discretionary spending.

During the 2008-09 financial crisis, the federal deficit grew at a faster rate relative to the gross domestic product (GDP), reaching a deficit of 10% above GDP. As the economy recovered, elected officials responded. The Budget Control Act of 2011 reduced and capped discretionary spending for a decade, thereby narrowing the deficit during economic recovery. During this time, research spending growth fell to less than 1%. The current federal climate is more in-line with the Budget Control act than the growth from the previous few years.

Figure 9: Federal Funding Key Indicators



Source: National Center for Science and Engineering Statistics and St. Louis FED

The current federal administration has initiated measures to reduce the federal deficit through cost reductions. One direct impact of these measures on the University is the reduction of the National Institutes of Health (NIH) indirect cost rate to 15% for all new grants issued, which could result in

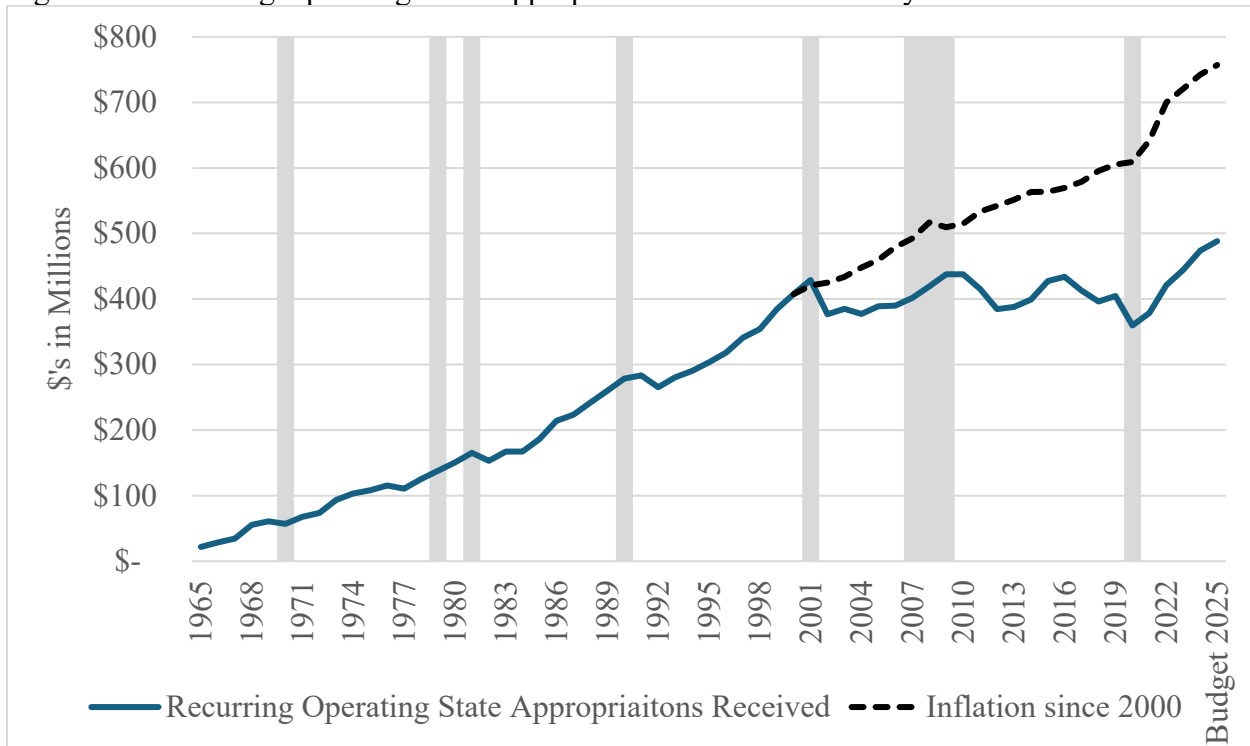
loss up to \$22 million across the four universities. Additional federal policy changes are anticipated and may affect other areas of the University receiving federal funding, including:

- **Federal Grants:** The four universities reported federal grant and contract revenues amounting to \$262 million in FY2024. Overall research grant revenue has increased since the pandemic as the University leveraged the increase in the federal R&D budget and priorities set by federal legislators. However, current federal actions indicate that the growth in the federal budget for R&D will be minimal or may decline, leading to heightened competition among research universities.
- **Federal Pell Grants:** The University received \$61 million to support access to higher education for low-income students. The federal administration has indicated a desire to maintain individual person benefit programs, which Pell has fit into. Any reduction in this funding could hinder recruitment efforts and necessitate the allocation of additional institutional resources to maintain current access awards.
- **Federal Appropriations:** The University receives cash subsidy payments from the US Treasury totaling \$9 million for designated Build America Bonds outstanding. Any reduction in this support would impact central reserves or require a reset of loan interest rates, which would be passed along through an increase in housing and other auxiliary rates. The University will continue to evaluate the debt market and be ready to replace these bonds, if economically feasible.
- **Federal Land Grant Appropriations:** As a land grant university, MU receives \$20 million in federal funding to support research, extension programs, and teaching focused on agriculture. This funding is essential for extension centers and agricultural experiment stations across the state of Missouri. Any reduction would necessitate the reallocation of internal resources or the closure of centers and experiment stations.

State Funding to Higher Education

From the 1970s to the 1990s, appropriations increased above inflation. After brief declines in funding from recessions, appropriations consistently recovered and exceeded previous levels even adjusted for inflation. Since 2000, appropriation growth fell below inflation, marked by deeper budget cuts in recessions followed by limited growth after recovery. The previous five consecutive years of over \$100 million in appropriation growth from 2021-2025 has not been observed since the 1990's.

Figure 10: Recurring Operating State Appropriations for the University of Missouri

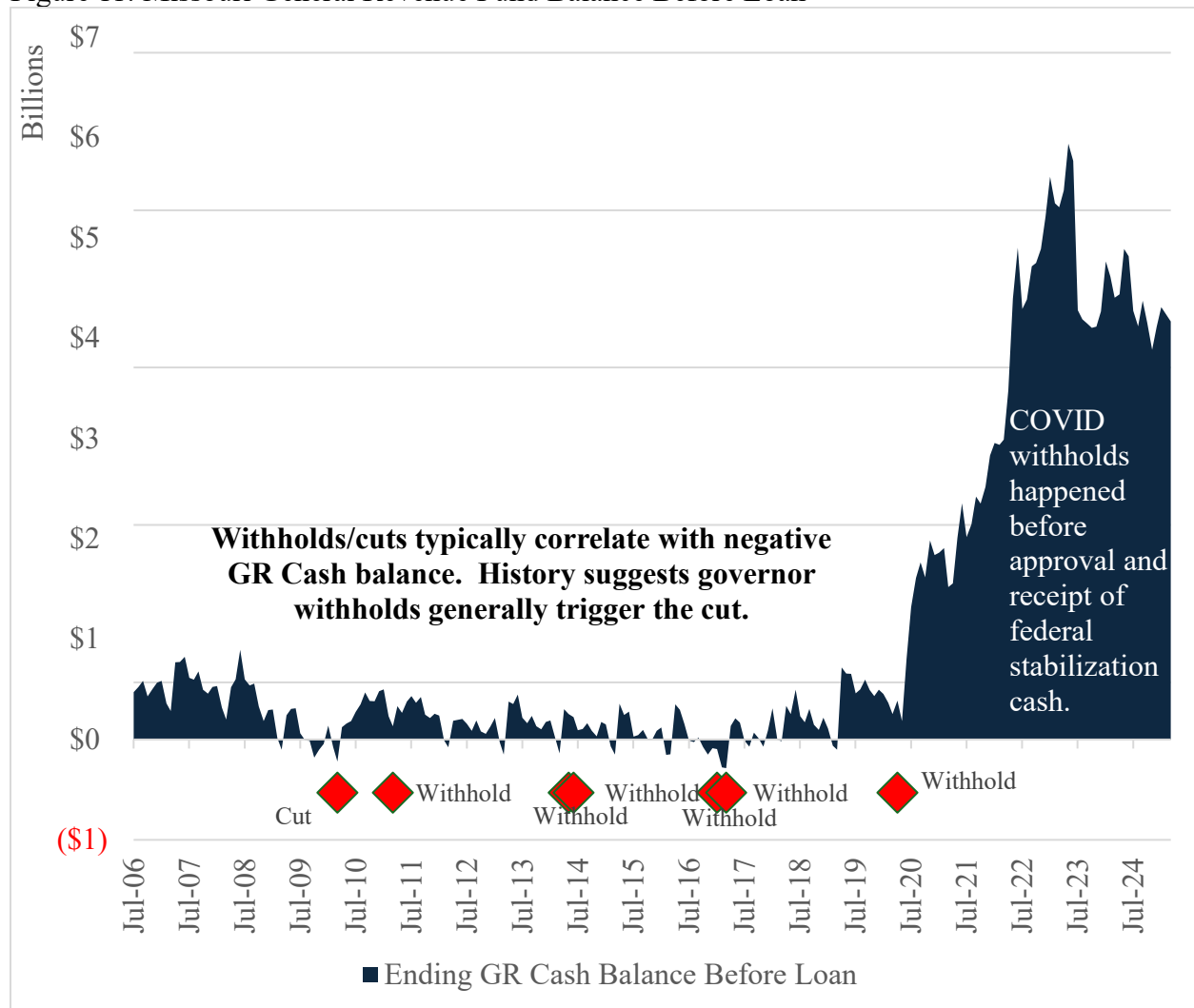


Source: Internal Financial Records

Over the past two decades, financial commitments have shifted, with funding for Higher Education decreasing from 12% to 8% of the State's general revenue budget. The University's appropriations have fallen below inflation, as shown in Figure 10. When compared to the year 2000, recurring operating appropriations are \$269 million under inflation.

Factors supporting the State's budget since 2020 are diminishing. The State's general revenue is projected to decline by 0.6% in 2025. Current trends in state revenues and rising costs of other spending programs resemble the patterns seen from 2000 to 2020, rather than those from 2020 to 2024. The State enters this phase of slower growth with high fund balances, although these are allocated for capital projects. Revenue projections suggest that increasing discretionary spending beyond or even at the rate of inflation is improbable. Thus, the inflationary gap will likely continue to widen without policy changes or reallocation of resources.

Figure 11: Missouri General Revenue Fund Balance Before Loan



Source: Missouri State Treasury website and month Office of Account General Revenue Fund Statements

At the close of the 2024 fiscal year, Missouri's General Revenue fund stood at \$4.8 billion after accounting for a drawdown of \$960 million, representing the third highest balance recorded in the state's history. This substantial fund balance affords the state a buffer period to effectively respond to any potential revenue disruptions or growth in spending programs. In balancing its budgetary obligations, Missouri must ensure that recurring revenues, primarily derived from taxes, align with recurring expenditures, which encompass appropriations.

History suggests that cuts in appropriations will be preceded by a state withhold. State withholds are generally enacted for austerity measures when cash balances are low or large known disruptions are expected to consume cash. The current balance would indicate there is some runway before these decisions may need to happen. However, significant policy changes could draw this fund balance quickly. The proposed state Medicaid budget includes over \$15.8 billion in total spending for FY2026.

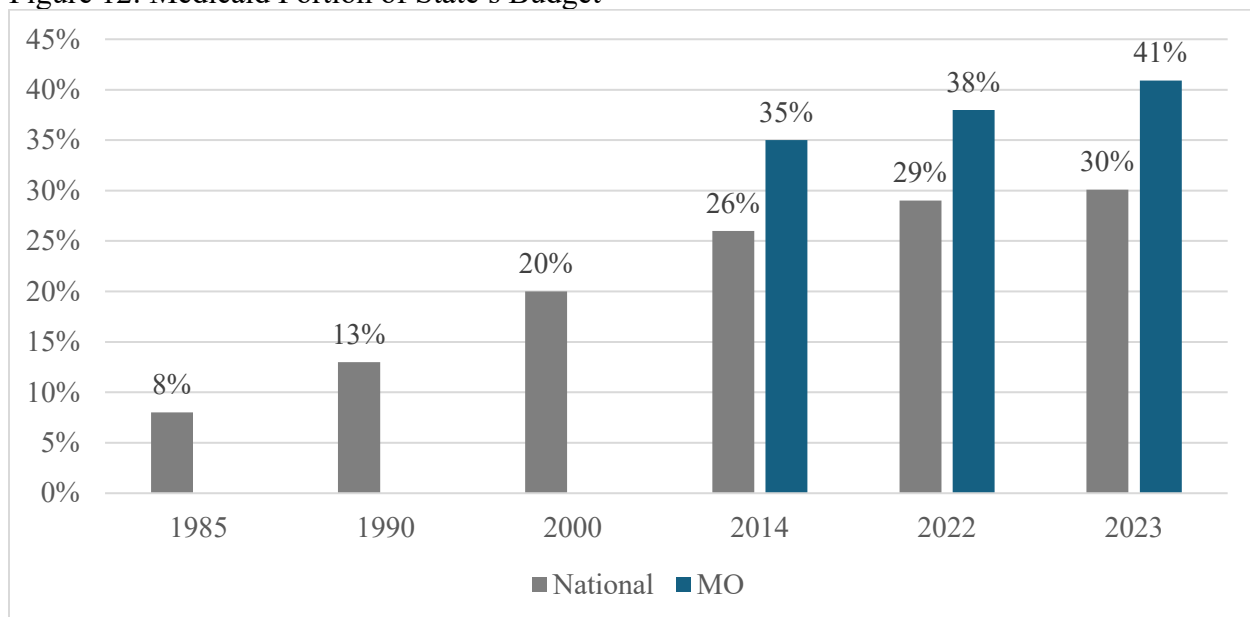
Looking back to the previous two decades State budget cuts have ranged from 8.8% to 12.5% and the cash balance prior to the cut was negative.

	Cut	Cut Fiscal Year	GR Cash Balance Prior to Cut
2001 Recession	-12.1%	2002	-\$83.3M
2007-09 Great Recession	-12.5%	2011-12	-\$100.4M
2016-2017 Austerity	-8.8%	2017-18	-\$148.0M
2020 COVID Recession	-11.1%	2020	\$253.8M

Medicaid Spending in Missouri

The federal reconciliation process may reform Medicaid and impact state budgets. If approved by Congress, changes could impact Medicaid financing and matching, potentially causing financial strain on states and resulting in reductions in coverage, benefits, and payment rates for healthcare providers. Any changes to Medicaid that impact state budgets have the potential to affect both higher education appropriations and healthcare reimbursements from Medicaid.

Figure 12: Medicaid Portion of State's Budget



Source: National Association of State Budget Officers, State Expenditure Report

Even without policy changes, Medicaid continues to put pressure on state budgets with cost growth. The growth of Medicaid has continued to crowd out other areas of state spending, including higher education.

In 2020, Missouri voters approved a constitutional amendment to expand Medicaid to 138% of the federal poverty level. The federal government currently funds 90% of the approximately \$3 billion cost to cover around 325,000 Missouri participants in the program. As Medicaid expansion is part of the state constitution, Missouri lawmakers cannot reduce eligibility for the program. Any change to federal matching dollars would create a general revenue funding gap that would need to be addressed through cuts in the discretionary budget or an increase in State revenues.

State Revenues

Since a short recession in FY2020, state tax revenues have increased by over \$4 billion over the FY2020 baseline. Rapid growth in FY2021 and FY2022 beat expectations, and the previous elected leadership was slow to increase recurring spending to make sure increases in revenue were durable.

Figure 13: State Revenue Growth Since COVID Pandemic



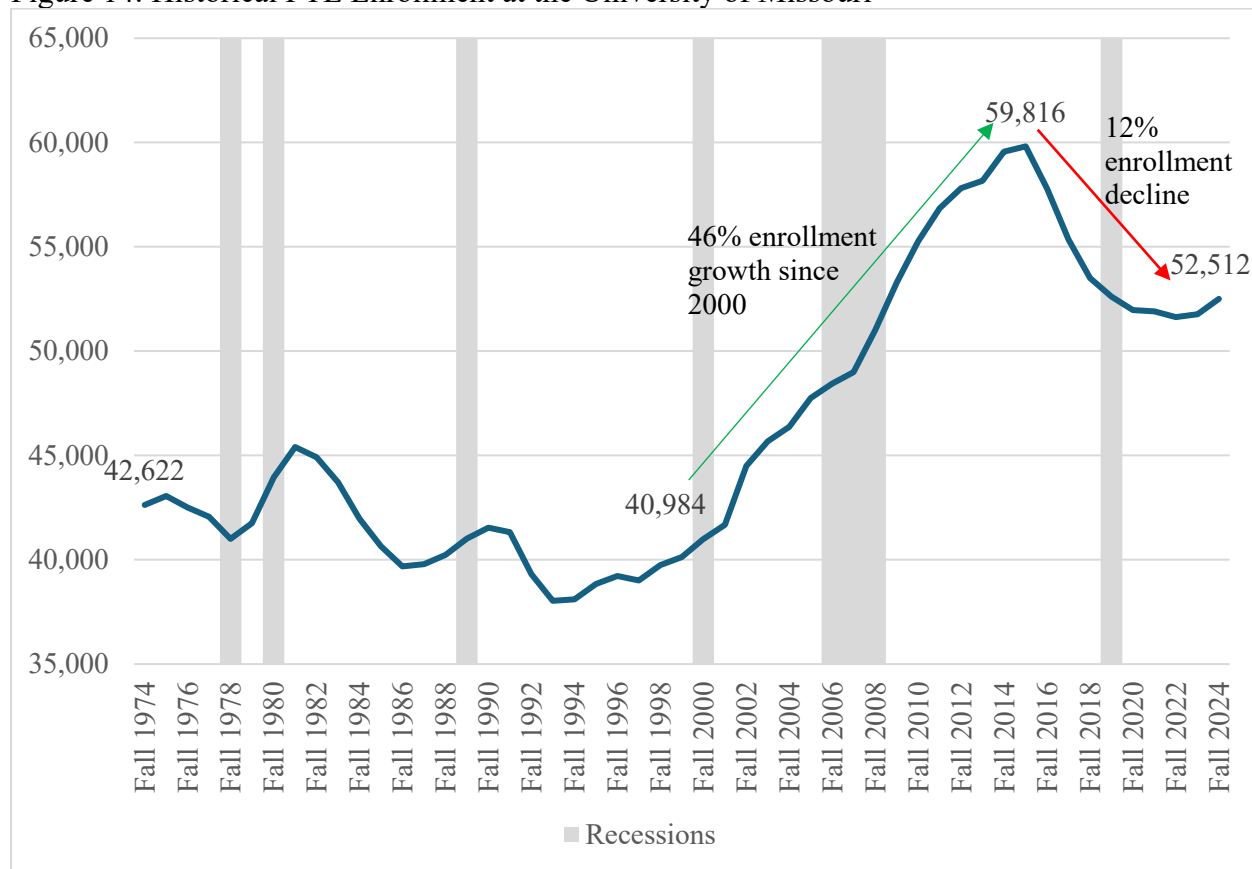
Source: Missouri Office of Administration, Division of Accounting

Since 2022, revenues generated from income taxes have declined due to a leveling off income growth and changes in tax policy. Collections in 2025 have slowed on declining sales tax revenue, resulting in an overall revenue decrease. This downturn in revenue puts pressure on the state's

recurring financial commitments, as falling revenues will not support continued recurring appropriation increases. Without reallocating resources or finding alternative revenue streams, Missouri may face challenges in maintaining its current level of recurring public university funding.

Enrollment Trends

Figure 14: Historical FTE Enrollment at the University of Missouri



Source: IR Table 1.21, full-time student enrollment data is available back to Fall 1974

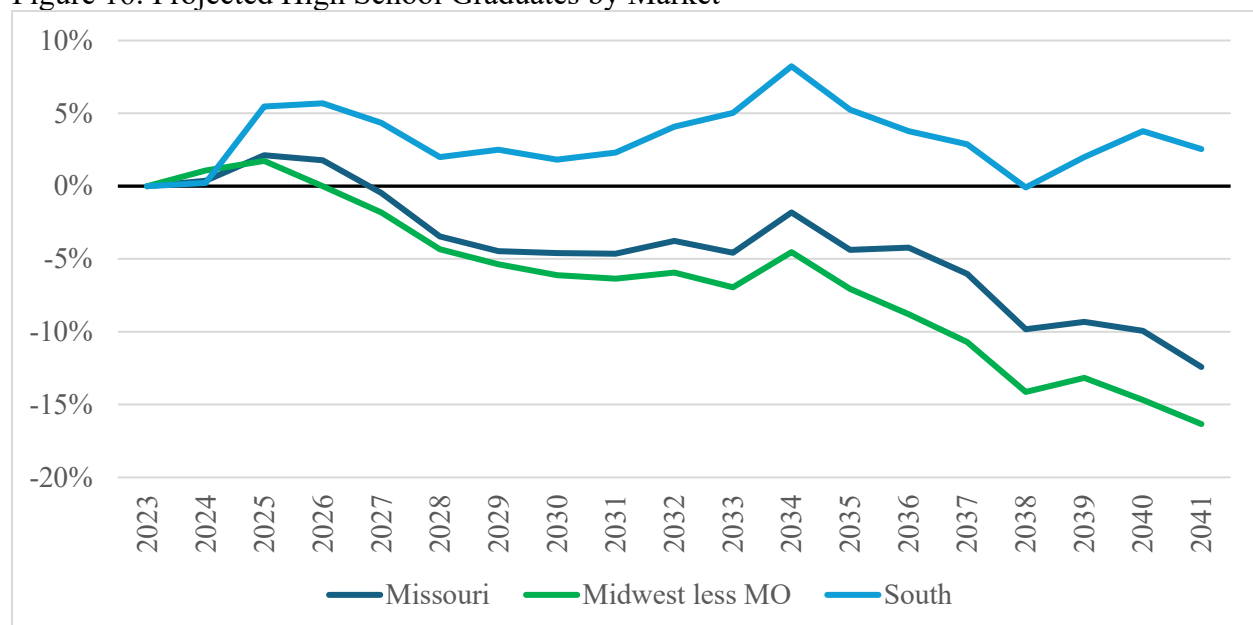
While appropriations were exceeding inflation, the University's enrollment remained relatively stable from the 1970's through the 1990's, with periods of growth and contraction but generally remaining between 40,000-45,000 FTE students. When the state cuts began, the Universities began both increasing tuition and growing enrollment to cover the shortfall. From 2000 to 2016, the University grew enrollment by 19,000 FTE, outpacing other 4-year public institutions in Missouri. This growth was fueled by an increase in Missouri high school graduates and a significant rise in non-Missouri enrollees from 2008 to 2015. Growth plans were supported by demographic trends with broader growth in Midwest high school graduates. However, since 2016, enrollment has become increasingly competitive, and Missouri public institutions have experienced enrollment declines. Future projections show flat to declining high school graduates in the Midwest, which will continue to drive competition for enrollments.

Figure 15: Enrollment by University of Missouri Institutions for FY2002 and FY2024

	FY2002		FY2024	
	Enrollment	% of Total	Enrollment	% of Total
MU	21,894	47%	28,129	51%
Missouri S&T	4,763	10%	6,478	12%
UMKC	9,565	21%	11,540	21%
UMSL	10,060	22%	8,932	16%

Enrollment growth over the past two decades have varied across the four University of Missouri institutions. Figure 15 shows how each student population has shifted among these institutions, with the largest growth at MU and Missouri S&T and a drop at UMSL. The enrollment trend at MU is comparable to the historical trend for the entire system, as MU's enrollment accounts for half of the total student population.

Figure 16: Projected High School Graduates by Market



Source: Western Interstate Commission for Higher Education

As the number of high school graduates in Missouri and the Midwest plateau and subsequently decline, enrollments are expected to become increasingly competitive. To effectively navigate this challenging market, the University must seek growth opportunities within the southeastern market, where an increase in high school graduates is projected to persist. Pricing and financial aid strategies will be crucial for the University to make necessary investments.

Net Tuition Trends

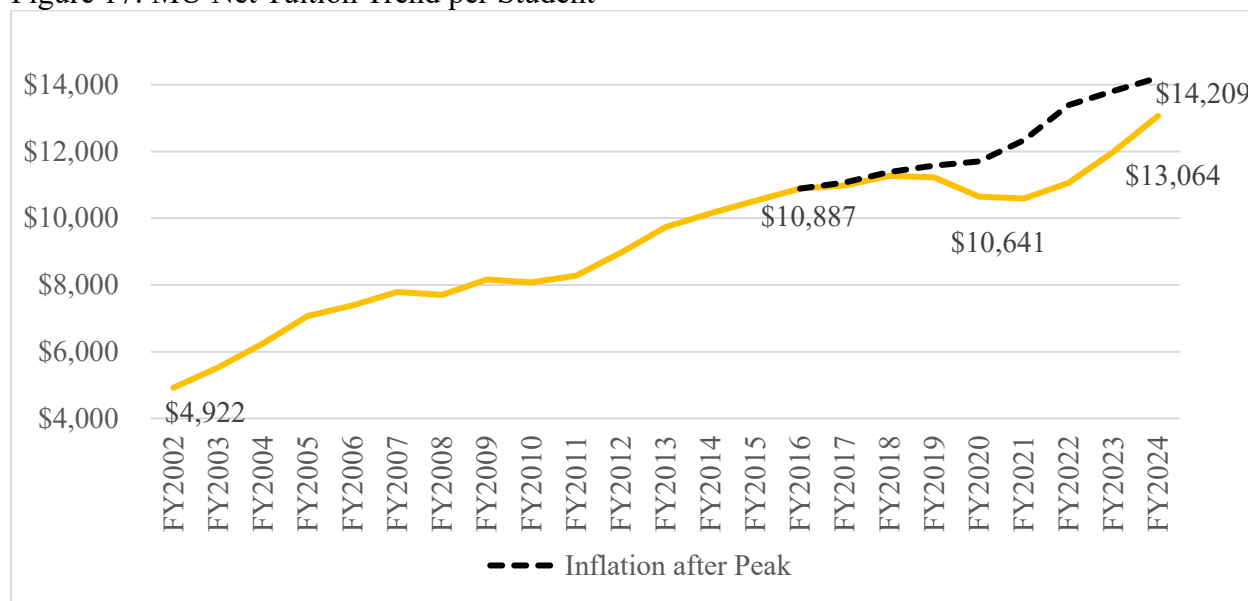
Net tuition resources differ among universities within the system. Increased competition for students will require institutions to maintain a link between price and quality. Institutions that can successfully grow net tuition per full time equivalent (fte) student above the inflation rate without negatively affecting enrollment are in a better position to invest in their growth. Conversely, those

experiencing declining net tuition per fte student and enrollment face challenges and must restructure operations to match their ability to generate revenue. Net tuition trends are a function of enrollment and the average amount paid by students. Net tuition is net of any discounts funded by the institution. It does not include any scholarships funded externally for students.

The trends in net tuition per student for MU and Missouri S&T are similar, as their undergraduate student populations, both largely represent traditional residential students. At both institutions, over 80% of the total student population consists of undergraduates. Moreover, their undergraduate populations have a higher proportion of full-time and first-time college students compared to those of urban institutions.

MU and Missouri S&T experienced net tuition increases before reaching enrollment peaks, due to rising enrollment and program costs. Increases in net tuition at S&T were primarily driven by price increases for engineering whereas increases at MU were largely driven by an increasing mix of non-Missouri residents. MU's non-resident undergraduates went from 13% of the total population in 2002 to 23% of the total population in the fall of 2024.

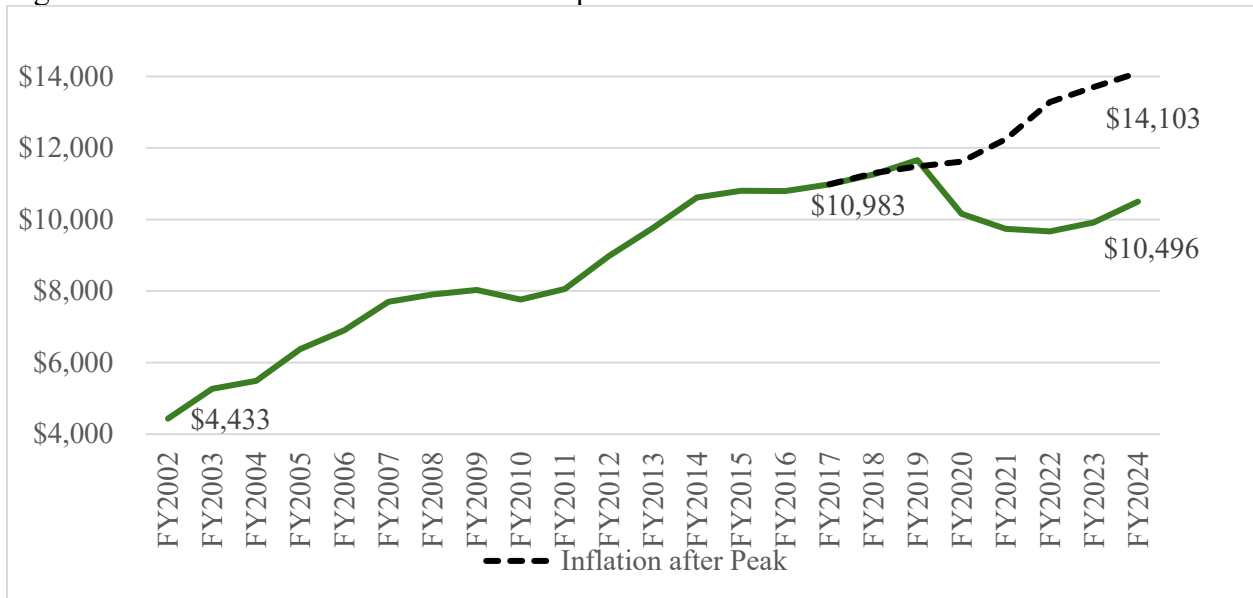
Figure 17: MU Net Tuition Trend per Student



Source: Integrated Postsecondary Education Data System (IPEDS)

For a period after enrollment peak, MU maintained pricing but experienced large drops in first time college enrollment. MU lowered price through increased use of scholarships to regain market share before then increasing revenues. From FY2020 onwards, MU has shown consistent growth after the enrollment dip. The recovery of MU since 2015 has been influenced by pricing and financial aid. First, MU increased scholarships and dropped net price to regain enrollments. Then with growing class sizes, MU was able to increase price at a faster rate than inflation, enabling investment.

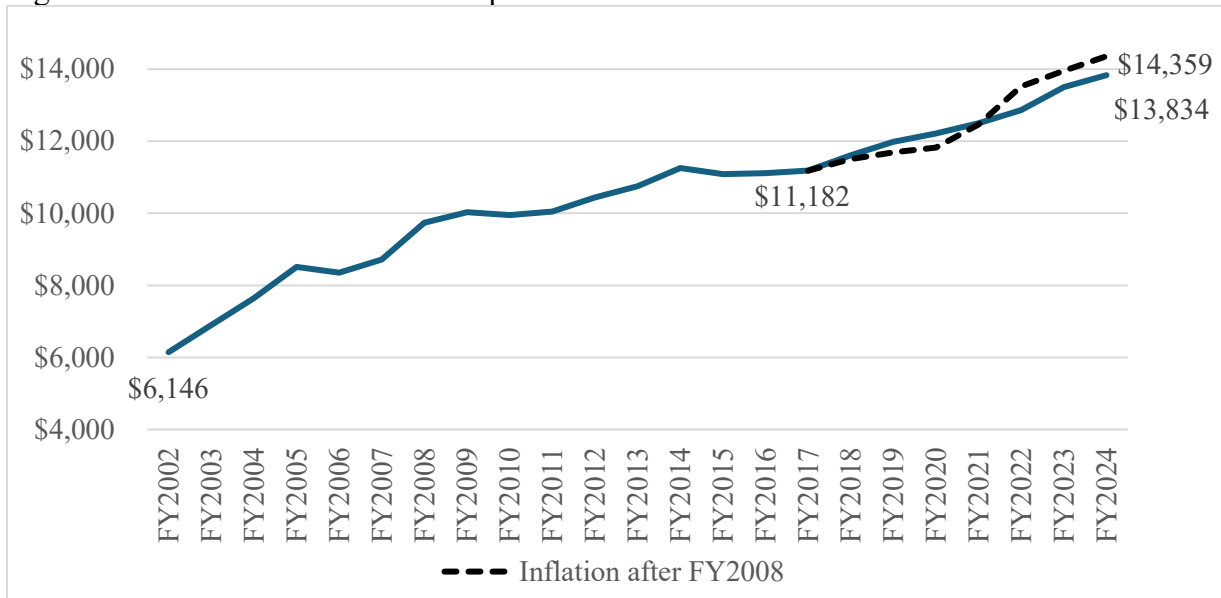
Figure 18: Missouri S&T Net Tuition Trend per Student



Source: Integrated Postsecondary Education Data System (IPEDS)

Missouri S&T has seen a decrease in international student enrollment after the pandemic. In FY2023, Missouri S&T discontinued the international undergraduate rate and charged international students non-resident rates, which was a 4% reduction from the listed price. This change aimed to encourage international enrollment growth. In December 2020, the Kummer Foundation established the Kummer Vanguard Scholars Program to support student success at Missouri S&T and promote thinking in five core areas: Entrepreneurship, Research, Design and Build, Social Responsibility, and Leadership. Despite financial aid efforts and pricing adjustments, net tuition per student remains 26% below inflation.

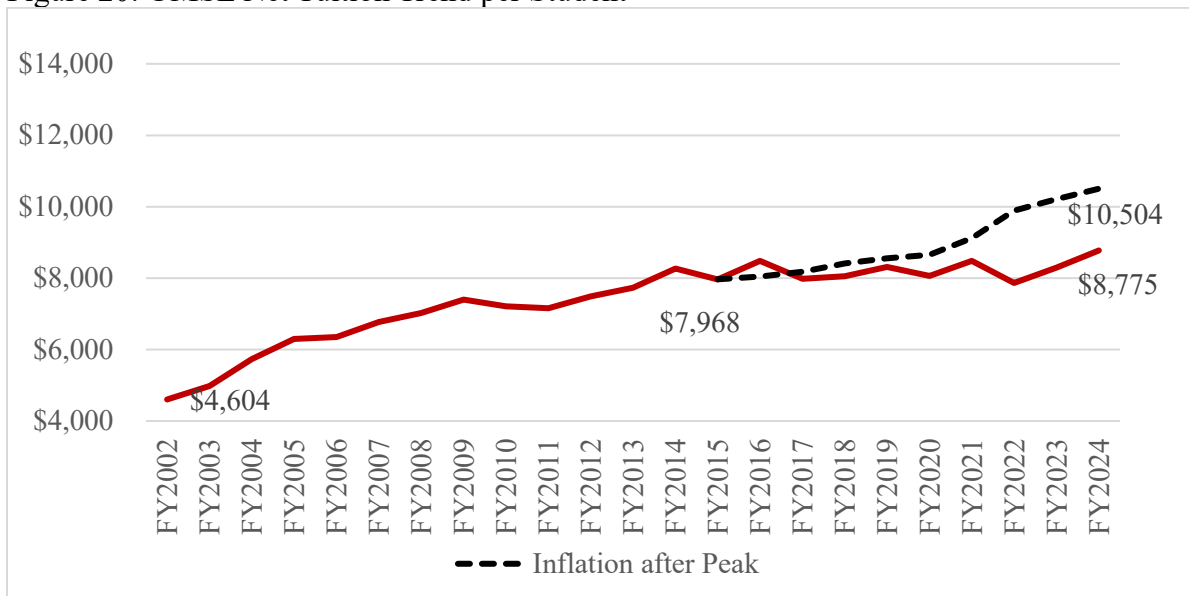
Figure 19: UMKC Net Tuition Trend per Student



Source: Integrated Postsecondary Education Data System (IPEDS)

At UMKC, more than 30% of the student body consists of graduate and professional students, distinguishing it from other institutions. These programs have contributed to an increase in net tuition revenue, even amidst periods of declining enrollment. UMKC has been able to maintain a net price in line with inflation. Enrollment has fallen some more recently, but the declines are less than those experienced at the other campuses.

Figure 20: UMSL Net Tuition Trend per Student



Source: Integrated Postsecondary Education Data System (IPEDS)

UMSL is the only institution within the system where net tuition resources have remained stable while enrollment consistently declined since peak. The student population at UMSL differs from

other institutions, with 66% of students attending part-time, compared to 39% at UMKC and 15% at MU and Missouri S&T. During this period, UMSL's full-time student population decreased by 18%, while the part-time population increased by 15%. Even with the shift in part-time enrollment, UMSL has not been able to grow net tuition revenues. Although recent financial aid strategies have improved the situation, net tuition resources per student remain 16% below inflation.

Framework for leading in a changing fiscal environment

Beyond the actions being taken in FY2025 and through the FY2026 budget process, the University will continue to monitor and proactively prepare potential for revenue disruptions. The University's financial strength, strong brands and sound financial planning processes and policies position it to lead public higher education in the state.

Monitoring Key Process and Leading Indicators

The University continues to monitor federal actions, as federal funding flow through is a significant source of direct and indirect funding for the higher education industry. The necessary balancing exercises at the federal level will have a flow through impact on the industry. The federal reconciliation process and annual appropriation bills play a crucial role in shaping policy and funding streams that impact state government, healthcare, and student credit sectors. These ultimate actions will help shape the size and scope of the revenue disruption that will occur to the university, coupled with any changes in the broader economy. The outcomes of this process, particularly the federal appropriations bills, will directly influence the size of the federal research budget, determining the extent of support for academic and scientific endeavors.

The state budget process, along with revenues and cash balances, is pivotal to fiscal planning. While the state remains in a healthy position overall, federal changes could impact state budgets as well and those impacts are likely to affect the state budget in future cycles (FY2027 and beyond). The high current State cash balance provides elected officials with more time to achieve a balanced budget than in the 2010's. Responsible budget management by the state over the past few years has enabled flexibility in financial planning, unlike other states that are taking austerity measures now. With the fiscal strains on the federal and state budgets, the enrollment market trend remains a significant factor, driving decisions and resource allocation.

The University continues to monitor the following leading indicators of potential revenue disruptions on a monthly basis:

- Research awards
- State general revenue collections and fund balances,
- Student-related metrics (applications, acceptances, and deposits)

These indicators provide important insights to guide actions necessary for ensuring the institution's continued growth and stability. These leading indicators will help the University assess the size and scope of necessary adjustments to operations.

Continuous Improvement Initiatives beyond the FY2026 Budget

The following key platforms will guide the University to sustainable excellence beyond the 2026 budget.



The larger changes necessary will involve changing long-held business practices and encompass work over multiple budget cycles. The key streams of work include:

Academic Excellence

- **Degree/Certificate Market Analysis:** The University will refresh the program net revenue analysis to evaluate how individual programs and departments generate resources. The net revenue analysis looks through the lens of the academic department that provides the degree and the academic department that teaches the student. These analysis help inform how teaching and degree programs should be adjusted.
- **Program/Department Review:** Academic leadership will review productivity and overlap in departments across colleges to identify opportunities for increased collaboration and consolidation.
- **Academic Productivity:** The universities will continue to review productivity in line with faculty productivity standards and policies. Changes in faculty will be allocated based on student demand and research productivity. Teaching productivity will continue be reviewed in depth to ensure faculty teach a full load, especially if extramural research revenue drops are realized.
- **Research funding adaptation:** colleges and department chairs will be expected to manage drops in extramural funding by cutting the spending currently receiving external funding. This will impact the numbers of graduate students in programs and the number of bench researchers employed by the University. Researchers and investments will be adapted to the priorities of the funding agencies to secure as much available external funding as possible.

Revenue Enhancement

- Pricing to Demand/Market for Auxiliaries: Key auxiliaries will be expected to evaluate pricing to ensure services are priced to a market competitive rate and are operated sustainably. This will include an evaluation of necessary capital investment and funding plans for capital driven auxiliaries.
- Scholarship Strategy: Driving enrollment and net tuition revenue remains a key revenue base for each institution. As prices continue to increase, discounting becomes a key strategy in attracting students. Each institution will complete a review of institutional scholarships, extramural scholarships, and other available funding to ensure all funding is leveraged to attract students and that scholarships maximize net revenue and desired class characteristics.
- Retail Operations Evaluation: The University operates several storefronts for branded merchandise and sales to students and faculty across multiple organizational pillars. The University will undertake a process to connect the different retail operations to identify opportunities for cross selling and scale across operations to return on investment.
- Real Estate Monetization: The University will explore development opportunities of existing owned land to improve space utilization and revenue generation.
- Tuition: As a part of the annual rate increase process, the Universities will evaluate whether program demand allows for higher prices for in-demand degrees. The evaluation will also include whether to charge more for valued student experiences as a part of tuition.
- Entrepreneurial & Industrial Partnerships: the University will continue to explore opportunities with key vendors and service providers for expanded collaboration and revenue generation. Past examples include Siemens, Cerner, and Thermo Fischer Scientific.

Resource Utilization

- Space Utilization Study and Planning: The University continues to struggle to fund deferred maintenance and manages over 16.1 million square feet of space. With further revenue disruption, the availability of funding for capital will be stretched thinner and will require more efficient space utilization. A deeper utilization study will help the university identify better ways to increase throughput of higher quality space and divest from poorly maintained space.
- Capital Planning Improvements: Capital planning will be better connected with the space utilization planning. Through a centralized planning function, the University will be able to better direct funding towards facility needs and combine funding pools to drive more efficiency of space use and investment.
- Construction Delivery Review: the University will undertake a deeper review of construction practices and standards. The review will focus on adapting standards and delivery methods to project size and need, along with a review of building lifecycles.
- Utility Infrastructure Review: After the university finalizes the space utilization planning and capital planning review, the results of those studies will be utilized in a review of utility infrastructure cost and planning. The university realizes significant savings from heating, cooling, and electricity from a single source of power. The planning will inform investment and management needs for the utility, and revenue maximization opportunities.

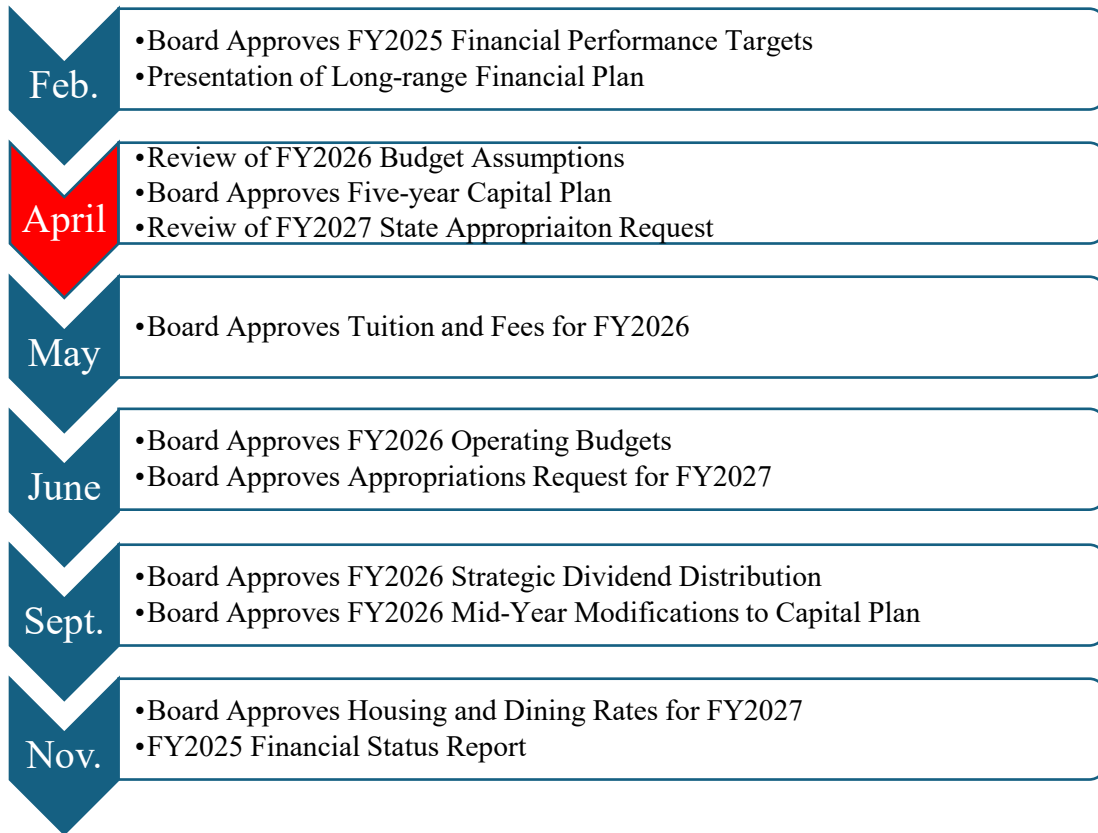
Administrative Review

- **Functional Effectiveness:** While central administrative functions remain a small part of the total enterprise, there are opportunities to generate resources through improved operations. Key areas of investigation include: improved cash management through receivables and payables, leveraging new technology to negotiate better contract terms, and maximization of vendor discounts by broadening relationships.
- **Artificial Intelligence Investment and Return Opportunities:** new technology related to artificial intelligence is rapidly changing the way work is done. The University will continue to evaluate and implement AI in key business processes. Early adoption includes the use of AI to process/review contracts and help intake support center calls. The University is participating with state government to help AI adoption across the public sector.
- **Medical Plan Optimization:** Medical and drug cost inflation remains a key challenge in the benefits program. As a next step, the University is changing its relationships with the medical insurance service providers and pharmacy benefit managers with a two-track approach. The first track is to provide employees with more tools to manage cost, and providing cheaper plan options with higher out of pocket costs for employees, giving choice in exchange for higher out of pocket cost. The second track is a lower cost plan with deeper management of medical and drug cost by MUHC providers. If successful, this program will be converted into a product that MUHC can provide to local employers.
- **Review of Recharge Operations:** The University has numerous operations that provide services to internal units for a fee. In some cases, units are required to utilize the internal service. This review will encompass a look at the largest operations and their cost/rate setting process to ensure appropriate cost and service delivery.
- **Shared Services Study and Mandate:** To date, college-level shared services participation has been on a voluntary basis. Units have opted into the service to save money, and to date, none have left even though the option exists. The University will undertake a study to validate the cost savings of shared services, and then explore a subsequent mandate to save costs in units not participating on a voluntary basis.

Final plans for this longer-term work will be developed between now and August. This work will be supported by the Helio Campus benchmarking data and an external support as needed. The final plans and timelines will be presented at the September 2025 Board of Curators meeting.

Next Steps

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. As a reminder, the Budget is the next step in the financial performance process:



Meeting Date April 17, 2025

**Information
Title** University of Missouri System Debt & Credit Update

**Information
Type** Finance Committee – Annual Update

Executive Summary

At the April 17, 2025, 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, 2024, 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.

Table of Contents

- **Debt and Credit Update [OPEN – INFO – 2 – 1-14]**

DEBT PORTFOLIO & CREDIT PROFILE UPDATE

UNIVERSITY OF MISSOURI SYSTEM



DEBT PORTFOLIO UPDATE

Executive Summary

Debt & Credit Update (as of April 1, 2025)

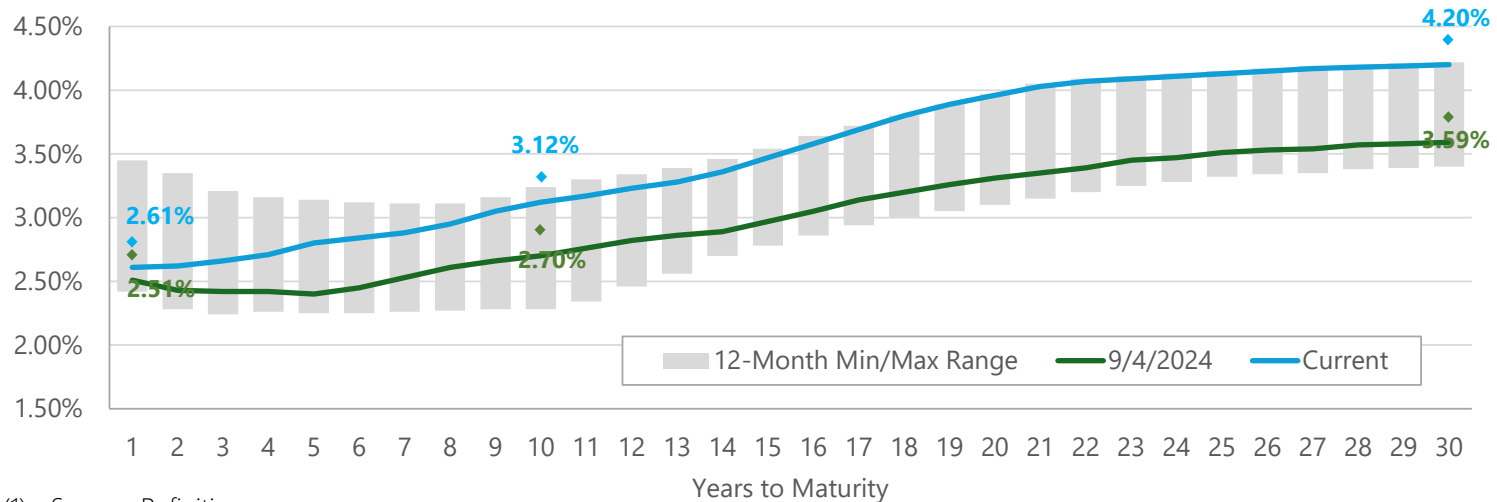
- Issued the Series 2024 bonds in September 2024 to fund the Children's Hospital and refinance existing debt
 - Total Debt Outstanding: \$1.63 billion⁽¹⁾
 - Portfolio Debt Mix: 100% fixed rate debt
 - Credit Ratings: Aa1/stable (Moody's) and AA+/stable (S&P)

Outlook for Future Portfolio Management

- Future activity will be driven by projected capital plans and available funding sources
 - Potential capital needs for the Memorial Stadium Improvement project
- Continue to monitor the portfolio for opportunities to reduce risk or cost
 - May include redemption of Build America Bonds (Series 2009A and 2010A)

UM Series 2024 Bond Issuance Overview

- The University of Missouri System's Series 2024 bonds were successfully priced September 4, 2024.
- Total proceeds of \$415 million (\$362 million par amount plus \$53 million in premium) were used to refinance outstanding bonds as well as finance the MU Health Children's Hospital project.
- The bonds received strong reception with over \$1.5 billion in orders for \$362 million of bonds.
- The University's all-in cost of capital for the transaction was 2.90% with a weighted average maturity of 7.7 years.
- Notable investors included Vanguard, Susquehanna, Goldman Sachs Asset Management, Nuveen and Blackrock.
- The University's decision to expedite the issuance in advance of the election proved beneficial with tax-exempt rates across the curve moving higher since September 2024.

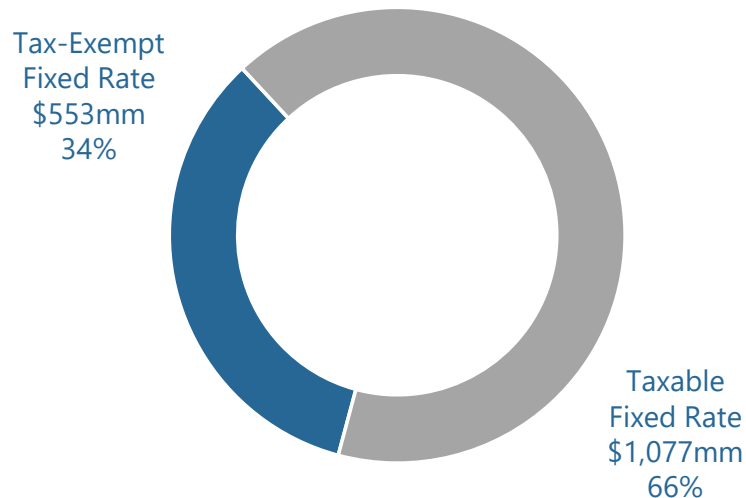


(1) Source: Refinitiv

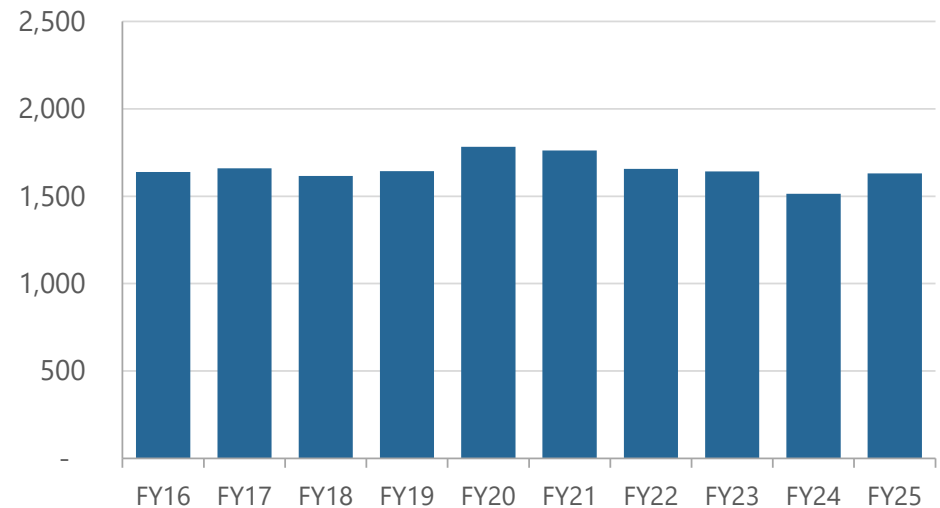
Debt Portfolio Overview

- The charts below reflect the University's debt portfolio (System Facilities Revenue Bonds and commercial paper).
- The Series 2024 bonds were used to refinance two series of bonds for savings and simplify the portfolio by eliminating variable rate debt and derivatives.
- Note that as of April 1, 2025, there is no commercial paper outstanding.

Debt Portfolio Breakdown



Total Debt Outstanding (\$mm)



Summary of Types of Debt

System Facilities Revenue Bonds (Aa1/AA+ ratings by Moody's and S&P)

- Provides long-term financing for the acquisition, construction, renovation or expansion of various facilities.
- The bonds are secured by \$2.3 billion (FY24) of pledged revenues.

Commercial Paper Program (P-1/A-1+ ratings by Moody's and S&P)

- Authorized up to \$375 million; provides a flexible tool for interim financing of capital projects and working capital.
- Secured by certain general revenue sources and supported by self-liquidity provided by the General Pool.

Other Obligations

- Notes Payable: Loans from the State Dept. of Natural Resources Energy Efficiency Leveraged Loan Program.
- Lease Obligations: The University finances various facilities and equipment under agreements recorded as Financed Purchased Obligations or Right of Use (ROU) Lease Obligations.

Debt Portfolio Summary (as of 04/01/25)

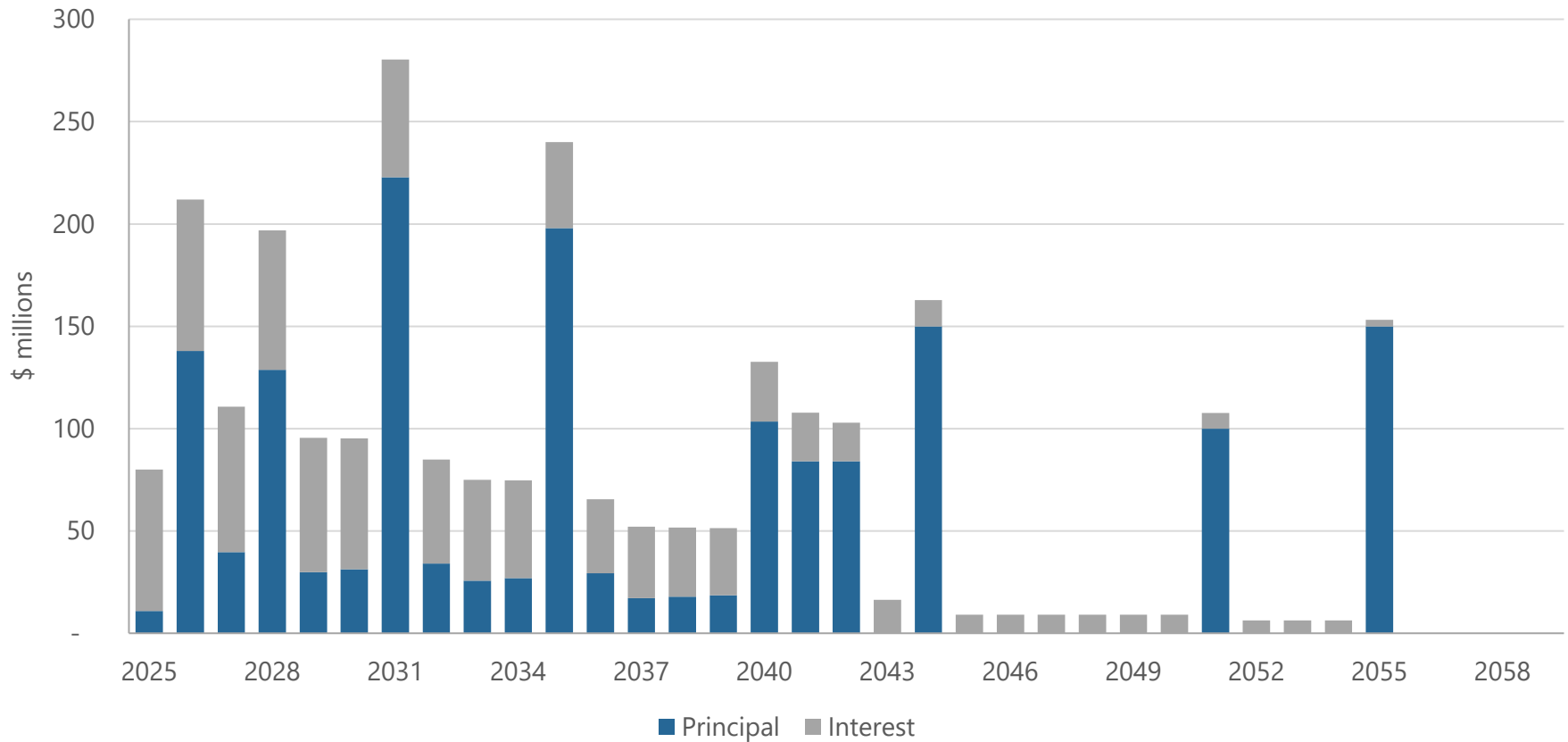
SYSTEM FACILITIES REVENUE BONDS

Series	Tax Status	Coupon	Next Call Date	Final Maturity	Outstanding Par
Series 2009A	Taxable (BABs)	Fixed	Make-Whole	2039	224,890,000
Series 2010A	Taxable (BABs)	Fixed	Make-Whole	2041	252,285,000
Series 2013B	Taxable	Fixed	Make-Whole	2043	150,000,000
Series 2014B	Taxable	Fixed	Make-Whole	2054	150,000,000
Series 2020A	Taxable	Fixed	Make-Whole	2050	300,000,000
Series 2020B	Tax-Exempt	Fixed	Non-Callable	2030	190,200,000
Series 2024	Tax-Exempt	Fixed	11/01/2034	2035	362,640,000
Commercial Paper	Tax-Exempt/Taxable	Variable	N/A	N/A	0
Sub-Total					1,630,015,000

NOTES, LEASES, & OTHER OBLIGATIONS

Type of Obligation	Tax Status	Coupon	Next Call Date	Final Maturity	Outstanding Par
Notes Payable	Taxable	Fixed	N/A	2030	1,531,000
Financed Purchase Obligations	Taxable	Fixed	N/A	2029	35,647,000
ROU Lease Obligations	Taxable	Fixed	N/A	2048	59,105,000
Sub-Total					96,283,000
Total Debt & Other Obligations					1,726,298,000

Debt Service Profile⁽¹⁾



CREDIT PROFILE UPDATE



Credit Profile

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

Credit Strengths

- Regionally important provider of public higher education and healthcare services with a very large operating base
- Substantial total cash and investments providing for solid coverage of operating expenses and debt
- Strong financial management contributing to consistently favorable operating performance

Credit Challenges

- High reliance on patient care revenue, providing for elevated exposure to the evolving risks of the healthcare sector
- Limited geographic diversity with about 76% of students enrolled from Missouri
- 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)

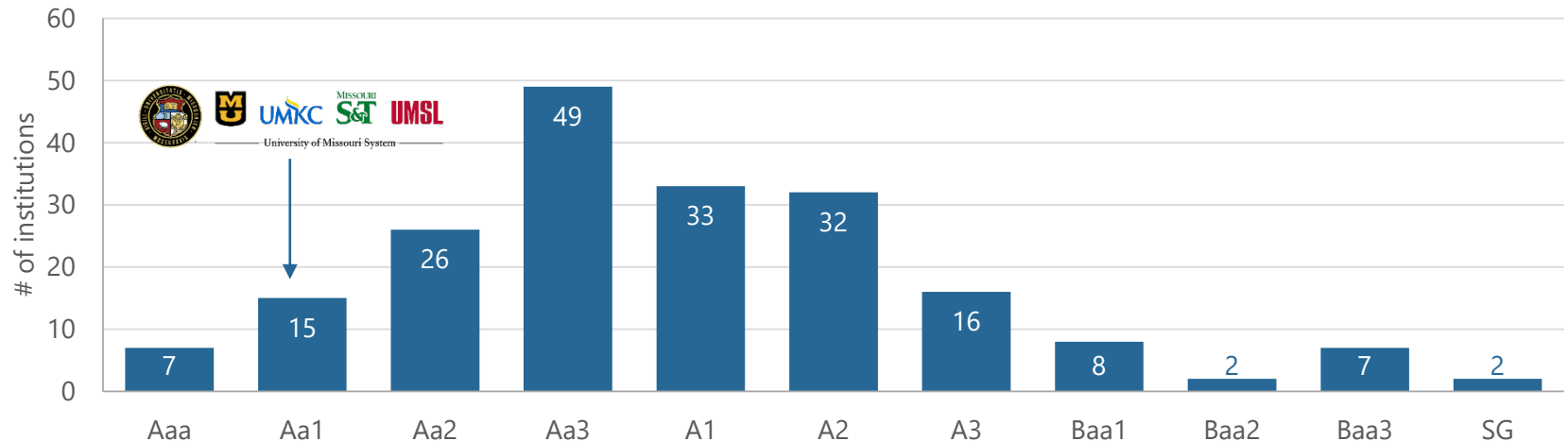
Rating Agency Commentary on risk factors that could lead to a downgrade. Over the last two reports, the themes have been consistent and focused on operating performance with little mention of balance sheet leverage.

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
2024 Report	2024 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.
- Debt capacity is a limited resource, and the System seeks to make capital investments that align with mission.
- 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.

Distribution of Moody's Public University Ratings



Source: Moody's Investors Service

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Meeting Date	April 17, 2026
Information Title	Fiscal Year 2027 State Appropriation Priorities, UM
Information Type	FY2027 State Appropriation Priorities

Executive Summary

Each June, the Board authorizes the President to submit a request for state appropriations. This includes seeking increased funding for core operations, submitting new requests for any higher education directives identified prior to submission, and submitting requests for other programs and legislative requirements. These requests are due to the Missouri Department of Higher Education and Workforce Development (MDHEWD) by August 1.

In addition to operating appropriation request capital priorities will be identified and submitted upon request. Each year the state requests a top capital priority project, which is submitted for each university in the system.

For the FY2027 Budget, the University's proposed priorities are:

- 1) Core appropriations (seek an inflationary increase)
- 2) Reappropriation of capital funding included in previous cycles that remains unspent as capital projects progress
- 3) Maintenance of line items
- 4) Participation in MDHEWD funding requests

The following projects reflect each universities capital properties for the upcoming fiscal year.

- MU: ***MIZZOU Momentum Projects*** total state request of \$150 million
- UMKC: ***School of Dentistry New Facility at St. Joseph*** total state request of \$16 million
- Missouri S&T: ***Bioplex*** total state request of \$75.9 million
- UMSL: ***Stadler Hall Renovation*** total state request of \$60 million

Table of Contents

- **UM FY 2027 State Appropriation Priorities Presentation Deck [OPEN – INFO – 3 - 1-4]**
 - *Slides to be presented at the April Board of Curators Meeting*
- **Operating Appropriations Priorities [OPEN – INFO – 3 - 5-7]**
 - *Provides an overview of the University's priorities going forward into FY2027*
 - *FY2026 appropriations in Governor's Budget*
 - *FY2027 appropriation priorities*
- **Capital Appropriation Priorities [OPEN – INFO – 3 - 7-10]**
 - *Capital appropriation priorities for each university with expected economic impact*
 - *Project descriptions for capital priorities*

University of Missouri System Fiscal Year 2027 State Appropriation Priorities

April 17th, 2025



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN – INFO – 3 – 1

April 17, 2025

Operating Priorities

- 1) Inflationary increase in Core
- 2) Reappropriation of all past capital priorities
- 3) Maintenance of line items
- 4) Equal participation in MDHEWD funding requests



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN - INFO – 3 - 2

April 17, 2025

Capital Priorities

Capital Project Name	Amount
MU - MIZZOU Momentum Projects related to Master Plan	\$150,000,000
UMKC - School of Dentistry New Facility at St. Joseph	\$16,000,000
Missouri S&T - Bioplex	\$75,900,000
UMSL - Stadler Hall Renovation	\$60,000,000



Questions



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN - INFO – 3 - 4

April 17, 2025

Fiscal Year 2027 State Appropriation Priorities UM

Each June, the Board authorizes the President to submit a request for state appropriations. This includes seeking increased funding for core operations, submitting new requests for any higher education directives identified prior to submission, and submitting requests for other programs and legislative requirements. These requests are due to the Missouri Department of Higher Education and Workforce Development (MDHEWD) by August 1.

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- 3) Maintenance of line items
- 4) Participation in MDHEWD funding requests

Operating Appropriations

State Appropriations represent a significant contribution to the University's overall budget, representing over \$500 million in funding to support the University of Missouri's core mission. In January, the Governor released the State Budget kicking off the Fiscal Year (FY) 2026 appropriation process during legislative session. Included in the Governor's Budget, Higher Education (including the University of Missouri) received a 1.5% increase in core funding. The legislature will continue making progress on the budget, first moving through the House, then on to the Senate with the budget finalized by the Legislature in May.

For the FY2027 Appropriations Request, the University will employ a flexible strategy to try and maximize the amount of funding from the state. For operating appropriations, the University will seek to first protect the recurring funding, increase recurring funding to fund inflationary cost pressures, continue to delineate the increased cost of the university's research, extension, and professional education programs and participate in any other increases or changes proposed by the Missouri Department of Higher Education and Workforce Development (MDHEWD). Available funding for the FY2027 budget is more uncertain at the moment, due to potential changes in the federal budget. Any changes to programs or matching requirements at the federal level for states could free or restrict funding.

The outline of the appropriations request will follow the format and request from MDHEWD. The University does not have guidance from MDHEWD at this time. The priorities listed within this request follow the initial instructions provided by MDHEWD and will be reviewed by the Council of Chancellors.

FY2026 Appropriations in Governor's Budget

For FY2026, the University of Missouri received 1.5% core increase over FY2025 in the Governor's Budget. The university's core appropriations are separated by mission component to reflect the state's share of cost for the Agriculture Extension Service, Professional Doctoral Degrees (MD, DDS, PharmD, etc.), and Research and Development. The separation of mission components demonstrates the cost differential of running land-grant and research operations.

Table 1: Summary of Governor's Budget Appropriations for FY2026

Item	Amount
UM Core Operations	
Core for Educational Mission	\$297.33
Agricultural Extension Services	24.80
First Professional Doctorate Degrees	104.37
Research and Development Operations	82.44
FY 2026 Total Core	\$508.94
Core Program and One-time Line Items	
MU Greenley Research Water Works	0.27
MU Fischer Delta Research Center	1.00
MU Veterans Law Clinic	0.33
MU Fischer Delta Research Center Rice Breeders Association	0.12
Missouri S&T Project Lead the Way	0.25
UMSL International Collaboration GR	1.55
UMSL Defense Medicine Technologies	0.60
UMSL Infectious Disease	0.25
Missouri Kidney Program Core	1.75
Missouri Telehealth Network	0.44
Show-Me Extension for Community Healthcare Outcomes	1.50
State Historical Society of Missouri Core	4.68
Total Other Programs	\$12.74
Legislative Requirements	
Debt Offset Tax Authority	\$1.40
Spinal Cord Injury Research	1.50
Seminary Fund	0.28
Total Legislative Requirements	\$3.18
Total FY 2026 Operating Appropriations	\$524.86

Dollars in Millions

FY2027 Appropriation Priorities

The funding priorities for FY2027 will cover the following areas:

- 1) Core appropriations (seek an inflationary increase)
- 2) Reappropriation of capital funding included in previous cycles that remains unspent as capital projects progress
- 3) Maintenance of line items
- 4) Participation in MDHEWD funding requests

Capital Appropriation Priorities

The following projects reflect each universities capital properties for the upcoming fiscal year.

- MU: ***MIZZOU Momentum Projects*** total state request of \$150 million
- UMKC: ***School of Dentistry New Facility at St. Joseph*** total state request of \$16 million
- Missouri S&T: ***Bioplex*** total state request of \$75.9 million
- UMSL: ***Stadler Hall Renovation*** total state request of \$60 million

These projects are expected to generate the following economic impact for the State of Missouri.

Facility Name	Impact on Overall Economy	Earnings Generated	Jobs Generated
MIZZOU Momentum Projects	\$337,500,000	\$121,500,000	2,187
School of Dentistry New Facility at St. Joseph	\$36,000,000	\$12,960,000	233
Bioplex	\$170,775,000	\$61,479,000	1,107
Stadler Hall Renovation	\$135,000,000	\$48,600,000	875
Total State Appropriations Projects	\$679,275,000	\$244,539,000	4,402

Next Steps

In June, the Board will consider action to authorize the President to submit a request for state appropriations for FY2027. The University will proceed with submitting this state appropriation request in August.

Summary of Projects included in Capital Request

MIZZOU Momentum Projects - \$150 million

MU

Mizzou is the first public university west of the Mississippi River and has become Missouri's largest higher education institution, the state's leader in public research, nationally ranked for academic excellence and value, and competes at the highest levels of college athletics. An investment of \$150,000,000 allows this trajectory to continue and supports Mizzou's transformational mission for all Missourians.

Investments will target four key areas which are critical to continue progress as identified in the master planning process. The plan identified opportunities to align the physical campus to continue the mission with renewals of academic facilities, repairs to iconic buildings, and continuing to maintain utility infrastructure. The proposal offers multiple projects in an attempt to provide flexibility to meet the desires of elected officials.

Academic Facility Renewal: A major challenge identified in the MU Master Plan is the aging facilities have inconsistent functional quality and experience for users across the campus. The majority of classroom and teaching labs have not seen fundamental improvements for 20 or more years. Incremental investments have been made through stewardship projects which propelled better utilization and improved environments for learning, research, and engagement and reset the building life. The smaller projects below continue the strategy to invest in renovations to provide inspiring and adaptable spaces to accommodate ever evolving teaching methods and academic department space.

- 1) Chemistry Teaching Lab Renewal (\$17M)*
- 2) McDavid Residence Hall: Convert to Academic Building (\$20M)*
- 3) Strickland Hall: Renewal & Addition (\$86M).*

Iconic Campus Repairs and Renovation: a key principle of the MU Master Plan is to “build upon the campus legacy while meeting modern needs.” The building architecture provides a defining character on the MU campus and as such, attention must be given to the building exterior to continue to preserve the character and continued renewal of interior spaces is needed to meet modern needs. The following buildings were all constructed 1892 – 1913 with unique needs and opportunities for improvement.

- 1) Jesse Hall Exterior Repairs & Window Replacement (\$20M)*
- 2) Pickard Hall Mitigation (\$10M+)*
- 3) Lefevre Hall: Renovation & Addition and Waters Hall: Renovation & Addition (\$112M)*

Utility Capacity and Resiliency Improvements (\$40M): Complex facilities require a robust, stable, and resilient utility network including adequate chilled water capacity and below ground steam piping networks to meet cooling and heating needs. The entire system heats and cools more than 12,000,000 gross square feet building space for academic, student life, health care, and athletic functions. Current projects require expansion of satellite chilled water to provide needed cooling

capacity to the campus cooling system. Steam piping throughout campus is at various ages and sizes and major utility corridors require renewal and repairs necessary for reliability.

NextGen MURR Phase II (\$TBD) continues to provide funding to make Missouri a leader in radiopharmaceuticals and nuclear research. For almost 60 years, the MU Research Reactor (MURR) has been at the forefront of innovation in nuclear science, including critical cancer-fighting research and medical isotope production. This funding will continue the progress towards construction of a new, larger research reactor to expand that capacity and serve the next generation of nuclear research with the potential to spur innovation to further economic development in the state. Phase I of this project is currently underway, with programming and design work scheduled to begin later this year. NextGen MURR will serve as an innovation and manufacturing hub for nuclear medicine in the United States for generations to come.

School of Dentistry New Facility at St. Joseph - \$16 million
UMKC

The proposed School of Dentistry (SOD) satellite program at Missouri Western State University (MWSU) will address dentist and dental hygiene practitioner shortages in rural Missouri by providing high-quality oral healthcare through its training clinic. The facility will occupy 14,500 GSF on the second floor of Eder Hall, featuring 40 dental chairs, a radiology suite, surgical suites, and various support spaces. UMKC's School of Dentistry, which supplies 63% of Missouri's dentists, aims to replicate its successful satellite campus model to meet rural healthcare needs. The program will train students in Buchanan County, a designated Dental Health Professional Shortage Area, with a 2+2 academic training model for DDS and DH programs. Renovation costs are estimated at \$12 million (\$16 million with escalation), with a proposed start date in FY2027, pending approvals and funding.

Bioplex - \$75.9 million
Missouri S&T

The Bioplex 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 project cost includes research equipment required for the program.

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.

Stadler Hall Renovation - \$60 million

University of Missouri - St. Louis

This project will renovate underutilized space in Stadler Hall and other areas within UMSL's science complex to create a new on-campus School of Engineering. It will include a new welcome area, improved natural lighting, ADA enhancements, and modernized lab and classroom spaces. The renovation will update mechanical, electrical, and plumbing systems, provide new technology and lab equipment, and create collaboration zones. Aligned with UMSL's ten-year Master Plan, the project aims to recruit and retain engineering students and meet Missouri's growing demand for engineering talent. State funding and support from local business leaders have been secured for planning, design, and construction.

Meeting Date	April 17, 2024
Action Title	Fiscal Year 2026 Capital Plans
Action Type	Capital Plan Authorization

Executive Summary

The Board of Curators is being asked to approve the Capital Plans for each University and MU Healthcare. The Board also approves mid-year changes to the Capital Plans at the September Meeting.

Capital projects exceeding \$5 million for new construction and renovations over \$8 million require Board Approval. The Capital Plan shows the entire portfolio of upcoming projects for each unit. The Plan includes both strategic projects that are further from board approval and projects included in the capital plan with a defined plan of finance. Individual projects are presented to the Board as separate action items for Architect/Engineer hire and project approval.

Table of Contents

1. Executive Summary

- *Provides a high-level overview of the modifications and the capital planning process.*

2. Recommended Action & Roll Call Vote [OPEN – FIN – 1 – 1-4]

- *The formal resolution to be voted upon by the Board to approve the updated plan.*

3. Capital Plan Project List [OPEN – FIN – 1 – 5-6]

- *High-level summary of the plan of finance for the proposed projects.*

4. Capital Plan Presentation [OPEN – FIN – 1 – 8-15]

- *High-level summary of the plan of finance for the proposed projects.*

Appendix

5. Capital Plan [APPENDIX – OPEN – FIN – 1 – 1-31]

- *The Capital Plan contains a list of projects on the current capital plan and any changes over the plan presented in April. Individual unit plans are as follows:*
 - *MU: p. 1-8*
 - *MUHC: p. 9-12*
 - *UMKC: p. 13-17*
 - *Missouri S&T: p. 19-22*
 - *UMSL: p. 23-27*
 - *CRR 110.015: Facilities Needs Report*

Fiscal Year 2026 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 is reviewed and approved annually by the Board of Curators. The process also provides for a mid-year modification process for any changes to the capital plan. The capital plan shows major capital projects, defined as any new construction over \$5 million or any renovation/infrastructure project over \$8 million in total cost.

The capital plan contains two sections, the five-year capital plan included in the five-year finance plan and strategic projects not currently included in the finance plan. The projects included in the finance plan have been included in the annual financial planning process. Strategic projects do not yet have a funded plan of finance, but the plan provides additional time for fundraising, working with the state, and additional due diligence on strategic projects. The capital plans assist in driving any official fundraising campaigns for capital projects. The capital plan ensures the Board of Curators maintains oversight of capital planning in the early part of project development.

The capital planning process and investment in existing facilities are two key components of Facilities Stewardship. Facilities Stewardship is about taking 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.

To be a good steward of available capital funding, the University must be deliberate in setting capital priorities to uphold stewardship responsibility. The Facilities Condition Needs Index (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. MU, UMKC, and Missouri S&T remain above their FCNI target of 0.30 and UMSL continues to make progress towards moving above target with current investments towards deferred maintenance. The capital planning process is critical in ensuring the university upholds responsibility for capital over the long run.

Included herein is the FY 2026 Capital Project Plan for review and approval. The projects impacted are summarized in a table following the action with detail including project descriptions in the appendix.

No. 1

Recommended Action - Approval, Fiscal Year 2026 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:
- Energy Innovation Center
 - NextGen MURR Phase One
 - Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement
 - Pickard Hall Mitigation
 - Audrey J Walton Track and Field and Soccer Field Stadium Improvements

- Strategic Projects Development Plan:
- Animal Resource Center: Vivarium Facility Expansion
 - Middlebush Farm: Swine Collaboration Research Facility
 - Greenley Farm: New Learning Center
 - Rollins Hall: Renovate Dining to Modernize Food Offerings
 - Virginia Ave Housing: Repair & Renovation
 - Chemistry Teaching Lab Renewal
 - McDavid Residence Hall: Convert to Academic Building
 - Strickland Hall: Renewal & Addition
 - Lefevre Hall: Renovation & Addition
 - Waters Hall: Renovation & Addition
 - Utility Capacity & Resiliency Improvements

- MUHC: Strategic Projects Development Plan:
- MUHC Campus Consolidation & Inpatient Services Expansion
 - Callaway County Rural Health Expansion

April 17, 2025

- UMKC: Capital Plan modifications included in Finance Plan:
- Olson Performing Arts Center Addition & Renovations Phase I

Strategic Projects Development Plan:

- School of Dentistry New Facility at St. Joseph
- New Brookside Arena
- New Science, Engineering, Education, and Research Building
- Campuswide Classroom Improvements
- Olson Performing Arts Center Addition & Renovations Phase II

- Missouri S&T: Capital Plan modifications included in Finance Plan:

- Critical Minerals Scaling Facility

Strategic Projects Development Plan:

- Physics Building Renovation
- Innovation Campus Program Expansion
- Computer Science Building Renovation

- UMSL: Capital Plan modifications included in Finance Plan:

- UMSL School of Engineering - Science Complex Renovation

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 Krewson

Curator Luetkemeyer

The motion _____.

Roll call vote:	Yes	No
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Krewson		
Curator Layman		
Curator Luetkemeyer		
Curator Raines		
Curator Sinquefield		
Curator Williams		

The motion _____.

FY26 Capital Plan for University of Missouri-Columbia		
Year	Project Title	Project Cost
2025	Energy Innovation Center	\$120,000,000
<i>Action: Modification, Budget Reduced by \$40,000,000</i>		
2026	NextGen MURR Phase One	\$130,000,000
<i>Action: Modification, Budget Increased by \$94 million to encompass larger phase I</i>		
2026	Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement	\$20,000,000
2026	Pickard Hall Mitigation	\$10,000,000
2026	Audrey J Walton Track and Field and Soccer Field Stadium Improvements	\$7,500,000
<i>Action: New Project</i>		
Total	FY26 Capital Plan for University of Missouri-Columbia	\$287,500,000
Items removed from the September Mid-Year Update:		
2025	Radioisotope Facility at Discovery Ridge	
<i>Approved: Project approved in November 2024</i>		
2025	Memorial Stadium Improvements	
<i>Approved Project approved in September 2024</i>		
2025	MURR Production Support Facility	
<i>Project became part of the MURR Expansion Re-Approval in November 2024</i>		
2025	Electrical Interconnection and Substation	
<i>Project approved in November 2024</i>		

FY26 Strategic Development Plan for University of Missouri-Columbia		
Year	Project Title	Project Cost
2028	Animal Resource Center: Vivarium Facility Expansion	\$8,000,000
2026	Middlebush Farm: Swine Collaboration Research Facility	\$13,100,000
<i>Action: Modification, Project Title updated</i>		
TBD	Greenley Farm: New Learning Center	\$15,000,000
<i>Action: New Project</i>		
2027	Rollins Hall: Renovate Dining to Modernize Food Offerings	\$10,000,000
<i>Action: New Project</i>		
2027	Virginia Ave Housing: Repair & Renovation	\$35,000,000
<i>Action: New Project</i>		
2027	Chemistry Teaching Lab Renewal	\$17,000,000
<i>Action: New Project</i>		
2026	McDavid Residence Hall: Convert to Academic Building	\$20,000,000
<i>Action: New Project</i>		
2027	Strickland Hall: Renewal & Addition	\$86,000,000
<i>Action: New Project</i>		
2028	Lefevre Hall: Renovation & Addition	\$53,000,000
<i>Action: New Project</i>		
2029	Waters Hall: Renovation & Addition	\$59,000,000
<i>Action: New Project</i>		
2027	Utility Capacity & Resiliency Improvements	\$40,000,000
<i>Action: Modified, Project Title updated</i>		

April 17, 2025

Total	FY26 Strategic Development Plan for University of Missouri-Columbia	\$356,100,000
Items removed from the September Mid-Year Update:		
	Roy Blunt NextGen Precision Health Building - 4th Floor Innovation Tower Fit-out	
<i>Removed from plan as project strategy changed</i>		

<u>FY26 Capital Plan for MU Health Care</u>		
Year	Project Title	Project Cost
	No Items	
Total	FY26 Capital Plan for MU Health Care	\$0
Items removed from the September Mid-Year Update:		
	Children's Hospital Facility - Third Floor Surgery Fit-Out	
<i>Project approved in September 2024</i>		

<u>FY26 Strategic Development Plan for MU Health Care</u>		
Year	Project Title	Project Cost
2026	MUHC Campus Consolidation & Inpatient Services Expansion	\$125,000,000
<i>Action: Modification, Project scope updated</i>		
2026	Callaway County Rural Health Expansion	\$23,800,000
Total	FY26 Strategic Development Plan for MU Health Care	\$148,800,000
Items removed from the September Mid-Year Update:		
	MUHC Campus Consolidation & Inpatient Services Expansion	
<i>Removed from plan as project direction changed</i>		

<u>FY26 Capital Plan for University of Missouri-Kansas City</u>		
Year	Project Title	Project Cost
2025	Olson Performing Arts Center Addition & Renovations Phase I	\$40,000,000
<i>Action: Modification, Budget Reduced by \$30,000,000</i>		
Total	FY26 Capital Plan for University of Missouri-Kansas City	\$40,000,000
Items removed from the September Mid-Year Update:		
	KCUR Building	
<i>Removed from plan as project direction changed</i>		

<u>FY26 Strategic Development Plan for University of Missouri-Kansas-City</u>		
Year	Project Title	Project Cost
2028	School of Dentistry New Facility at St. Joseph	\$16,000,000
<i>Action: New Project</i>		
2027	New Brookside Arena	\$60,000,000
2027	New Science, Engineering, Education, and Research Building	\$125,000,000
2026	Campuswide Classroom Improvements	\$20,000,000
<i>Action: New Project</i>		
TBD	Olson Performing Arts Center Addition & Renovations Phase II	\$20,000,000
<i>Action: New Project</i>		
Total	FY26 Strategic Development Plan for University of Missouri-Kansas-City	\$241,000,000

FY26 Capital Plan for Missouri University of Science and Technology		
Year	Project Title	Project Cost
2025	Critical Minerals Scaling Facility	\$25,000,000
<i>Action: Modification, Project Title updated, shifted from strategic plan</i>		
Total	FY26 Capital Plan for Missouri University of Science and Technology	\$25,000,000

FY26 Strategic Development Plan for Missouri University of Science and Technology		
	Project Title	Project Cost
2025	Physics Building Renovation	\$19,705,751
<i>Action, Modification, Budget Reduced by \$7,400,000 with separate small project proceeding</i>		
2026	Innovation Campus Program Expansion	\$95,000,000
2026	Computer Science Building Renovation	\$20,616,123
Total	FY26 Strategic Development Plan for Missouri University of Science and Technology	\$135,321,874
Items removed from the September Mid-Year Update: Shown in Red		
	Bioplex	
<i>Approved: Project approved in November 2024</i>		
	Partnership Research Facility	
<i>Removed from plan as project direction changed</i>		
	University Center West	
<i>Removed from plan as project direction changed</i>		
	Critical Minerals Scaling Facility	
<i>Project moved to Capital Plan</i>		

FY26 Capital Plan for University of Missouri-St. Louis		
Year	Project Title	Project Cost
2025	UMSL School of Engineering - Science Complex Renovation	\$15,000,000
Total	FY26 Capital Plan for University of Missouri-St. Louis	\$15,000,000
Items removed from the September Mid-Year Update: Shown in Red		
	Central Utility Plant – North Campus	
<i>Removed from Plan: Strategy is to consider smaller-phased projects as funding allows</i>		

FY26 Strategic Development Plan for University of Missouri-St. Louis		
Year	Project Title	Project Cost
	Stadler Hall Renovation	\$60,000,000
Total	FY26 Strategic Development Plan for University of Missouri-St. Louis	\$60,000,000

University of Missouri System Board of Curators April 17, 2025

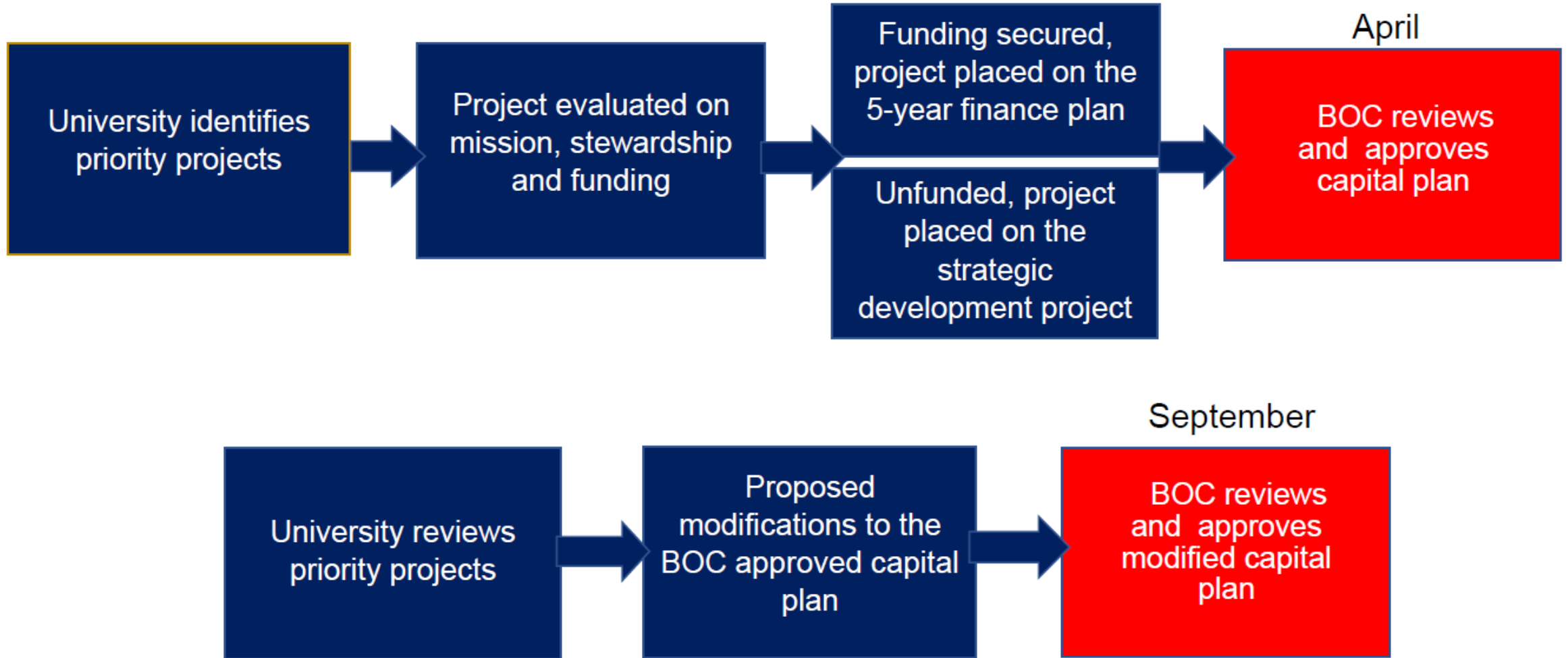
Fiscal Year 2026 Capital Plans
for MU, MU Health Care, S&T, UMKC, and UMSL
UM



Capital Planning

- Projects included in Plans:
 - 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.
- Capital Plan projects have been included in financial plans and have a plan of finance. Projects closer to action.
- Strategic Development projects are under development, including determining a plan of finance.

Capital Planning Process



MU FY25 – FY30 CAPITAL PLAN

Capital Plan included in Finance Plan:

- Energy Innovation Center
- NextGen MURR Phase One
- Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement
- Pickard Hall Mitigation
- Audrey J Walton Track and Field and Soccer Field Stadium Improvements

MU FY25 – FY30 CAPITAL PLAN

Strategic Project Development Plan:

- Animal Resource Center: Vivarium Facility Expansion
- Middlebush Farm: Swine Collaboration Research Facility
- Greenley Farm: New Learning Center
- Rollins Hall: Renovate Dining to Modernize Food Offerings
- Virginia Ave Housing: Repair & Renovation
- Chemistry Teaching Lab Renewal
- McDavid Residence Hall: Convert to Academic Building
- Strickland Hall: Renewal & Addition
- Lefevre Hall: Renovation & Addition
- Waters Hall: Renovation & Addition
- Utility Capacity & Resiliency Improvements

MUHC FY25 – FY30 CAPITAL PLAN

Strategic Project Development Plan:

- MUHC Campus Consolidation & Inpatient Services Expansion
- Callaway County Rural Health Expansion

UMKC FY25 – FY30 CAPITAL PLAN

Capital Plan included in Finance Plan:

- Olson Performing Arts Center Addition & Renovations Phase I

Strategic Project Development Plan:

- School of Dentistry New Facility at St. Joseph
- New Brookside Arena
- New Science, Engineering, Education, and Research Building
- Campuswide Classroom Improvements
- Olson Performing Arts Center Addition & Renovations Phase II

S&T FY 24 – FY30 CAPITAL PLAN

Capital Plan included in Finance Plan:

- Critical Minerals Scaling Facility

Strategic Project Development Plan:

- Physics Building Renovation
- Innovation Campus Program Expansion
- Computer Science Building Renovation

UMSL FY25 – FY30 CAPITAL PLAN

Capital Plan included in Finance Plan:

- UMSL School of Engineering - Science Complex Renovation

Strategic Project Development Plan:

- Stadler Hall Renovation



University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

University of Missouri System

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Naming Opportunity
The Dr. Dan Brown Building
MU

Pursuant to CRR 110.080, naming and/or recognition for any Exterior Area, University Landmark, Interior Spaces, unit, or program requires Board approval. The University of Missouri - Columbia requests approval to name the building that will house the Veterinary Medical Diagnostic Laboratory, a new diagnostic laboratory on the campus of MU's College of Veterinary Medicine, the "The Dr. Dan Brown Building" in recognition of Dr. Dan Brown.

Dr. Brown was a proud alumnus of the College of Veterinary Medicine and a respected veterinarian who served the Rolla community for more than 30 years. His passion for the profession extended beyond his practice, as he was an active participant in the Missouri Veterinary Medical Association (VMA) and the West Central VMA. His leadership in the Missouri Senate and House further underscored his unwavering commitment to agriculture and veterinary medicine, where he championed legislation that strengthened both industries. His legacy of service continues through his son, Senator Justin Brown, and his grandson, Brody Brown, who is currently a 3rd year student at Mizzou's College of Veterinary Medicine.

The Veterinary Medical Diagnostic Laboratory plays a crucial role in protecting animal and public health through cutting-edge diagnostics and research. Naming the building in honor of Dr. Brown would recognize his lasting contributions to veterinary medicine and agriculture while inspiring future generations of veterinarians and policymakers to follow his example.

President Mun Y. Choi and Provost Matthew Martens are in support of this naming.

No. 2

Recommended Action - Naming of the Dr. Dan Brown Building, located at the University of Missouri - Columbia

It was recommended and endorsed by President Mun Y. Choi and Provost Matthew Martens, moved by Curator _____ and seconded by Curator _____, that the following action be approved:

To name the building housing the new diagnostic laboratory on the MU campus the Dr. Dan Brown Building.

Roll call vote Finance Committee	YES	NO
----------------------------------	-----	----

Curator Blitz
Curator Fry
Curator Krewson
Curator Luetkemeyer

The motion _____.

Roll call vote Full Board:	YES	NO
----------------------------	-----	----

Curator Blitz
Curator Fry
Curator Graves
Curator Krewson
Curator Layman
Curator Luetkemeyer
Curator Raines
Curator Sinquefield
Curator Williams

The motion _____.

GOVERNANCE, COMPENSATION AND HUMAN RESOURCES COMMITTEE

Lyda Krewson, Chair
Robert W. Fry
Jeff L. Layman

I. Governance and Human Resources Committee

The Governance 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. 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. Additional matters customarily addressed by the compensation and human resources committee of a governing board for an institution of higher education.

Annual Benefits Report

University of Missouri Board of Curators

April 17, 2025



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April 17, 2025

Overview of Benefits Plans

- Medical Plans: Healthy Savings Plan, Custom Network Plans, and PPO Plans
- Retirement Plans: Based on date of hire
- Ancillary Plans: Dental, Vision, Flex Spending, Life Insurance, and Long-Term Disability
- Voluntary Retirement Investment Plans
- Additional Benefits: Paid time off (PTO), Employee Assistance Program (EAP), Nurse Liaison, Short-term Disability, Parental leave, Caregiver leave, and Tuition Assistance



Medical and Pharmaceutical Trends

- 21,738 benefit eligible employees
 - 19,429 employees enrolled in medical plans
 - 39,526 total covered individuals in medical plans
- Overall benefit spend is 27.42% of benefit eligible employee salaries (\$462M total)
 - Health and retirement benefits account for 89% of UM's total benefit spend
 - Medical plan cost per member increased by 10%
 - Catastrophic claims increased by 18% (26% of total spend)
 - Pharmaceutical plan cost per member increased by 11.5%



Medical and Pharmaceutical Cost Drivers

- Medical – 51% of medical spend driven by:
 - neoplasms (cancer)
 - musculoskeletal
 - general care
 - maternity
 - nervous system
- Pharmaceutical – 50% of pharmaceutical spend driven by:
 - inflammatory conditions
 - neoplasms (cancer)
 - GLP-1 drugs (diabetes and weight loss)



Key Steps to Manage Plan Costs

- Three-year Roadmap in Appendix
- Medical Plan Programs
- Request for Proposals
 - Medical/Employee Assistance Program/Health Savings Account
 - Pharmacy Benefit Manager
- Plan Design and Premium Setting for 2026
- Partnerships with MU Health Care
- Defined Contribution Opt-In Program



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April 17, 2025

Pension Plan

- Total liability as of 10/1/2024 was \$5.7B
- Actuarial funding ratio increased from 77.12% in 2023 to 78.41% in 2024
- The total unfunded liability reduced from \$1.289B to \$1.233B as of 10/1/2024 due to positive investment returns
 - Per CRR 530.020, the required payment towards the unfunded liability in 2024 was \$125M
 - The University continues to make actuarially determined contributions to the plan



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April 17, 2025

Defined Contribution Opt-In Program

- Optional program
- Requested by employees who prefer a defined contribution plan and want more control over their benefit and investment decisions
- Defined benefit would be converted to a lump sum and deposited into a 401(a) account
- Going forward, employees who choose to participate would earn benefits under a defined contribution plan during their employment
- University will partner with Milliman and Fidelity for employee education



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April 17, 2025

Defined Contribution Opt-In Program Proposed Timeline

2025

- June BOC Action Items – Final details, formal plan amendments
- Calculation clean up and detailed individual materials developed
- Personalized statements to eligible population

2026

- Employee education (webinars, 1-on-1's, Fidelity support, etc.)
- Election period – election packets and reminder post card
- Election processing
- Transfer of elections by end of year





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

University of Missouri System 2024 Annual Benefits Report

April 2025

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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. The University employs 21,738 benefit eligible employees. There are 19,429 employees enrolled in a medical plan covering a total of 39,526 individuals. Summary of these plans include:

Medical Plans:

- The PPO Medical 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 at a higher cost. There are 2,548 employees enrolled in the PPO, covering 4,820 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 help increase employee savings for qualified healthcare expenses. There are 6,519 employees enrolled in the Healthy Savings Plan, covering 12,699 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 at a lower cost for those employees who are willing to limit their provider choices. There are 8,862 employees enrolled in the Custom Network Plans, covering 19,214 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, 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 1,500 employees enrolled in the Tiered PPO plan covering 2,793 individuals.

Ancillary benefits:

Dental, vision (employee paid), life insurance, long-term disability, and accidental death & dismemberment (employee paid) are available for employees. In 2024, 85% percent 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 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 following are the core retirement plans:

- 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 successfully implemented on January 1, 2024, with ongoing process improvements. In 2024 there were 1,656 short-term disability claims submitted with 1,230 claim approvals and 426 claim denials. Top diagnosis categories for short-term disability were: 32% pregnancy, 18% musculoskeletal, 8% injury, 8% illness, 6% cancer. There were 1,103 claims submitted for Caregiver Leave with 821 claim approvals and 282 claim denials. There were 875 claims submitted for Parental Leave with 839 claim approvals and 36 claim denials.

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).

Benefits Plans for Eligible Retirees

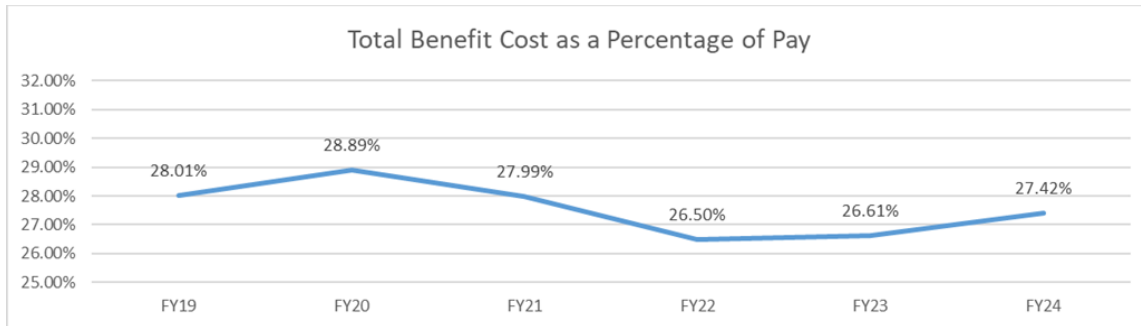
The University closed the retiree health and welfare plan for active employees in 2017 with a phaseout of benefits based upon age and years of service. The plan closure eliminated the

benefit for any employee with less than five years of service as of the closure date. The full benefit was only 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 or drop University-sponsored coverage upon retirement, they would no longer be eligible for coverage in the plan. Retirees remain eligible for these benefits depending on whether they vested in the plan prior to closure and elimination. Surviving spouses remain eligible if the employee had attained at least 5 years of benefit eligible service immediately preceding their date of death. Eligible pre-65 retirees have a choice of two medical plans: the Retiree Health PPO Plan or the Retiree Healthy Savings Plan. Eligible Medicare retirees have the option to enroll in the University sponsored Medicare Advantage Plan. Summary of the plans include:

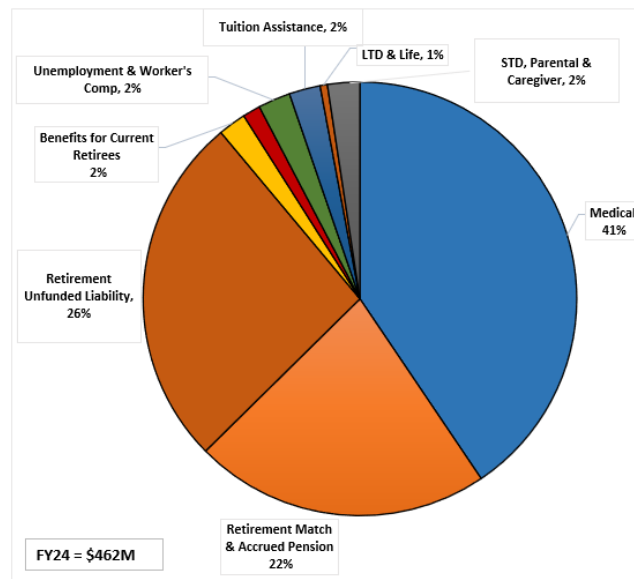
- The pre-65 retiree plans are available to employees who had at least five years of service as of December 31, 2017, and are in Access Category A, B or C based on age and years of service upon retirement. There are 437 retirees enrolled in the pre-65 retiree plans covering 742 individuals.
- The University 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 8,189 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 56% of benefit eligible retirees elect vision coverage (retiree paid).

Cost of Benefits

On average, the University cost of benefits was 27.42% of salaries for benefit eligible employees in FY24, an increase of 0.81% from FY23. Despite the increase, the cost as a percentage of salaries in FY24 is lower than FY19 and FY20 levels, 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. The increase in cost as a percentage of pay between FY22-FY24 was driven by increases in the actuarial determined required contribution towards the \$1.3B unfunded pension liability and increasing medical and pharmaceutical trends as inflation moves through the plans.



The University's cost of benefit plans, excluding FICA benefits, are broken down in the pie chart. The University's contributions towards medical premiums and retirement plans make up the largest portion of UM's benefit investment, accounting for 89% of total spend. In January of FY24, the new leave benefits: short-term disability, caregiver, and parental care leave were added to the benefits package, which is 2% of total spend. Total cost of benefits in dollars is impacted by number of benefit eligible employees and related salaries and wages. Between FY23 and FY24, the total number of benefit eligible employees increased 10% from 19,273 to 21,259. The increase in benefit eligible members was mostly due to the addition of 1,087 Capital Region Medical Center employees in January 2024.



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 2024, the medical plan saw a 10% increase in medical spend per member per month compared to 9% for United HealthCare book-of-business. The increase was driven by catastrophic claims up 18% over 2023. Non-Catastrophic medical spend saw an increase as well, up 7% over 2023. Additionally, the medical specialty spend increased by 8%, driven by Multiple Sclerosis.

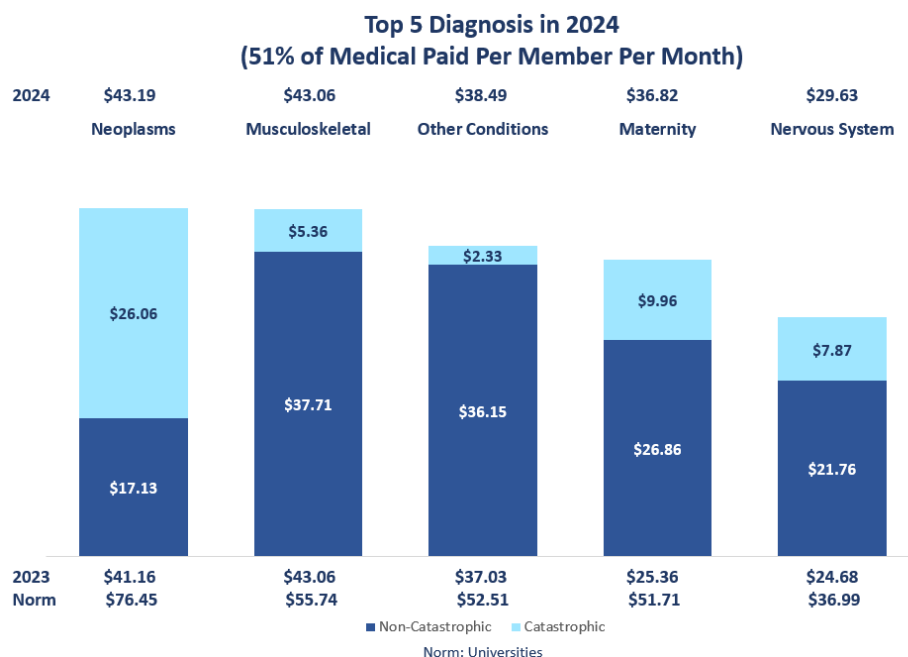
In 2024, pharmaceutical claims per member per month increased 11.5% from \$116.17 in 2023 to \$129.56 in 2024 compared to \$158.11 per member per month for Express Scripts book-of-business in 2024. The overall medical and pharmacy trend is being driven primarily through increases in large catastrophic claimants and increased pharmacy costs and

utilization. Additionally, the FDA approval of gene therapy drugs is expected to increase claims cost over time.

High-Cost Drivers

The high-cost pharmaceutical indications are inflammatory conditions, neoplasms (cancer) and GLP-1 drugs. The top high-cost indications for Express Scripts book-of-business are inflammatory conditions, diabetes, and neoplasms. For the University, GLP-1 drugs for diabetics and weight loss were responsible for \$8.5M in pharmacy costs which is 13.5% of overall pharmacy costs. The pharmacy spend for diabetes indication is down 7.2% in 2024 compared to 2023. Increased trend growth is expected as more GLP-1 drugs come to market. In 2024, weight loss drugs were covered with prior authorization verifying with the physician that the patient is 18 or older, was engaged in a trial of behavioral modification and dietary restriction for at least 3 months, had a BMI of 30 or more, and was engaged in a reduced calorie diet. In March 2025, the Encircle Rx program through Express Scripts was implemented which is designed to control spend on GLP-1 medications. Encircle Rx requires a higher BMI and active engagement in a weight loss program, Omada, as a requirement for coverage of weight loss GLP-1 medications.

In 2024, 51% of medical claims spend was driven by five high-cost drivers: neoplasms, musculoskeletal system (orthopedics); general care such as wellness visits and checkups; maternity; and nervous system. Neoplasms was the University's top medical spend diagnosis in 2024. Maternity saw the largest increase of around 45% due to an increase in deliveries, and admissions to the NICU. In general, the top cost drivers align with United HealthCare book of business. The top four categories are similar to other employers with the fifth spot fluctuating between circulatory system, mental disorders or nervous system depending on the catastrophic cases. In 2023 circulatory system was in the top five compared to 2024 with nervous system in the top five for the University. Additional details of each high-cost driver are 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 cases increased 18% from 193 in 2023 to 227 in 2024. These claimants accounted for 26% of medical spend. Cancer is the top contributor to catastrophic spend and chemotherapy/radiotherapy is the top diagnosis by spend for those members. Circulatory system is the second highest diagnosis chapter by catastrophic spend followed by maternity.

Mental Health

The University experienced a 2.7% decrease in per member per month costs for behavioral health services in 2024 of \$15.77 compared to \$16.20 per member per month costs in 2023. The top conditions were anxiety, trauma and stressor related disorders, and depression for 2024.

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

In 2024 virtual visits were at 12.7 visits per 1,000 visits compared to 15.6 visits per 1,000 visits in 2023. Virtual visits continue to be a lower cost site of care with the average cost per visit at \$27 compared to physician visits at \$109 per visit.

Urgent Care

Urgent care visits increased by 4.9% in 2024. The top three visit reasons by primary diagnosis are upper respiratory infections, viral infections, and infection of the ear and other related conditions. We saw the largest increase in superficial injuries and contusions, and Skin and Tissue Infections each up about 10%.

Emergency Room Claims

The emergency room net cost per member per month increased by 4% in 2024 though visits per 1,000 were down 2%. The top two diagnosis for emergency room visits were abdominal pain and nonspecific chest pain. The largest increase by diagnosis was Headache including Migraines, up 18%.

Outpatient Surgeries

Outpatient Surgeries saw a 1.5% increase in prevalence in 2024 from 2023, and a 3.4% increase in net paid per member per month. The largest procedure by volume continues to be colonoscopy screenings. Costs for that procedure were up 6.5% per event in this plan year, and we saw a 1.6% increase in the number of colonoscopies. We also saw decreases in musculoskeletal procedures and costs for hip and knee replacements.

Inpatient Admissions

Inpatient Admissions increased 6.4%, and admissions paid per member per month increased 21%. In 2024, the plan saw an increase in the number of catastrophic cases which is closely related to the increase in inpatient admissions. Among catastrophic case members there was a 24% increase in admissions. The top reasons for inpatient admissions were related to pregnancy/childbirth, Behavioral Health, and Circulatory System. Maternity drove the highest increase in paid per member per month for inpatient admissions.

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.

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 2024 net savings were \$3.3M.
- **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 2024 of \$0.85 per member per month or \$620,554.
- **Onsite Wellness Coordinator**. The UnitedHealthcare onsite wellness coordinator engages employees in making better healthcare decisions, provides health education to groups 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 2024 was \$2.4M.
- **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 2024, 3,441 plan members have enrolled in the 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 2024 were \$595,063.

- **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.
- **Arthroscopy Medical Necessity Bundle.** This is a process for determining whether services, tests and procedures are cost-effective and identifying opportunities to move from higher-cost hospital settings to an Ambulatory Surgical Center setting, when applicable. No opportunities were identified to move these procedures to a lower cost site of care.
- **Medical Necessity Review** for Genetic Testing, Inflammatory Medications, Functional Endoscopic Sinus Surgery, Hysterectomy and Sinuplasty that created an estimated savings through 2024 of \$436,309.
- **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 2024 savings were \$2,081,405 versus a fee of \$280,824.
- **Focused claims review** is designed to catch inaccuracies through targeted reviews by UHC specialty aligned, board-certified physicians. The 2024 savings were \$84,910.
- **Credit balance recovery program** is a retrospective recovery service that helps facilitate research and resolve overpaid claims. The 2024 savings were \$65,890.

A comparison of 2023 to 2024 active employee premiums by tier level is available in **Appendix A**. See **Appendix B** for a detail of plan design changes effective 2024.

UM and MUHC Partnerships

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 50% of eligible members enrolled in the plan in 2024. 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 work collaboratively with health system leadership and physicians to review CNP healthcare consumption, set up appropriate incentives for providers and patients, and monitor the overall quality of care.

Components of the CNP 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.
- Continued collaboration between MUHC and UM Benefits on the management of the medical plan.

- Ongoing work groups to review and reduce CNP out-of-network claims, lower prescription costs, and establish reporting deliverables for the Joint Operating Group.

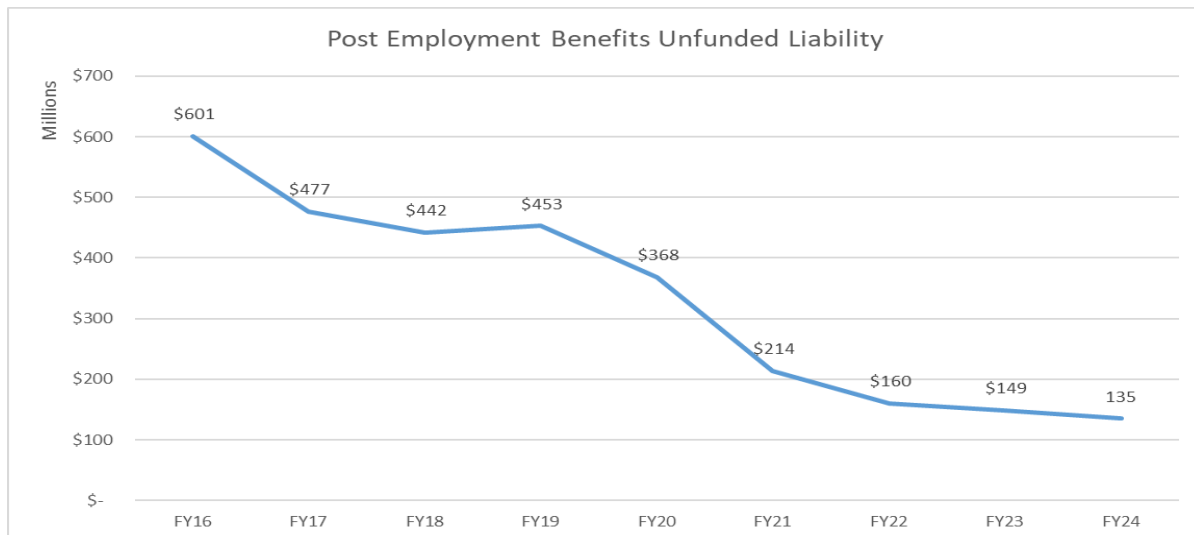
UM and MUHC Working Groups

Partnering with MUHC, various work teams have been developed to address the increasing trend of medical and pharmacy costs for all plans, which directly impacts benefit plan members, and to act as a collaborative body to develop solutions that are in the best interests of the university, the hospital, and plan members. The focus of these teams is to:

- Improve clinical quality and patient outcomes while managing medical cost growth through benefit design, network management, and clinical care management of patients.
- Improve the patient experience, improve the health of the overall employee population, as well as create efficiencies and cost savings in the delivery of care.
- Increase transparency for pharmacy benefits to ensure a high performing benefit program.
- Optimize in-house pharmacy collaboration to maximize outcomes for the University and Health System.

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 actions, which has reduced the unfunded liability further to \$135M in FY24.



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 in FY22 to

\$2.3M in FY23 and FY24 as a result of combining medical and pharmacy. 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.

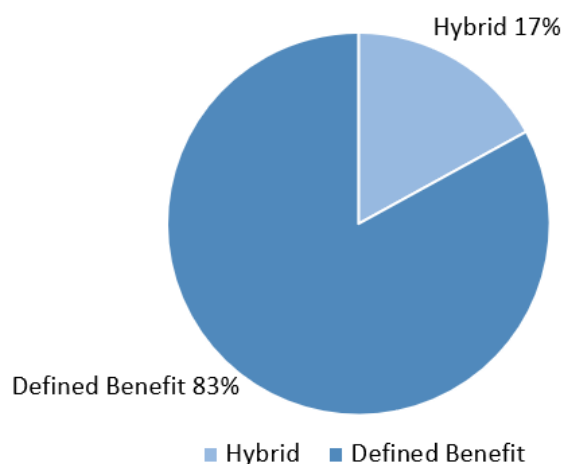
One key aspect of the changes and reduction in liability was converting the University's post-65 medical insurance benefit to a Medicare Advantage Plan. At the time of the conversion, Medicare Advantage was a better plan at a lower cost for the University. This shift also allowed the University to offload the medical cost growth risk into the Medicare Advantage marketplace, similar to other employers. This past year, Medicare Advantage plan reimbursement was cut by the federal government, resulting in a reduction of benefits to the retirees, similar to all other retirees in Medicare Advantage.

V. Retirement Plan Trends & Management

Retirement Eligible Population

As of 10/1/24, a total of 32.9% of the University's employees enrolled in a plan with a pension benefit are currently eligible for retirement. Of those eligible, 9.5% of the population (899 employees) are at full retirement*, and 23.5% (2,234 employees) are eligible for early retirement**). The majority of retirement eligible employees are enrolled in the Defined Benefit Plan (83.1%). In fact, 48.5% of members enrolled in the Defined Benefit Plan are retirement-eligible compared to only 12.8% of those enrolled in the Hybrid Plan.

Retirement Eligible Population*



*As of 10/01/24

**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

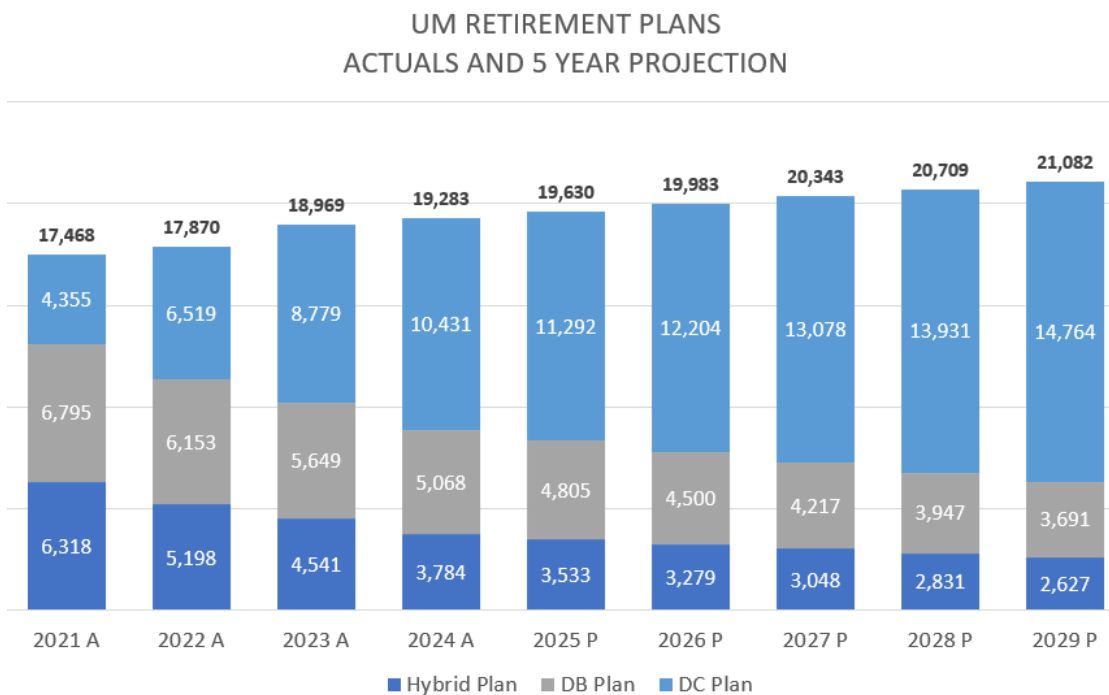
The University has been a leader in the public pension space, taking action to manage cost and liability growth in ways that many other public pensions have not over the past decade. These efforts have been ongoing since 2010:

- 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

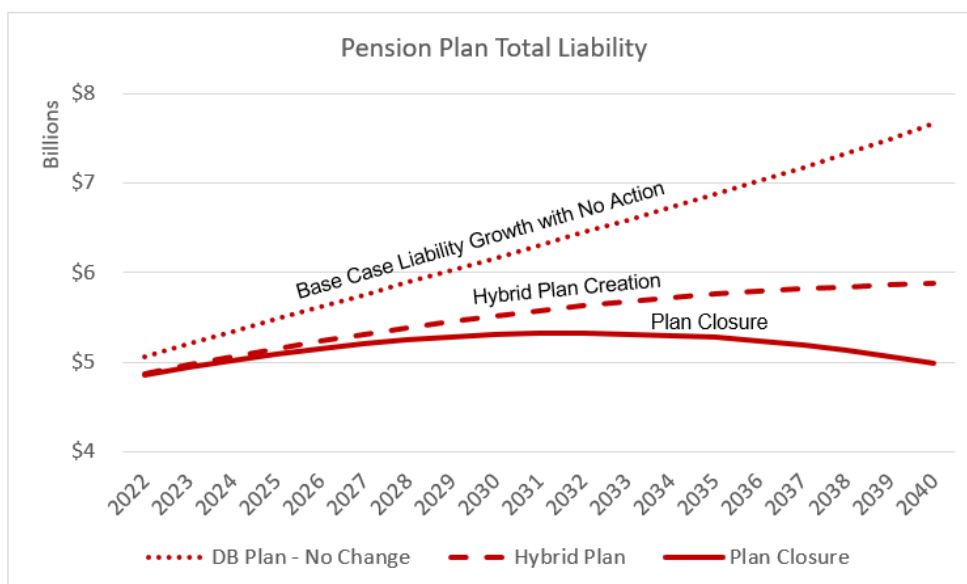
- 2023 – Terminated Vested Member Buyout Program

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 2029, 70% of the benefit eligible population is expected to be in the defined contribution plan, compared to the 54% in 2024.



Today, the pension plan total liability of \$5.7B is \$250M lower from the closure of the pension plan. By 2040, that variance in liability without actions taken would be \$2.6B. The pension liability is a long-term obligation, with plan payments expecting to continue past 2090. While closed to new members since October 2019, annual benefit payments under the pension plan are projected to continue growing until 2034. The total remaining benefit payments over the life of the pension plan are projected to be more than \$19B.



Financial Management Policy

CRR 530.020 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. 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.

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

- **Contributions:** Plan contributions will seek to achieve full funding of the plan utilizing actuarial assumptions and risk levels appropriate for a closed plan. The volatility of plan contributions on the budgets should be managed 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 to fund payments to beneficiaries. As the plan continues to mature, it will be important for investment risk to match the risk of payments to beneficiaries. Therefore, the policy directs management to continue to de-risk the plan over time.
- **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 the policy seeks to limit to the extent possible. A fully funded plan at market interest rates will no longer incur cost for the University.

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.

As of the 10/1/2024 valuation, the investment actuarial rate return was 8.04%, above the 7% return assumption creating a \$44M gain on the plan. The plan had \$29M actuarial loss from salary, retirement, and mortality where actual experience differed from assumptions. The actuarial unfunded liability reduced from \$1.289B to \$1.233B due to positive investment returns. The decrease in unfunded liability improved the plan's actuarial funding ratio from 77.12% to 78.41%. The actuarial funding ratio remains within the corridor of 75% to 95% funded. Per policy, the unfunded liability contribution of \$125M is equal to the actuarially determined employer contribution (ADEC). The full actuarial report is attached at the end of this report as an appendix.

VI. Strategic Direction

2024 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 2024 roadmap priorities are summarized below.

2024 Action	Outcome
Extend or renegotiate Custom Network Plan agreements based on 2024 action	Ongoing
Continue to evaluate and implement, as appropriate, enhanced vendor solutions to improve participant health and manage costs	Evaluated Encircle Rx to address GLP1 drugs to implement March 2025; evaluated transparent pharmacy administrative model and implemented for 2025
Ensure compliance with required provider cost transparency	Complete
Conduct creditable coverage analysis on Part D portion of the retiree plans to ensure compliance with Medicare changes	Complete, plans meet creditable coverage
Changes to FMLA / Life / Disability effective January 2024; monitoring continues	Complete and ongoing process improvements
Implementation of new PTO program, including parental, caregiver, and STD	Complete and ongoing process improvements
Annual plan benchmarking with recommendations	Complete annually

The detailed Roadmap for 2025-2027 is available in **Appendix C**.

Implementation of a Defined Contribution Opt-in Program

In 2023, the university successfully executed the Terminated Vested Buyout Program, a one-time offer for individuals 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. 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 \$62M and a reduction of the unfunded liability by \$10M.

Following this program, interest from some active employees emerged, as some desire an opportunity to gain control of their benefit and related investment returns. As a result, a one-time voluntary program is being developed that would allow a window for active employees currently in the DB Plan (pension) or Hybrid Plan (mixed pension and matching) to choose to move the lump sum value of their pension benefit from their current plan to a defined contribution plan. Employees who choose this one-time voluntary program would earn benefits under the defined contribution plan during their university employment going forward.

This program would not impact retirees or terminated members who have not commenced a deferred benefit. More information and program details will be presented to the Board for approval in the June 2025 meeting.

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

	2023 Premiums			2024 Premiums			Cost Difference		
	EE Premium	ER Contribution	Total	EE Premium	ER Contribution	Total	EE Premium	ER Contribution	Total
PPO									
Self	\$176	\$589	\$765	\$187	\$628	\$815	\$11	\$39	\$50
Self + Sp	\$430	\$1,253	\$1,683	\$457	\$1,336	\$1,793	\$27	\$83	\$110
Self + Ch	\$408	\$1,256	\$1,664	\$435	\$1,341	\$1,776	\$27	\$85	\$112
Family	\$690	\$2,016	\$2,706	\$735	\$2,150	\$2,885	\$45	\$134	\$179
CNP									
Self	\$84	\$461	\$545	\$92	\$503	\$595	\$8	\$42	\$50
Self + Sp	\$238	\$961	\$1,199	\$259	\$1,050	\$1,309	\$21	\$89	\$110
Self + Ch	\$221	\$965	\$1,186	\$242	\$1,055	\$1,297	\$21	\$90	\$111
Family	\$399	\$1,529	\$1,928	\$437	\$1,669	\$2,106	\$38	\$140	\$178
HSP									
Self	\$58	\$385	\$443	\$62	\$413	\$475	\$4	\$28	\$32
Self + Sp	\$166	\$809	\$975	\$177	\$868	\$1,045	\$11	\$59	\$70
Self + Ch	\$147	\$817	\$964	\$156	\$880	\$1,036	\$9	\$63	\$72
Family	\$284	\$1,283	\$1,567	\$303	\$1,379	\$1,682	\$19	\$96	\$115
RHP									
Self	Varies	Varies	\$948	Varies	Varies	\$1,007	Varies	Varies	\$59
Self + Sp	Varies	Varies	\$2,086	Varies	Varies	\$2,215	Varies	Varies	\$129
Self + Ch	Varies	Varies	\$2,062	Varies	Varies	\$2,191	Varies	Varies	\$129
Family	Varies	Varies	\$3,353	Varies	Varies	\$3,562	Varies	Varies	\$209
Retiree HSP									
Self	Varies	Varies	\$683	Varies	Varies	\$780	Varies	Varies	\$97
Self + Sp	Varies	Varies	\$1,503	Varies	Varies	\$1,717	Varies	Varies	\$214
Self + Ch	Varies	Varies	\$1,486	Varies	Varies	\$1,698	Varies	Varies	\$212
Family	Varies	Varies	\$2,416	Varies	Varies	\$2,760	Varies	Varies	\$344

EE = Employee

ER = Employer

APPENDIX B – SUMMARY OF 2024 BENEFIT PLAN DESIGN CHANGES

Active Medical and Pharmacy Plans

PPO, Tiered PPO, and Custom Network Plans:

- Increased out-of-network, out-of-pocket maximum (OOPM) to be 3x the in-network values
 - Individual Out-of-Network OOPM – from \$10,500 to \$11,250
 - Family Out-of-Network OOPM – from \$21,000 to \$22,500
- Increased minimum dollar thresholds for prescription drugs
 - Generic Retail: Greater of \$7 or 20% changed to \$10 or 20%
 - Formulary Brand Retail: Greater of \$15 or 25% changed to \$30 or 25%
 - Non-Formulary Brand Retail: Greater of \$30 or 50% changed to \$50 or 50%
 - Mail-Order: Greater of \$15 or 20% changed to \$20 or 20%
Greater of \$30 or 25% changed to \$60 or 25%
Greater of \$60 or 50% changed to \$100 or 50%

Tiered PPO Plan:

- Increased non-preferred (Tier 2) copays
 - Primary – from \$25 to \$30
 - Specialist – from \$40 to \$45

Retiree Medical and Pharmacy Plans

Pre-65 Retiree Plans (Retiree Health PPO & Healthy Savings Plans):

- Increased out-of-network, out-of-pocket maximum (OOPM) to be 1.5x the in-network values
 - Individual Out-of-Network OOPM – from \$4,400 to \$6,000
 - Family Out-of-Network OOPM – from \$8,800 to \$12,000
- Increased minimum dollar thresholds for prescription drugs
 - Generic Retail: Greater of \$7 or 20% changed to \$10 or 20%
 - Formulary Brand Retail: Greater of \$15 or 25% changed to \$30 or 25%
 - Non-Formulary Brand Retail: Greater of \$30 or 50% changed to \$50 or 50%
 - Mail-Order: Greater of \$15 or 20% changed to \$20 or 20%
Greater of \$30 or 25% changed to \$60 or 25%
Greater of \$60 or 50% changed to \$100 or 50%

Medicare Advantage Plans (Base and Enhanced):

The Centers for Medicare and Medicaid (CMS) made several significant changes to the Medicare Advantage and Part D Plans beginning January 1, 2024. CMS reduced reimbursement to Medicare Advantage plans for over 2,000 diagnosis codes. These diagnosis codes would no longer receive additional funds from CMS towards member care, ultimately increasing the cost of that care to the plans. Additionally, 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 was a significant change and enriched the overall Part D drug plan benefit.

The 2024 rate guarantee with United Healthcare was not applicable due to funding changes implemented by CMS which caused an increase in premiums. Without plan design changes to the Medicare Advantage Base Plan, retiree premiums would increase \$22 per month, UM annual cash flow would increase \$1.5M and the OPEB Liability would increase by \$22M.

The recommended changes to the Medicare Advantage Base Plan design maintain the current monthly premium. In collaboration with TRAC, as well as feedback from retirees, maintaining the Medicare Advantage Base Plan at current premium level is in alignment with what retirees' value in the Base Plan. Maintaining current plan design in the Medicare Advantage Enhanced Plan and increasing premiums is in alignment with what retirees' value in the Enhanced Plan.

Retiree Medicare Advantage Plan Design Changes

- Changes to Base Plan to maintain current premiums:
 - Added annual deductible – from \$0 to \$300
 - Increased annual out-of-pocket maximum – from \$2,000 to \$3,400

No plan changes to the Enhanced Plan resulted in increased premiums.

Retiree Medicare Advantage Premium Changes

- Base Plan: premiums were maintained at \$42 by implementing recommended plan design changes.
- Enhanced Plan: premiums increased by \$25 from \$139 to \$164 to maintain current plan design of \$0 annual deductible and \$0 copays or coinsurance for services.

HEALTHY SAVINGS PLAN | What You Pay for Covered Expenses in 2023/2024

		2023 HEALTHY SAVINGS PLAN		2024 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*** <ul style="list-style-type: none"> 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	\$3,750/self; \$7,500/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 2023/2024

		2023 CUSTOM NETWORK PLAN		2024 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: \$10 (retail) and \$20 (mail) or 20% \$30 (retail) and \$60 (mail) or 25% \$50 (retail) and \$100 (mail) or 50%	Greater of \$30 copay or 50% network cost after deductible*****
OUT-OF-POCKET	Medical limit	\$3,750/self; \$7,500/family*	\$10,500 or more/self; \$21,000 or more/family*	\$3,750/self; \$7,500/family*	\$11,250 or more/self; \$22,500 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 (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.

***** 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 2023/2024

		2023 PPO PLAN <i>(with Tiered Feature available in Kansas City and Rolla)</i>				2024 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	Tiered PPO Plan: \$500/self; \$1,500/family*	PPO Plan: \$800/self; \$2,400/family *	Tiered PPO Plan: \$1,000/self; \$3,000/family*	PPO Plan: \$1,600/self; \$4,800/family*	Tiered PPO Plan: \$500/self; \$1,500/family*	PPO Plan: \$800/self; \$2,400/family *	Tiered PPO Plan: \$1,000/self; \$3,000/family*	PPO Plan: \$1,600/self; \$4,800/family*
	Rx deductible	Retail: \$75/person Mail order: \$0/person				Retail: \$75/person Mail-order: \$0/person			
SERVICES	Preventive care	\$0		40% or more after deductible		\$0		40% or more after deductible	
	Primary care	Tiered PPO Plan: Tier 1 (♥♥): \$15 copay/visit; Tier 2 (♥): \$25 copay/visit	PPO Plan: \$20 copay/visit	40% or more after deductible		Tiered PPO Plan: Tier 1 (♥♥): \$15 copay/visit; Tier 2 (♥): \$30 copay/visit	PPO Plan: \$20 copay/visit	40% or more after deductible	
	Specialist care	Tiered PPO Plan: Tier 1 (♥♥): \$35 copay/visit; Tier 2 (♥): \$40 copay/visit	PPO Plan: \$40 copay/visit	40% or more after deductible		Tiered PPO Plan: Tier 1 (♥♥): \$35 copay/visit; Tier 2 (♥): \$45 copay/visit	PPO Plan: \$40 copay/visit	40% or more after deductible	
	Urgent care	\$50 copay/visit		40% or more after deductible		\$50 copay/visit		40% or more after deductible	
	Lab and x-ray	Applicable coinsurance after deductible^		40% or more after deductible		Applicable coinsurance after deductible^		40% or more after deductible	
	Outpatient care	Applicable coinsurance after deductible^		40% or more after deductible		Applicable coinsurance after deductible^		40% or more after deductible	
	Inpatient care (incl. maternity delivery)	Applicable coinsurance after deductible^		40% or more after deductible		Applicable coinsurance after deductible^		40% or more after deductible	
	Durable medical equipment	Applicable coinsurance after deductible^		40% or more after deductible		Applicable coinsurance after deductible^		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	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: \$10 (retail) and \$20 (mail) or 20% \$30 (retail) and \$60 (mail) or 25% \$50 (retail) and \$100 (mail) or 50%		Greater of \$30 copay or 50% network cost after deductible****	
OUT-OF-POCKET	Medical limit	\$3,750/self; \$7,500/family*		\$10,500 or more/self; \$21,000 or more/family*		\$3,750/self; \$7,500/family*		\$11,250 or more/self; \$22,500 or more/family*	
	Rx limit	\$5,200/self; \$10,400/family*				\$5,200/self; \$10,400/family*			

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

2024 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

	2025	2026	2027
Health Plan & Ancillary Benefits	<ul style="list-style-type: none"> Establish PBM Advisory Committee. Move to transparent PBM 1/1/2025 and conduct RFP for 2026. Conduct medical plan, HSA, and EAP RFPs. Evaluate fiduciary practices and complete benefit plan fiduciary training. Continue to evolve medical and pharmacy collaboration between UM and MUHC. Paytient Health Payment Plan implementation for employees enrolled in the HSP Benefit Plan (7/1/25). Identify funding to build claims data warehouse for medical and pharmacy. Benchmark plan design and premium tiers, including UM and employee cost share. Continue to evaluate and implement, as appropriate, enhanced vendor solutions Annual plan benchmarking with recommendations. Evaluate membership across plans and refresh migration strategy. 	<ul style="list-style-type: none"> Changes to medical plan, PBM, HSA and EAP resulting from RFPs, effective 1/1/2026. Release and evaluate RFPs for dental, vision, and Medicare Advantage. Evaluate HSA funding strategy. Evaluate expanding Paytient Health Payment Plan to other benefit plans. Continue to evolve medical and pharmacy collaboration between UM and MUHC. Assess impact of differentiating UM and MUHC benefits. Continue to build out claims data warehouse and reporting. Prepare for Dependent Eligibility Audit. Evaluate spousal eligibility options. Refresh benefit plan migration strategy. Continue to evaluate and implement, as appropriate, enhanced vendor solutions to improve participant health and manage costs. Annual plan benchmarking with recommendations. 	<ul style="list-style-type: none"> Dental, Vision, and Medicare Advantage plan/vendor changes effective January 2027. Conduct Dependent Eligibility Audit. Implement revised HSA funding strategy. If successful, expand Paytient Health Payment Plan to other benefit plans. Continue to evolve medical and pharmacy collaboration between UM and MUHC. Continue planning for differentiating UM and MUHC benefits based on 2026 assessment. Continue to build out claims data warehouse and reporting. Spousal eligibility options implemented based on 2026 assessment. Assess impact of updated benefit plan migration strategy. Continue to evaluate and implement, as appropriate, enhanced vendor solutions to improve participant health and manage costs. Annual plan benchmarking with recommendations.

Retirement & Leave Roadmap

Retirement and Leave Roadmap

	2025	2026	2027
Retirement Programs	<ul style="list-style-type: none"> Continue alignment of retirement plan cost, contribution, and benefit value. Propose voluntary active plan change for current employees. Evaluate alternatives for automated process for pension option elections. Continue to evaluate additional co-sourcing for plan administration. Implement Secure 2.0 required changes (income-based Roth catchup contributions) effective January 2026. Continued support of Investment Committee, including fiduciary training. 	<ul style="list-style-type: none"> Achieve optimal balance for co-sourced/outsourced pension administration. If voluntary active plan change approved, open election window and implement program. Continue to evaluate plan membership shifts and impact to administration. Implement alternatives for automated process for pension option elections. Continue to evaluate additional co-sourcing for plan administration. Continue to implement Secure 2.0 required Roth changes effective (January). Continued support of Investment Committee, including fiduciary training. 	<ul style="list-style-type: none"> Evaluate impact of voluntary plan changes. Continue to evaluate plan membership shifts and impact to administration. Evaluate implementation of automated pension election process. Continue to evaluate additional co-sourcing for plan administration. Monitor Roth income changes required by Secure 2.0. Continued support of Investment Committee, including fiduciary training.
Leave Programs	<ul style="list-style-type: none"> Second payout of leave banks. Conduct advisory review of leave plan administration and create timeline for implementation of recommendations. Monitor and report on leave utilization. 	<ul style="list-style-type: none"> Final payout of leave banks. Evaluate outcomes resulting from advisory review and implementation of recommendations. Monitor and report on leave utilization. 	<ul style="list-style-type: none"> Continue to assess market for leave programs and recommended changes to maintain market competitiveness.

**APPENDIX D – Annual Retirement, Disability, and Death Benefit Plan
Actuarial Valuation (as of October 1, 2024)**

University of Missouri Retirement, Disability, and Death Benefit Plan

Actuarial Valuation and Review as of October 1, 2024



This valuation report should only be copied, reproduced, or shared with other parties in its entirety as necessary for the proper administration of the Plan.

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Segal
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March 3, 2025

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, 2024. 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, 2025 – June 30, 2026.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board of Curators, based upon information provided by the staff of the University.

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.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board of Curators are encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

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

Sincerely,

Segal

A handwritten signature in black ink, reading "Joshua Kaplan", is positioned above a horizontal line.

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, 2024. 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, 2024, provided by the University;
- The assets of the Plan as of September 30, 2024, 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, 2025 for the Plan is provided in a separate report.

Section 1: Actuarial Valuation Summary

Valuation highlights

- 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.
- The actuarial gain of \$15,209,802, or 0.3% of actuarial accrued liability, is due to an investment gain of \$44,126,211, or 0.8% of actuarial accrued liability, and a loss from sources other than investments of \$28,916,409, or 0.5% of the actuarial accrued liability. This non-investment loss was primarily due to higher salaries than projected.
- The rate of return on the market value of assets was 15.1% for the year ending September 30, 2024. The return on the actuarial value of assets was 8.0% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial gain 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%.
- The actuarial value of assets is 97.3% 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 gain is recognized in future years, the cost of the Plan is likely to decrease unless the net gain is offset by future experience. The recognition of the net deferred gains of \$123.2 million will also have an impact on the future funded ratio. If the net deferred gains were recognized immediately in the actuarial value of assets, the ADEC would decrease from \$161.8 million to \$151.6 million, or 6.3%.

Changes from prior valuation

- The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 78.4%, compared to the prior year funded ratio of 77.1%. 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 80.6%, compared to 74.4% 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.
- The ADEC for the year beginning July 1, 2025 is \$161.8 million, a decrease of \$3.4 million from last year. As a percentage of payroll of members in the defined benefit plan, the employer contribution rate is 19.47% for Level 1 members and 16.04% for Level 2 members (18.07% 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. Section 2 of this report shows a derivation of these results as well as the determination of the Minimum Actuarially Determined Contribution (MADC) set out in the Plan's Financial Management Policy, which this year equals the standard ADC amount.

Section 1: Actuarial Valuation Summary

Risk

- It is important to note that this actuarial valuation is based on plan assets as of September 30, 2024. 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. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
- 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.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Valuation Result	Current	Prior
Contributions for fiscal year beginning	July 1, 2025	July 1, 2024
• Actuarially determined employer contributions	\$161,835,086	\$165,207,802
• Level 1 employer ADEC as a percent of payroll	19.47%	19.10%
• Level 2 employer ADEC as a percent of payroll	16.04%	15.64%
• Total blended employer ADEC as a percent of payroll	18.07%	17.68%
• Minimum actuarially determined employer contributions	\$161,835,086	\$165,207,802
• Level 1 employer MADEC as a percent of payroll	19.47%	19.10%
• Level 2 employer MADEC as a percent of payroll	16.04%	15.64%
• Total blended employer MADEC as a percent of payroll	18.07%	17.68%
Actuarial accrued liability for plan year beginning	October 1, 2024	October 1, 2023
• Retired members and beneficiaries	\$2,932,975,637	\$2,828,814,720
• Inactive vested members	497,779,068	542,004,715
• Inactive members due a refund of employee contributions	14,648,110	14,163,926
• Active members	2,268,532,112	2,251,006,320
• Total	\$5,713,934,927	\$5,635,989,681
• Normal cost for plan year beginning October 1	49,380,145	51,836,103
Assets for plan year beginning October 1		
• Market value of assets (MVA)	\$4,603,598,076	\$4,193,500,773
• Actuarial value of assets (AVA)	4,480,388,890	4,346,731,457
• Actuarial value of assets as a percentage of market value of assets	97.32%	103.65%

Section 1: Actuarial Valuation Summary

Valuation Result	Current	Prior
Funded status for plan year beginning	October 1, 2024	October 1, 2023
• Unfunded actuarial accrued liability on market value of assets	\$1,110,336,851	\$1,442,488,908
• Funded percentage on MVA basis	80.57%	74.41%
• Unfunded accrued liability on actuarial value of assets	\$1,233,546,037	\$1,289,258,224
• Funded percentage on AVA basis	78.41%	77.12%
Key assumptions		
• 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	12,293	12,027
• Number of inactive vested members ¹	5,799	6,671
• Number of inactive members due a refund of employee contributions	11,425	11,487
• Number of active Level 1 members	5,373	5,856
• Number of active Level 2 members	4,136	4,586
• Average salary for Level 1 members	\$98,672	\$93,995
• Total payroll for Level 1 members	\$530,166,371	\$550,433,113
• Average salary for Level 2 members	\$88,338	\$83,741
• Total payroll for Level 2 members	\$365,366,476	\$384,037,086

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

Section 1: Actuarial Valuation Summary

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.

Section 1: Actuarial Valuation Summary

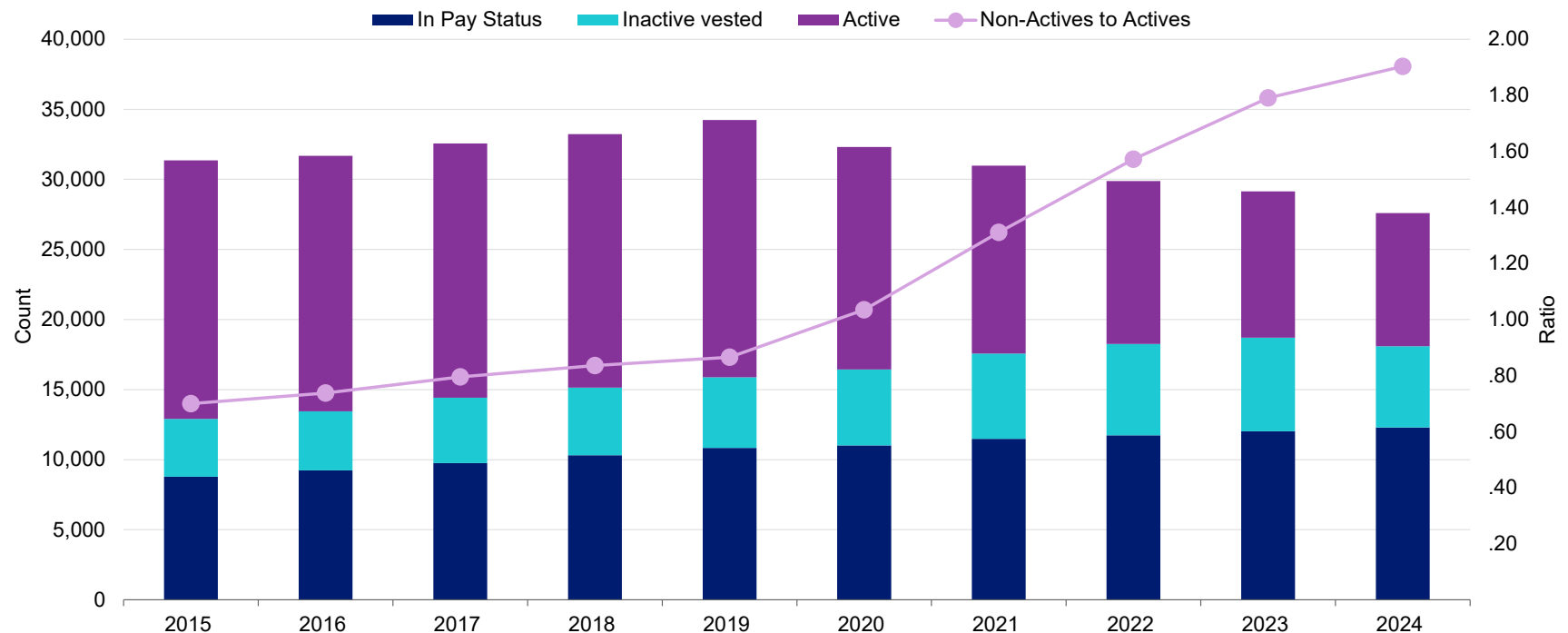
The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- 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 and is not acting as a fiduciary to the University of Missouri Retirement, Disability, and Death Benefit Plan. The valuation is based on Segal's understanding of applicable guidance in these areas and of the University of Missouri Retirement, Disability, and Death Benefit Plan's 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 University upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

Member information

Member Population as September 30



Legend	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
In Pay Status	8,790	9,242	9,763	10,316	10,836	11,015	11,479	11,746	12,027	12,293
Inactive Vested ¹	4,126	4,215	4,659	4,817	5,046	5,417	6,098	6,513	6,671	5,799
Active	18,445	18,233	18,135	18,102	18,352	15,883	13,409	11,615	10,442	9,509
Ratio	0.70	0.74	0.80	0.84	0.87	1.03	1.31	1.57	1.79	1.90

¹ Excluding terminated participants due a refund of employee contributions.

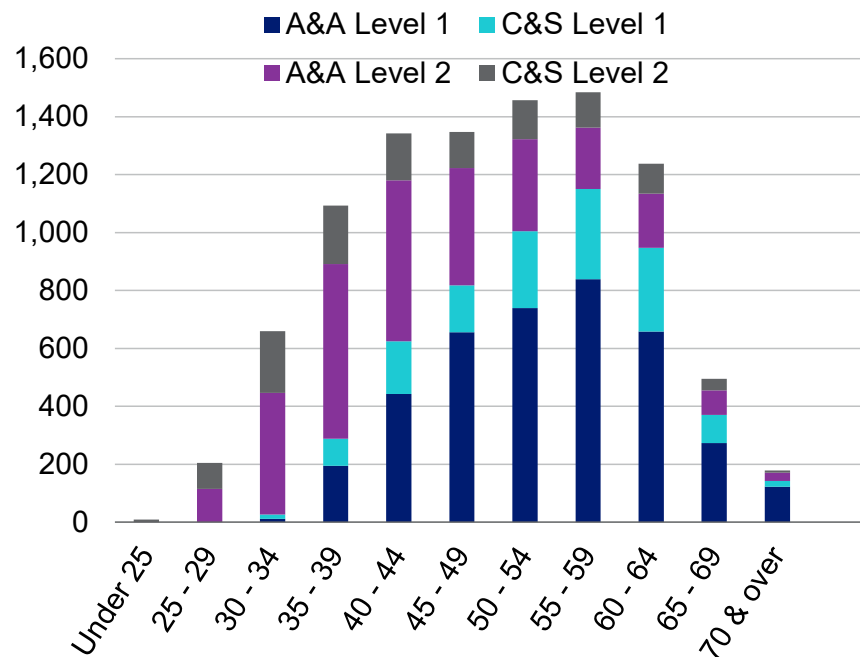
Section 2: Actuarial Valuation Results

Active members

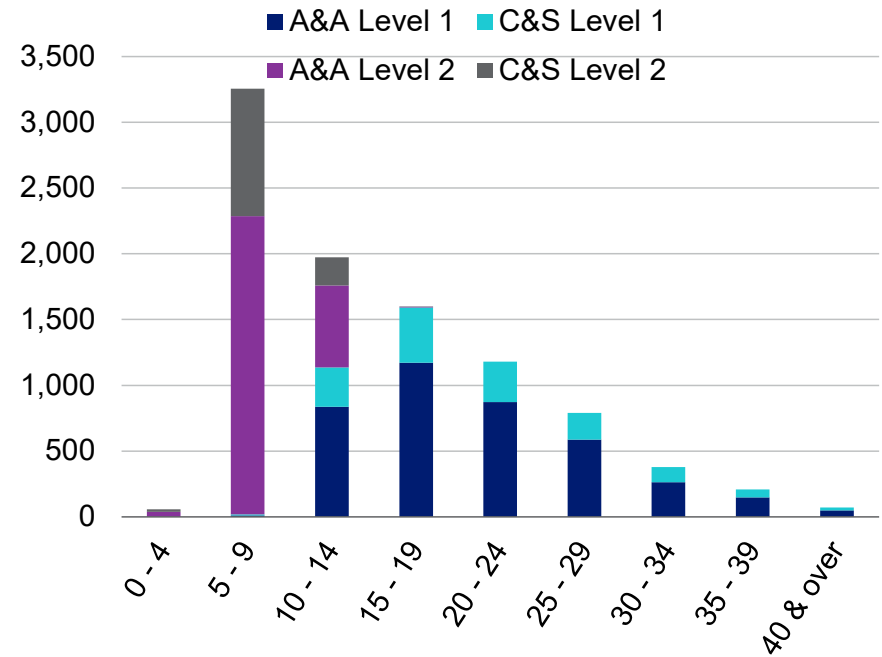
As of September 30,	2024	2023	Change
Active participants	9,509	10,442	-8.9%
Average age	50.0	49.3	0.7
Average years of service	15.4	14.5	0.9
Average compensation	\$94,177	\$89,491	5.2%
Academic & Administrative (A&A) percentage	72.2%	72.7%	N/A
Clerical & Service (C&S) percentage	27.8%	27.3%	N/A

Distribution of Active Members as of September 30, 2024

Actives by Age



Actives by Years of Service



Section 2: Actuarial Valuation Results

Inactive members

- In this year's valuation, there were 5,799 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 5,799 inactive vested members, 4,176 are Academic and Administrative and 1,623 are Clerical and Service.
- In addition, there were 11,425 inactive members entitled to a return of their employee contributions.

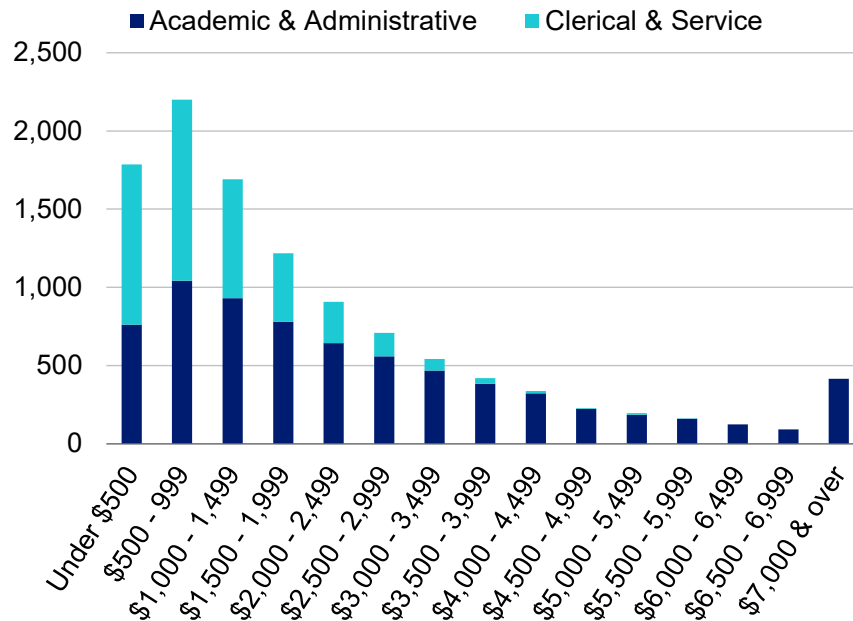
Section 2: Actuarial Valuation Results

Retired members and beneficiaries

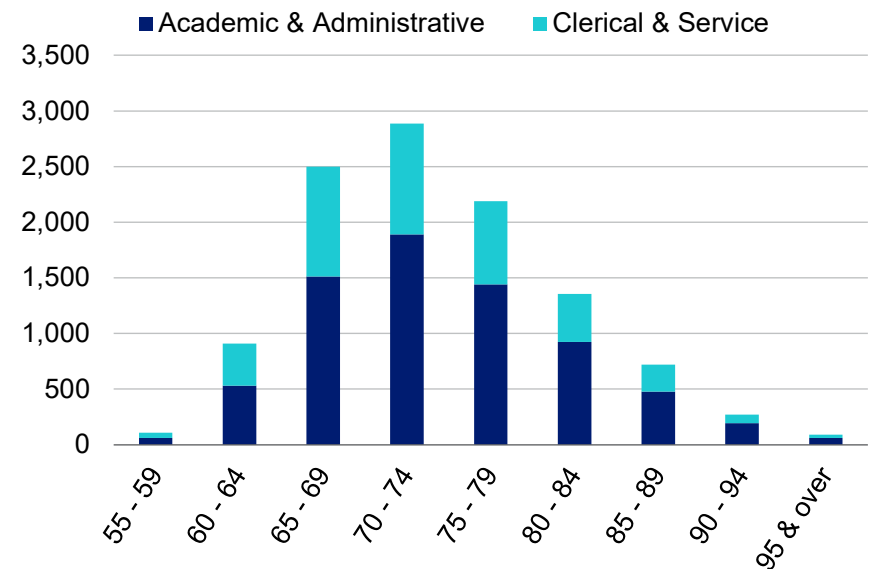
As of September 30,	2024	2023	Change
Retired participants	11,107	10,866	2.2%
Average age	73.8	73.5	0.3
Average amount for A&A	\$2,674	\$2,624	1.9%
Average amount for C&S	\$1,107	\$1,080	2.5%
Beneficiaries	1,186	1,161	2.2%
Total monthly amount	\$25,238,260	\$24,198,990	4.3%

Distribution of Retired Members and Beneficiaries as of September 30, 2024

By Monthly Amount



By Age



Section 2: Actuarial Valuation Results

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, 2024

Step	Original Amount ¹	Percent Deferred ²	Unrecognized Amount ³	Amount
1. Market value of assets, September 30, 2024				\$4,603,598,076
2. Calculation of unrecognized return				
a. Year ended September 30, 2024	\$331,292,229	80%	\$265,033,783	
b. Year ended September 30, 2023	-84,821,407	60%	-50,892,843	
c. Year ended September 30, 2022	-553,527,683	40%	-221,411,074	
d. Year ended September 30, 2021	652,396,599	20%	130,479,320	
e. Year ended September 30, 2020	-71,077,937	0%	0	
f. Total unrecognized return				\$123,209,186
3. Preliminary actuarial value: (1) - (2f)				4,480,388,890
4. Adjustment to be within 20% corridor				0
5. Final actuarial value of assets as of September 30, 2024: (3) + (4)				\$4,480,388,890
6. Actuarial value as a percentage of market value: (5) ÷ (1)				97.3%
7. Amount deferred for future recognition: (1) - (5)				\$123,209,186

¹ Total return minus expected return on a market value basis.

² Percent deferred applies to the current valuation year.

³ Recognition at 20% per year over five years

Section 2: Actuarial Valuation Results

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, 2024

Assumption	Amount
1. Net gain/(loss) from investments ¹	\$44,126,211
2. Net gain/(loss) from salary	-23,657,792
3. Net gain/(loss) from other experience	-5,258,617
4. Net experience gain/(loss): 1 + 2 + 3	\$15,209,802

¹ Details on next page

Section 2: Actuarial Valuation Results

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 15.10% for the year ended September 30, 2024.
- For valuation purposes, the assumed rate of return on the actuarial value of assets for the year ended September 30, 2024 was 7.00%. The actual rate of return on an actuarial basis for the 2024 Plan Year was 8.04%. Since the actual return for the year was greater than the assumed return, the Plan experienced an actuarial gain during the year ended September 30, 2024 with regard to its investments.

Investment Experience *Year Ended September 30, 2024 vs. Year Ended September 30, 2023*

Investment	YE 2024 Market Value	YE 2024 Actuarial Value	YE 2023 Market Value	YE 2023 Actuarial Value
1. Net investment income	\$617,575,545	\$341,135,675	\$200,235,471	\$254,652,866
2. Average value of assets	4,089,761,652	4,242,992,336	4,072,241,120	4,171,054,408
3. Rate of return: 1 ÷ 2	15.10%	8.04%	4.92%	6.11%
4. Assumed rate of return	7.00%	7.00%	7.00%	7.00%
5. Expected investment income: 2 x 4	\$286,283,316	\$297,009,464	\$285,056,878	\$291,973,809
6. Net investment gain/(loss): 1 – 5	\$331,292,229	\$44,126,211	-\$84,821,407	-\$37,320,943

Section 2: Actuarial Valuation Results

Non-investment experience

Retirement experience

- During the year ended September 30, 2023, the number of retirements closely matched the assumption in aggregate for academic and administrative employees and the number of retirements was lower than projected for clerical and service employees.

Salary experience

- Between the 2023 and 2024 actuarial valuations, the average salary increased by 5.1% for academic and administrative employees and increased by 5.2% for clerical and service employees. These patterns were greater than assumed producing an actuarial loss of \$23.7 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)

Section 2: Actuarial Valuation Results

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.
- In the prior plan year, a lump sum buy-out window was offered to inactive vested participants. Based on information reported by the University, approximately 1,000 participants elected to receive the buy-out.
- A summary of plan provisions is in Section 4, Exhibit II.

Section 2: Actuarial Valuation Results

Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended September 30, 2024

Unfunded Actuarial Accrued Liability	Amount
1. Unfunded actuarial accrued liability at beginning of year	\$1,289,258,224
2. Normal cost at beginning of year	49,980,246
3. Prior year's actuarially determined contribution (ADC) at beginning of year	-172,176,938
4. Interest on 1, 2 & 3	81,694,307
5. Expected unfunded actuarial accrued liability	1,248,755,839
6. Changes due to:	
a. Actuarial investment gain	-\$44,126,211
b. Salary increase greater than expected	23,657,792
c. Other (gain)/loss	5,258,617
d. Total changes	-15,209,802
7. Unfunded actuarial accrued liability at end of year	\$1,233,546,037

Section 2: Actuarial Valuation Results

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, 2024, the actuarially determined employer contribution is \$161,835,086, or 18.07% of projected plan-covered payroll in aggregate, or 19.47% for Level 1 members and 16.04% 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, 2024 may amortize the unfunded liability slower than the scheduled period when applied to the reduced payroll in the period July 1, 2025 – June 30, 2026. Note that payroll only applies to those actives who are members in this Plan.

The contribution requirement as of October 1, 2024 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

	2024 Total Plan	2024 Level One % of Projected Payroll	2024 Level Two % of Projected Payroll	2023 Total Plan	2023 Level One % of Projected Payroll	2023 Level Two % of Projected Payroll
1. Normal cost	\$49,380,146	6.93%	3.46%	\$51,836,103	7.00%	3.47%
2. Amortization of unfunded liability	<u>125,469,008</u>	<u>14.01%</u>	<u>14.01%</u>	<u>126,734,077</u>	<u>13.56%</u>	<u>13.56%</u>
3. Actuarially determined contribution 1 + 2	174,849,154	20.94%	17.47%	178,570,180	20.56%	17.03%
4. Expected employee contribution	<u>-13,014,068</u>	<u>-1.48%</u>	<u>-1.42%</u>	<u>-13,362,378</u>	<u>-1.46%</u>	<u>-1.39%</u>
5. Actuarially determined employer contribution 3 + 4	\$161,835,086	19.47%	16.04%	\$165,207,802	19.10%	15.64%

Section 2: Actuarial Valuation Results

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, 2023 to October 1, 2024

Step	Amount	Percent of Payroll
Actuarially determined contribution as of October 1, 2023	\$178,570,180	19.11%
Changes in Actuarially Determined Contribution		
• Effect of salary loss	1,967,727	0.21%
• Effect of investment (gain)/loss	-3,670,180	-0.39%
• Net effect of other gains and losses on accrued liability	437,385	0.05%
• Net effect of other changes, including composition and number of members	-2,455,958	-0.26%
• Total change	-\$3,721,026	-0.40%
Total change in percentage due to payroll change	N/A	0.81%
Actuarially determined contribution as of October 1, 2024	\$174,849,154	19.52%

Section 2: Actuarial Valuation Results

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 is \$94,838,104, including an adjustment for monthly payments. The amortization component of the October 1, 2024 ADC is \$125,469,008. Since this exceeds the October 1, 2021 value, as of October 1, 2024, the MADC is equal to the ADC.

Minimum Actuarially Determined Contribution for Year Beginning October 1

	2024 Total Plan	2024 Level One % of Projected Payroll	2024 Level Two % of Projected Payroll	2023 Total Plan	2023 Level One % of Projected Payroll	2023 Level Two % of Projected Payroll
1. Normal cost	\$49,380,146	6.93%	3.46%	\$51,836,103	7.00%	3.47%
2. Amortization of unfunded liability	<u>125,469,008</u>	<u>14.01%</u>	<u>14.01%</u>	<u>126,734,077</u>	<u>13.56%</u>	<u>13.56%</u>
3. Minimum actuarially determined contribution 1 + 2	174,849,154	20.94%	17.47%	178,570,180	20.56%	17.03%
4. Expected employee contribution	<u>-13,014,068</u>	<u>-1.48%</u>	<u>-1.42%</u>	<u>-13,362,378</u>	<u>-1.46%</u>	<u>-1.39%</u>
5. Minimum actuarially determined employer contribution 3 + 4	\$161,835,086	19.47%	16.04%	\$165,207,802	19.10%	15.64%

Section 2: Actuarial Valuation Results

Schedule of funding progress through September 30, 2024

Actuarial Valuation Date of October 1	Unfunded AAL (UAAL)	Funded Ratio MVA	Funded Ratio AVA	UAAL as a Percentage of Covered Payroll
2015	\$474,031,119	82.6%	87.4%	42.0%
2016	459,286,212	84.9%	88.2%	40.1%
2017	738,711,563	82.9%	82.9%	64.4%
2018	798,247,042	82.5%	82.1%	67.2%
2019	904,627,693	80.0%	80.6%	73.7%
2020	899,503,574	79.2%	81.2%	80.6%
2021	1,036,557,118	88.4%	79.9%	101.1%
2022	1,198,944,556	76.2%	78.0%	123.5%
2023	1,289,258,224	74.4%	77.1%	138.0%
2024	1,233,546,037	80.6%	78.4%	137.7%

Section 2: Actuarial Valuation Results

History of ADC rates

History of Actuarially Determined Contributions: 2020 – 2024

Level One

Plan Year Beginning October 1	Normal Cost Percentage	Amortization Percentage	Total Contribution Rate	Employee Contribution Rate	Net Contribution Rate	Net Contribution Rate Reflecting MADC
2020	6.99%	7.04%	14.03%	1.37%	12.66%	12.66%
2021	7.08%	9.25%	16.33%	1.39%	14.93%	14.93%
2022	7.03%	11.70%	18.73%	1.43%	17.30%	17.30%
2023	7.00%	13.56%	20.56%	1.46%	19.10%	19.10%
2024	6.93%	14.01%	20.94%	1.48%	19.47%	19.47%

History of Actuarially Determined Contributions: 2020 – 2024

Level Two¹

Plan Year Beginning October 1	Normal Cost Percentage	Amortization Percentage	Total Contribution Rate	Employee Contribution Rate	Net Contribution Rate	Net Contribution Rate Reflecting MADC
2020	3.35%	7.04%	10.39%	1.28%	9.11%	9.11%
2021	3.47%	9.25%	12.71%	1.32%	11.40%	11.40%
2022	3.49%	11.70%	15.19%	1.36%	13.83%	13.83%
2023	3.47%	13.56%	17.03%	1.39%	15.64%	15.64%
2024	3.46%	14.01%	17.47%	1.42%	16.04%	16.04%

¹ Does not include contributions to the defined contribution plan for Level Two employees.

Section 2: Actuarial Valuation Results

History of Actuarially Determined Contributions: 2020 – 2024 Blended Level One and Level Two¹

Plan Year Beginning October 1	Net Contribution Rate ¹	Net Contribution Rate Reflecting MADC ¹
2020	11.03%	11.03%
2021	13.39%	13.39%
2022	15.85%	15.85%
2023	17.68%	17.68%
2024	18.07%	18.07%

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

Section 2: Actuarial Valuation Results

Low-Default-Risk Obligation Measure (LDROM)

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 (LDROM) when performing a funding valuation. The LDROM 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 LDROM 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 LDROM 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 3.81% for use effective September 30, 2024. 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 LDROM 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, 2024, the LDROM for the system is \$8,569,038,303. The difference between the plan's AAL of \$5,713,934,927 and the LDROM 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 LDROM 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.

Section 2: Actuarial Valuation Results

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

- 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 \$3.3 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.

Section 2: Actuarial Valuation Results

- 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 2015.
- 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 1.90 as compared to 1.79 for the prior year.

For the prior year, benefits paid were \$207.5 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

Category	Year Ended September 30, 2024	Year Ended September 30, 2023	Change From Prior Year
Level One Academic & Administrative Members:			
• Number	3,938	4,314	-8.7%
• Average age	54.2	53.6	0.6
• Average years of service	21.1	20.3	0.8
• Average salary	\$112,928	\$108,526	4.1%
• Total payroll	\$444,709,621	\$468,180,410	-5.0%
Level One Clerical & Service Members:			
• Number	1,435	1,542	-6.9%
• Average age	54.0	54.0	0.0
• Average years of service	21.4	20.9	0.5
• Average salary	\$59,552	\$53,342	11.6%
• Total payroll	\$85,456,750	\$82,252,703	3.9%
Level Two Academic & Administrative Members:			
• Number	2,930	3,280	-10.7%
• Average age	44.6	43.6	1.0
• Average years of service	8.0	6.9	1.1
• Average salary	\$101,089	\$97,180	4.0%
• Total payroll	\$296,191,289	\$318,751,882	-7.1%
Level Two Clerical & Service Members:			
• Number	1,206	1,306	-7.7%
• Average age	44.4	43.8	0.6
• Average years of service	7.8	6.8	1.0
• Average salary	\$57,359	\$49,989	14.7%
• Total payroll	\$69,175,187	\$65,285,204	6.0%

Section 3: Supplemental Information

Category	Year Ended September 30, 2024	Year Ended September 30, 2023	Change From Prior Year
Inactive members			
• Inactive vested members	5,799	6,671	-13.1%
• Inactive members due a refund of employee contributions	11,425	11,487	-0.5%
Retired members:			
• Number in pay status	11,107	10,866	2.2%
• Average age	73.8	73.5	0.3
• Average monthly benefit	\$2,114	\$2,071	2.1%
Beneficiaries:			
• Number in pay status	1,186	1,161	2.2%
• Average age	77.6	77.6	0.0
• Average monthly benefit	\$1,478	\$1,463	1.0%

Section 3: Supplemental Information

Exhibit B: Members in active service as of September 30, 2024 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	12	--	1	11	--	--	--	--	--	--
35 - 39	195	--	1	147	46	1	--	--	--	--
40 - 44	443	--	3	182	214	44	--	--	--	--
45 - 49	656	--	1	170	273	169	42	1	--	--
50 - 54	739	--	1	120	239	211	134	30	3	1
55 - 59	839	--	3	95	203	216	200	77	43	2
60 - 64	658	--	1	61	114	157	153	107	55	10
65 - 69	273	--	--	39	65	52	44	38	26	9
70 & over	123	--	--	11	18	22	14	11	21	26
Total	3,938	--	11	836	1,172	872	587	264	148	48

Section 3: Supplemental Information

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	--	--	--	--	--	--	--	--	--	--
25 - 29	115	9	105	1	--	--	--	--	--	--
30 - 34	419	8	369	42	--	--	--	--	--	--
35 - 39	604	8	474	122	--	--	--	--	--	--
40 - 44	555	6	427	122	--	--	--	--	--	--
45 - 49	405	3	290	112	--	--	--	--	--	--
50 - 54	318	1	238	79	--	--	--	--	--	--
55 - 59	212	--	152	60	--	--	--	--	--	--
60 - 64	188	2	138	48	--	--	--	--	--	--
65 - 69	85	1	58	26	--	--	--	--	--	--
70 & over	29	--	16	13	--	--	--	--	--	--
Total	2,930	38	2,267	625	--	--	--	--	--	--

Section 3: Supplemental Information

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	15	--	1	14	--	--	--	--	--	--
35 - 39	93	--	--	53	39	1	--	--	--	--
40 - 44	182	--	2	59	82	37	2	--	--	--
45 - 49	162	--	3	36	61	43	18	1	--	--
50 - 54	266	--	--	37	67	66	61	33	2	--
55 - 59	312	--	2	41	72	70	53	36	32	6
60 - 64	289	--	--	39	66	66	54	37	19	8
65 - 69	97	--	--	19	25	23	8	8	6	8
70 & over	19	--	--	3	8	1	6	--	1	--
Total	1,435	--	8	301	420	307	202	115	60	22

Section 3: Supplemental Information

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	9	--	9	--	--	--	--	--	--	--
25 - 29	90	5	85	--	--	--	--	--	--	--
30 - 34	214	6	182	26	--	--	--	--	--	--
35 - 39	201	4	153	44	--	--	--	--	--	--
40 - 44	162	1	131	30	--	--	--	--	--	--
45 - 49	125	--	100	25	--	--	--	--	--	--
50 - 54	134	2	99	33	--	--	--	--	--	--
55 - 59	121	--	99	22	--	--	--	--	--	--
60 - 64	103	2	72	29	--	--	--	--	--	--
65 - 69	40	--	35	5	--	--	--	--	--	--
70 & over	7	--	4	3	--	--	--	--	--	--
Total	1,206	20	969	217	--	--	--	--	--	--

Section 3: Supplemental Information

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

Year Ended September 30, 2024 versus Year Ended September 30, 2023

Item	Year Ended 2024	Year Ended 2023
Net assets at market value at the beginning of the year	\$4,193,500,773	\$4,151,216,937
Contribution and other income:		
• Employer contributions	\$165,142,528	\$137,742,403
• Employee contributions	14,063,169	13,900,130
• Total contribution income	\$179,205,697	\$151,642,533
Investment income:		
• Interest, dividends, and other income	49,492,389	\$30,556,998
• Net gain/(loss) from sales of investments	343,823,200	127,844,371
• Unrealized appreciation/(depreciation)	231,572,068	55,896,047
• Expenses	-7,312,111	-14,061,945
• Net investment income	\$617,575,545	\$200,235,471
• Total income available for benefits	\$796,781,242	\$351,878,004
Less disbursements:		
• Benefit payments	-386,683,939	-309,594,168
• Net benefit payments and administrative expenses	-\$386,683,939	-\$309,594,168
Change in market value of assets	\$410,097,303	\$42,283,836
Net assets at market value at the end of the year	\$4,603,598,076	\$4,193,500,773

Section 3: Supplemental Information

Exhibit D: Table of amortization bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment ¹	Years Remaining	Outstanding Balance
Initial Liability	10/01/2021	20	\$805,496,269	\$73,697,568	17	\$742,328,594
Change in Assumptions	10/01/2021	20	231,060,849	21,140,536	17	212,940,868
Change in Methodology	10/01/2022	19	97,072,052	9,103,511	17	91,696,324
Actuarial Loss	10/01/2022	15	90,600,047	9,641,835	13	83,136,879
Actuarial Loss	10/01/2023	15	123,570,620	13,150,628	14	118,653,174
Actuarial Gain	10/01/2024	25	-15,209,802	-1,265,070	25	-15,209,802
Total				\$125,469,008		\$1,233,546,037

¹ Reflects adjustment for monthly payments

Section 3: Supplemental Information

Exhibit E: Definition of pension terms

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

Term	Definition
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: 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>

Section 3: Supplemental Information

Term	Definition
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 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.

Section 3: Supplemental Information

Term	Definition
Assumptions or actuarial assumptions	<p>The estimates upon which the cost of the Plan is calculated, including:</p> <p>Investment return — the rate of investment yield that the Plan will earn over the long-term future;</p> <p>Mortality rates — the rate or probability of death at a given age for employees and retirees;</p> <p>Retirement rates — the rate or probability of retirement at a given age or service;</p> <p>Disability rates — the rate or probability of disability retirement at a given age;</p> <p>Withdrawal rates — 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>Salary increase rates — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.</p>
Closed amortization period	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.
Decrements	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined contribution plan	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.
Employer normal cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience study	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.
Funded ratio	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.
Investment return	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.

Section 3: Supplemental Information

Term	Definition
Normal cost	The portion of the Actuarial Present Value of Future Benefits and expenses, if applicable, 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

Section 4: Actuarial Valuation Basis

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

Section 4: Actuarial Valuation Basis

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

Age	Male Mortality Rates	Female Mortality Rates	Male Expected Years of Life Remaining	Female Expected Years of Life Remaining
60	0.35%	0.31%	28.2	29.8
70	0.94%	0.70%	18.9	20.2
80	3.26%	2.64%	10.8	11.8
90	11.75%	9.91%	5.3	5.8

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

Age	Male Mortality Rates	Female Mortality Rates	Male Expected Years of Life Remaining	Female Expected Years of Life Remaining
60	0.78%	0.45%	24.2	27.7
70	1.75%	1.05%	15.6	18.5
80	5.28%	3.43%	8.6	10.6
90	16.97%	12.27%	4.0	5.1

Section 4: Actuarial Valuation Basis

Termination rates before retirement

Years of Service	Academic & Administrative Withdrawal Rate ¹ (%)	Clerical & Service Withdrawal Rate ¹ (%)
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

Section 4: Actuarial Valuation Basis

Retirement rates

Age	Academic & Administrative Under 25 Years of Service	Academic & Administrative Over 25 Years of Service	Clerical & Service Under 25 Years of Service	Clerical & 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, 2024 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.

Section 4: Actuarial Valuation Basis

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 and normal cost

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.

University of Missouri Retirement, Disability, and Death Benefit Plan Actuarial Valuation as of October 1, 2024

Section 4: Actuarial Valuation Basis

Changes in actuarial assumptions

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

Section 4: Actuarial Valuation Basis

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.

Section 4: Actuarial Valuation Basis

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

Section 4: Actuarial Valuation Basis

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 based on years of service that member would have had if they remained in employment until normal retirement date 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.

Section 4: Actuarial Valuation Basis

Changes in plan provisions

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

We have reflected the Plan's actual experience for the lump sum buy-out window offered to inactive vested participants in the prior plan year in this valuation.

Section 4: Actuarial Valuation Basis

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

Jeff Layman

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
Cover Page

Meeting Date	April 17, 2025
Action Title	Intercollegiate Athletics Annual Report, S&T
Action Type	Information Item

Summary

This is a routine update on athletics at S&T. This is not an action item for the Board.

Table of Contents

- 1. Executive Summary [OPEN – ASARED – INFO – 1-1]**
 - *Provides background on S&T's Intercollegiate Athletics for the 2023-2024 academic year. Athletic Director Melissa Ringhausen will present S&T's data.*
- 2. Intercollegiate Athletics Report – S&T PowerPoint [OPEN – ASARED – INFO – 1-2-13]**

Executive Summary
Intercollegiate Athletics Annual Report, S&T

Annual athletic reports are required by the Collected Rules and Regulations (CRRs). Pursuant to CRR 270.060 (Intercollegiate Athletics):

“The Chancellor of each respective campus shall provide the President no later than October 31 of each year an annual report of activities concerning the Department of Intercollegiate Athletics [...] The President will provide copies of these reports to the Board of Curators.”

The attached slides provide information on the 2023-2024 academic year for Missouri S&T.

In addition to the reporting requirements described above, each athletic director is invited to the Board meeting held at their respective campus to provide an overall update on the status of their athletic programs.

Dr. Brandon Martin, Vice Chancellor and Director of Athletics at UMKC, provided an update at the Board meeting in September. Dr. Holly Sheilley, Executive Director of Athletics at UMSL, provided an update at the Board meeting in November. Melissa Ringhausen, Director of Athletics at S&T, will provide an update at the April 2025 Board meeting.



Board of Curators Meeting

Melissa Ringhausen, Director of Athletics

2023-24

#MinerNation #MinerPride

S&T ATHLETIC OVERVIEW

FALL OF 2023

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

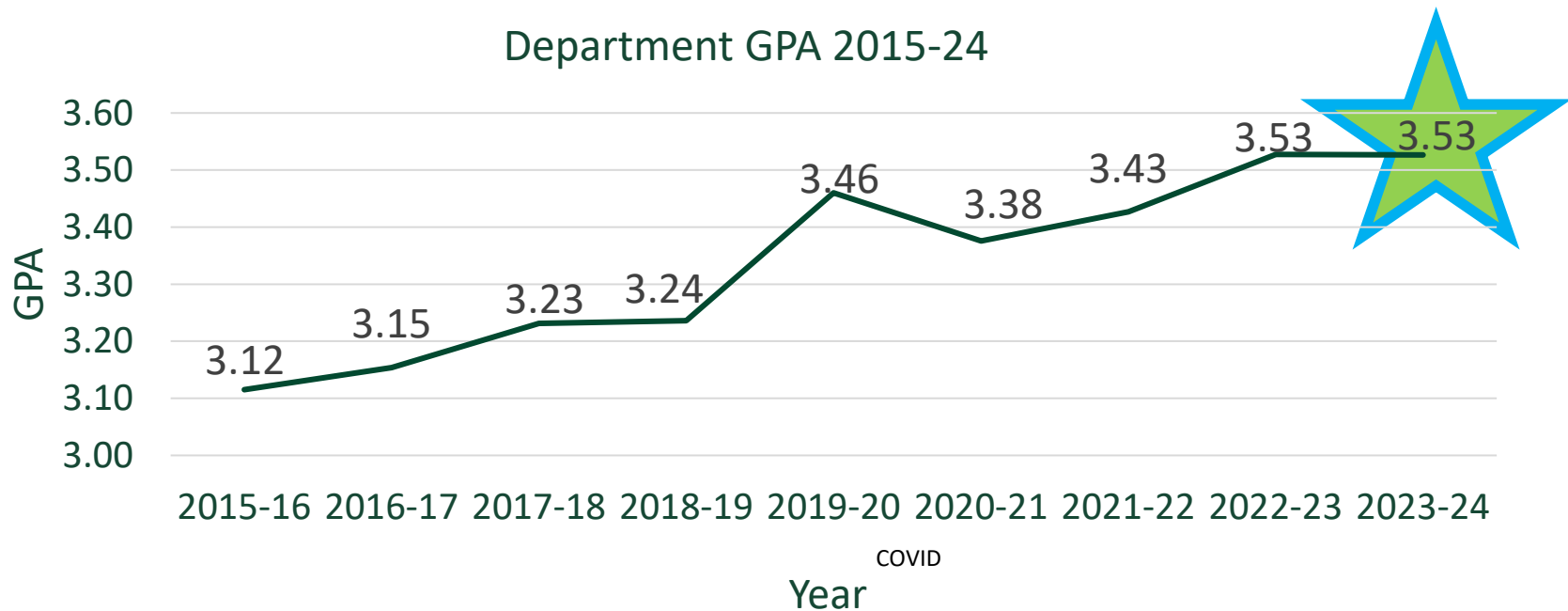
ACADEMIC PORTRAIT

Grade Point Average (GPA)	Women's Sports	Men's Sports	All Sports
2023-24	3.58	3.47	3.53
2022-23	3.66	3.40	3.53

*All teams had above a 3.00 GPA

Federal Graduation Rates (FGR) Academic Success Rate (ASR)	All Students (FGR)	Student Athletes (FGR)	Student Athletes (ASR)
2024	64%	73%	80%
2023	64%	72%	78%

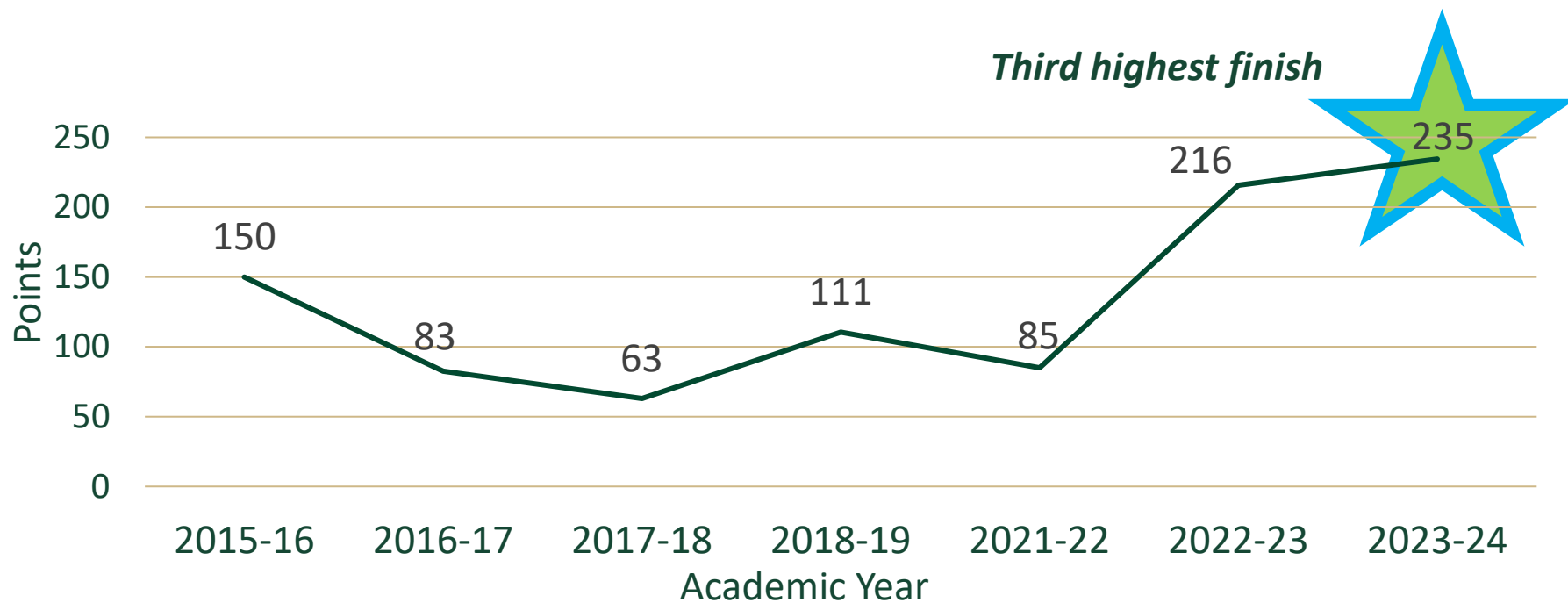
ANNUAL GPA TREND



ACADEMIC AWARDS

Great Lakes Valley Conference (GLVC)	2023-24	2022-23	2021-22
GLVC Academic All-Conference (GPA 3.3+)	294	269	269
GLVC Brother Gaffney Distinguished Scholar Award (4.0 Yearly GPA)	76	72	69
GLVC COP Academic Excellence Award (Exhaust Eligibility with GPA 3.5+)	45	48	32
GLVC Academic Team Award (Team GPA 3.3+)	15	13	9
Academic All-District Selection	45	38	9
CoSIDA Academic All-American	7	5	5

NCAA LEARFIELD STANDINGS



No data reported in 2019-20 and 2020-21 due to pandemic

ATHLETIC AWARDS

GLVC Honors	2023-24	2022-23	2021-22
GLVC All-Conference Student-Athletes	69	72	50
GLVC Player of the Week Honors	35	23	18
GLVC Individual Championships	12	12	7
GLVC Team Championships	2	2	0
GLVC Freshman of the Year	1	3	1
GLVC Overall Team Sportsmanship Award	2	6	0

Regionals & NCAA Honors	2023-24	2022-23	2021-22
All-Region Selections	14	12	--
Individual NCAA Championship Appearances	12	18	16
NCAA All-America Honors	10	16	15

GLVC HIGHLIGHTS FROM 2023-24

GLVC Softball Tournament Champions



GLVC Outdoor Track & Field Champions



NATIONAL HIGHLIGHTS FROM 2023-24

Women's Volleyball

NCAA Midwest Regional qualifier
Third time in history of the program



Men's Golf

NCAA Regional qualifier



Swimming

NCAA Swimming Championships – 12th
First-Team All-America Honors - 6



STUDENT-ATHLETE EXPERIENCE

The Miner experience is more than just playing a sport

- Game day experience
- Engage student-athletes with alumni
- Provide unique opportunities for student-athletes to connect with others
- Celebrate academic & athletic successes
- Connect with the community through partnerships and community service



SUMMARY

Student-athletes excelled in their academic performance

Overall, teams vastly improved in their athletic performances

Built stronger relationships with alumni and in the community

Continued to enhance the student-athlete experience with unique programs

QUESTIONS?



THANK YOU!

Meeting Date	April 17, 2025
Action Title	New Degree Program, PhD Human Development and Family Science, MU
Action Type	Action Item

Summary

This is a request for the approval of a new Doctor of Philosophy degree in Human Development and Family Science to be offered at the University of Missouri-Columbia.

Table of Contents

1. Executive Summary [OPEN – ASARED – 1-1]

- *Provides a high-level overview of the University of Missouri-Columbia's (MU) proposed PhD in Human Development and Family Science.*

2. Recommended Action & Roll Call Vote [OPEN – ASARED – 1-2]

- *The formal approval of the recommendation for a new PhD in Human Development and Family Science at the University of Missouri-Columbia.*

Appendix

1. MU PhD Human Development and Family Science Proposal [OPEN – ASARED – 1-3-29]

- *Proposal contains specific details including:*
 - *University Mission and Program Analysis*
 - *Business Related Criteria and Justification*
 - *Institutional Capacity*
 - *Program Characteristics*
 - *Appendices*

Executive Summary
New Degree Program, Doctor of Philosophy in
Human Development and Family Science
University of Missouri-Columbia

The Department of Human Development and Family Science (HDFS) has accepted, trained, graduated and placed doctoral students since the early 1970s. The program currently exists – including all courses needed to offer the program – as one of three emphasis areas under an existing Human Environmental Sciences (HES) PhD program. The current emphasis area prepares students for careers in research, college or university teaching, or leadership positions in public and private human service institutions.

With the dissolution of the College of Human Environmental Sciences, the Department of Human Development and Family Science was moved to the College of Education and Human Development (CEHD). The other two departments contributing to the HES PhD program – Architectural Studies and Textile and Apparel Management – recently moved to the College of Arts and Science, making this an ideal time to separate the proposed program for the HES program into a standalone program more easily identified by prospective students as well as peers from industry and other institutions of higher education.

The existing program has had a proven track record, spanning decades, of successfully preparing students in this discipline, with 97% of graduates employed at the time of graduation in academic, research, government, or related careers. Enabling the creation of a standalone program will require minimal resources – the curriculum is already entirely in place under the HES PhD program – while strengthening the program’s identify and reach.

No. 1

Recommended Action – PhD in Human Development and Family Science, University of Missouri-Columbia

It was recommended and 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 University of Missouri-Columbia be authorized to submit the attached proposal for a PhD in Human Development and Family Science to the Coordinating Board for Higher Education for approval.

Roll call vote of the Committee:	YES	NO
----------------------------------	-----	----

Curator Blitz
Curator Layman
Curator Sinquefield
Curator Williams

The motion _____.

Roll call vote of the Board:	YES	NO
------------------------------	-----	----

Curator Blitz
Curator Fry
Curator Graves
Curator Krewson
Curator Layman
Curator Luetkemeyer
Curator Raines
Curator Sinquefield
Curator Williams

The motion _____.

Meeting Date	April 17, 2025
Action Title	New Degree Program, MS Geospatial Engineering, S&T
Action Type	Action Item

Summary

This is a request for the approval of a new Master of Science in Geospatial Engineering to be offered at the Missouri University of Science and Technology.

Table of Contents

1. Executive Summary [OPEN – ASARED – 2-1]

- *Provides a high-level overview of the Missouri University of Science and Technology's (S&T) proposed MS in Geospatial Engineering.*

2. Recommended Action & Roll Call Vote [OPEN – ASARED – 2-2]

- *The formal approval of the recommendation for a new MS in Geospatial Engineering at the Missouri University of Science and Technology.*

Appendix

1. S&T MS Geospatial Engineering Proposal [OPEN – ASARED – 2-3-27]

- *Proposal contains specific details including:*
 - *University Mission and Program Analysis*
 - *Business Related Criteria and Justification*
 - *Institutional Capacity*
 - *Program Characteristics*
 - *Appendices*

Executive Summary

New Degree Program, Master of Science in Geospatial Engineering

Missouri University of Science and Technology

The proposed Master of Science (MS) degree in Geospatial Engineering at Missouri S&T is designed for students with bachelor's degrees in various technical fields. The program aims to equip students with knowledge and skills in geospatial technology, preparing them to apply these technologies in their field of interest or work. By incorporating geospatial science into engineering and science applications, the program will open new career pathways for students. The curriculum focuses on fundamental geospatial technologies, including Positioning, Navigation, and Timing (PNT), geodesy, remote sensing, and Global Navigation Satellite Systems (GNSS), emphasizing both foundational and applied aspects of geospatial engineering.

Importance of the Program

The establishment of a Geospatial Engineering MS program aligns with Missouri S&T's mission and strategic goals, supporting the growth of critical technology sectors within the state of Missouri and the nation. Geospatial technologies play a key role in diverse applications that are critical to Missouri's economy, such as sustainable agriculture, critical mineral identification, and transportation. However, many geospatial technologies lag those of other countries, so advancing geospatial education at Missouri S&T will set up Missouri as a national leader in this area and strengthen the university's reputation. The program positions Missouri S&T as a potential partner for federal agencies and industry leaders, enhancing the university's impact at the state and national levels.

Evidence of Employer and Student Demand

Demand for geospatial professionals is growing significantly. Key industry players and federal agencies needing geospatial expertise in Missouri include the National Geospatial-Intelligence Agency (NGA), the Missouri Department of Transportation and its partner, the National Geodetic Survey (NGS), and the Department of Defense (DOD). Several of these agencies are seeking partnerships with universities to address the shortage of geospatial engineers in the U.S. Market analysis supports this demand, showing that the global geospatial analytics market was valued at USD 85.77 billion in 2022, with an expected compound annual growth rate (CAGR) of 12.6% from 2023 to 2030. This growth, projected to accelerate post-2025, underscores the expanding role of geospatial technologies across multiple industries, driven by policy reforms, digital innovation, and increasing demands for location-based services. In Missouri, Leidos and Maxar have partnered with St. Louis-based Gateway Global American Youth and Business Alliance Academies Inc. (GGAYBA) to prepare students for entry-level positions in the geospatial industry through apprenticeships and internship positions. NGA and other geospatial industries in St. Louis alone have a total economic impact of nearly \$5 billion (Missouri Partnership, <https://www.missouripartnership.com/major-industries/geospatial/>).

Economic Feasibility

The economic feasibility of the program is reinforced by forecasted student and employer demand in the growing geospatial market, which is anticipated to reach USD 1.44 trillion by 2030. As industries increasingly rely on geospatial data for strategic decisions, the need for trained professionals will only grow, making the program a sound investment for Missouri S&T. The program's establishment will also attract funding and partnerships, providing financial stability and growth opportunities. Missouri S&T is well positioned to start the program with existing courses and faculty expertise, so initial financial investment is modest. Expanding geospatial education now will capitalize on current trends and position Missouri S&T and the UM system as a leader in geospatial research and workforce development.

No. 2

Recommended Action – MS in Geospatial Engineering, Missouri University of Science and Technology

It was recommended Chancellor Dehghani, endorsed by President 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 be authorized to submit the attached proposal for a MS in Geospatial Engineering to the Coordinating Board for Higher Education for approval.

Roll call vote of the Committee:	YES	NO
----------------------------------	-----	----

Curator Blitz

Curator Layman

Curator Sinquefield

Curator Williams

The motion _____.

Roll call vote of Board:	YES	NO
--------------------------	-----	----

Curator Blitz

Curator Fry

Curator Graves

Curator Krewson

Curator Layman

Curator Luetkemeyer

Curator Raines

Curator Sinquefield

Curator Williams

The motion _____.

HEALTH AFFAIRS COMMITTEE

Michael A. Williams, Chair
Ronald G. Ashworth (non-curator)
Philip Burger (non-curator)
Daniel P. Devers (non-curator)
Robert W. Fry
Jeff L. Layman
John M. Raines
Dr. James Whitaker (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.

UM Board of Curators

April 17, 2025

Richard J. Barohn, MD

Executive Vice Chancellor for Health Affairs

Hugh E. and Sarah D. Stephenson Dean of the MU School of Medicine



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OPEN - HEALTH AFF - INFO 1-1

Agenda

- **School of Medicine Update**
- **NextGen Update**
- **MU Health Care Update**

MU SCHOOL OF MEDICINE UPDATE

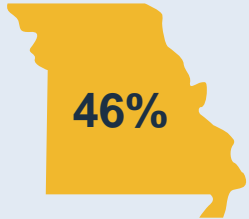
Celebrating the Class of 2025 at Match Day



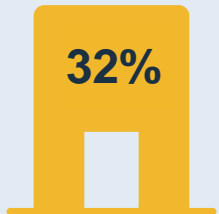
99%
MATCH RATE!



31%
will stay at MU
for their residency



will remain
in Missouri



32%
selected
residencies in
primary care
fields



Mizzou Alumni Association Award Recipient



Rebecka Ernst, Mizzou 18 Award Winner

- Fourth year medical student
- Bryant Scholar
- Springfield Clinical Campus student
- From Savannah, MO
- Matching into OBGYN for residency



Rebecka Ernst, M4

State Funding for Additional Residency Positions



State Representative Kent Haden's bill created **20** new Missouri primary care physician residency slots.

New MU Residency positions:

- 2 additional **family medicine** residents in 2024, 2025, 2026
- 1 additional **pediatrics** resident in 2025, 2026, 2027
- 1 additional **OBGYN** resident in 2025, 2026, 2027, 2028



*Representative Kent Haden
District 43 (Audrain and Callaway Counties)*



MU is the coordinating center for the **Greater Plains Collaborative**, now under the direction of Dr. Jim McClay.

- Links the electronic medical record from **13** leading medical centers in **eight states** to enable researchers to perform leading edge research and improve healthcare delivery to patients
- Funded by a four-year, **\$13.5 million** Patient-Centered Outcomes Research Institute (PCORI) Program Award



*Dr. Jim McClay
Chief Research Informatics
Officer*

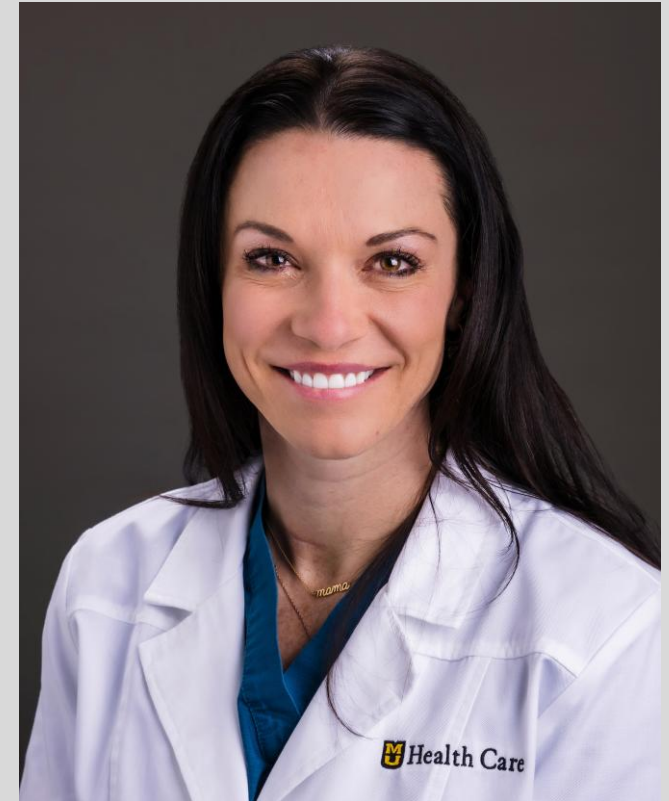
Study: Heart Disease During Pregnancy



MU Health Care initiated the nationwide **Heart Outcomes in Pregnancy Expectations (HOPE)** study of pregnant women with heart disease.

Goal is to better understand how preventative care influences outcomes of mothers and babies

- More than **30 institutions** will track **1,000 pregnant women** with heart disease **over 4 years**
- **\$8.3 million** grant from National Heart, Lung and Blood Institute
- Collaboration with UMKC's Dr. John Spertus



Dr. Karen Florio, principal investigator

Physician and Employee Well-being Survey



Oct. 7 – Nov. 8, 2024

- ✓ Completions: 3,804 (**47%**)
 - Exceeded American Medical Association goal by **17%**
- ✓ Scored higher than national average in **all** key metrics

Celebrations

- Job satisfaction
- Values alignment with leadership
- Team efficiency

Opportunities

- Practice efficiencies
- Work stress & frustrations
- Burnout
- Work atmosphere
- Mental health resources

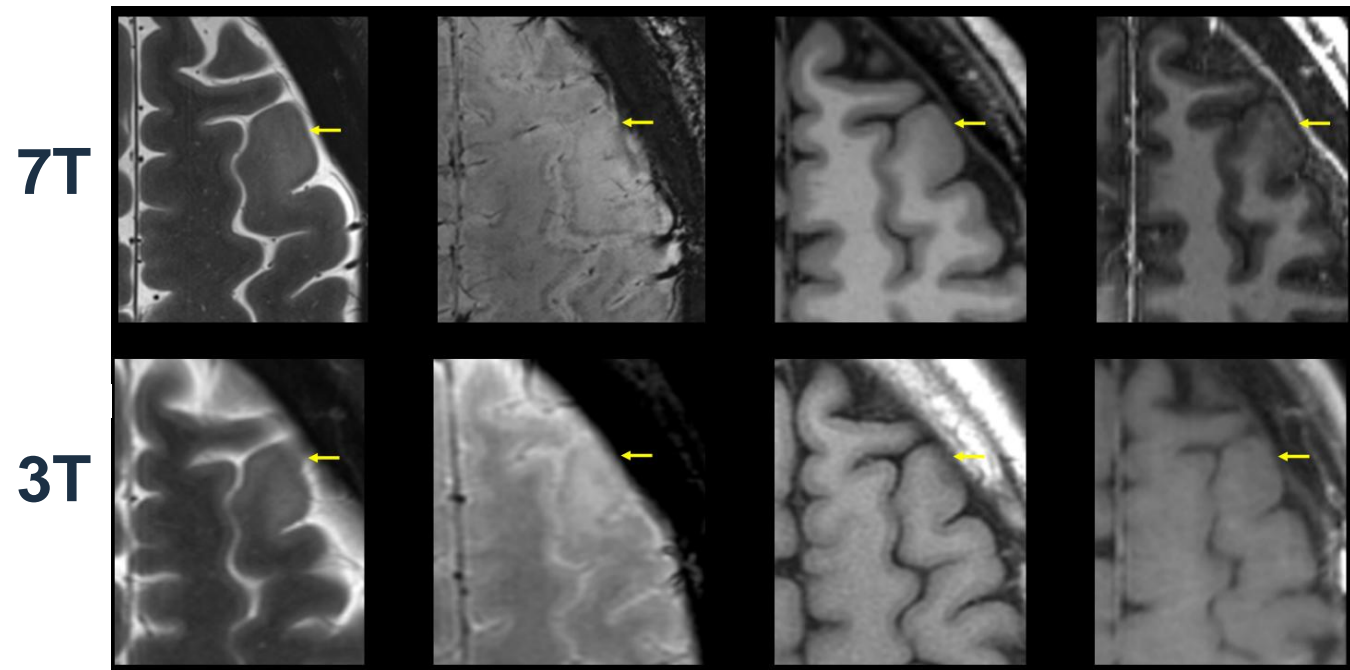
NEXTGEN PRECISION HEALTH UPDATE



American College of Radiology “Gold standard in medical imaging”

- Fewer than 10 7T MRI scanners in North America are used in clinical practice
- Accreditation ensures we are meeting and maintaining quality and safety standards for patient care
- Partnership with Siemens Healthineers

Brain glioma image comparison



MU HEALTH CARE UPDATE

New Clinical Communication Tools



Tiger Connect

- Designed to make staying connected easier and more efficient
- Same features as miSecure plus additional capabilities to enhance communication

Nuance DAX Copilot

- AI-powered, voice-enabled solution that automatically generates a note for provider review immediately after a patient visit

Oracle Clinical Digital Assistant

- AI-powered, voice recognition solution that records key elements of the provider-patient encounter, interprets information and accurately inputs a draft note into the EHR

FYTD 25 (February) Financials - Consolidated



In Millions	FY25 Actual Jul-Feb	FY25 Budget Jul-Feb	Var		FY24 Jul-Feb	FY24 Actual Full Year
Gross Revenue	\$4,528.8	\$4,332.8	\$196.0		\$3,961.2	\$6,211.3
<i>Collection Rate</i>	<i>24.3%</i>	<i>25.1%</i>			<i>25.6%</i>	<i>24.9%</i>
NET REVENUE	\$1,272.8	\$1,232.1	\$40.7		\$1,163.2	\$1,774.1
Salaries & Benefits	\$515.0	\$513.5	(\$1.6)		\$512.2	\$779.4
Supplies (less Hospital Drugs)	\$245.5	\$243.1	(\$2.3)		\$227.5	\$348.7
Hospital Drugs	\$102.5	\$97.4	(\$5.1)		\$96.9	\$141.4
Other Expenses	\$360.6	\$347.9	(\$12.7)		\$326.6	\$489.5
TOTAL EXPENSE	\$1,223.6	\$1,201.9	(\$21.7)		\$1,163.3	\$1,759.0
Operating Gain/(Loss)	\$49.2	\$30.1	\$19.1		(\$0.1)	\$15.1
Financial Metrics:						
<i>Operating Margin</i>	<i>3.9%</i>	<i>2.4%</i>			<i>0.0%</i>	<i>0.9%</i>
<i>EBIDA Margin</i>	<i>10.4%</i>	<i>9.3%</i>			<i>6.8%</i>	<i>7.7%</i>
<i>Days Cash on Hand</i>	<i>127</i>	<i>120</i>			<i>121</i>	<i>120</i>
<i>Cash to Total Debt</i>	<i>104.8%</i>	<i>100.0%</i>			<i>93.1%</i>	<i>92.8%</i>
<i>Debt Service Ratio</i>	<i>4.6</i>	<i>4.6</i>			<i>2.1</i>	<i>4.3</i>

Note: Beginning FY25, interest expense is being reported as operating expense, which impacts total expense and operating gain/(loss) reported in prior periods.

AUDIT, COMPLIANCE AND ETHICS COMMITTEE

John M. Raines, Chair
Lyda Krewson
Blaine Luetkemeyer
Jeanne C. Sinquefield

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.

Meeting Date	April 17, 2025
Information Title	Ethics, Compliance, and Audit Services April 2025 Status Report, UM
Information Type	Review of FY2025 Ethics, Compliance, and Audit Services Annual Plans

Executive Summary

Progress is being made in all aspects of the scope and responsibilities of Ethics, Compliance, and Audit Services (ECAS). Internal Audit has completed eight projects so far in FY25. In addition, since February, eight investigations have been completed and six are currently in progress. Compliance completed five FY25 projects. Privacy has completed 24 in FY25.

Research Security and Compliance (Export Controls and Sanctions) was moved into ECAS. Most management actions related to the reorganization are complete; the remainder will be completed by July 2025. A new Director of Research Compliance starts at the end of April 2025.

Table of Contents

1. Executive Summary

- *Provides a high-level overview of the status of the ECAS annual plan (p. 1).*

2. Ethics and Compliance Presentation [OPEN – ACE – INFO – 1 – 1-19]

3. Internal Audit Narrative [OPEN – ACE – INFO – 1 – 20-26]

- *Annual Plan Status (p.20-21)*
- *Audits in Progress (p. 22)*
- *Executive Summaries of Completed Audits (p. 23-24)*
- *Management Action Plan Summary (p. 25-26)*

4. Ethics and Compliance Narrative [OPEN – ACE – INFO – 1 - 27-30]

- *Compliance Foundations (p. 27-28)*
- *Compliance High-Risk Area Support (p. 29-30)*

5. Research Security Narrative [OPEN – ACE – INFO – 1- 31]

- *Research Security and Compliance Focus Areas (p.31)*

6. Privacy Narrative [OPEN – ACE – INFO – 1 - 32]

- *Preventive Privacy Work, HIPAA Update, and Consent Management (p. 32)*

University of Missouri System Board of Curators

April 17, 2025

Audit, Compliance and Ethics Committee

Ethics, Audit, and Compliance (ECAS)

Quarterly Report

UM System



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University of Missouri System

April 17, 2025

OPEN – ACE – INFO – 1 - 1

Internal Audit



UMKC

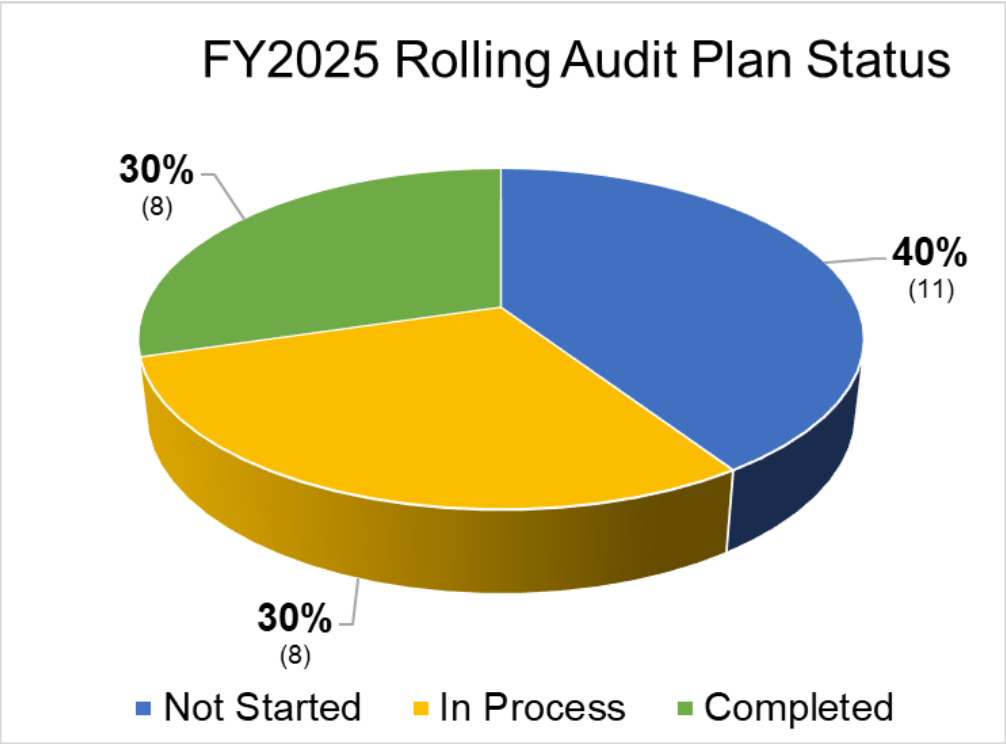
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University of Missouri System

OPEN – ACE – INFO – 1 - 2

Summary of Internal Audit Activity



Since February 2025

Status

Internal Audits

2 completed;
8 in progress;
11 not started

Audit Investigations

8 completed;
6 in progress

Bi-annual Follow-up

See attached



Executive Summaries

Completed Audits



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University of Missouri System

OPEN – ACE – INFO – 1 - 4

MUHC, Price Transparency & No Surprises Act Audits

Report Risk Rating:



Issue

Enhancement to the overall effective Good Faith Estimates (GFEs) process will strengthen compliance with CMS regulations

Summary Observation

- No exceptions were noted for Price Transparency requirements
- Opportunities to improve assigning ownership of GFEs for ambulatory clinics
- Need for re-education on GFE guidelines for some staff involved in generating GFEs

Management Action

- Management will provide re-education for staff preparing GFEs, and update and implement a periodic review process for the unit directory list to ensure all locations are assigned to an owner. **Due Date:** July 1, 2025



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Audit Follow-up

Management Action Plan Status Report



UMKC

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UMSL

University of Missouri System

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, 2024 – February 28, 2025	#
Action Items Due	56
Interim Progress Updates Due	1
Action Items Completed	49
Action Items Extended	7
Audits Closed	4

*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

- UM Compliance has been consulting with a broad group of operational stakeholders to address underlying decentralized process issues, evaluate departmental impacts of proposed changes, and determine the actions necessary to ensure the successful completion of this item. Due to the complexity of implementing changes to core processes, additional time is needed to complete this work. All operational components are anticipated to be complete and in place by January 31, 2025, followed by approval and publication of a formal policy.
- **Anticipated Due Date:** January 31, 2025.



Management Action Plan: Items Due

Action Items Extended

UMKC Export Controls & Sanctions – Medium Risk

- One action item was extended to allow time for implementation of a new procedure. New due date July 1, 2025.

S&T Export Controls & Sanctions – High Risk

- Five action items were extended to allow time for policy and procedure updates. All action items will be completed by December 31, 2025

MUHC Controlled Substances – High Risk

- One action item was extended to allow time for multiple stakeholders to address process changes. New due date September 15, 2025.



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

Ethics and Compliance



UMKC

MISSOURI
S&T

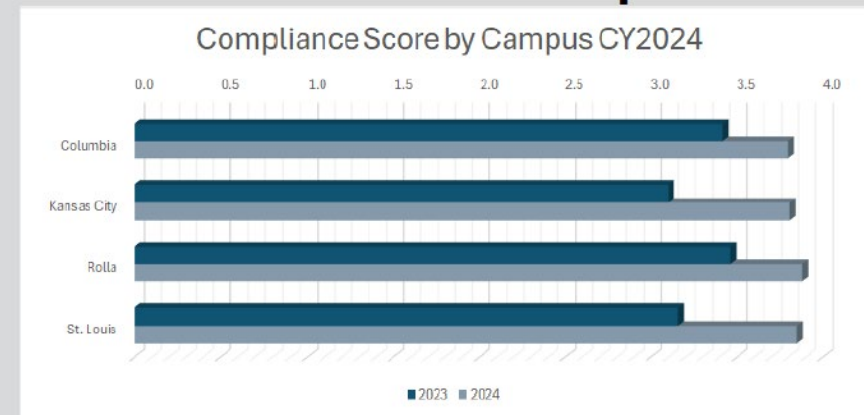
UMSL

University of Missouri System

Youth Protection Program

- Participant registry deployed
- Documentation reviews initiated in calendar year 2024
- All policy elements have surpassed a 90% compliance rate

Year over Year Comparison



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Stop Campus Hazing Act

- Coordinating campus-wide efforts to ensure compliance with the Stop Campus Hazing Act
- Integrating hazing prevention content into annual training for faculty, staff and Campus Security Authorities



Research Security and Compliance



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University of Missouri System

OPEN – ACE – INFO – 1 - 13

Staffing

- A Export Controls Analyst was recently hired at MU, putting them at full staff.
- Candidates have been identified to fill both the Director position at System and the Research Security Officer position at Missouri S&T.



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Focus Areas

- CHIPS and Science Act required training on track for May deployment
- Most management actions related to the reorganization are complete; the remainder will be completed by July 2025
- Director of Research Security and Compliance (System) and Research Security Officer (Missouri S&T) are in final stages of interviews



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Privacy



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OPEN – ACE – INFO – 1 - 16

Privacy Preventative Work

- Privacy Consulting Engagements FY25

Type	Engagements
New Venture	6
Software	15
Process/Policy	8
Prevention/Remediation	4
Total	33

➤ 38% Increase over FY24



UMKC

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Privacy Initiative Updates

- Consent Management Pilot in progress with S&T and Mizzou websites
 - Full implementation projected for early FY26
- Spring semester campus visits completed
 - Continue identifying campus privacy principals
 - Assess training needs
- Privacy awareness & training presentations
 - UMSL's All-Staff Meeting
 - S&T's March Staff Council



UMKC

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S&T

UMSL

University of Missouri System



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

Ethics, Compliance, and Audit Services (ECAS) Quarterly Report
UM System
April 17, 2025

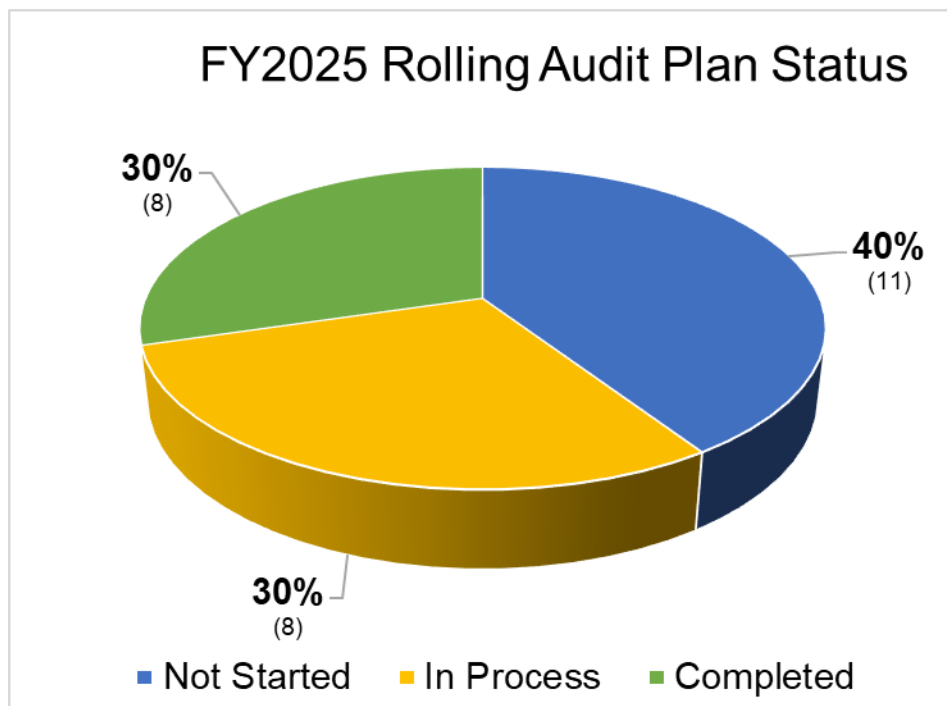
INTERNAL AUDIT

Status of the FY2025 Rolling Audit Plan:

Audit/Consulting:

Projects completed	8
In process	8
Not started	11

The following graph represents the status of the FY2025 Audit Plan:



Internal Audit Work Completed Since February 2025

Audit/Project	Risk Rating
MUHC, No Surprises Billing Act	4
MUHC, Price Transparency	
Final verification of FY25 action plan implementation	n/a
Risk Assessment for FY26 underway	n/a

Investigations completed since last board meeting: 8**Open Investigations: 6**

Internal Audits and Consulting Engagements Currently in Process

Audit Area	Overall Objective	Status	Risk Area(s)
1. MU – Institutional Review Board – Clinical Trials	Assess processes/controls in place specifically for clinical trials. - Assurance	Fieldwork	Compliance
2. Missouri S&T – 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. - Assurance	Reporting	Information Technology
3. UMKC – Scholarships	Assessment of scholarship awards to donor restrictions and/or established criteria. - Assurance	Fieldwork	Operations
4. 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. - Assurance	Reporting	Information Technology
5. 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. - Assurance	Reporting	Information Technology
6. UMSL – Export Controls & Sanctions	Assessment of export controls and sanctions processes - Assurance	Reporting	Compliance
7. UM System – New Leave Programs	Post-implementation review to assess the implementation, administration, and management of the qualifying leave programs (short-term disability; parental leave; caregiver leave). – Advisory/Consulting	Reporting	Operations

April 18, 2024

**Internal Audit Summary Report
MUHC, Price Transparency Audit;
No Surprises Act Audit
December 2024**

Report Risk Rating:				
1	2	3	4	5

Background

The Price Transparency Final Rule (PT) became effective January 1, 2021. Under the PT, standard charges must be posted in two ways: 1. Single machine-readable digital file (MRF) containing the standard charges for all items and services provided by the hospital and 2. Display of at least 300 “shoppable services” in a consumer-friendly format.

The 2024 Price Transparency guidelines focus on standardizing the price information and making the information more accessible to consumers. Under these updated regulations, hospitals must provide MRFs that follow specific Centers for Medicare and Medicaid Services (CMS) templates and data specifications in addition to displaying links to the hospital's MRF within the organization's homepage. Noncompliance with CMS PT regulations may lead to penalties based on the number of beds at a hospital.

The No Surprises Act (NSA) protects patients covered under group and individual health insurance plans from receiving surprise medical bills when they obtain emergency services from out-of-network (OON) facilities. The NSA also applies to non-emergency services furnished by OON providers at in-network facilities and services from OON air ambulance service providers. Additionally, uninsured patients or patients who do not plan to use insurance to cover their bill are eligible to receive a Good Faith Estimate (GFE), describing what they may be charged, before they receive hospital services. Penalties for non-compliance with NSA requirements can be \$10,000 per instance.

Issues Summary

While the internal audit found effective processes and a high level of compliance with PT and for generating and reviewing GFEs, Kodiak identified minor opportunities for improvement assigning ownership of GFEs for some ambulatory clinics. Some focused re-educations on GFE guidelines for some locations involved in generating GFEs will enhance an already effective process. Additionally, Kodiak tested the University of Missouri Health System publicly available price transparency files against the 2024 Price Transparency requirements without exception.

Management Action Plan Summary

No exceptions were noted for Price Transparency requirements. Management will provide re-education for staff preparing GFEs, and update and implement a periodic review process for the unit directory list to ensure all locations are assigned to an owner.

April 18, 2024

Risk Summary

Failure to provide accurate and timely GFEs to patients risks non-compliance with federal No Surprises Act requirements and can result in substantial fines.

Due Date: July 1, 2025

Management Action Plan Status Report: Items Due

Follow-up procedures are performed twice a year to verify the implementation status of management actions for previously issued audit reports.

July 1, 2024 – February 28, 2025	#
Action Items Due	56
Interim Progress Update Due	1
Action Items Completed	49
Action Items Extended	7
Audits “Closed”	4

Action Items Extended:

UMKC Export Controls and Sanctions – Medium Risk

One action item was extended to allow time for implementation of a new procedure. New due date July 1, 2025.

S&T Export Controls and Sanctions – High Risk

Five action items were extended to allow time for policy and procedure updates. All action items will be completed by December 31, 2025.

MUHC Controlled Substances – High Risk

One action item was extended to allow time for multiple stakeholders to address process changes. New due date is September 15, 2025.

Interim Progress Update:

MUHC Organized Health Care Arrangement (OHCA) – Medium Risk **Audit Reported January 2022**

One action item remains open. UM Compliance is working with stakeholders to address process issues and evaluate impacts by January 31, 2025, with policy and procedure development to follow.

Management Action Plan Summary as of February 28, 2025

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	5	1			
	MSEP (Medical Student Education Project) Grant	Low	2	2				
	Scholarships	Medium	12		12			
	CAFNR Standard Financial Controls	Low	4	1	3			
	Export Controls and Sanctions	Medium	16	1	14		1	
UMKC	Export Controls and Sanctions	Medium	17	16			1	
MUHC	Organized Health Care Arrangement	Medium	3	2	1			
	Price Transparency & No Surprises Act	High	3		3			
	Provider Based Clinic Billing	Medium	4		4			
	Network Segregation Phase 2	High	5	5				
	OR Charge Capture	Medium	7	7				
	Controlled Substances	High	25	24			1	
S&T	Lab Safety	Medium	7	7				
	Export Controls and Sanctions	High	7	2			5	
	Construction Activities	Low	17		17			
Totals			135	72	55	0	8	0

KEY: Audits with action plans due between July 1, 2024, and Feb. 28, 2025, are highlighted in GOLD. Audits in **BOLD** font have revised due dates; **RED** are past due; **GREEN** are closed.

April 17, 2025

ETHICS AND COMPLIANCE

Compliance Foundations

The table below summarizes accomplishments since June 2024 related to building out the elements of effective compliance programs, including work in high-risk areas related to the above compliance model.

Leadership and Ethical Culture	
Socialize compliance program model to leadership at all levels; get buy-in	In Process
Identify Requirements and Assess Risk	
Pilot testing nine element compliance model in export controls	Completed
Conduct GAP analysis of Clery programs at all four campuses	In Process
Develop and implement sanctions risk assessment	In Process
Conduct compliance risk assessment supplement	In Process
Establish Compliance Organization	
Develop and implement a compliance program CRR	In Process
Compliance program governance and/or oversight structure	In Process
Standards, Policies, and Procedures¹	
Foreign Gift and Contract Reporting Policy	Completed
CHIPS and Science Act and Section 117 Foreign Income Reporting Procedures	In Process
Unpaid Appointments Policy and Procedures, formerly known as Courtesy Appointments (to include research security concerns)	In Process
Assist with the Covered Component Designation	Completed
Assist with the development of Clery Policy and associated procedures	In Process
Fraud Policy	Not Started
Non-retaliation Policy	Not Started
Any other policy/procedure gaps or revisions required because of gap analysis work and/or work with the General Counsel in establishing a compliance policy framework	Ongoing
Communicate, Promote, and Train	
Assist in the development of materials for export controls and researcher specific trainings	In Process
FY 25 Newly Developed Electronic Data Protection Training	In Process
Code of Conduct annual training	Ongoing
Visiting scholars and disclosure requirements awareness and training	Not Started

April 17, 2025

Monitor, Audit, and Report	
Assist with the implementation of the Research Security Program	Ongoing
Monitor training completion for Sanctions Compliance	Not Started
Investigate and Report	
As errors are detected, compliance will continue to work collaboratively with other subject matter experts to investigate, address, conduct a root cause analysis, and determine how best to reduce the possibility of future occurrences.	Ongoing
Enforce and Remediate	
As errors are detected, compliance will continue to work collaboratively with other subject matter experts to investigate, address, conduct a root cause analysis, and determine how best to reduce the possibility of future occurrences.	Ongoing
Evaluate and Continuously Improve	
Evaluate compliance program framework and align to Federal Sentencing Guidelines, DOJ guidance, and other best practice frameworks	Ongoing

Compliance High-Risk Area Support

One of the important roles of compliance is assisting and facilitating when new laws or regulations are put into effect, especially in high-risk areas. Compliance also helps stand up new programs and helps programs continuously improve. The table below summarizes areas where compliance has focused its efforts to support or continue to support high-risk areas since June 2024.

UM System Compliance Plan Focus Areas

Compliance Area	FY2025	Status
Research Security and Compliance (Export Controls and Sanctions)	Complete compliance program review of export controls and sanctions (started in FY2024).	Completed. Based on results, management chose to reorganize this function. Most management actions related to the reorganization are complete; the remainder will be completed by July 2025.
Clery Act	<ul style="list-style-type: none">- Clery Act GAP analysis- Identify and address gaps in identification, notification, and training of Campus Security Authorities	<ul style="list-style-type: none">- Clery gap analysis completed for UMKC, UMSL, and Missouri S&T and ready for campus reviews.- Identified GAPs within identify, notify, and train Campus Security Authorities developing new system to be deployed in PeopleSoft Fall of 2025.
Youth Protection Program (YPP)	<ul style="list-style-type: none">- Complete calendar year 2024 reports- Update and enhance the program	Youth participant registry launched with wide adoption across the system. Calendar year 2024 reports included in April 2025 Board packet.
Covered Component (HIPAA)	<ul style="list-style-type: none">- Draft and finalize covered component designation- Assist in development of compliance lifecycle for covered component security and privacy program between MUHC and UM.	Completed.

April 17, 2025

Code of Conduct	<ul style="list-style-type: none"> - Annual training with attestation (ongoing) - Awareness campaign 	Annual training changes in progress. Awareness campaign launched February 10 th with general awareness and reporting concerns materials disbursed across the system via digital boards, newsletters, and trainings.
Section 117 and CHIPS	<ul style="list-style-type: none"> - Publish Section 117 Foreign Income Reporting Policy - Implement relevant policies 	<ul style="list-style-type: none"> - Finalized policy updates and initiated socialization efforts across the System. - Collaborating with each campus to identify areas for improvement and implementing necessary changes
Stop Campus Hazing Act	<ul style="list-style-type: none"> - Coordinate campus plans to comply - Develop and deploy staff and faculty hazing training - Develop and deploy hazing training for Campus Security Authorities 	<ul style="list-style-type: none"> - Campus plans have been reviewed to ensure appropriate coverage, campus owners are being identified - Content is being added to the annual Code of Conduct training to address hazing with faculty and staff - Content is being added to the annual Campus Security Authority training, this will be deployed in April 2025

April 17, 2025

Research Security and Compliance

Progress has been made in two parts of this program—staffing and high-risk focus areas.

Staffing Almost Complete

Last fall there were four vacant positions in this important area. Since that time, an analyst has been hired at University of Missouri – Columbia. This completes their staffing goal. Two additional searches are nearing completion. Candidates has been hired to fill both the Director position at System and a strong candidate has been identified for the Research Security Officer position at Missouri S&T. The final vacancy, a Research Security Analyst at System, will be undertaken once the new director is in place.

UM System Research Security and Compliance Focus Areas

Compliance Area	FY2025	Status
CHIPS and Science Act Research Security Training – required May 2025	<ul style="list-style-type: none">- Deploy research security trainings for Department of Energy grants and contracts	<ul style="list-style-type: none">- MU and UMKC on track to implement through their Research Security Officers by May 2025- Acting Director of Research Security and Compliance working to deploy training to UMSL and Missouri S&T, anticipated launch May 2025
Hire subject matter experts	<ul style="list-style-type: none">- Director of Research Security and Compliance (System)- Research Security Officer (Missouri S&T)	<ul style="list-style-type: none">- Both positions are in the final stages of interviews to fill vacancies

April 17, 2025

PRIVACY

Preventive Privacy Work

Ad hoc consultations on various engagements are one of the major services offered by the Privacy team. This support has been invaluable in ensuring that new contracts, software acquisitions, policies, and emerging areas like AI governance are thoroughly evaluated from a privacy standpoint. In FY24, the Privacy team successfully completed 24 engagements. In the February board update, we projected a 28% increase over the previous year. We've already surpassed that target, achieving a 38% increase, with a full quarter remaining in the year.

Engagements Summary FY25

Type	Engagements
New Venture	6
Software	15
Process/Policy	8
Prevention/Remediation	4
Total	33

Privacy initiatives are progressing, with key efforts such as consent management currently underway through our pilot project with the Missouri S&T Kummer STEM Center website. A second pilot, for the Mizzou Summer Camps, will be launching soon. In addition, we are continuing to identify campus principals and assess training needs, with campus visits to Missouri S&T, UMKC, and UMSL completed this quarter. The Privacy team has also delivered privacy awareness and training through presentations at UMSL's All Staff Meeting and S&T's March Staff Council Meeting.

April 17, 2025

Youth Protection Annual Report 2024

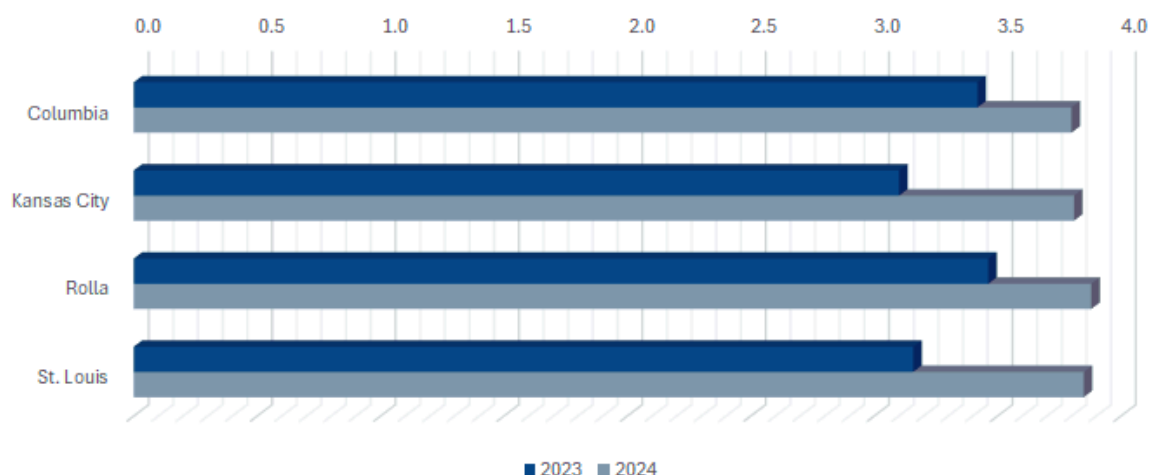
This report outlines the University of Missouri's compliance with Executive Order 210.020, the Youth Protection Policy (YPP), and provides an update on progress toward meeting the policy's prevention requirements.

Systemwide, the policy compliance score has risen from 3.37 to 3.80 on a 4.0 scale, reflecting significant improvements in adherence. Key prevention measures—including background checks, annual youth protection training, and supervision ratio compliance—have all surpassed a 90% completion rate. Each campus has made substantial progress toward achieving the 100% compliance goal.

Below is a year over year score comparison for each campus. Detail about the score calculation is included in the appendix.

Year over Year Comparison

Compliance Score by Campus CY2024



CHALLENGES

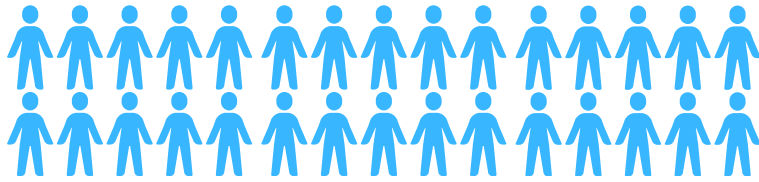
- Development and soft launch of a Participant Registry system available to Program Directors.
- Development of Program Director reports within the compliance registry.
- Expansion of Compliance Registry to manage partner youth programs.

2025 FOCUS

- Expand communications for monitoring and compliance efforts.
- Utilize the Compliance Registry system features in collaboration with Program Directors to increase compliance.
- Expand the use of Participant Registration tool for youth to increase compliance and engagement.



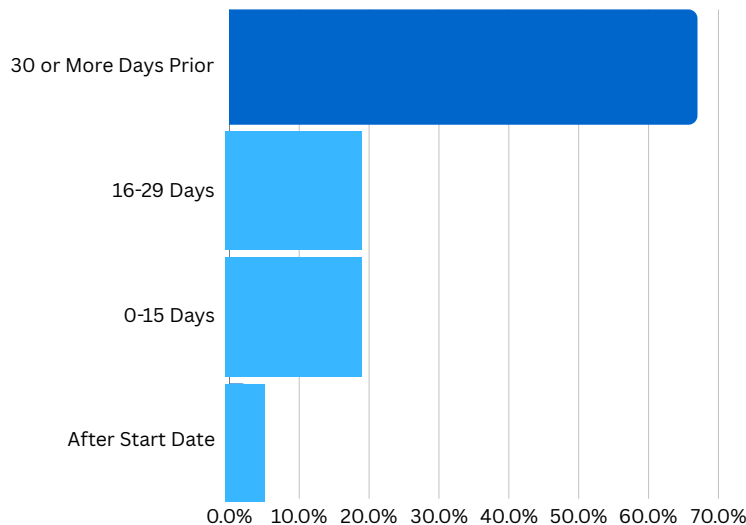
Youth Protection Program Compliance by the Numbers CY2024



12,086
Number of Youth Engaged

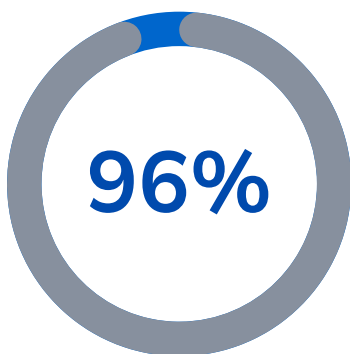


1,421
Number of Designated Adults

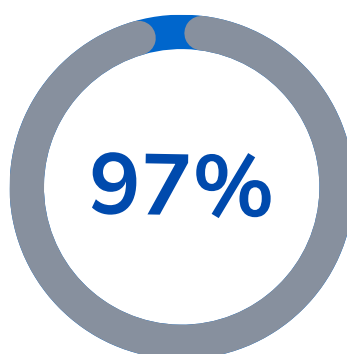


235
Number of Registered
Youth Programs

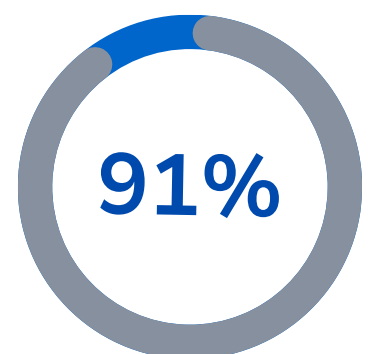
Registration Timeframes



Background Check
Completed Prior to
Program Start Date



Training Completed Prior
to Program Start Date



Supervision Ratio

Appendix:

This information only includes programs required to register as defined Youth Programs under the Youth Protection Policy (YPP), and is not representative of all youth activity on campus.

YPP tracks the completion of background check screening, including drivers license checks, 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 in advance and meet supervision guidelines for a program to be considered compliant.

CORE REQUIREMENT COMPONENTS EXPLAINED:

> Number of Youth

The 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 (supervising adults) to youth based on the youngest age group and program type. Ratio requirement detail is available on the [Youth Protection 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

The calculations are on a 4-point scale using the following calculation, each a max of 100%, for a total of 400 or 4.0:

- Percentage of people that completed the background check prior to the start date;
- Percentage of people that completed the annual YPP training prior to the start date;
- Percentage of programs that met the supervision ratio requirements using the youngest registered age group (number of adults to youth) as published on the YPP website, based on youth age grouping and day or overnight program; and
- Percentage of programs registered before the start date.

*Note: The estimated number of attendees is used for the supervision ratio IF the actual attendance is 0 but the number of youth engaged is actual attendance. For example, a program may have 0 in the actual attendance field but has an adequate supervision ratio because it was based on the estimated attendance. OPEN - ACE - INFO - 1 - 35

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 17, 2025

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 17, 2025 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
- **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 Board:	YES	NO
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Curator Blitz
Curator Fry
Curator Graves
Curator Krewson
Curator Layman
Curator Luetkemeyer
Curator Raines
Curator Sinquefield
Curator Williams

The motion _____.

April 17, 2025

BOARD OF CURATORS

APPENDIX

APRIL 17, 2025

200.010 Standard of Conduct

Amended Bd. Min. 3-20-81; Bd. Min. 8-3-90, Bd. Min 5-19-94; Bd. Min. 5-24-01, Bd. Min. 7-27-12; Bd. Min. 12-7-12; Bd. Min. 6-19-14; Revised 9-22-14 by Executive Order 41; Revised 11-3-15 by Executive Order 41; Amended 2-9-17; Bd. Min. 9-24-20; Bd. Min. 11-19-20; Amended 6-29-23; [Amended 9-7-23](#).

The Standard of Conduct exists to support the mission of the University of Missouri as an educational institution. The following expectations have been established in order to protect a specialized educational environment conducive to learning which fosters integrity, academic success, personal and professional growth, and responsible citizenship.

A student at the University assumes an obligation to behave in a manner compatible with the University's function as an educational institution and voluntarily enters into a community of high achieving scholars. A student organization recognized by the University of Missouri also assumes an obligation to behave in a manner compatible with the University's function as an educational institution. Consequently, students and student organizations must adhere to community standards in accordance with the University's mission and expectations. Students and student organizations are expected to demonstrate responsibility for their actions; respect the rights and property of others; and observe federal, state, and local laws, as well as University rules and policies.

The Standard of Conduct is implemented through Section 200.020 Rules of Procedures in Student or Student Organization Conduct Matters. It is to be implemented and interpreted in a manner that supports the University's mission as an educational institution and protects the University's educational environment.

- A. **Jurisdiction of the University of Missouri** generally shall be limited to conduct which occurs on the University of Missouri premises or at University-sponsored or University-supervised functions. However, the University may take appropriate action, including, but not limited to the imposition of sanctions under Section 200.020 and Chapter 600 of the Collected Rules and Regulations against students and student organizations for conduct occurring in other settings, including off campus, for the following purposes: (1) in order to protect the health, safety, welfare, and well-being of students, employees, and other members of the University community, or (2) if there are effects of the conduct that materially interfere with or limit any person's or entity's ability to participate in or benefit from the University's educational programs, activities, or employment. Jurisdiction of conduct occurring in other settings, including off campus, may be exercised at the discretion of the University for these stated purposes, but shall not be exercised in any way that would interfere with a student's protected constitutional rights.
- B. A **student organization** is a recognized student organization which has received official approval in accordance with Section 250.010 of the Collected Rules and Regulations. Action against student organizations under the Standard of Conduct and Rules of Procedure may be separate from action taken against individual members. A student organization will be considered responsible for conduct outlined in Section 200.010.C only when there are circumstances indicating that the organization should bear collective responsibility for the conduct, and not solely because its individual members engaged in prohibited conduct. To determine whether a student organization is responsible for conduct outlined in Section 200.010.C and the extent to which it should be sanctioned, all relevant circumstances will be considered, including but not limited to

the following:

1. Factors weighing in favor of organizational responsibility:

- a. The student organization, through its officers or practices or customs, by any means approved, condoned, allowed, encouraged, assisted or promoted such prohibited conduct;
- b. The prohibited conduct was committed, permitted, encouraged, aided, or assisted by one or more student organization executive officers or by one or more members while acting with authority on behalf of the student organization;
- c. Student organization resources, such as funds, group communications, information technology resources, or organization property or venues, were used for the prohibited conduct;
- d. The student organization, through its officers or advisers, materially interferes or interfered with any investigation or conduct proceedings related to the prohibited conduct;
- e. A policy, protocol, or official practice of the student organization caused or materially contributed to the prohibited conduct; and/or
- f. In the absence of any evidence of the factors listed in subdivisions a. – e. above, the prohibited conduct was committed, participated in, encouraged, aided, or assisted by twenty-five percent or more of the student organization's members;

2. Factors weighing against organizational responsibility:

- a. The student organization had policies, protocols, or official practices in place to prevent or deter the prohibited conduct;
- b. The student organization had provided guidance, education, or training to the individual members involved to prevent or deter the prohibited conduct;
- c. The student organization took prompt and effective action to prevent or stop the prohibited conduct or mitigate its effects once the organization or its officers became aware or reasonably should have become aware of the prohibited conduct;
- d. The student organization or its officers promptly reported the prohibited conduct to an appropriate University official and any other appropriate authorities; and/or
- e. The student organization addressed any prohibited conduct of its members through an organizational sanction or punishment.

C. **Prohibited Conduct** for which students and student organizations, when applicable, are subject to sanctions falls into the following categories:

- 1. **Academic dishonesty**, including but not limited to cheating, plagiarism, unauthorized use of artificially generated content, or sabotage. The Board of Curators recognizes that academic honesty is essential for the intellectual life of the University. Faculty members have a special obligation to expect high standards of academic honesty in all student

work. Students have a special obligation to adhere to such standards. In all cases of academic dishonesty, the instructor shall make an academic judgment about the student's grade on that work and in that course, which shall not be considered a sanction for prohibited conduct under this rule. The instructor shall, consistent with other policies, report the alleged academic dishonesty to the Primary Administrative Officer.

- a. The term **cheating** includes but is not limited to: (i) use of any unauthorized assistance in taking quizzes, tests, examinations or other assessments; (ii) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (iii) acquisition or possession without permission of tests or other academic material belonging to a member of the University faculty or staff; or (iv) knowingly providing any unauthorized assistance to another student on quizzes, tests, examinations, or other assessments.
- b. The term **plagiarism** includes, but is not limited to: (i) use by paraphrase or direct quotation of the published work of another source without properly crediting the author with footnotes, citations or bibliographical reference; (ii) unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; or (iii) unacknowledged use of original work/material that has been produced through collaboration with others without release in writing from collaborators.
- c. The term **unauthorized use of artificially generated content**, includes, but is not limited to (i) use of artificial intelligence tools or other tools that generate artificial content in taking quizzes, tests, examinations, or other assessments without permission from the instructor; (ii) submitting work for evaluation as one's own that was produced in material or substantial part through use of artificial intelligence tools or other tools that generate artificial content without permission from the instructor; (iii) using artificial intelligence tools or other tools that generate artificial content in a manner contrary to instructions from the instructor; or (iv) using artificial intelligence tools or other tools that generate artificial content in a manner that violates any other provision of these rules concerning academic dishonesty. Use of commonly available tools such as spelling or grammar checking software or features of software that propose anticipated words or phrases while text is being written will not be considered unauthorized use of artificially generated content unless such use is contrary to instructions from the instructor.
- d. The term **sabotage** includes, but is not limited to, the unauthorized interference with, modification of, or destruction of the work or intellectual property of another member of the University community.

2. **Forgery, alteration, or misuse of University documents, records or identification, or furnishing information to the University that the student or student organization knows or reasonably should know is false.**
3. **Physical abuse or other physical conduct which threatens or endangers the health or safety of any person.**
4. **Stalking** another by engaging in a course of conduct directed at a specific person knowing or consciously disregarding a substantial and unjustifiable risk that the course of conduct would cause a reasonable person to —(A) fear for their safety or the safety of others; or (B) suffer substantial emotional distress.
5. **Violation of the University's Equal Employment/Education Opportunity and Nondiscrimination Policy** located at Section 600.010 of the Collected Rules and Regulations.
6. **Violation of the University's Sexual Harassment under Title IX Policy located at Section 600.020 of the Collected Rules and Regulations.**
7. **Threats**, defined as communication of a serious expression of intent to commit an act of unlawful violence against an individual or identifiable group, such that the individual or group would reasonably fear violence, regardless of whether the communicating individual actually intends to carry out the threat, and in which the person engaging in the communication knew or consciously disregarded a substantial and unjustifiable risk that it would have such an effect on the individual or identifiable group.
8. **Participating in attempted or actual taking of, damage to, or possession without permission of property of the University or of a member of the University community or a campus visitor.**
9. **Unauthorized possession, duplication or use of keys or other means of access to any University facilities or unauthorized entry to or use of University facilities, property or resources.**
10. **Misuse of University or personal property in a manner that creates a safety hazard or unauthorized use of safety equipment.**
11. **Deliberately setting off a fire or other emergency alarm without justified reason or knowingly giving a false report of a crime or emergency.**
12. **Violation of the available written policies, rules or regulations of the University or any of its units applicable to the student under the circumstances or of material conduct standards identified in contracts or agreements the student has entered into with the University**, including, but not limited to, those governing residence in the University-provided housing, or the use of University facilities, or student organizations, or the time, place or manner of public expression.
13. **Violation of applicable federal, state, foreign or local law or ordinance**, that directly impacts the University's activities, programs, property, students, employees, or volunteers or indicates that the individual poses a risk to the safety, welfare, or well-being of the University's students, employees, or volunteers.
14. **Manufacture, use, possession, sale or distribution of alcoholic beverages or any controlled substance under state or federal law without proper prescription or required license or as expressly permitted by law or University regulations**, including operating a vehicle on University property, or on streets or roadways adjacent to and

abutting a campus, under the influence of alcohol or a controlled substance as prohibited by law of the state of Missouri. To the extent there is any inconsistency between state and federal law as to circumstances in which manufacture, use, possession, sale or distribution of a substance is expressly permitted, federal law will govern to the extent appropriate to facilitate the University's compliance with the Drug Free Schools and Communities Act and any other applicable federal law.

15. **Substantially disrupting, or inciting others to substantially disrupt:**
 - a. University operations, functions or activities including, but not limited to classes or other teaching, research, study, lectures, performances, meetings, interviews, living or learning communities, administrative business, or ceremonies or other public events, regardless of whether such operations, functions or activities are conducted in-person or through information technology resources; or
 - b. Authorized or permissible non-University activities that occur at a location owned or controlled by the University or through information technology resources provided by the University.
16. **Failure to comply with lawful directions of University officials acting in the performance of their duties or failure to identify one's self to University officials acting in the performance of their duties when reasonably requested to do so and upon reasonable explanation of the reason for the request for identification.**
17. **Failure to comply with and complete all sanctions and remedial actions applied under Section 200.020 or Chapter 600 within the time frame specified.**
18. **The possession or use of firearms, explosives, other weapons, or hazardous chemicals that violates federal or state law or applicable foreign law or University rules.**
19. **Hazing**, defined as any intentional, knowing, or reckless act committed (whether individually or in concert) against another person or persons regardless of the willingness of such other person or persons to participate, that:
 - a. Is committed in the course of an initiation into, an affiliation with, or the maintenance of membership in a group or organization; and
 - b. Causes or creates a risk, above the reasonable risk encountered in the course of participation in the University or the organization (such as the physical preparation necessary for participation in an athletic team), of physical or psychological injury, including:
 - i. Whipping, beating, striking, electronic shocking, placing of a harmful substance on someone's body, or similar activity;
 - ii. Causing, coercing, or otherwise inducing sleep deprivation, exposure to the elements, confinement in a small space, extreme calisthenics, or other similar activity;
 - iii. Causing, coercing, or otherwise inducing another person to consume food, liquid, alcohol, drugs, or other substances;

- iv. Causing, coercing, or otherwise inducing another person to perform sexual acts;
- v. Any activity that places another person in reasonable fear of bodily harm through the use of threatening words or conduct;
- vi. Any activity against another person that includes a criminal violation of local, State, Tribal, or Federal law; and
- vii. Any activity that induces, causes, or requires another person to perform a duty or task that involves a criminal violation of local, State, Tribal, or Federal law.

Failure by a group's or organization's executive officers to intervene to prevent, discourage, and/or report hazing of which they are aware or reasonably should be aware also will be deemed a violation of this policy.

20. Misuse of information technology resources in accordance with University policy, including but not limited to:

- a. Actual or attempted theft or other abuse;
- b. Unauthorized entry into a file to use, read, or change the contents, or for any other purpose;
- c. Unauthorized transfer of a file;
- d. Unauthorized use of another individual's identification and password;
- e. Use of information technology facilities to interfere with the work of another student, faculty member, or University official;
- f. Use of information technology facilities to interfere with normal operation of any University information technology system;
- g. Knowingly causing a virus, malware, or other means designed to disrupt, damage or gain unauthorized access to become installed in any information technology system or file; or
- h. Violation of Section 110.005 of the Collected Rules or Regulations or other University policy governing use of computing resources.

21. Retaliation, False Reporting, Witness Intimidation or Harassment, and Interference.

- a. Retaliation is any adverse action taken against a person because of that person's participation or refusal to participate in the process set forth in CRR 200.020, provided that the exercise of rights protected under the First Amendment does not constitute retaliation prohibited under this section. Any person who engages in such retaliation shall be subject to disciplinary action, up to and including expulsion or termination, in accordance with applicable procedures. Any person who believes they have been subjected to retaliation is encouraged to notify the Primary Administrative Officer. The University will promptly respond to all claims of retaliation in accordance with this policy.

- b. False reporting is making an intentional false report or accusation in relation to this policy as opposed to a report or accusation, which, even if erroneous, is made in good faith. False reporting is prohibited.
 - c. No individual, directly or through others, may take any action which attempts to or actually intimidates any potential Party or witness in the student conduct process, or which may interfere with the student conduct process.
 - d. All University employees and students must be truthful and candid when making any statement or providing any information or evidence to the University throughout the student conduct process, and all documentary evidence must be genuine and accurate. The fact that a determination has been made that a student has or has not engaged in prohibited conduct is not sufficient grounds, by itself, to declare that a false statement or fraudulent evidence has been provided by a Party or witness.
 - e. Charging an individual with a policy violation for making a materially false statement in bad faith in the course of any proceedings under this policy does not constitute retaliation provided, however that a determination regarding responsibility, alone, is not sufficient to conclude that any Party made a materially false statement in bad faith.
22. **Attempting to commit or intentionally and materially aiding or inciting others to commit any of the forms of prohibited conduct stated in this rule.**

Appendix

University of Missouri–Columbia Fiscal Year 2026 Capital Plan

University of Missouri-Columbia: Fiscal Years 2026 - 2030 Capital Plan included in Finance Plan

Project						Funding Strategy					
#	Approval Year	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	2025	Energy Innovation Center	NC	\$0.0	0.00	\$120.0	\$0.0	\$30.0	\$90.0	\$0.0	\$0.0
2	2026	NextGen MURR Phase One	NC	\$0.0	0.00	\$130.0	\$0.0	\$0.0	\$60.0	\$20.0	\$50.0
3	2026	Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement	RE	\$28.3	0.30	\$20.0	\$0.0	\$0.0	\$0.0	\$0.0	\$20.0
4	2026	Pickard Hall Mitigation	Demo	\$6.5	0.47	\$10.0	\$0.0	\$0.0	\$10.0	\$0.0	\$0.0
5	2026	Audrey J Walton Track and Field and Soccer Field Stadium Improvements	RE	N/A	N/A	\$7.5	\$0.0	\$7.5	\$0.0	\$0.0	\$0.0
Total				\$34.8		\$287.5	\$0.0	\$37.5	\$160.0	\$20.0	\$70.0

Dollars are shown in millions

University of Missouri-Columbia Capital Plan

1. Energy Innovation Center

The Energy Innovation Center (EIC) at MU will be a 116,000 square foot facility featuring wet and dry labs, support services, offices, and collaboration spaces across four levels. The first two levels will be operational from day one, while the top two will be reserved for future development. Located north of Lafferre Hall, CEI aims to address energy challenges and the integration of AI in optimizing energy systems. It will unite experts from various fields to develop sustainable energy solutions, focusing on nuclear energy, renewables, energy storage, and grid security. Funded by \$30 million in gifts and \$90 million from reserves, the project budget was adjusted from \$160 million to \$120 million and the scope was adjusted to fit within the new budget.

2. NextGen MURR Phase One

The University of Missouri (MU) plans to build a new, larger research reactor, NextGen MURR, at Discovery Ridge in Columbia. This project aims to expand cancer-fighting research and medical isotope production, leveraging the excellence of the existing MU Research Reactor (MURR). MURR is the highest-powered university research reactor in the U.S. and the sole producer of critical medical isotopes like yttrium-90, molybdenum-99, iodine-131, and lutetium-177, used in various cancer treatments. Operating year-round, MURR supports over 1.6 million patient diagnoses and treatments annually. The new reactor will enhance MU's capacity to serve patients, healthcare providers, researchers, and industry partners globally. The first phase will deliver a workable design for a new reactor and begin initial licensing steps. The project budget was increased to \$130,000,000 to make further progress on the first phase.

3. Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement

The project will repair the deteriorating brick and stone masonry, ornamental and structural painted metal, and replace the original wood windows of Jesse Hall. As the heart of MU's campus for over a century, Jesse Hall's architecture is a defining feature. The 2024 MU Master Plan highlights its significance, making it a prime candidate for investment. With a size of 180,285 GSF and an FCNI of 0.30, the building requires \$20 million in repairs to preserve its historic character for future generations.

4. Pickard Hall Mitigation

Pickard Hall, located on the east side of Francis Quadrangle, is currently idle due to regulatory issues stemming from nearly century-old radium contamination. This project aims to complete the decommissioning process required by the Nuclear Regulatory Commission (NRC). The unknown extent of contamination complicates rehabilitation efforts, potentially requiring extensive removal of basement slabs, masonry, and wood structures. Pickard Hall is significant to the campus's physical and emotional fabric, and long-term collaboration with the NRC is ongoing to fully understand and mitigate the contamination, enabling the building's return to service.

5. Audrey J Walton Track and Field and Soccer Field Stadium Improvements

The Audrey J. Walton Track and Field and Soccer Stadium will undergo significant renovations, including the removal and replacement of competition surfaces, regrading, and improving field subsurface drainage. The natural turf soccer field will be replaced, and the

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track will be entirely rebuilt with new subsoil drainage and a new competition surface. Additional improvements include upgrades to the throws area and new perimeter fencing. Funded by a generous gift from Audrey J. Walton, these enhancements will transform the stadium, enabling Mizzou Athletics to host SEC outdoor track and field competitions and women's soccer meets, furthering Walton's legacy of support for student-athletes and women's sports.

University of Missouri–Columbia: FY 2026 Strategic Development Projects Plan

Project						
#	Planned Year	Title	Type	Facility Needs	FCNI	Total Cost
1	2028	Animal Resource Center - Vivarium Facility Expansion	NC	NA	NA	\$8.0
2	2026	Middlebush Farm: Swine Collaboration Research Facility	NC	\$0.0	0.00	\$13.1
3	2027	Greenley Farm: New Learning Center	NC	\$0.0	0.00	\$15.0
4	2027	Rollins Hall: Renovate Dining to Modernize Food Offerings	RE	N/A	N/A	\$10.0
5	2027	Virginia Ave Housing: Repair & Renovation	RE	\$34.0	0.38	\$35.0
6	2027	Chemistry Teaching Lab Renewal	RE	\$4.0	0.17	\$17.0
7	2026	McDavid Residence Hall: Convert to Academic Building	RE	\$4.8	0.21	\$20.0
8	2027	Strickland Hall: Renewal & Addition	RE	\$16.9	0.46	\$86.0
9	2028	Lefevre Hall: Renovation & Addition	RE	\$13.6	0.52	\$53.0
10	2029	Waters Hall: Renovation & Addition	RE	\$21.5	0.56	\$59.0
11	2027	Utility Capacity & Resiliency Improvements	INFR	N/A	N/A	\$40.0
Total				\$94.8		\$356.1

Dollars are shown in millions

University of Missouri-Columbia Strategic Development Projects Plan

1. Animal Resource Center - Vivarium Facility Expansion

The Animal Resource Center (ARC), a 20,000 gross square foot (GSF) facility constructed with American Recovery and Reinvestment Act (ARRA) funds post-recession, has been operational since 2013. It supports faculty research in cardiovascular, orthopedic, neural regeneration, and muscular dystrophy. To accommodate current and future faculty needs, an expansion of approximately 10,000-12,000 GSF is planned, enhancing efficiency through the Division of Research, Innovation, Impact – Office of Animal Resources. Given the increasing importance of animal models in research, particularly with faculty investments in the School of Medicine, College of Veterinary Medicine, College of Engineering, and College of Health Sciences, this expansion will bolster grant opportunities and diverse research projects. The ARC, along with the NextGen Precision Health Building, currently houses various animal models. Following the completion of the National Swine Resource & Research Center (NSSRC) expansion in Spring 2026, a Federal CO6 grant submission for the ARC expansion is anticipated in early 2027.

2. Middlebush Farm: Swine Collaboration Research Facility

This project involves constructing a new one-story, 18,000 gross square foot swine research facility at Middlebush Farm, south of Columbia, Missouri, along Highway 63. The facility will include program space for housing swine, imaging, surgery, and procedure rooms, as well as common lab and office areas. Designed for future expansion, it will accommodate additional holding and operational growth. The site has access to essential utilities, including electrical, natural gas, domestic water, and lagoon sanitary sewer, and is adjacent to an existing facility, facilitating short-distance animal transfers. This project aims to expand the swine biomedical research model program, supporting the new Institute for Innovative Animal Research.

3. Greenley Farm: New Learning Center

The University of Missouri NM-REEC Headquarters & Land Grant Center is proposed as a 23,700 gross square foot, single-story, slab-on-grade structure on the Grace Greenley Farm near Novelty, Missouri. It will feature Agricultural Education Space and Agricultural Multipurpose High Bay Space, supporting agricultural innovations and preserving rural America's heritage. The NM-REEC oversees several research farms totaling approximately 4,190 acres but lacks a centralized facility for the College of Agriculture, Food and Natural Resources (CAFNR) and MU Extension programs. This new facility will host agricultural field days, expositions, and community engagement events, demonstrating the practical applications of NM-REEC research.

4. Rollins Hall: Renovate Dining to Modernize Food Offerings

Rollins Hall, a 42,000 gross square foot building at the corner of Virginia Avenue and Rollins Street, is a key intersection for student life and academic programming. This project aims to update the second-floor, 16,000 square foot dining venue to enhance food offerings, addressing changing student needs and equipment replacement requirements. Located in the campus's central zone, dense with student life amenities, this area houses nearly 50% of the student beds and requires robust food availability. Rollins is one of three dedicated food service venues in the area. Updating this venue, which has not been refreshed in over a decade, can serve as a positive recruitment tool for undergraduates. The MU Master Plan highlights the challenge of

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food availability across campus, especially at peak times. Additionally, its proximity to academic buildings provides convenient food options for faculty, staff, and students.

5. Virginia Ave Housing: Repair & Renovation

Virginia Avenue Housing consists of four suite-style residence halls—Respect, Responsibility, Discovery, and Excellence Halls—totaling 221,000 gross square feet and over 700 beds. This project will undertake essential exterior repairs and interior refreshes to enhance building usability and aesthetics, supporting recruitment and student satisfaction. Given the buildings' 25-year age and heavy use, such efforts are warranted. Located in the campus's central zone, dense with student amenities, this area provides nearly 50% of the student beds. Constructed in 2003, the complex requires significant maintenance and replacement of its wood frame structure and mixed exterior materials. Maintaining the building envelope and updating interior finishes will extend the facility's lifespan, avoiding the higher costs of new construction.

6. Chemistry Teaching Lab Renewal

Science education is fundamental to academic progression in higher education, with chemistry education driving advancements in energy production, medical breakthroughs, and materials science. The Chemistry Teaching Addition, a 33,865 gross square foot facility with over 20,000 square feet of teaching space and nearly 100 chemical-rated fume hoods, was constructed nearly 30 years ago and now requires renovation and equipment replacement to engage new generations of students. The MU Master Plan highlights the challenge of aging facilities with inconsistent functional quality. Most classroom and teaching labs have not seen significant improvements for 20-30 years. Incremental investments have improved utilization and learning environments, and this renovation effort aims to continue providing safe, inspiring spaces for students.

7. McDavid Residence Hall: Convert to Academic Building

McDavid Residence Hall, a 36,278 gross square foot building near the intersection of Elm Street and 6th Street, is under consideration for conversion to an academic building. The renovation strategy will be based on the building's construction type, informing potential academic unit opportunities. The Mizzou campus aims to improve its building portfolio and eliminate financial liabilities from poor-condition buildings. The MU Master Plan emphasizes promoting community through programming and campus organization. McDavid Hall's remote location from other student living developments isolates students from key resources. Surrounded by academic and research spaces, converting McDavid Hall aligns it with its community, allowing relocation of academic functions from poor-condition buildings and reducing financial liabilities.

8. Strickland Hall: Renewal & Addition

Strickland Hall, a 69,000 gross square foot building at the intersection of Rollins Street and the Arts and Science pedestrian mall, is the largest centrally scheduled classroom building at Mizzou, with 40 classrooms and over 1,500 seats serving 5,000-7,000 students daily. This renovation project aims to create adaptable and uplifting spaces for teaching, with a 45,000 gross square foot addition to the west, providing new teaching space and a new face to the Carnahan Quadrangle. This will enhance the outdoor space as a key academic hub, similar to the Francis Quadrangle. The project will create a premier zone of academic and student spaces

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along Rollins Street, inspiring visiting families and improving the learning environment for current students. Despite being renamed in 2007, the interior teaching spaces remain largely unchanged since 1969. The MU Master Plan highlights the need to improve classroom environments, and this investment will optimize the prime location and potentially repurpose remote classroom spaces for other academic needs.

9. Lefevre Hall: Renovation & Addition

Lefevre Hall, a 54,800 gross square foot building near College Avenue along University Avenue, is identified in the MU Master Plan for renovation and a 6,200 GSF addition as part of the long-term campus development vision. Lefevre Hall and nearby Waters Hall form an important architectural edge to the historic white limestone campus with its collegiate gothic style. These buildings house crucial programs in biological and plant sciences but lack modernization to support future innovation. Both have significant deferred maintenance and space adaptation needs, with repair costs exceeding 50% of the building value, making full renewal the best course of action. Renovation and new construction will improve space utilization and create innovation hubs, aligning with the MU Master Plan's vision for future generations of learners and innovators.

10. Waters Hall: Renovation & Addition

Waters Hall, a 49,000 gross square foot building near College Avenue along University Avenue, is slated for renovation and a 26,000 GSF addition as part of the MU Master Plan's long-term vision. Together with Lefevre Hall, Waters Hall forms an important architectural edge to the historic white limestone campus with its collegiate gothic style. These buildings house crucial programs in biological and plant sciences but require modernization to support future innovation. Both have significant deferred maintenance and space adaptation needs, with repair costs exceeding 50% of the building value, making full renewal the best course of action. Renovation and new construction will enhance space utilization and create innovation hubs, aligning with the MU Master Plan's vision for future generations of learners and innovators.

11. Utility Capacity & Resiliency Improvements

The campus district cooling system, with 12 chiller plants and 23 miles of underground piping, serves nearly 12 million gross square feet of building space. Centrally controlled, the system optimizes energy use by operating the most efficient chillers first. The steam production infrastructure generates steam for power, heating, and cooling, distributing it through 26 miles of underground piping. Continuous evaluation and investment are needed to support campus growth and maintain reliability. Initiatives like NextGen Precision Health and the Children's Hospital Facility require robust utility networks. Expansion of chilled water plants and renewal of steam piping are underway to meet increasing demands.

MU Health Care
Fiscal Year 2026 Capital Plan

MU Health Care: Fiscal Years 2026 - 2030 Capital Plan included in Finance Plan

Project							Funding Strategy						
#	Approval	Title	Type	Facility	Needs	FCNI	Total						
	Year							Cost	Debt	Gifts	Internal	Federal	State
		No projects listed					\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	
		Total					\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	

Dollars are shown in millions

MU Health Care: FY 2026 Strategic Development Projects Plan

Project						
#	Planned Year	Title	Type	Facility Needs	FCNI	Total Cost
1	2026	MUHC Campus Consolidation & Inpatient Services Expansion	NC	NA	NA	\$125.0
2	2026	Callaway County Rural Health Expansion	NC	\$0.0	0.00	\$23.8
Total				\$0.0		\$148.8

Dollars are shown in millions

MU Health Care Strategic Development Projects Plan

1. MUHC Campus Consolidation & Inpatient Services Expansion

MU Health Care is undertaking a comprehensive building plan to address projected growth and unmet needs within the Columbia community. The expansion will be off the main campus to efficiently manage lower acuity procedures. A study by Cannon Design shows multiple specialty clinics are nearing or exceeding target utilization, limiting growth and necessitating additional leased space for physician recruitment. Ambulatory clinic visits are expected to exceed 1.1 million by FY29, with 18 of 40 clinics needing additional space by 2031. Current market demand indicates a growing number of referrals from surrounding hospitals, with 40% being surgical, particularly in cardiology, urology, neuroscience, and orthopedics. Surgical volume is projected to increase from 30,587 in FY25 to 34,988 in FY29, necessitating 55 ORs. MU Health Care currently has 43 ORs, and without expansion, will exceed capacity by FY28. The Ellis Fischel ambulatory infusion unit is at capacity, deferring patients to other services. The ability to expand infusion services and capture increased market share is projected to add \$19 million in net revenue in the first year. A programmatic study is underway to expand capacity in infusion, surgery, and related clinical operations, with a \$125 million budget over five years.

2. Callaway County Rural Health Expansion

Establishing a consolidated facility for urgent and primary care services will address the growing healthcare needs of Callaway County. MU Health Care currently operates two primary care clinics in Fulton, both at full capacity, following the closure of the community hospital in 2022. The proposed 24K GSF building will expand services through a phased approach, modeled after the successful Urgent Care Plus in Boonville. Callaway County, with 45K residents, requires more primary care clinicians and has seen increased referrals to MU Health Care facilities. The new facility will reduce outmigration and meet the community's healthcare demands. Phase 1 will establish urgent care and a retail pharmacy, while Phase 2 will complete the building, housing primary care, x-ray, and lab services. The total project cost is \$23.8M, and upon completion, MU Health Care will consolidate clinic locations and release existing leases.

University of Missouri-Kansas City
Fiscal Year 2026 Capital Plan

University of Missouri-Kansas City: Fiscal Years 2026 - 2030 Capital Plan included in Finance Plan

Project						Funding Strategy					
#	Approval Year	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	2026	Olson Performing Arts Center Addition & Renovations Phase I	RE/NC	\$10.3	0.41	\$40.0	\$0.0	\$40.0	\$0.0	\$0.0	\$0.0
Total				\$10.3		\$40.0	\$0.0	\$40.0	\$0.0	\$0.0	\$0.0

Dollars are shown in millions

University of Missouri-Kansas City Capital Plan

1. Olson Performing Arts Center Addition & Renovations Phase I

Phase I involves constructing a 49,800-square-foot addition on the east side of the Olson Performing Arts Center, addressing educational and community needs with state-of-the-art dance and rehearsal studios, new student areas, and a black box theatre. Phase II focuses on renovating 35,500 square feet of existing space, enhancing White Recital Hall, and consolidating administrative offices. These improvements will help attract and retain top talent, essential for maintaining NASD accreditation and meeting student recruitment targets. The investments will increase undergraduate enrollment by 30-40%, generating additional tuition revenue and strengthening the Conservatory's financial stability.

University of Missouri–Kansas City: FY 2026 Strategic Development Projects Plan

Project						
#	Planned Year	Title	Type	Facility Needs	FCNI	Total Cost
1	2028	School of Dentistry New Facility at St. Joseph	RE	\$0.0	0.00	\$16.0
2	2027	New Brookside Arena	NC	\$0.0	0.00	\$60.0
3	2027	New Science, Engineering, Education, and Research Building	NC	\$0.0	0.00	\$125.0
4	2026	Campuswide Classroom Improvements	RE	Varies	Varies	\$20.0
5	2028	Olson Performing Arts Center Addition & Renovations Phase II	RE/NC	\$2.6	0.38	\$20.0
Total				\$2.6		\$241.0

Dollars are shown in millions

University of Missouri-Kansas City Strategic Development Projects Plan

1. School of Dentistry New Facility at St. Joseph

The proposed School of Dentistry (SOD) satellite program at Missouri Western State University (MWSU) will address dentist and dental hygiene practitioner shortages in rural Missouri by providing high-quality oral healthcare through its training clinic. The facility will occupy 14,500 GSF on the second floor of Eder Hall, featuring 40 dental chairs, a radiology suite, surgical suites, and various support spaces. UMKC's School of Dentistry, which supplies 63% of Missouri's dentists, aims to replicate its successful satellite campus model to meet rural healthcare needs. The program will train students in Buchanan County, a designated Dental Health Professional Shortage Area, with a 2+2 academic training model for DDS and DH programs. Renovation costs are estimated at \$12M (\$16M with escalation), with a proposed start date in FY27, pending approvals and funding.

2. New Brookside Arena

This project will construct a new 4,000-seat arena for Kansas City Athletics on the UMKC campus, bordered by Oak Street, Brookside Boulevard, and 51st Street, adjacent to the new Streetcar terminus. The arena will feature locker facilities, sports medicine, strength and conditioning areas for men's and women's basketball, and women's volleyball, as well as coaches' offices. Designed for athletic and campus events, it will offer a modern atmosphere with upgraded concessions and hospitality areas. This facility will enhance the student experience, support university goals of increasing enrollment and retention, and strengthen community engagement, alumni connections, and UMKC's reputation.

3. New Science, Engineering, Education, and Research Building

The new Science, Engineering, Education, and Research Building will provide essential research and program space for the School of Science and Engineering, addressing the growing demand in computer science and reinforcing UMKC's R1 status for top-tier research. This state-of-the-art facility will offer a dynamic environment for faculty and students, fostering collaboration, driving research, sparking innovation, and enhancing education, particularly in STEM fields.

4. Campuswide Classroom Improvements

The Campus-Wide Classroom and Research Space Improvement Initiative aims to transform learning and research environments by upgrading instructional spaces, research facilities, and teaching laboratories. The initiative will create flexible, state-of-the-art environments that promote innovative teaching, collaborative research, and hands-on learning. It will prioritize renovating outdated classrooms, seminar rooms, lecture halls, research areas, and laboratories, many of which have not been substantially updated in over fifty years. Improvements will be tailored to each space's specific needs, focusing on infrastructure, technology integration, finishes, furnishings, accessibility, and environmental systems.

5. Olson Performing Arts Center Addition & Renovations Phase II

Phase II focuses on renovating approximately 35,500 GSF of existing buildings, including an enhanced White Recital Hall and reconfigured administrative offices to consolidate the Conservatory's leadership team. Despite benefiting from rich performance opportunities in Kansas City, the UMKC Conservatory faces challenges in attracting top talent due to outdated

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facilities. The proposed PAC investments aim to improve functionality and aesthetics, potentially increasing undergraduate enrollment in dance and theatre by 30-40%. This growth will generate additional tuition revenue, ensuring the Conservatory's long-term financial stability.

Missouri University of Science and Technology
Fiscal Year 2026 Capital Plan

Missouri University of Science and Technology: Fiscal Years 2026 - 2030 Capital Plan included in Finance Plan

Project						Funding Strategy					
#	Approval Year	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	2025	Critical Minerals Scaling Facility	NC	\$0.0	0.00	\$25.0	\$0.0	\$0.0	\$0.0	\$25.0	\$0.0
Total				\$0.0		\$25.0	\$0.0	\$0.0	\$0.0	\$25.0	\$0.0

Dollars are shown in millions

Missouri University of Science and Technology Capital Plan

1. Critical Minerals Scaling Facility

The proposed 18,700 GSF facility will be a stand-alone building for critical mineral and material processing, including hydrometallurgy and extraction of Complex Amorphous Materials (CAM). Its main goals are to build a skilled workforce, advance hydrometallurgical and separation techniques, and enhance manufacturing technologies. The facility will feature a 12,000 SF mineral processing high bay, a 4,750 SF entry-office-laboratory area, and a 1,950 SF observation and supply storage mezzanine. Construction will include a pre-engineered metal structure with an insulated metal wall panel façade and roof system, durable interior finishes, and a slab-on-grade floor with integral curbs and drains for liquid waste containment.

Missouri University of Science and Technology: FY 2026 Strategic Development Projects Plan

Project						
#	Planned Year	Title	Type	Facility Needs	FCNI	Total Cost
1	2025	Physics Building Renovation	RE	\$16.2	0.44	\$19.7
2	2026	Innovation Campus Program Expansion	NC	\$0.0	0.00	\$95.0
3	2026	Computer Science Building Renovation	RE	\$11.4	0.52	\$20.6
Total				\$27.6		\$135.3

Dollars are shown in millions

Missouri University of Science and Technology Strategic Development Projects Plan

1. Physics Building Renovation

The Physics Building, constructed in 1963, is undergoing a full renovation to replace mechanical, electrical, and plumbing systems, renovate interiors, install a fire suppression system and backup generator, and improve accessibility. This project addresses deferred maintenance, and 10-year renewal needs, with phased exterior improvements starting in FY26. The physics department, crucial for its teaching and research missions, serves nearly 2,000 students annually and houses advanced laboratories. The building's poor condition hampers its functionality, with \$16.2M in facility needs and an FCNI of 0.44. System replacements are expected to reduce operating expenses.

2. Innovation Campus Program Expansion

The Innovation Campus Expansion proposes additional program space in three buildings adjacent to the Missouri Protoplex, providing research, laboratory, meeting, and classroom space. Following the Missouri Protoplex construction, the expansion will support diverse research programs, including pre-production, testing, business incubation, cyber-security, materials, manufacturing, semiconductor, nuclear power, supersonic conditions, and critical minerals research. Focused on advanced manufacturing and additive manufacturing, the research aims to reduce production costs, lead time, and improve product quality, reliability, and safety. The facilities will also support high-skilled worker education, collaboration among manufacturers and entrepreneurs, and innovation-focused education.

3. Computer Science Building Renovation

The Computer Science Building, constructed in 1971, has not undergone major renovation since its inception. The 2020 campus master plan prioritizes this building for extensive renovation due to its below-average condition. The project will transform the original east portion of the building, addressing \$11.4 million in deferred maintenance needs and an FCNI of 0.52. Renovations will include exterior repairs, accessibility improvements, mechanical and electrical system replacements, and site improvements. Missouri S&T's computer science program has seen significant growth, with undergraduate enrollment reaching 670 and MS-degree students increasing by over 200% in recent years. The building also houses critical infrastructure, including a data center and a high-performance computing data center.

University of Missouri-St. Louis
Fiscal Year 2026 Capital Plan

University of Missouri-St. Louis: Fiscal Years 2026 - 2030 Capital Plan included in Finance Plan

Project							Funding Strategy				
#	Approval Year	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	2025	UMSL School of Engineering - Science Complex Renovation	RE	\$30.0	0.57	\$15.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15.0
Total				\$30.0		\$15.0	\$0.0	\$0.0	\$0.0	\$0.0	\$15.0

Dollars are shown in millions

University of Missouri-St. Louis Technology Capital Plan

1. UMSL School of Engineering – Stadler Renovation

This project will renovate underutilized space in Stadler Hall and other areas within UMSL's science complex to create a new on-campus School of Engineering. It will include a new welcome area, improved natural lighting, ADA enhancements, and modernized lab and classroom spaces. The renovation will update mechanical, electrical, and plumbing systems, provide new technology and lab equipment, and create collaboration zones. Aligned with UMSL's ten-year Master Plan, the project aims to recruit and retain engineering students and meet Missouri's growing demand for engineering talent. State funding and support from local business leaders have been secured for planning, design, and construction.

University of Missouri-St. Louis: FY 2026 Strategic Development Projects Plan

Project						
Planned						
#	Year	Title	Type	Facility Needs	FCNI	Total Cost
1	TBD	Stadler Hall Renovation	RE	\$30.0	0.57	\$60.0
Total				\$30.0		\$60.0

Dollars are shown in millions

University of Missouri-St. Louis Strategic Development Projects Plan

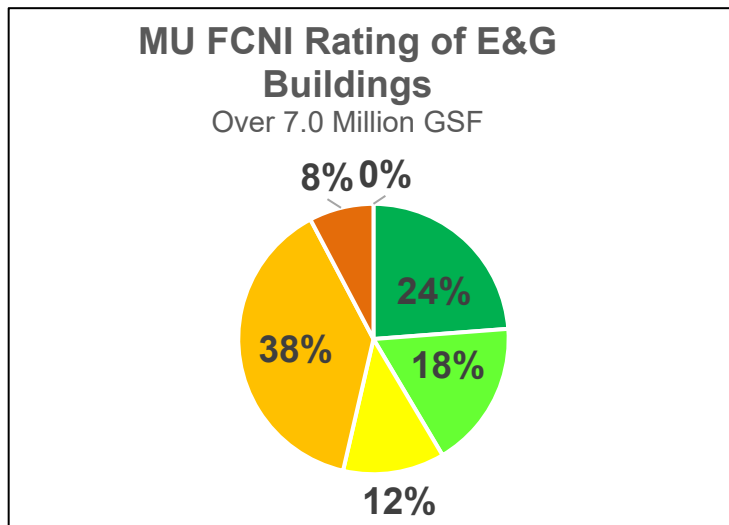
1. Stadler Hall Renovation

The renovation of Stadler Hall will update research laboratories, offices, classrooms, restrooms, and common areas, providing new infrastructure such as HVAC, electrical systems, and building envelope improvements. The project will also enhance common areas for student collaboration, address life safety and ADA deficiencies, and include exterior upgrades like signage, sidewalks, accessible routes, doors, and steps. This renovation aligns with UMSL's ten-year Master Plan, Space Survey, and ISES Report, addressing technology, life-safety, building code, and accessibility deficiencies.

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 campus FCNI of 0.26 and a projected \$1 billion in facilities condition needs. Currently, forty (40) facilities need major renovations, and ten (10) facilities need total renovations or replacements.



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)

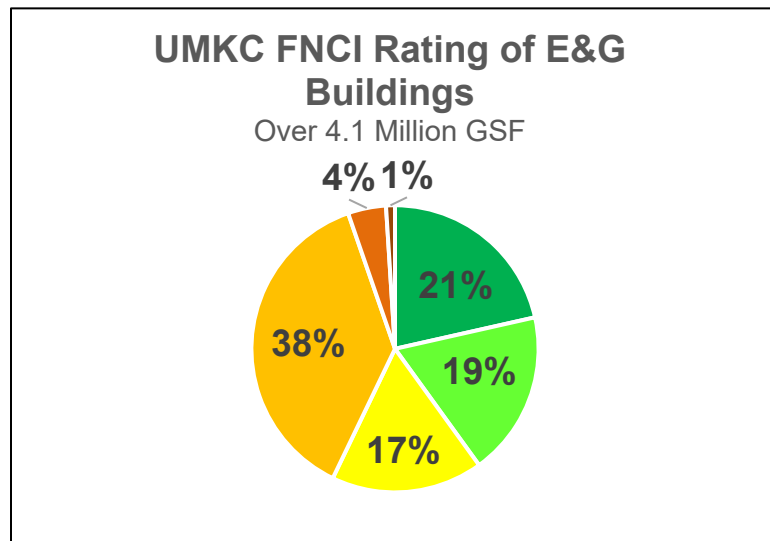
E&G Facilities (Dollars shown in Millions)	2020	2021	2022	2023	2024
Target Spend	\$59.0	\$60.2	\$60.9	\$68.4	\$72.9
Actual Spend	\$28.5	\$13.9	\$23.9	\$29.4	\$62.8
Recurring	\$12.7	\$8.1	\$6.4	\$11.9	\$15.5
One-Time	\$15.8	\$5.8	\$17.5	\$17.5	\$47.3
Difference in Target and Actual	(\$30.5)	(\$46.3)	(\$37.0)	(\$39.0)	(\$10.1)
Facilities Critical Needs	\$867.8	\$881.6	\$958.4	\$941.8	\$1,005.0
Needs within 1 Year	\$111.1	\$110.4	\$108.6	\$103.2	\$238.2
Two to Five Years	\$523.7	\$530.6	\$593.4	\$591.0	\$551.4
Ten Years	\$233	\$240.7	\$256.5	\$247.6	\$215.4
Recommended Target for next year	\$60.2	\$61.0	\$68.4	\$72.9	\$78.2
Campus FCNI	0.31	0.30	0.31	0.26	0.26

April 17, 2025

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 0.28, and a projected \$528.9 million facilities condition needs, including \$321.4 million of deferred needs. Currently, thirty-six (36) facilities need major renovations, and six (6) facilities need total renovations or replacements.



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)

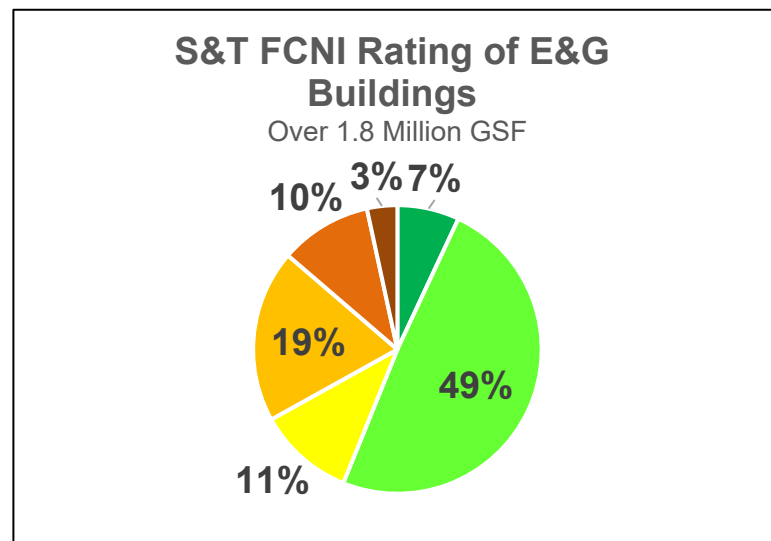
E&G Facilities (Dollars shown in Millions)	2020	2021	2022	2023	2024
Target Spend	\$23.3	\$25.3	\$26.0	\$31.3	\$33.4
Actual Spend	\$13.3	\$16.3	\$23.8	\$15.5	\$18.5
Recurring	\$6.5	\$5.2	\$2.0	\$1.2	\$17.0
One-Time	\$6.8	\$11.1	\$21.8	\$14.3	\$1.5
Difference in Target and Actual	(\$10.0)	(\$9.0)	(\$2.2)	(\$15.8)	(\$14.9)
Facilities Critical Needs	\$417.2	\$433.2	\$508.5	\$499.1	\$528.9
Needs within 1 Year	\$50.5	\$43.4	\$44.2	\$49.9	\$64.3
Two to Five Years	\$107.5	\$111.2	\$149.7	\$137.5	\$135.9
Ten Years	\$259.2	\$278.6	\$314.6	\$311.7	\$328.7
Recommended Target for next year	\$25.3	\$26.0	\$31.3	\$33.4	\$38.6
Campus FCNI	0.30	0.31	0.27	0.27	0.28

April 17, 2025

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.

S&T currently has a campus FCNI of 0.26 which is below the CRR 110.015 allows, and a projected \$267.2 million facilities needs, with a current deferred needs of \$129 million. Currently, ten (10) facilities need major renovations, and six (6) facilities need total renovations or replacements.



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)

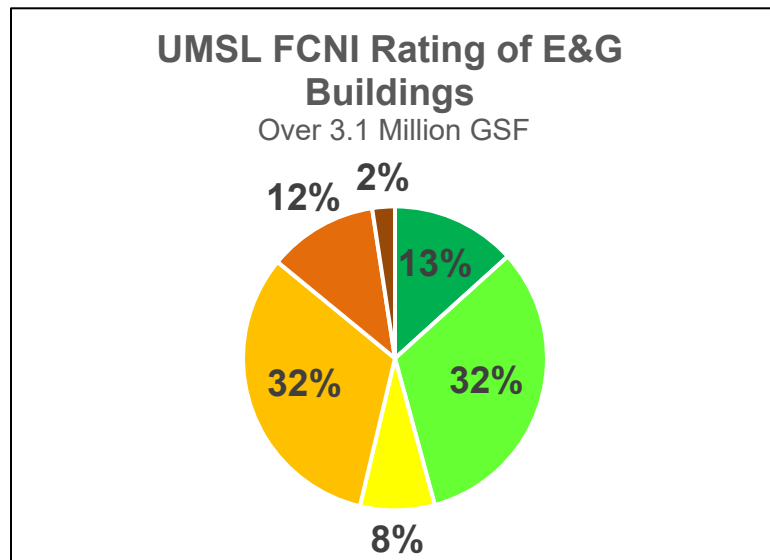
E&G Facilities (Dollars shown in Millions)	2020	2021	2022	2023	2024
Target Spend	\$17.9	\$21.9	\$18.8	\$20.0	\$20.8
Actual Spend	\$13.0	\$14.1	\$16.6	\$21.1	\$24.5
Recurring	\$8.5	\$8.1	\$7.4	\$8.3	\$10.0
One-Time	\$4.5	\$6.0	\$9.2	\$12.8	\$14.5
Difference in Target and Actual	(\$4.9)	(\$7.8)	(\$2.2)	\$1.1	\$3.7
Facilities Critical Needs	\$182.1	\$185.1	\$214.9	\$252.8	\$267.2
Needs within 1 Year	\$22.9	\$18.8	\$23.9	\$27.2	\$29.1
Two to Five Years	\$51.2	\$49.9	\$60.5	\$74.6	\$74.9
Ten Years	\$108.0	\$116.4	\$130.5	\$151.0	\$163.2
Recommended Target for next year	\$21.9	\$18.8	\$20.0	\$20.8	\$21.6
Campus FCNI	0.21	0.21	0.23	0.25	0.26

April 17, 2025

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 campus FCNI of 0.32 which is higher than CRR 110.015 allows and projected \$482.7 million of facilities critical needs. Currently, twenty-three (23) facilities need major renovations, and thirteen (13) facilities need total renovations or replacements.



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 (Dollars shown in Millions)	2020	2021	2022	2023	2024
Target Spend	\$31.0	\$31.9	\$30.5	\$26.3	\$30.9
Actual Spend	\$10.6	\$18.1	\$9.4	\$17.5	\$23.0
Recurring	\$6.2	\$9.9	\$5.0	\$4.6	\$8.6
One-Time	\$4.4	\$8.1	\$4.4	\$12.9	\$14.4
Difference in Target and Actual	(\$20.4)	(\$13.8)	(\$21.1)	(\$8.8)	(\$7.9)
Facilities Critical Needs	\$441.8	\$449.2	\$384.2	\$420.5	\$482.7
Needs within 1 Year	\$42.3	\$43.0	\$42.2	\$46.2	\$58.1
Two to Five Years	\$324.2	\$329.6	\$218.3	\$238.8	\$273.0
Ten Years	\$75.3	\$76.6	\$123.8	\$135.6	\$151.6
Recommended Target for next year	\$31.9	\$30.5	\$26.3	\$30.9	\$30.9
Campus FCNI	0.33	0.33	0.34	0.34	0.32

April 17, 2025

New Degree Program Proposal:

**Doctor of Philosophy in
Human Development and Family Science**

University of Missouri-Columbia
April 2025 Board of Curators Meeting

New Degree Proposal
FULL PROPOSAL

Basic Program Information

Sponsoring University: University of Missouri - Columbia

College or School: Education and Human Development

Department: Human Development and Family Science

Proposed Program Title: PhD in Human Development and Family Science

Degree Level/Type: Doctorate

Emphasis Areas: n/a

Program Modality: Traditional Program

If online component: n/a

Program CIP Code¹: 19.0701

Implementation: Fall 2025

Expected Date of First Graduation: Spring 2028

Proposal Author(s): Ashlie Lester, Primary; Brenda Lohman, Collaborator

Name, phone, and email of person primarily responsible for the proposal:

Ashlie Lester; 573-882-1301; lester@missouri.edu

Individual(s) Responsible for Success of the Program:

Ashlie Lester, Director of Graduate Studies, Human Development and Family Science

¹ A selection of CIP codes can be viewed on the National Center for Education Statistics website:
<https://nces.ed.gov/ipeds/cipcode/browse.aspx?y=55>

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(Note: Additional appendices will be made available upon request.)

Executive Summary

The Department of Human Development and Family Science (HDFS) has accepted, trained, graduated and placed doctoral students since the early 1970s. The program currently exists – including all courses needed to offer the program – as one of three emphasis areas under an existing Human Environmental Sciences (HES) PhD program. The current emphasis area prepares students for careers in research, college or university teaching, or leadership positions in public and private human service institutions.

With the dissolution of the College of Human Environmental Sciences, the Department of Human Development and Family Science was moved to the College of Education and Human Development (CEHD). The other two departments contributing to the HES PhD program – Architectural Studies and Textile and Apparel Management – recently moved to the College of Arts and Science, making this an ideal time to separate the proposed program for the HES program into a standalone program more easily identified by prospective students as well as peers from industry and other institutions of higher education.

The existing program has had a proven track record, spanning decades, of successfully preparing students in this discipline, with 97% of graduates employed at the time of graduation in academic, research, government, or related careers. Enabling the creation of a standalone program will require minimal resources – the curriculum is already entirely in place under the HES PhD program – while strengthening the program's identity and reach.

1. Introduction

Academic Components and Career Paths:

The PhD in HDFS requires students to take a minimum of 72 post-baccalaureate credit hours in the following content areas:

Content Courses (minimum 21 hours): These are the courses that will not only provide students with a strong foundation in HDFS theory and concepts, but also support their line of research.

Research Methods/Statistics (minimum 21 hours): These courses will help students learn to understand and conduct research well.

Collateral (9-15 hours): Students are required to take at least nine credit hours in a focused area of study (e.g., gerontology, women's and gender studies, quantitative statistics). These courses are listed separately on the plan of study and may be from HDFS or from an outside department.

Research and Practica (minimum 21 hours): Students must build into their plan of study the professional development seminar (HDFS 8087), 6 credit hours of research practica (HDFS 9210), 3 credit hours of teaching practicum (HDFS 9100), and 12 dissertation hours (HDFS 9090). The purpose of the research practica is to provide students with experiences that broaden their research expertise and prepare them to successfully plan and execute dissertation research. These practica are not meant to be independent student projects but rather an apprentice relationship on faculty member's research for the purpose of learning research skills (e.g., a particular method, analyses, manuscript preparation). The teaching practicum will involve a three-credit-hour supervised teaching experience in collaboration with a faculty member. The practicum will include exposure to direct teaching, curriculum development, teaching strategies, and evaluation of student learning.

This program has successfully prepared graduates for careers in academia, research firms, government, consulting, and program evaluation.

Evolution of Concept:

This degree program has existed as an emphasis area of the PhD in Human Environmental Sciences for decades. With the dissolution of the College of Human Environmental Sciences in Summer 2021, the graduate faculty voted to turn the emphasis area into its own PhD. There are no changes to curriculum and no interruption of our ability to admit and train students. Additionally, the remaining programs of the PhD in Human Environmental Sciences are looking to alter the degree program in manner that would not be helpful for our students. Thus, we want to be a stand-alone degree program so we can continue to train our students in the field of Human Development and Family Science, and with curriculum and training that is suited for our field of study.

Preliminary Steps:

We have already been offering this program, just with a different title (as an emphasis area, rather than as a stand-alone PhD program), with great success. The rest of our graduate programs will be unaffected by this change.

Ashlie Lester, Director of Graduate Studies, Human Development and Family Science, will be responsible for the program.

2. University Mission & Program Analysis

2.A. Alignment with University Mission & Goals

Our program is a shining example of MU's mission. Our graduate faculty and students are actively producing and disseminating knowledge about the development of individuals, their families, and their other intimate relationships, and how that may vary by context. It is a very direct and clear link to quality of life. The faculty in our program are nationally recognized for their scholarship, including Dr. Brenda Lohman being conferred Fellow status by the

National Council of Family Relations. Our students, too, are recognized for their scholarship. Our program not only produces scholarship, but also engages directly with the citizens of our state through Extension and relationship-education programming (e.g., Focus on Kids, the court-mandated co-parenting program for divorcing couples with minor children; Show Me Healthy Relationships, a federally funded grant program that provides free relationship education throughout the state). Faculty and students affiliated with the program also support the teaching of undergraduate and graduate students. In the last year alone, our HDFS program has produced approximately 12,000 student credit hours. Further, our instructors are formally recognized. In 2021, Dr. Antoinette Landor was awarded a highly prestigious Kemper Fellowship for Teaching Excellence. Without doubt, our program is aligned with and has made significant contributions toward MU's mission.

Alignment with Campus Strategic Plan:

Our doctorate program has existed for decades as an emphasis area in the PhD in Human Environmental Sciences program; with the dissolution of the College of Human Environmental Sciences, we are proposing to have a stand-alone Doctor of Philosophy in Human Development and Family Science. Our goals and objectives of the program remain the same: briefly, to educate the next generation of HDFS researchers and leaders.

We are a research-intensive department, producing on average \$4.2 million in research expenditures per year (5-year average) with a mission to produce scholarship to understand growth and relationships in diverse contexts, and our doctorate program is designed to prepare future scholars. The courses, assistantships, and co-curricular experiences (e.g., HDFS lecture series) allow students to develop and master research-based skills, such as designing and executing research studies, analyzing quantitative and qualitative data, evaluating programs, writing grants, and collaborating on research teams. The program's focus on preparing scholars aligns with the mission of the department and with the strategic goals of the University (especially student success, research and creative works, and inclusive excellence).

Program Priority:

The PhD in HDFS has the highest possible priority for our department. Our nationally recognized graduate program allows us to recruit strong students, who in turn help faculty fulfill their research, teaching, and engagement missions. This program is a priority for our college and campus, as well, as it contributes significantly to the following: 1. Campus Writing Program. Our graduate students are an integral part of teaching (or assisting) writing intensive courses in which undergraduates from across campus enroll; 2. Retention of Faculty: Mentoring students is rewarding to our faculty, and without a doctorate program, many faculty members would move to other institutions; 3. AAU standing: Our faculty and their scholarship support MU's membership in the AAU, as does our students' employment post-degree. 97% of our PhD students are employed at the time of graduation in academic, research, government, or related careers; 4. Extension and engagement: Eight of our ranked faculty members are also State Extension specialists (through 4-H and Health and Human Sciences Extension).

The ability of the program to continue to make the above contributions is contingent on offering a standalone program. As noted, changes to the umbrella PhD program make it such that HDFFS is no longer a good fit. A stand-alone program will recognize the name used nationally in our discipline Human Development and Family Science; give us more visibility when students are searching for graduate programs since our program is "hidden" under an emphasis area; and recruit students who want a PhD in Human Development and Family Science, rather than a degree name historically attached to family and consumer sciences.

2.B. Duplication & Collaboration within Campus, Across System

Potential Duplication at MU or within UM: no

Potential Duplication within the state of MO, outside UM system: no

Because this program already exists as an emphasis area and because we have been successful, we are not proposing collaborations with other entities.

3. Business-Related Criteria & Justification

3.A. Market Analysis

3.A.1. Rationale & Workforce Demand for the Program

Our doctorate program has been successful for decades, and it is evident there is a demand for students trained in our department. A 2024 *Lightcast* review of regional employment landscape demonstrates existing unmet demand for graduates from family science doctoral programs, with an estimated 515 annual job openings in the region for which graduates of this program are competitive for. This includes jobs like Social and Community Service Managers; Child, Family, and School Social Workers; Social and Human Service Assistants; and others. These occupations are projected to grow by 9.6% over the next decade.

In the last eight years, we have admitted an average of 5.6 PhD students and graduated an average of 5.13 students per year. With the end of the pandemic, the hiring of vacated faculty lines, and the improved marketing resources afforded by the College of Education and Human Development, we are confident that we will be able to maintain our incoming cohorts to at least 5 PhD students each year, with a goal of 8-10 per year. Our post-graduation employment rate for the last 10 years is 100%, and our alumni go on to academic positions (e.g., faculty, postdocs) around the country and research and leadership positions in government, research firms, and non-profit sectors.

The high employment rate and the varied sectors in which our students find employment indicates that 1) our program prepares students well for the job market, and 2) the skills students developed in our program are in demand and transferable.

Meeting Missouri's Needs:

100% of PhD graduates are employed within 6 months of graduation. Alumni work both within and outside of higher education; graduates have worked in Extension, federal and state government agencies, research institutions, and health and human services agencies in Missouri, in the US, and across the world. In addition to the impact graduates have in their employment after graduation, students have a tremendous impact on our community while they are on-campus. Doctoral students are teaching assistants, research assistants, and graduate instructors, and they help us fulfill the research, teaching, and Extension missions of the University for MU students and citizens. Our students help teach and mentor undergraduate students; they live and buy things in this community, and they have opportunities for outreach and engagement activities (like community teaching).

Summary of Support:

The letters provide unequivocal support for the PhD in Human Development and Family Science. One quote nicely summarizes the sentiments of the others: "We attest that the PhD program at Missouri has been nationally recognized as one of the top leaders in the HDFS field for many years. Your HDFS program has a long history of producing outstanding doctoral students and is known for its nationally recognized faculty." Recognition of a name change to Human Development and Family Science would align us with the discipline name used nationally.

3.A.2. Student Demand for the Program

Table 1a. Student Enrollment Projections (anticipated total number of students enrolled in the program during the first five fall semesters following implementation.)

Year:	1	2	3	4	5
Full-time	30	32	35	37	37
Part-time	0	0	0	0	0
Total	30	32	35	37	37

Our program is designed for full-time, on-campus students, so we have historically had 0-1 part-time doctoral students at any given time. In Fall 2023, we have enrolled an incoming PhD cohort of 9 (with an additional student needing to defer because of COVID and embassy closures in her home country); in Fall 2024, we are enrolling a cohort of 8. Because our department has hired additional faculty members able to advise graduate students, we are anticipating another cohort of 8-13 doctorate students in Fall 2025 with greater capacity in future years as grant expenditures grow in the department.

Table 1b. New Student Enrollment Projections (anticipated number of students enrolled in the program during the first five fall semesters following implementation that are new to the University.)

Fiscal Year:	1	2	3	4	5
Full-time	6	7	8	8	8
Part-time					
Total	6	7	8	8	8

In the past five years, 90% of our doctoral student body has come from outside institutions. We anticipate that will continue in the future.

Table 1c. Projected Number of Degrees Awarded

Year:	1	2	3	4	5	6	7	8	9	10
# of Degrees Awarded	4	5	5	6	6	7	7	7	7	7

3.B. Financial Projections

There are no new expenses associated with the proposed program. Currently, our graduate student stipends are paid through external fellowships (two current students have been awarded the prestigious National Science Foundation Graduate Research Fellowship), research assistantships (using funds from faculty members' start-up or grant funds) and teaching assistantships (using revenue from tuition and supplemental fees). Our faculty are actively working to increase the proportion of assistantships funded in the department from external grants.

3.B.1. Additional Resources Needed

The cost of rebranding this program will be the only cost. We estimate this to cost \$5,000 or less.

3.B.2. Revenue

We anticipate no large sums of additional revenue by moving our doctoral program from an emphasis area in HES to a stand-alone PhD. We will see modest gains in revenue as our student numbers begin to rise to pre-pandemic levels and with the hiring of a replacement faculty member in the Endowed Milsap Professor position and the hiring of a faculty member in the new Endowed Coleman-Ganong Professor position.

Revenues from tuition are listed in the provided tables.

3.B.3. Net Revenue

The costs of the program are off-set by the large undergraduate student credit hours that HDFS produces every year, approximately 15,000 SCH. The estimated 15,000 UG SCH generate approximately \$6.5 million in tuition revenue per year for the university. Our rate allocation is less than 50% of this tuition revenue per year. This does not include our additional revenue from graduate credits, online graduate MA tuition, and state and federal contracts and grants. In the past five years, our faculty have been awarded over \$23 million in grant dollars. When comparing FY22 HDFS data, Instructional Costs (\$/SCH) and Instructional Productivity (SCH/FTE), compared to our peer institutions, HDFS is considered an outlier for cost, showing that we are extremely inexpensive to run. Despite this we are extremely productive and are above the median and closer to the 75 percentile in productivity costs of SCH per FT faculty member. Overall HDFS Direct Instructional Cost is typically an outlier as well with the direct instructional expense per SCH ranging from about \$385 in 2020 to as low as about \$160 per SCH in 2022. Over the past four years, SCH per full-time faculty member has gone from a below-the-median outlier to an above-the-median outlier with HDFS currently producing more SCH per FT faculty member than our peer institutions. Despite a projected deficit per year when the PhD program is looked at solely by itself and not in the context of our department (please note which almost all PhD programs have), our PHD program has been in existence for years under an emphasis area and we have already been financially responsible for it. With our large UG SCH and our grant expenditures, we have clearly shown when assessing the full contextual financial revenue of our department, that we are able to pay for the PhD program in an efficient manner that does not lead to a deficit for our department or college.

Table 2. Financial Projections for Proposed Program for Years 1 Through 5.

	Year 1	Year 2	Year 3	Year 4	Year 5
1. Expenses per year					
A. One-time					
<i>New/Renovated Space</i>					
<i>Equipment</i>					
<i>Library</i>					
<i>Consultants</i>					
<i>Other</i>	5,000	0	0	0	0
Total one-time	5,000	0	0	0	0
B. Recurring					
<i>Faculty</i>	395,200	403,104	411,166	419,389	427,777
<i>Staff</i>					
<i>Benefits</i>	140,770	143,586	146,457	149,387	152,374
<i>Equipment</i>					
<i>Library</i>					
<i>Other</i>					
Total recurring	535,970	546,690	557,623	568,776	580,151
Total expenses (A+B)	540,970	546,690	557,623	568,776	580,151

2. Revenue per year					
<i>Tuition/Fees</i>	330,630	363,252	409,226	445,589	458,957
<i>Institutional Resources</i>	-205,315	-210,274	-215,383	-220,644	-226,063
<i>State Aid -- CBHE</i>					
<i>State Aid -- Other</i>					
Total revenue	70,210	96,220	135,383	140,644	146,063
3. Net revenue (loss) per year	-415,655	-393,712	-363,780	-343,831	-347,258
4. Cumulative revenue (loss)	-415,655	-809,367	-1,173,147	-1,516,978	-1,864,236

3.B.4. Academic and Financial Viability

We asked, Fiscal Officer, Kristen Hudson at the College of Education and Human Development to figure the viability projections. Kristen, working with Todd Mackley, focused on overall enrollment and the actual costs of running the current PHD program, as if it were a new program, the focus would be more about new to MU students and new faculty and resources needed to support the new program. Data was gathered on number of students enrolled, projected students enrolled in coming years, costs of doctoral faculty associated with the program by their salaries and FTE associated with the program, and revenue generated from the graduate PhD SCH and fees. In addition, scholarships were also added to the calculations. Per the request, we also calculated a 10% sensitivity test.

Table 3. Enrollment for Academic and Financial Viability

Viability	Minimum Enrollment
Academic	30
Financial	30
Overall	60

3.C. Business Plan: Marketing, Student Success, Transition & Exit Strategies

3.C.1. Marketing Plan

Because we already have a doctoral program (it currently exists as an emphasis area in the PhD in Human Environmental Sciences), our marketing work has been ongoing. We are continuing to market our program to future researchers with our department's Marketing and Recruitment Committee and with the resources available to us by the College of Education and Human Development's Strategic Communication's office. Our website, marketing materials, program video (new as of Fall 2024), and social media presence are continually updated and congruent with the University of Missouri's branding requirements.

The Director of Graduate Studies holds in-person and virtual information sessions to market the department's graduate programs.

Person Responsible for Marketing: Ashlie Lester, Director of Graduate Studies, Human Development and Family Science

Projected Growth:

We already have a strong program and an excellent national reputation, so we anticipate moderate growth in the PhD program to 8-10 incoming PhD students each year (our 5-year average cohort size is 5.6 per year and is lower than the previous 5 year average with COVID and loss of faculty).

Marketing Costs:

\$5,000. This covers costs such as print materials (e.g., flyers and brochures), promotional items (e.g., pens), time paid for administrative assistant who helps design and order such items, and campus visits for prospective students. The department has sufficient funds to cover these costs.

3.C.2. Student Success Plan

Retaining Students:

Our program has an excellent retention rate of 97% over 5 years. We have many strategies to retain students, including a comprehensive handbook, an in-person student orientation, professional development seminars for incoming students and for advanced PhD students, regular feedback on student progress, established support networks (e.g., peer mentorship program, engaged student organizations), fiscal support (e.g., assistantships, professional development funds, fellowship and scholarship opportunities), and varied opportunities for professional experience (e.g., teaching and research assistantships, community teaching opportunities).

Achieving Enrollment Outcomes:

Our program is already strong. We have increased communications to relevant populations and are offering more regular, virtual information sessions about HDFS graduate programs; we anticipate that will yield the one or three additional students needed to meet our goal of an incoming cohort of 5-10 students.

3.C.3. Transition Plan

Person responsible for the Program:

Ashlie Lester, Director of Graduate Studies, Human Development and Family Science

The Director of Graduate Studies is an important role in the department, and if the current DGS leaves, a plan will be made to transition in another faculty member into that role.

3.C.4. Exit Strategy

If the 5-year average incoming cohort is 3 or under and the 5-year average of graduating students is 3 or under, I would expect needing additional resources from the university to jumpstart our marketing. If those numbers decline to 2 or under (5-year average), I expect the program to be put on hiatus.

4. Institutional Capacity

This program already exists, so we have resources already in place to continue it.

5. Program Characteristics

5.A. Program Outcomes

Our doctorate program has existed for decades as an emphasis area in the PhD in Human Environmental Sciences program; with the dissolution of the College of Human Environmental Sciences, we are proposing to have a stand-alone Doctor of Philosophy in Human Development and Family Science. Our goals and objectives of the program remain the same: to educate the next generation of HDFS researchers and leaders.

Learning Objectives:

Students will be able to demonstrate mastery in five content areas: 1) human development and family science theory, 2) research methods, 3) major research findings in HDFS, 4) diversity in human development and families, 5) professional standards and ethics.

1. Identify, describe, and distinguish key HDFS theories using appropriate terminology and proper citations
2. Apply theoretical concepts accurately in course and capstone writing
3. Select and apply an appropriate theory to formulate research questions and hypotheses
4. Critically evaluate methods, results, and conclusions of published research
5. Interpret results from a published table or graph
6. Propose empirically informed research questions and/or testable hypotheses
7. Design an appropriate study to test hypotheses or answer research questions
8. Collect, analyze, and interpret data
9. Understand grant-writing process and complete specific aims for a grant
10. Actively participate in the creation of manuscripts submitted for publication
11. Clearly articulate, orally and in writing, the central constructs and dominant criticisms in HDFS
12. Identify, describe, and explain developmental change and consistency in individuals, close relationships, and families within diverse contexts and changing environments
13. Synthesize and critique a body of literature on a specific area of research
14. Apply evidence-based principles and practices to endeavors (e.g., internship, research, presentations, journal articles) inside and outside the classroom

15. Understand both contemporary findings and landmark studies in one's area of research
16. Identify aspects of individual and family diversity and social justice relevant to human development and family processes
17. Critically analyze personal and societal biases and assumptions relevant to individual and family diversity
18. Demonstrate professional, ethical, and culturally sensitive standards of conduct in the classroom
19. Communicate research and theory in HDFS to professional and lay audiences through a variety of platforms (e.g., conference presentations, in-seat and online undergraduate courses, research seminars)
20. Demonstrate professional, ethical, and culturally sensitive standards of conduct in professional settings

5.B. Program Design & Content

Curriculum Design:

Our curriculum for the PhD already exists in its entirety. We review courses and how well they meet program outcomes periodically. In 2020-2021, we underwent a rigorous curriculum review and revised courses to better prepare students for the job market (e.g., greater focus on grant-writing, application of statistics, program evaluation, developmental courses by developmental period rather than developmental domain). This process is complete, although with the influx of new faculty in Fall 2023 we are re-evaluating course rotations and content.

Sequence of Courses:

The sequence below is just an example; the courses and their sequence are variable based on the students' educational background, career objectives, and pace, and the year the student entered the program (courses in the doctorate program are offered every two years). The example below assumes students enter without a relevant Master's degree and that no Master's-level courses will be applied to the doctoral plan of study.

Year One: To provide a foundation of research methods, theory, and introduction into content

Fall:

HDFS 8087 Professional Seminar I (1)

HDFS 8200 Research Methods (3)

HDFS 8220 Family Theories (3)

HDFS 8450 Adolescence & Young Adulthood (3)

Spring:

HDFS 7001 Contemporary Issues in Family Science (3)

HDFS 8770 Poverty (3)

Outside statistics course (3)

Summer:

HDFS 7001 Rotating topics (1), and/or
Outside statistics course (3)

Year Two:

Fall:

HDFS 8210 Theories of Human Development (3)
HDFS 9210 Research Practicum (3)
HDFS 8640 Family Interaction (3)

Spring:

Outside statistics or qualitative methods course (3)
HDFS 8300 Advanced Seminar on Multicultural Families (3)
HDFS 7640 Interpersonal Relationships (3)

Summer:

HDFS 7001 Rotating Topics (1)

Year Three:

Fall:

HDFS 9200 Advanced Research Methods & Grant-Writing (3) *Must be taken after HDFS
9300 Research Methods
HDFS 8087 Professional Seminar II (1)
HDFS 9100 Teaching Practicum (3)
HDFS 7300 Black Families (3)

Spring:

HDFS 7001 Contemporary Issues in Human Development (3)
HDFS 9300 Advanced Statistics in HDFS (3) *Must be taken after HDFS 9200 Advanced
Research Methods
Outside statistics, methods, or collateral area course (3)

Summer:

HDFS 7001 Rotating topics (1)

Year Four:

Fall:

Outside statistics, methods, or collateral area course (3)
HDFS 9100 Research Practicum (3)
HDFS 9090 Dissertation credits for comps (3)

Spring:

HDFS 9090: Dissertation credits (3)

Summer:
HDFS 9090: Dissertation credits (2)

Year Five:
Fall:
HDFS 9090: Dissertation credits (2)

Spring:
HDFS 9090: Dissertation credits (2)

Total credits: 80

5.C. Program Structure

All PhD students must have at least 72 post-Baccalaureate credit hours in the following areas: (1) HDFS content, (2) research methods/statistics, (3) collateral area of study, and (4) research/practica. Following coursework, students complete a comprehensive exam (either a take-home written exam or a systematic literature review eligible for publication), and a dissertation. After the successful defense of the dissertation, the student has completed the doctoral program.

This is an on-campus-only degree program. Planned academic activities include classwork, assistantships, research labs, and lecture and professional development series offered by the Department and University.

Content Courses (minimum 21 hours): These are the courses that will not only provide students with a strong foundation in HDFS theory and concepts, but also support their line of research.

Research Methods/Statistics (minimum 21 hours): These courses will help students learn to understand and conduct research well.

Collateral (9-15 hours): The collateral area represents a focused area of study (e.g., gerontology, women's and gender studies, quantitative statistics) that you choose.

Research and Practica (minimum 21 hours): Built into the plan of study is 2 credit hours of professional development seminars (HDFS 8087), 6 credit hours of research practica (HDFS 9210), 3 credit hours of teaching practicum (HDFS 9100), and 12 dissertation hours (HDFS 9090).

Comprehensive Exam: Students are eligible to take comprehensive exams once they have completed courses. Students may choose a take-home exam option, or a critical literature review option. Both options require an oral defense with the committee and will be evaluated on students' mastery of theory, HDFS content, research methods, and collateral area.

Dissertation: Following the successful completion of the comprehensive exam, students are considered doctoral candidates and will begin the dissertation process. First, students will propose their dissertation research to the committee. The proposal should include a well-developed literature review, carefully thought-out hypotheses or research questions, and a detailed plan for the research methods to be used. Second, students will complete the research needed for the dissertation and defend the dissertation to the committee. Once successfully defended, the student has completed the doctoral program.

Requirement for thesis, internship or other capstone experience: Dissertation. Per the Graduate Faculty Senate, "The dissertation must: (1) Be written on a subject approved by the candidate's doctoral program committee. (2) Embody the results of original and significant investigation. (3) Be the candidate's own work and cannot be coauthored. The departmental-specific dissertation process, style, and formatting can be found in the Graduate Handbook.

Any unique features such as interdepartmental cooperation: None

5.D. Program Goals and Assessment

Assessment Learning Outcomes

Outcomes are assessed individually for each student throughout their program, through course grades, contribution to research teams, performance in assistantships, and performance in the comprehensive exam and dissertation processes. Only those students who have mastered the learning outcomes graduate.

Curriculum mapping is a valuable tool in assessing our doctoral program in Human Development and Family Scienced (HDFS). It helps ensure that the program's learning objectives, course content, and assessment methods align with the desired outcomes for students. We have historically had all the HDFS graduate programs mapped and have used it to identify our learning objectives, map courses to learning outcomes, identify gaps and redundancies, align our assessments with outcomes, and monitor progress of our students. The use of MU Educational Assessment app as part of the HLC Accreditation process will make it easier to make data-driven decisions about our curriculum. For example, as part of the HLC accreditation requirement, HDFS faculty reviewed the PhD program and course objectives while they mapped the course objectives to the program objectives. Following the mapping process, HDFS will continue to review how well the current courses are covering the program objectives. If we see that there is a program objective that is underrepresented, we will discuss the program outcome and review our courses to see how we can fill that gap. The MU Educational Assessment app allows us to visually represent our curriculum to facilitate ongoing communication and continuous improvement of our PhD program. By

using curriculum mapping, our doctoral program in HDFS can maintain a cohesive and aligned curriculum that effectively supports students' academic and professional growth, ensuring that they achieve the desired competencies and skills by graduation.

Standardized Assessment

Not applicable

Retention and Graduation Goals

We have a retention and graduation goal of 95%. This is still very high while also accounting for the possibility that some students will alter their career goals while in graduate school.

Licensure

Licensure is not needed for this profession.

Estimated placement rates:

Placement area:	Percent:
In related fields	90%
In other fields	10%
Unemployed	0%

Other Measures of Success

Employment in the desired field is a measure of success.

5.E. Student Preparation

- (1) A Master's Degree in Human Development and Family Science or related discipline
- (2) Familiarity with the research process (ideally, students also have experience in a research lab, with working with data, and with disseminating results through manuscripts or presentations, but these are not requirements)
- (3) Demonstrated success in working well with others

Specific Population to be served:

Not applicable.

5.F. Faculty and Administration

Person Responsible for the Success of the Program:

Ashlie Lester, Director of Graduate Studies, Human Development and Family Science

10% of time dedicated to program

Instructional Needs:

We already teach courses in the curriculum. Once we hire to expand our program (i.e., the Coleman-Ganong Endowed Professor) and replace faculty members who left or retired (e.g., the Milsap Endowed Professorship), all courses will be covered easily.

1. Aileen Garcia, Assistant Professor, Advisor: 20%
2. Chelsea Garneau-Rosner, Asst Research Professor, Committee Member, Advisor: 10%
3. Megan Gilligan, Associate Professor, 1 Grad Course, Advisor, Member of Graduate Education Committee, Committee Member: 25%
4. Nora Hager, Assistant Teaching Professor, Director of Undergraduate Education and Child Life Major, Blumenthal Fellow Supervisor: 10%
5. Melissa Herzog, Associate Teaching Professor, Committee Member, RA Supervisor, TA Supervisor, M&R Co-Chair: 25%
6. Clay Hurdle, Assistant Professor, 1 Grad Course, Advisor, RA Supervisor, Committee Member: 20%
7. Shinyoung Jeon, Assistant Professor, 1 Grad Course, Advisor, Member of Graduate Education Committee, RA Supervisor, Committee Member: 20%
8. Sarah Killoren, Director of Graduate Studies, Associate Professor, Director of Graduate Studies – Doctoral Program, Service to GEC, CEHD, Grad School, 2 Grad Courses, Advisor+, RA/GI Supervisor, Committee Member: 50%
9. Steven Krauss, Associate Professor, Advisor, RA Supervisor, Committee Member: 20%
10. Ashlie Lester, NTT Associate Teaching Professor, TA Supervisor, 1 Grad Course, Committee Member, GI Supervisor: 20%
11. Antoinette Landor, Associate Professor, 1 Grad Course, Advisor, GI Supervisor, Committee Member: 20%
12. Brenda Lohman, Associate Professor, Advisor, HDFS Chair, GI Supervisor, Committee Member: 20%
13. Louis Manfra, Associate Professor, 2 Grad Courses, Advisor, Committee Member: 25%
14. Naomi Meinertz, Assistant Professor, 1 Grad Course, Advisor, RA/TA Supervisor, Committee Member: 15%
15. Kale Monk, Associate Professor, 1 Grad Course, Advisor+, RA/TA Supervisor, M&R Co-Chair, Committee Member: 25%
16. Francisco Palermo, Associate Professor, 1 Grad Course, Advisor, RA Supervisor, GI Supervisor, Committee Member: 20%
17. Russell Ravert, Associate Professor, Advisor, TA Supervisor, Committee Member: 10%
18. Duane Rudy, Associate Professor, 1 Grad Course, Advisor, TA Supervisor, Scholarship and Awards Chair, Committee Member: 25%
19. Rachel Thibodeau-Nielsen, Associate Professor, 1 Grad Course, Advisor, RA/TA/GI Supervisor, Committee Member: 20%
20. Eunjin Tracy, Assistant Professor, Advisor, RA Supervisor, Committee Member: 10%

Credentials for Teaching:

All faculty who teach in the doctorate program are on graduate faculty.

Assignment to Full-time Faculty:

95%

Faculty Involvement:

It is expected that faculty will remain actively engaged in professional activities and in a manner that is commensurate with their academic appointment and consistent with our department's promotion and tenure guidelines. Being thus engaged will benefit their instruction, research, service, and engagement. Further, all faculty at present have completed the CIMER Mentorship training.

5.G. Alumni and Employer Survey

Graduates will be surveyed at one month and one-year post-degree completion for program satisfaction and for suggestions to improve the program. Further, we will maintain an email list of all alumni who have graduated from the program. This list will be kept up to date through email or phone contact with alumni as well as social media sources such as LinkedIn. We will coordinate our tracking efforts with the Graduate School to minimize duplication of effort. Periodically, we will send a short survey to all alumni on the list, asking for updated information on their career path and their level of satisfaction with their PhD training. We anticipate a response rate of 80% and a satisfaction rate of 90% or greater.

5.H. Program Accreditation

Plans to apply for accreditation:

No, not applicable

6. Appendices

1. Letters of Support

Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

Feb. 15, 2024

Dear Dr. Brenda Lohman and the University of Missouri Committee for New Degree Programs:

We are pleased to write in strong support of the Department of Human Development and Family Science application for an independent Ph.D. program in Human Development and Family Science at the University of Missouri-Columbia.

As leaders of the National Council on Family Relations (NCFR) — the premier professional association supporting the discipline of Family Science and academic programs in Human Development and Family Science (HDFS) — we can confirm that the HDFS Ph.D. program at Mizzou has consistently been recognized as a national leader in HDFS, across the program's decades of history in the field and in its longstanding relationship with NCFR. Mizzou has produced an abundance of outstanding HDFS doctoral graduates who have gone on to create lasting impact. Numerous Mizzou HDFS faculty have been recognized as some of the most distinguished scholars in the HDFS field nationally and internationally.

Within NCFR alone, five Mizzou HDFS faculty have attained our organization's most prestigious and exclusive honor for outstanding contributions to the field — NCFR Fellow Status — since the first class of Fellows was named in 1998. The number of students, graduates, and faculty in Mizzou's HDFS Ph.D. program who have earned additional NCFR accolades and awards; presented cutting-edge, impactful research at NCFR's academic conferences; provided expert leadership within the organization; and published top-tier scholarship in NCFR's leading journals is too great to count.

Moving the Mizzou HDFS Ph.D. from an emphasis area in the combined Ph.D. of the former College of Human Environmental Sciences to an independent degree program with a degree title that matches the standards for program names in the field — Human Development and Family Science — will further augment the Ph.D. program's national reputation, visibility, and impact. The program remains among the most significant Ph.D. programs in HDFS, and its exemplary scholars and graduates will no doubt continue to lead the way for the HDFS field.

Thank you for your support of this new degree program request. Please let us know if NCFR can be of further assistance.

Sincerely,



Bethany L. Letiecq, Ph.D.
Board President, National Council on Family Relations



Diane L. Cushman
Executive Director, National Council on Family Relations

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About NCFR: Since 1938, the nonprofit, nonpartisan National Council on Family Relations has been the premier professional association for understanding and strengthening families through interdisciplinary research, theory, and practice. NCFR publishes three leading Family Science research journals, hosts an annual conference, certifies Family Life Education professionals, and provides numerous other professional resources to its members. NCFR represents Family Science scholars and professionals by establishing standards and advocating for the Family Science discipline and for academic programs in Human Development and Family Science.



AUBURN UNIVERSITY

College of Human Sciences

Office of the Dean

February 7, 2024

Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

Dear Dr. Brenda Lohman and the University of Missouri Committee for New Degree Programs:

We enthusiastically support the Department of Human Development and Family Science application for an independent PhD program in Human Development and Family Science at the University of Missouri - Columbia.

As Dean of the Auburn University College of Human Sciences and as Department Head for Human Development and Family Science at Auburn, we attest that the PhD program at Missouri has been nationally recognized as one of the top leaders in the HDFS field for many years. Your HDFS program has a long history of producing outstanding doctoral students and is known for its nationally recognized faculty.

As we understand it, the doctoral program in HDFS at Missouri was an emphasis area in a combined PhD in the former college of Human Environmental Sciences. This new program application represents a "name change" to an independent PhD in Human Development and Family Science, moving it from the combined PhD to an independent degree program with a degree title that matches our field and discipline - Human Development and Family Science. This move will only enhance the national reputation and visibility of this program.

We look forward to watching the program continue to thrive as it adapts and grows within the ever-changing context of our field.

Thank you for your support of this new degree program request.

Sincerely,

Susan S. Hubbard
Dean and Professor

Angela Wiley
Head and Professor

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

College of Human Sciences

Office of the Dean
2155 Lagomarcino Hall
Ames, Iowa 50011-3190
(515) 294-7800
FAX (515) 294-7802

Dr. Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

Friday, February 9, 2024

Dear Dr. Lohman and the University of Missouri Committee for New Degree Programs:

I enthusiastically support the Department of Human Development and Family Science application for an independent PhD program in Human Development and Family Science at the University of Missouri - Columbia. As an administrative leader in the field, I can attest that the PhD program at Mizzou is one of the top in the HDFS field with a long history of producing outstanding doctoral students and is known for its nationally recognized faculty. This new program application is simply a "name change" request for an independent PhD in Human Development and Family Science. This moves the program from an emphasis area in the combined PhD of the former college of Human Environmental Sciences to an independent degree program with a degree title that matches our field and discipline - Human Development and Family Science. This will only enhance the national reputation and visibility of this program.

Our own PhD students have been hired as faculty in the program and we have a long history of working together in the Great Plains Distance Education Alliance so we are well aware of the benefits and excellent training students in this program have.

Thank you for your support of this new degree program request.

Sincerely,



Laura D. Jolly
Dean
Dean's Chair, College of Human Sciences



THE OHIO STATE UNIVERSITY

College of Education and Human Ecology

Department of Human Sciences
Office of the Chair
150 PAES Building
305 Annie and John Glenn Avenue
Columbus, OH 43210-1220

614-688-1444 Phone
614-292-7229 Fax

ehe.osu.edu/human-sciences

February 7, 2024

Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

Dear Dr. Brenda Lohman and the University of Missouri Committee for New Degree Programs:

I enthusiastically support the Department of Human Development and Family Science application for an independent PhD program in Human Development and Family Science at the University of Missouri - Columbia. As an administrative head from the field of HDFS, I can attest that the PhD program at Mizzou has been one of the top nationally-recognized programs in the HDFS field for many years. The HDFS faculty and graduate at Mizzou have a long history of demonstrating excellence in teaching, research, and service and graduates of this program have becoming leading scholars in peer programs around the country. This program application is seeking a "name change" to an independent PhD in Human Development and Family Science that is consistent with the name used at leading peer programs. I believe this name change will be in better keeping with the field and continue to help this program receive the recognition it has earned. I believe this change will enhance the national reputation and visibility of this program.

Thank you for your support of this new degree program request.

Sincerely,

DocuSigned by:

875ED8844A254D6...

Erik J. Porfeli, PhD
Professor and Department Chair, Human Sciences
The Ohio State University



FLORIDA STATE UNIVERSITY
COLLEGE OF EDUCATION,
HEALTH, AND HUMAN SCIENCES

Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

Tuesday, February 13, 2024

Dr. Brenda Lohman and the University of Missouri Committee for New Degree Programs:

I enthusiastically support the Department of Human Development and Family Science application for an independent PhD program in Human Development and Family Science at the University of Missouri - Columbia. As Dean of the College of Education, Health, and Human Sciences at Florida State University, which includes a Department of Human Development and Family Science, I can attest that the PhD program at Mizzou has been nationally recognized as one of the top leaders in the HDFS field for many years. HDFS at Mizzou has a long history of producing outstanding doctoral students and is known for its nationally recognized faculty. This new program application is simply an ask for a "name change" to an independent PhD in Human Development and Family Science. Simply stated, moving it from an emphasis area in the combined PhD from the former college of Human Environmental Sciences to an independent degree program with a degree title that matches our field and discipline, Human Development and Family Science, will only enhance the national reputation and visibility of this program. In addition, in my role as Director on the APLU Board on Health and Human Sciences, I have noticed that this change would better align this program at Mizzou with other premier doctoral programs in the field. Thank you for your support of this new degree program request.

Sincerely,

Damon P. S. Andrew, Ph.D., FNAK, FNAKHE
Dean and Professor
College of Education, Health, and Human Sciences
Florida State University



SCHOOL OF HUMAN ECOLOGY
COLLEGE OF NATURAL SCIENCES

108 E. Dean Keaton • Stop A2702 • Austin, TX 78712-1249 • 512-475-7540 • FAX 512-475-8662

February 5, 2024

Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

Dear Dr. Lohman and the University of Missouri Committee for New Degree Programs:

I am writing with my strong support of the Department of Human Development and Family Science and their application for an **independent PhD program in Human Development and Family Science** (HDFS) at the University of Missouri - Columbia.

I have been an administrative leader in the field for several decades, having served as Director of the Norton School of Family and Consumer Sciences at the University of Arizona, and now as the Director of the School of Human Ecology here at UT, where I was also the Chair of our Department of HDFS. I have also served on the governing boards of the National Council on Family Relations, the Society for Research in Child Development, and was President of the Society for Research on Adolescence. As an administrative leader in the field of HDFS, I can attest that the PhD program at Mizzou has been nationally recognized as a top program for many years. HDFS at Mizzou has a long history of faculty who are field leaders, and a reputation for training outstanding doctoral students. Truly outstanding field leaders have been faculty, or have been trained in your program – including, for example, our colleague Dr. Adriana Umaña-Taylor, Sara Lawrence-Lightfoot Professor of Education at Harvard University, who completed the PhD in your program.

My understanding is that the new program application represents an administrative and name change in light of the recent organizational changes at Mizzou. A move from an emphasis area in the combined PhD in the former college of Human Environmental Sciences to an independent degree program with a degree title that matches our field and discipline – Human Development and Family Science – will further enhance the national reputation and visibility of this program.

Thank you for your support of this new degree program request.

Very sincerely,

A handwritten signature in blue ink that reads "Stephen T. Russell".

Stephen T. Russell
Priscilla Pond Flawn Regents Professor in Child Development
Former Chair, Department of Human Development & Family Sciences
Amy Johnson McLaughlin Director, School of Human Ecology



Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

February 8, 2024

Dear Dr. Brenda Lohman and the University of Missouri Committee for New Degree Programs:

We enthusiastically support the Department of Human Development and Family Science application for an independent PhD program in Human Development and Family Science at the University of Missouri - Columbia. As an administrative head from the field of HDFS, I (Dr. Merten) can attest that the PhD program at Mizzou has been nationally recognized as one of the top leaders in the HDFS field for many years. HDFS at Mizzou has a long history of producing outstanding doctoral students and is known for its nationally recognized faculty. This new program application is simply an ask for a "name change" to an independent PhD in Human Development and Family Science. Simply put, moving it from an emphasis area in the combined PhD from the former college of Human Environmental Sciences to an independent degree program with a degree title that matches our field and discipline - Human Development and Family Science --- will only enhance the national reputation and visibility of this program.

As administrators at the University of Nebraska-Lincoln, we have the opportunity to be collaborators with faculty and administrators in the Department of Human Development and Family Science at the University of Missouri via the Great Plains Interactive Distance Education Alliance, where several institutions work together to deliver a variety of educational programming options to a diverse range of students. Additionally, the University of Missouri's Human Development and Family Science program is well-respected in the prominent family science association, National Council on Family Relations (NCFR), an association committed to advancing the study of family science. The proposed application for an independent PhD program in human development and family science would illustrate alignment with NCFR and promote greater visibility for their program. We support the effort and look forward to continued collaboration and contributions to the field from our Mizzou colleagues.

Thank you for your support of this new degree program request.

Sincerely,

Nicholas J. Pace, EdD
Acting Dean

Michael Merten, PhD
Department Chair and G.A. Newkirk Professor of Leadership
Department of Child Youth and Family Studies

COLLEGE OF HEALTH AND HUMAN SCIENCES
COLORADO STATE UNIVERSITY
217 L.L. Gibbons Building
1501 Campus Delivery
Fort Collins, Colorado 80523-1501
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February 9, 2024

Brenda Lohman
Chair, Human Development and Family Science
102 Gwynn Hall
University of Missouri-Columbia

Dear Dr. Brenda Lohman and the University of Missouri Committee for New Degree Programs:

I enthusiastically support the Department of Human Development and Family Science application for an independent PhD program in Human Development and Family Science at the University of Missouri - Columbia. As a current dean of the College of Health and Human Sciences and a former department head of Human Development and Family Studies at Colorado State University, I can attest that the PhD program at Mizzou has been nationally recognized as one of the top leaders in the HDFS field for many years. HDFS at Mizzou has a long history of producing outstanding doctoral students and is known for its nationally recognized faculty. This new program application is simply an ask for a "name change" to an independent PhD in Human Development and Family Science. Simply put, moving it from an emphasis area in the combined PhD from the former college of Human Environmental Sciences to an independent degree program with a degree title that matches our field and discipline - Human Development and Family Science - will only enhance the national reputation and visibility of this program.

I received a PhD in Human Development and Family Studies from Penn State in 1990 and have been active in the field since then. Administratively, I served as department head of our Department of Human Development and Family Studies at CSU for 13 years (2006-2019) and have been dean of the College of Health and Human Sciences since 2019. As both a faculty member and an administrator at multiple levels, I am keenly aware of the numerous contributions to the field that the Department of Human Development and Family Science at Mizzou has made. I have regularly cited work from faculty in this unit; have had several professional relationships and collaborations with faculty in this department; and have a former postdoc who worked with me who is now an Associate Professor in the department. As department head and dean, I have looked to Mizzou as a valued and aspirational peer institution, and we have used HDFS as a top-tier peer in benchmarking activities. I have had the opportunity to work with Dr. Lohman on two national boards and her leadership in this space only amplifies the impact that the department has. This is an outstanding program, and it is known as a leader in the field. An independent degree program is an essential next step toward enhancing its excellence, visibility, and impact.

Thank you for your support of this new degree program request.

Sincerely,



Lise M. Youngblade, PhD
Dean and Professor
College of Health and Human Sciences

New Degree Program Proposal:

**Master of Science in
Geospatial Engineering**

Missouri University of Science and Technology
April 2025 Board of Curators Meeting

New Degree Proposal

FULL PROPOSAL

Basic Program Information

Sponsoring University: Missouri University of Science and Technology

College or School: College of Engineering and Computing

Department: Earth Sciences and Engineering

Proposed Program Title: Geospatial Engineering

Degree Level/Type: Non-thesis Master's Degree

Emphasis Areas: Remote Sensing and Earth Observation,
Navigation and Autonomous Systems,
Geodetic Systems

Program Modality: Fully in-person, fully online, and/or hybrid

If online component: Asynchronous and synchronous

Program CIP Code¹: 14.3801 - Surveying Engineering

Implementation: August 2025

Expected Date of First
Graduation: Spring 2027

Proposal Author(s): Jeremy Maurer, Stephen Gao

Name, phone, and email of
person primarily responsible
for the proposal: Jeremy Maurer, 573-341-4852, jmaurer@mst.edu

Individual(s) Responsible for Success of the Program:

Stephen Gao, Chair, Earth Sciences and Engineering

¹ A selection of CIP codes can be viewed on the National Center for Education Statistics website:
<https://nces.ed.gov/ipeds/cipcode/browse.aspx?y=55>

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Executive Summary

The proposed Master of Science (MS) degree in Geospatial Engineering at Missouri S&T is designed for students with bachelor's degrees in various technical fields. The program aims to equip students with knowledge and skills in geospatial technology, preparing them to apply these technologies in their field of interest or work. By incorporating geospatial science into engineering and science applications, the program will open new career pathways for students. The curriculum focuses on fundamental geospatial technologies, including Positioning, Navigation, and Timing (PNT), geodesy, remote sensing, and Global Navigation Satellite Systems (GNSS), emphasizing both foundational and applied aspects of geospatial engineering.

Importance of the Program

The establishment of a Geospatial Engineering MS program aligns with Missouri S&T's mission and strategic goals, supporting the growth of critical technology sectors within the state of Missouri and the nation. Geospatial technologies play a key role in diverse applications that are critical to Missouri's economy, such as sustainable agriculture, critical mineral identification, and transportation. However, many geospatial technologies lag those of other countries, so advancing geospatial education at Missouri S&T will set up Missouri as a national leader in this area and strengthen the university's reputation. The program positions Missouri S&T as a potential partner for federal agencies and industry leaders, enhancing the university's impact at the state and national levels.

Evidence of Employer and Student Demand

Demand for geospatial professionals is growing significantly. Key industry players and federal agencies needing geospatial expertise in Missouri include the National Geospatial-Intelligence Agency (NGA), the Missouri Department of Transportation and its partner, the National Geodetic Survey (NGS), and the Department of Defense (DOD). Several of these agencies are seeking partnerships with universities to address the shortage of geospatial engineers in the U.S. Market analysis supports this demand, showing that the global geospatial analytics market was valued at USD 85.77 billion in 2022, with an expected compound annual growth rate (CAGR) of 12.6% from 2023 to 2030. This growth, projected to accelerate post-2025, underscores the expanding role of geospatial technologies across multiple industries, driven by policy reforms, digital innovation, and increasing demands for location-based services. In Missouri, Leidos and Maxar have partnered with St. Louis-based Gateway Global American Youth and Business Alliance Academies Inc. (GGAYBA) to prepare students for entry-level positions in the geospatial industry through apprenticeships and internship positions. NGA and other geospatial industries in St. Louis alone have a total economic impact of nearly \$5 billion (Missouri Partnership, <https://www.missouripartnership.com/major-industries/geospatial/>).

Economic Feasibility

The economic feasibility of the program is reinforced by forecasted student and employer demand in the growing geospatial market, which is anticipated to reach USD 1.44 trillion by 2030. As industries increasingly rely on geospatial data for strategic decisions, the need for trained professionals will only grow, making the program a sound investment for Missouri S&T. The program's establishment will also attract funding and partnerships, providing financial stability and growth opportunities. Missouri S&T is well positioned to start the program with existing courses and faculty expertise, so initial financial investment is modest. Expanding geospatial education now will capitalize on current trends and position Missouri S&T and the UM system as a leader in geospatial research and workforce development.

1. Introduction

The Geospatial Engineering Master's program at Missouri S&T is designed for students with undergraduate degrees from a wide range of technical backgrounds, including disciplines such as geological, civil, and environmental engineering, geological and environmental sciences, and computer science. Students with these STEM degrees should have the baseline computational and mathematic requirements necessary for the required coursework. The program provides an advanced education in geospatial technologies, preparing graduates to address complex problems across multiple sectors. Ideal candidates for this program will have foundational knowledge in calculus, linear algebra, basic physics, computer programming, and introductory Geographic Information Systems (GIS). This degree will appeal to students looking for further credentialing after completing their undergraduate degrees as well as working professionals looking to get into the geospatial from related industry backgrounds.

Academic Components and Career Pathways

The MS program in Geospatial Engineering offers an in-depth curriculum that covers essential geospatial technologies, including:

1. Global Navigation Satellite Systems (GNSS) and geodesy: Understanding satellite-based systems for positioning, timing, and navigation, as well as non-satellite-based positioning methods.
2. Remote Sensing and Synthetic Aperture Radar (SAR): Learning to interpret and analyze data from various imaging technologies.
3. Geographic Information Systems (GIS): Managing, analyzing, and visualizing spatial data.
4. Geomatics: Developing precision in mapping, surveying, and spatial data applications.

These core academic components are supplemented by hands-on training in industry-standard software and data analysis, allowing students to apply their skills in real-world scenarios. Through interdisciplinary courses, students gain collaborative experience, equipping them to work effectively with professionals from diverse fields.

Graduates of this program will be prepared for high-demand roles in several fields. Potential career paths include, but are not limited to the following:

- Geospatial Engineer: Working in government agencies, tech firms, or private industry to design and manage spatial data solutions.
- Remote Sensing Analyst: Using satellite and aerial imagery for applications in agriculture, defense, or urban planning.
- GIS Specialist: Supporting city planning, environmental protection, and infrastructure development with spatial data insights.
- Geospatial Intelligence Analyst: Working in defense or intelligence sectors to analyze spatial data for security and operational planning.

Evolution of the Program Concept

The concept for the MS in Geospatial Engineering builds on Missouri S&T's success in geospatial education and research in several departments, including Earth Sciences and Engineering, Computer Science, Environmental Science, Electrical and Computer Engineering, Civil Architecture and Environmental Engineering, and Engineering Management. These programs have demonstrated strong student interest and alignment with industry needs, providing a solid foundation for expanding into a full master's program. We have received positive feedback from industry partners and prospective students, reinforcing the demand for advanced training in geospatial technologies. This new degree leverages Missouri S&T's established strengths in geospatial applications, positioning the university as a leader in this rapidly growing field at a time when demand for geospatial expertise is accelerating nationwide.

Integration of Existing Courses

The MS program will benefit from Missouri S&T's existing courses across various departments. Core courses such as Introduction to GIS, Advanced Remote Sensing, Mapping with Drones, Potential Field Geophysics, Computational Geophysics, and Data Analytics for Geospatial Applications provide foundational and advanced training directly relevant to geospatial engineering. Supplementary courses in Computer Science, Electrical Engineering, and Environmental Engineering offer valuable interdisciplinary perspectives, enabling students to customize their learning to meet specific career goals. This collaborative approach enriches the program by leveraging Missouri S&T's multidisciplinary strengths, allowing students to develop a broad skill set highly sought after by employers.

Program Leadership and Contact Information

The program will be administered by the Department of Earth Sciences and Engineering at Missouri S&T. The individuals responsible for the program's success will be:

Program Director: Dr. Jeremy Maurer, Assistant Professor

Individual for the Success of the Program: Dr. Stephen Gao, Professor and Department Chair
Department: Earth Sciences and Engineering

Contact Information: jmaurer@mst.edu | (573)-341-4852
sgao@mst.edu | (573)-341-6676

If additional program oversight is needed, the university may appoint an advisory board with expertise in geospatial technology, program management, and industry collaboration.

2. University Mission & Program Analysis

2A. Alignment with University Mission & Goals

Missouri S&T's mission is to integrate education, research, and practical application to create and convey knowledge that serves the state and addresses global challenges. The mission is central to the proposed Geospatial Engineering MS degree program. This new program directly supports several key areas of the university's strategic plan:

Enrollment Growth (Master's, On-Campus and Online): The Geospatial Engineering program targets a critical area of engineering currently underserved at Missouri S&T, attracting a new cohort of MS students interested in geospatial technology applications across industries. By offering both on-campus and online pathways, the program increases accessibility, reaching a broader audience and potentially boosting enrollment among professionals who might otherwise not pursue an MS degree.

Academic Excellence (Strategy Group 5 - Evaluate and Evolve Non-Thesis MS Program Offerings): Geospatial technology has become increasingly vital for addressing environmental change and enhancing national security, as recognized by the National Academies of Science and the U.S. Department of Defense. Through this program, Missouri S&T will cultivate expertise in key areas such as Positioning, Navigation, and Timing (PNT); autonomous systems; and smart infrastructure. By advancing knowledge and application in these high-demand fields, the program strengthens Missouri S&T's competitiveness for research funding and domain-specific projects. This program aligns with the university's commitment to academic excellence, offering students the opportunity to engage with cutting-edge research and technology.

Outreach and Engagement: The Geospatial Engineering MS program prepares students for diverse career paths, including entrepreneurial ventures that contribute to economic growth in fields such as transportation, Earth observation, and localization. As geospatial technology becomes integral to societal solutions, Missouri S&T graduates will be well-positioned to lead initiatives that drive positive global impact. Additionally, the program fosters collaboration with national and international agencies, enhancing the university's outreach and engagement efforts while preparing students to become leaders in addressing global environmental and social challenges.

2B. Alignment with Department and College Priorities

The proposed Geospatial Engineering program aligns closely with the strategic priorities of the Department of Earth Sciences and Engineering (ESE) and the College of Engineering and Computing (CEC):

Alignment with ESE priorities: The program supports ESE's mission to offer innovative educational pathways within geospatial science and engineering. As a natural extension of ESE's existing courses in geospatial subjects, the MS program leverages Missouri S&T's partnerships with organizations like the NGA, Missouri Geological Survey, U.S. Geological Survey, Taylor Geospatial Institute, and industry collaborators. This network provides a strong foundation for the program, offering students unparalleled access to industry expertise and enhancing ESE's offerings. This program also attracts students interested in geospatial sciences who may not align with traditional categories of existing degree paths, thus broadening the department's appeal and impact.

Alignment with CEC priorities: CEC's mission to provide transformative education that prepares students for leadership aligns perfectly with the goals of the Geospatial Engineering program. The knowledge and skills gained through this program will empower graduates to be more effective and creative as they contribute to technology-driven industries. By integrating geospatial science into students' educational experiences, the program ensures that Missouri S&T graduates are equipped to shape the future of geospatial technology and applications. CEC's support for this program reflects a genuine commitment to expanding the college's focus on interdisciplinary, impactful engineering education, meeting the growing demand for geospatial expertise in the workforce.

2.C. Duplication & Collaboration within Campus, Across System

Currently, Missouri S&T and the University of Missouri System do not have any stand-alone graduate degree programs in Geospatial Engineering. The closest program within the University of Missouri System is the Data Science & Analytics MS Program (DSA) at the University of Missouri, Columbia, which provides education on advanced big data and analytics tools and techniques, and has a geospatial analytics emphasis area that consists of three courses. The program focuses on traditional data analysis tools with big data analysis and visualization, which is relatively distinct from the engineering focus of our proposed program. UMKC has a graduate certificate in Geographic Information Systems (GIS) available, which focuses on GIS and mapping, and both UMKC and UMSL have undergraduate certificates in GIS. These complement our proposed degree program very well, as students who have taken these certificate programs will have much of the necessary background required by this proposed MS program, and being able to complete the degree online will add flexibility.

In addition to these programs, the University of Missouri, Columbia Center for Geospatial Intelligence has undergraduate and graduate certificates in Geospatial Intelligence. These can have a similar thrust to our proposed program, but are specifically focused on the defense sector and do not provide a full degree program. Our proposed program has a more general focus on all aspects of geospatial engineering, and not just those aspects that are specific to the geointelligence community. We do plan to collaborate with MU, making several of their geospatial courses available to our students and vice-versa, to enhance course offerings at both institutions and build connections.

3. Business-Related Criteria & Justification

3.A. Market Analysis

3.A.1. Rationale & Workforce Demand for the Program

There are no other Geospatial Engineering MS degrees currently being offered in the United States. Similar degree programs are Geospatial Intelligence, focused on the intelligence and defense industries, Geomatics/Surveying Engineering, and Geographic Information Systems (GIS). Appendix 3-5 show Lightcast analyses for degree programs in these three areas. The analyses suggest that a non-thesis or professional MS degree could be very successful, as non-degree certificate programs and MS degrees combined accounted for 60%, 85%, and 70% of all awards in these three fields in the last 3 years. Having an online option for the MS would also be very successful, as evidenced by 500% growth in online Surveying Engineering awards since 2012, (total of 30 completions) and 886% growth in online GIS awards (total of 848 completions). While online geospatial intelligence programs were steady over the same time period, this suggests that a degree program having a broader focus within geospatial would perform better compared to highly niche programs. We have adopted the “Surveying Engineering” CIP code for this proposal, as one of the emphasis areas we propose is geodesy, but our proposed degree program will focus more broadly on a range of geospatial engineering topics and include development of new positioning technology as a core focus area.

Demand for this degree program is likely to grow. Job growth in target occupations grew 10% in the last three years for GIS, 8.5% for surveying engineering, and was about the same for Geospatial Intelligence (see attached Lightcast analysis for details). Industries mentioned in the analysis include Surveying and Mapping Technicians, Military, Criminal Investigators, Intelligence Analysts, Geographers, Cartographers and Photogrammetrists, Surveyors, Urban and Regional Planners, Physical Scientists, Architectural and Civil Engineering, and Postsecondary teachers. Skills mentioned in the analysis include Automation, Software Development, Python, SQL, Java, Project Management, Amazon Web Services, and Computer Science. *Geospatial World* projects the total geospatial industry to grow at a rate above 10% (Figure 1). Key industries that will grow include automation and robotics, AR/VR technology, Digital Twins, smart sensors, and mapping and UAVs. That same *Geospatial World* report notes that “GNSS and Positioning is forecasted to be the largest and growing geospatial technology segment with approx. 45 percent of the total market share.” Markets and Markets projects more than 12% annual growth of the geospatial analytics market, and the GPS/GNSS industry specifically is projected to grow more than 13% annually (Figure 1). Much of this growth will come autonomous vehicles and fleet management, as well as tracking and navigation applications.

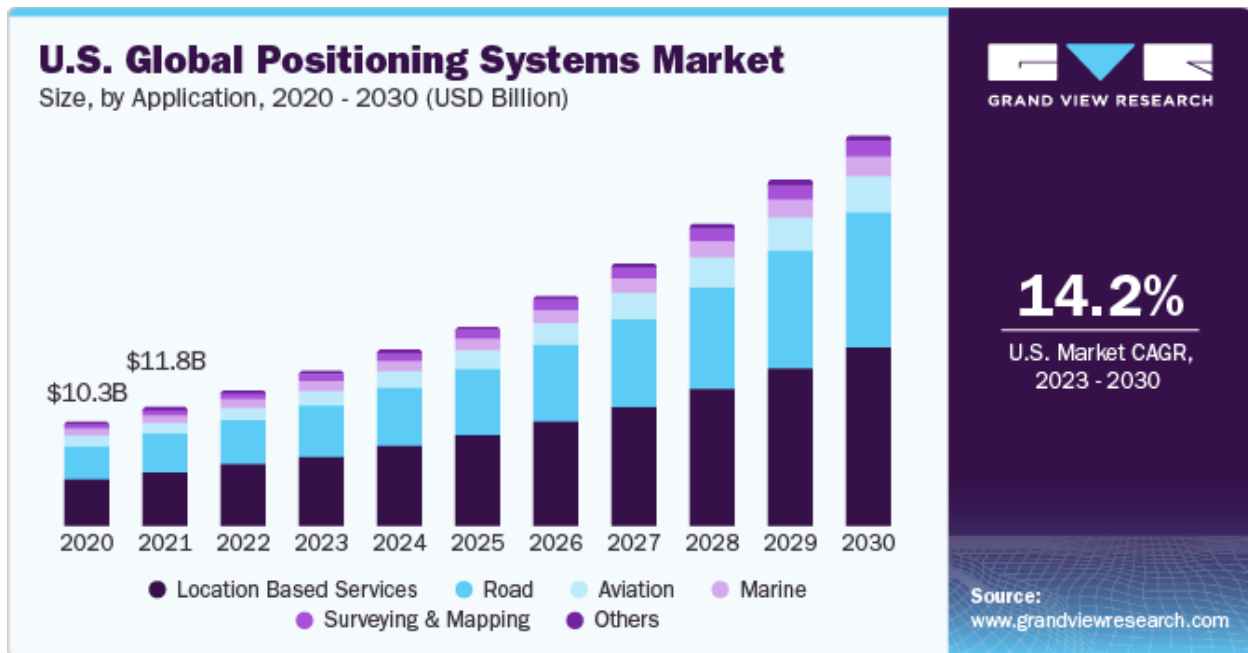


Figure 1 Past and projected growth of the GPS industry to 2030. Source: Grand View Research.

We held conversations with industry representatives in these areas, including Garmin, Ursa Space, Inc., as well as local engineering firms, government agencies including the USGS and representatives of Fort Leonard Wood. Outcomes from these conversations include letters of support for the degree program (see Appendix 2) as well as specific suggestions that shaped the courses we’ve included in the program. For example, industry feedback led to the introduction of a second course on positioning, navigation, and timing. Furthermore, S&T’s existing relationship with Fort Leonard Wood can be leveraged, as the Fort provides geospatial training to officers, including an annual GIS day that S&T participates in, that would benefit from a new MS-level program.

3.A.2. Student Demand for the Program

Undergraduates from a variety of science and engineering disciplines can feed directly into this degree program. Missouri S&T’s historical student participation in existing courses related to the program is high, including Mapping with Drones, and Remote Sensing. These courses have in particular proven popular with graduate students across a range of existing majors, including geology, geological engineering, civil engineering, physics, mining engineering, mechanical engineering, environmental science, and computer science. Student projections below are based on looking at the number of annual MS completions in Geomatics/Surveying Engineering from the Lightcast analysis of other programs in the nation (Appendix 4) both on-campus and distance students, assuming that we will reach those numbers within a few years, as well as based on the number of students that currently take advanced remote sensing classes at S&T and assuming that ~10% of those students would continue on to an MS degree in Geospatial Engineering.

Based on these numbers, an annual new-student enrollment of 19 full-time students/year and 11 part-time students/year is anticipated once the program is in full swing. Part-time student enrollment is based on the number of students completing post-baccalaureate certificates. Total enrollments are based on assuming that full-time students finish the MS in two years and part-time students finish in four years. Degrees awarded is based on an 80% completion of students that begin the program, used for the Missouri S&T campus.

Table 1a. Student Enrollment Projections (anticipated total number of students enrolled in the program during the first five fall semesters following implementation.)

Year:	1	2	3	4	5
Full-time	6	14	19	26	34
Part-time	3	7	13	21	29
Total	9	21	32	47	63

Table 1a. New Student Enrollment Projections (anticipated number of students enrolled in the program during the first five fall semesters following implementation that are new to the University.)

Fiscal Year:	1	2	3	4	5
Full-time	6	8	11	15	19
Part-time	3	4	6	8	11
Total	9	12	17	23	30

Table 1c. Projected Number of Degrees Awarded

Year:	1	2	3	4	5	6	7	8	9	10
# of Degrees Awarded	0	5	7	13	17	22	24	27	27	27

3.B. Financial Projections

Appendix 6 presents the financial pro forma analysis for the program, assuming one NTT hire in Year 2, one TT hire in Year 4, and assuming that a GTA will be required beginning in Year 3. Summary of the pro forma is given in Table 2. Because this is a non-thesis MS program only, no funds for space or equipment are considered necessary at this point. Existing library resources are also adequate for the program. The pro forma does not consider part-time students, so an approximation is made using half the number of part-time students and assuming they are full-time for revenue estimation purposes.

3.B.1. Additional Resources Needed

We propose to hire one NTT faculty to teach courses and facilitate the online component of the degree program if and when this degree proposal is approved, with an additional hire in Year 4 (see Table 2). We have furthermore structured the program to leverage existing courses, faculty, and infrastructure currently available at Missouri S&T as much as possible. The host Earth Sciences and Engineering department and the College of Engineering and Computing are committed to providing needed support to start the program and get it running. As the program grows we will need to add another faculty member to ensure we can run offerings with the necessary frequency and concurrency to ensure a streamlined pathway to graduation that includes a variety of elective choices. We will continue to invest in new faculty as enrollment increases and new partnerships are developed with industry, which we anticipate being a secondary result of developing this new program.

3.B.2. Revenue

The new MS program is expected to grow rapidly due to the increasing demands and benefits of geospatial technologies. Within 5 years, we anticipate having ~63 MS students enrolled in the program. The associated revenue generation associated with this growth is outlined in our pro forma in Appendix 5.

We will conduct an annual evaluation of the program to track costs and revenue while acknowledging the efforts and contributions of all participating faculty members and their affiliates. This approach will enable us to make prompt adjustments to marketing and recruitment strategies. Additionally, these annual analyses will inform the allocation of internal resources and provide a basis for justifying student support, as well as the need for additional faculty and staff positions.

3.B.3. Net Revenue

Annual revenue is expected to exceed annual expenses by the third year, and cumulative revenue is expected to exceed cumulative expenses by Year 5. This includes hiring two NTT faculty in Year 1 and Year 4 to cover classes for the program. Financial projections for a 50% enrollment scenario have also been provided (**Appendix 5**). In this situation, the program will reduce the faculty hiring positions and additional operating expenses based on the number of enrolled students.

Table 2. Financial Projections for Proposed Program for Years 1 Through 5.

	Year 1	Year 2	Year 3	Year 4	Year 5
1. Expenses per year					
A. One-time					
<i>New/Renovated Space</i>	0	0	0	0	0
<i>Equipment</i>	0	0	0	0	0
<i>Library</i>	0	0	0	0	0
<i>Consultants</i>	0	0	0	0	0
<i>Others</i>	10,000	0	0	10,000	0
Total one-time	10,000	0	0	10,000	0
B. Recurring					
<i>Faculty</i>	80,000	81,600	83,232	169,897	173,295
<i>Staff</i>	6,917	7,055	7,196	7,340	7,487
<i>Other Salaries</i>	0	0	15,000	18,300	18,666
<i>Benefits</i>	33,346	33,805	44,673	67,590	68,526
<i>Marketing</i>	50,000	50,000	50,000	50,000	0
<i>Computing Expenses (NTT computer)</i>	1500	0	0	1500	0
<i>GTA Tuition</i>	0	0	7,381	7,602	7,830
Total recurring	171,763	172,460	207,482	322,229	275,804
Total expenses (A+B)	181,763	172,460	207,482	332,229	275,804
2. Revenue per year					
<i>Tuition/Fees</i>	111,276	245,973	366,510	542,19	741,134
<i>Scholarship Allowances</i>	(6,677)	(14,758)	(21,991)	(32,531)	(44,468)
<i>State Aid – CBHE</i>	0	0	0	0	0
<i>State Aid – Other</i>	0	0	0	0	0
Total revenue	104,599	231,215	344,520	509,660	696,666
Campus Overhead Margin	31,380	69,364	103,356	152,898	209,000
3. Net revenue (loss) per year					
	(108,543)	(10,610)	33,682	24,533	211,862
4. Cumulative revenue (loss)	(108,543)	(119,153)	(85,471)	(60,938)	150,924

3.B.4. Academic and Financial Viability

Due to the demands from academia, government, and industry, there are no financial concerns associated with the proposed geospatial engineering program. Academically, the program requires a minimum enrollment of 4 students to maintain a vibrant and active learning environment. Financially, based on the financial projections in Table 2 and

Appendix 6, and assuming hiring one NTT faculty in Year 1 and one in Year 4, the program will hit the “break-even” point financially at around 36 full-time equivalent students (taking the student numbers from Year 4 in Table 1a and assuming 1 part-time student = ½ full-time student).

Table 3. Enrollment for Academic and Financial Viability

Viability	Minimum Enrollment
Academic	4
Financial	36
Overall	36

3.C. Business Plan: Marketing, Student Success, Transition & Exit Strategies

3.C.1. Marketing Plan

The Geospatial Engineering program will recruit students from different sources:

- (1) current S&T BS students nearing graduation who are interested in geospatial technologies.
- (2) graduates with an S&T BS degree who are working professionals.
- (3) STEM graduates from other universities, including international students and working professionals who are interested in developing new skills in this area.
- (4) Students who are interested in furthering their education through online degree programs.

Key components of our marketing plan include:

(1) Online Marketing

- **Website Development:** Create a dedicated webpage for the Geospatial Engineering Master's program on the university's website, highlighting program benefits, curriculum, faculty expertise, and career outcomes. Include testimonials from faculty, students, and industry partners.
- **Social Media Campaigns:** Launch targeted social media campaigns across platforms like LinkedIn, Facebook, Twitter, and Instagram to engage prospective students. Use a mix of organic and paid content, including program highlights, success stories, and faculty research.
- **Email Marketing:** Develop a segmented email campaign targeting prospective students, industry partners, and academic collaborators, providing program updates, application deadlines, webinars, and events.

(2) Recruitment Events

- Target Fort Leonard Wood students through direct marketing to the existing contacts the Earth Sciences and Engineering department has with the Fort.
- Virtual Open Houses: Host virtual open houses and webinars to provide detailed information about the program, answer questions, and engage with prospective students globally. Include presentations from faculty and current students.
- Campus Visits and Info Sessions: Organize campus visits and in-person information sessions for local and regional prospective students to learn more about the program and facilities.
- Participation in Education Fairs: Represent the program at national and international education fairs, both virtually and in-person, to reach a broader audience.
- Industry-Specific Recruitment Events: Host recruitment events tailored to professionals in tech and related fields, emphasizing the program's potential for career advancement and specialization in geospatial technologies.

(3) Collaboration with External Academic and Industry Partners

- Academic Partnerships: Form partnerships with other academic institutions to promote the program through their networks and offer joint events, research collaborations, and faculty exchanges.
- Industry Partnerships: Collaborate with Garmin, Ursa Space, startups, and tech organizations to offer exclusive webinars, internships, co-op opportunities, and industry-sponsored projects. Use these partnerships to demonstrate the practical, hands-on nature of the program.
- Corporate Sponsorships: Secure corporate sponsorships with IT related industries for scholarships, events, and research initiatives to attract top-tier students and enhance program credibility.

(4) Alumni Engagement

- Alumni Networking Events: Host alumni networking events and reunions focused on geospatial engineering, allowing graduates to connect with current students, faculty, and industry partners.
- Alumni Testimonials and Spotlights: Feature alumni testimonials and career spotlights on the program website and social media channels to showcase the program's impact and outcomes.

(5) Press Releases and Announcements

- Official Program Launch Announcement: Issue a press release announcing the launch of the new Geospatial Engineering Master's program, highlighting its objectives, unique features, and potential impact on the tech industry. Distribute the release through major news outlets, industry publications, and educational platforms.

- **Media Engagement:** Engage with local and national media to secure coverage in newspapers, magazines, and tech blogs. Offer interviews with program directors, faculty, and students to discuss the program's significance.
- **Success Stories and Milestones:** Regularly publish press releases and updates on significant milestones, such as high enrollment rates, partnerships, research breakthroughs, and notable alumni achievements.

We will closely monitor enrollment trends and marketing analytics and gather feedback from enrolled students to gain insights into their decision-making processes, allowing us to refine our marketing strategies effectively. The program will undergo an annual evaluation to assess costs and revenue, with adjustments to marketing and recruitment efforts made as necessary. By collaborating with the University's marketing team, we anticipate no additional costs for marketing activities.

3.C.2. Student Success Plan

To ensure the success of our students in the new Geospatial Engineering Master's degree program, we will focus on professional development and industrial partnerships. This plan is designed to equip our students with the necessary skills, knowledge, and networks to thrive in the field of geospatial engineering and other geospatial and engineering fields.

(1) Professional Development:

- We will require a capstone course for the degree program that will provide information on professional development opportunities (seminars, workshops, etc.) to the students.

(2) Industrial Partnerships:

- We will establish partnerships with leading companies (Garmin, Ursa Space, others) and organizations in the geospatial sector. These collaborations will include guest lectures, sponsored projects, and real-world case studies that bring industry insights into the classroom.
- We will establish an Industry Advisory Board, which will provide strategic guidance on the program curriculum, ensuring alignment with industry needs and emerging trends.

3.C.3. Transition Plan

If the Department Chair who is primarily responsible for the program leaves the institution or assumes other responsibilities, a transition plan will be in place to ensure program continuity and quality. The plan includes the appointment of an interim department chair by the vice-provost and dean of the College of Engineering and Computing. This will be followed by a national search to identify and hire a new department chair. If the director of professional graduate programs leaves or assumes other responsibilities, the department

chair will appoint a new member of the faculty as the director of professional graduate programs.

3.C.4. Exit Strategy

If the new program underperforms or fails to meet minimum enrollment criteria for financial viability continuously for several years after the initial period, the following exit strategy will be implemented:

1. A thorough program evaluation will be conducted by the Office of the Provost to identify any areas in need of improvement or adjustment.
2. Marketing and recruitment efforts will be reassessed and adjusted as needed to attract more students.
3. If the program continues to underperform after implementing these changes, the University will place the program on hiatus to re-evaluate its offerings and strategies.
4. If the program must be discontinued, the department will develop a teach-out plan to ensure that currently enrolled students can complete their degree requirements in a timely manner. This may include offering necessary courses until all enrolled students graduate, or assisting students in transferring to comparable programs including the Geology & Geophysics, Geological Engineering, Civil Engineering, or Mechanical Engineering master's program at Missouri S&T.

4. Institutional Capacity

This new program leverages the existing curriculum, infrastructure, faculty, and staff. In addition, the Office of Graduate Education at Missouri S&T offers a comprehensive range of services to support current and prospective graduate students. The courses involved in the program are already taught on campus and many are already available as distance or online courses. In order to initiate the proposed program, we have identified courses that will be created, including two courses on positioning, navigation, and timing, and a capstone course. We have already identified industry partners with teaching experience that are interested to serve as adjunct faculty for these courses and we intend to hire an additional faculty member to further support these efforts in the first year.

5. Program Characteristics

5.A. Program Outcomes

The learning objectives of the proposed MS degree program are:

1. Achieve an advanced understanding of the foundational principles, theories, and applications of several key geospatial technologies, including Global Navigation Satellite Systems (GNSS), remote sensing, GIS, and Geomatics.

2. Develop practical application skills through hands-on experiences with mainline software and data used in the field, such as GIS, satellite optical and Synthetic Aperture Radar (SAR) data, and Autonomous Vehicle Systems, which will empower students to design, implement, and evaluate geospatial solutions for real-world problems.
3. Develop an interdisciplinary understanding and problem-solving framework by taking courses from multiple departments for their degree, fostering innovation to address complex engineering challenges that require geospatial solutions.

Minimum requirements for students coming into the program will be Calculus 1 + one additional math class in statistics, linear algebra, or calculus, one class on programming and/or computational data analysis, one course in physics, and one course in GIS. Students that have taken additional courses that are equivalent to the core courses required by this degree program may replace those, with advisor approval, with additional electives from the list in Appendix 1 to reach 30 credit hours.

5.B. Program Design & Content

In this proposed program, students will graduate with 10 lecture courses (totaling to 30 credits), with at least 3 lecture courses at the 6000 level. Consistent with the graduate catalog, the program requires a minimum of thirty hours of graduate credit. The plan of study (Form 1/1-A) must include a minimum of twenty-four credit hours of 4000-, 5000-, and 6000-level lecture courses (1000/2000-level courses cannot be included). A minimum of nine credit hours of the required coursework must come from the group of 6000-level lecture courses. Additionally, no credit hours of graduate research may be applied toward the plan of study. Furthermore, to align with the listed program outcomes in Section 5.A, the curriculum is organized into three major parts: (i) program core courses (15 credit hours), (ii) specialty elective courses (6 credit hours), and (iii) discipline-specific elective courses (9 credit hours).

Program-Core Courses: Five courses (totaling to 15 credit hours) are chosen in order to accomplish the desired Program Outcomes 1 and 2, listed in Section 5.A. Specifically, GEO ENG 5146: Applications of GIS offers training in advanced GIS. GEO ENG 5144 and GEOPHYS 6401: Introduction to Positioning, Navigation, and Timing offers introductions to remote sensing and GPS/GNSS technology. GEOPHYS 6403: Advanced Positioning, Navigation, and Timing provides an advanced course on GPS and other related topics. Finally, GEO ENG 6150: Capstone Project in Geospatial Engineering will provide a capstone experience for students where they can work on projects of interest and interact with experts from both academia and industry to learn real-world applications in various domains.

GEO ENG 5146: Applications of GIS	3
GEO ENG 5144: Remote Sensing Technology	3
GEOPHYS 6401*: Introduction to Positioning, Navigation, and Timing	3
GEOPHYS 6403*: Advanced Positioning, Navigation, and Timing	3
GEO ENG 6150: Capstone Project in Geospatial Engineering	3

*To be co-listed with Electrical Engineering and Aerospace Engineering

Specialty Elective Courses: In consultation with their advisor(s), students take 6 credit hours (choose two courses out of three) for their specialty area of interest. To begin with three areas of interest will be given, with other options to be added in the future pending interest and sufficient enrollment.

Area of Interest: Navigation and Autonomous Systems	Hrs
ELEC ENG 5680: Introduction to Radar Systems	3
GEO ENG 6321: Mapping with Drones	3
COMP ENG 5880 Introduction to Robotics	3

Area of Interest: Remote Sensing and Earth Observation	Hrs
GEO ENG 6146: Advanced Remote Sensing and Image Processing	3
GEO ENG 6321: Mapping with Drones	3
GEOPHYS 6232: Introduction to Satellite Geodesy	3

Area of Interest: Geodetic Systems	Hrs
GEO ENG 6432: Introduction to Remote Sensing Systems	3
GEOLOGY 6211 Geodynamics	3
GEOPHYS 5432 Potential Field Theory	3

Emphasis Area-Specific Elective Courses: In consultation with their advisor(s), students should select 9 credit hours of electives from the list of courses included in Appendix 1. The courses should be relevant to the student's background, interests, and program of study and approved by the advisor.

5.C. Program Structure

A total of 30 credit hours will be required beyond the B.S. degree. This non-thesis degree option provides a unique depth of understanding in geospatial technology that is not currently available in our other degree programs and is well suited for non-traditional professional students coming from industry who are looking to get into geospatial technology. Research opportunities for thesis MS students interested in geospatial already

exist, so this degree provides a coursework-focused option for those students, largely professional, that are looking to advance within the geospatial industry. The breakdown of course requirements is as follows:

Program Core Courses	15 hrs	Students must take 15 credit hours (five 3-credit hour courses) from the Program Core Course List of courses.
Specialty Core Courses	6 hrs	Students take two courses that are required for their specialty area.
Discipline-Specific Elective Courses	9 hrs	Students should take three additional courses from the list of courses given in Appendix 1. These courses must be approved by the program advisor and will be chosen based on their specific career goals, interests, and background.
Total	30 hrs	

The curriculum consists of three major parts: program core required courses, specialty core courses, and elective courses. Courses must be approved by the students' academic advisor.

5.C.1. Program Structure Form

1. **Total Credits Required for Graduation:** 30
2. **Residence requirements, if any:** None
3. **General education**
 - a. Total general education credits: None
4. **Major Requirements**
 - a. Total credits specific to degree: 15
5. **Free elective credits**
 - a. Total emphasis area elective credits: 9
6. **Requirement for thesis, internship or other capstone experience:**
Project-based capstone course
7. **Any unique features such as interdepartmental cooperation:**
Supporting faculty in 6 different departments

5.D. Program Goals and Assessment

Learning outcomes will be assessed through ordinary course assessments as well as through the project-based capstone course. A retention rate of 80% was assumed based on averages used by the campus. Based on meetings with industry representatives, we anticipate high placement rate of graduates into industry and/or research-related positions.

5.E. Student Preparation

The program will be designed for students from a broad range of backgrounds. Prerequisites for the program will include introductory / basic Geographic Information Systems (GIS), Calculus 1, Physics 1, a programming class in any language, and at least one additional course in math or physics.

5.F. Faculty and Administration

The Geospatial Engineering MS program will leverage the expertise of over 10 existing faculty members from various departments who are slated to offer courses listed in the curriculum. Dr. Stephen Gao, Department Chair in Earth Sciences and Engineering, will be the primary point person for the program, while Dr. Jeremy Maurer will serve as a program coordinator for this new program and help track activities, students, and advising.

This program requires interdepartmental cooperation. A key component of the proposed MS program is to welcome researchers, students, and ideas from all relevant backgrounds. Students in the program will have the opportunity to work across disciplines and develop their own individualized plans of study. While the proposed curriculum includes the important element of flexibility, it also includes a powerful set of core courses that will be important for all students in this discipline.

A steering committee will be formed to make curriculum decisions and to administer the program. The steering committee will be composed of four faculty representatives: the program coordinator and department chair from Earth Sciences and Engineering, one graduate faculty representative from CEC, and one graduate faculty representative from the Kummer College.

Name	Department, College	Expertise	% commitment
Stephen Gao	ESE, CEC	Gravity, magnetics, geophysics	10%
Kelly Liu	ESE, CEC	Gravity, magnetics, geophysics	5%
Jeremy Maurer	ESE, CEC	Geodesy, GNSS, gravity, lidar, InSAR	20%
Weibing Gong	ESE, CEC	UAVs, photogrammetry	10%

Joel Burken	CArEE, CEC	Environmental monitoring	5%
Genda Chen	CArEE, CEC	Digital twins, transportation	5%
Satish Puri	Computer Science, CEC	Geospatial Big Data	5%
Steven Corns	EMSE, KC	Remote Sensing, AI/ML	5%
Kristen Donnell	ECE, CEC	Applied electromagnetics, Antenna/microwave component design	5%
Ahmad Alsharoa	ECE, CEC	Lidar, smart cities, geospatial Big Data	5%
Smriti Nandan Paul	MAE, CEC	Orbits	5%

5.G. Alumni and Employer Survey

Starting from the 4th year from the initiation of the program, we will conduct mailed and electronic surveys every year to employers and alumni who graduated in previous years to get feedback about their satisfaction with the program and receive suggestions about its improvements.

5.H. Program Accreditation

The program requires no accreditation initially but we will assess accreditation needs in the 3rd year of the program.

6. Appendices

Appendix 1. A list of course descriptions in the Geospatial Engineering program

Appendix 2. Letters of support (*Included*)

Appendix 3. Lightcast dataset for Geographic Information Science and Cartography

Appendix 4. Lightcast dataset for Surveying Engineering

Appendix 5. Lightcast dataset for Geospatial Intelligence

Appendix 6. New Program Pro Forma

January 15, 2025



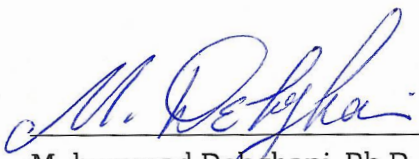
To: UM System Office of Academic Affairs
From: Dr. Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs
Subject: Full Program Proposal, M.S. Degree in Geospatial Engineering

I am pleased to recommend the advancement of the full proposal for the M.S. Degree in Geospatial Engineering to the UM System for comprehensive review. This program is designed to equip students with advanced skills in geospatial technologies, preparing them for high-demand careers in engineering and related fields while addressing a critical need for the state, region, and nation.

This program will be administratively located in the Earth Sciences and Engineering Department in the College of Engineering and Computing. The degree is designed to attract students from various technical fields who seek to broaden their career opportunities. Graduates of the program will excel as geospatial engineers, remote sensing analysts, GIS specialists, and geospatial intelligence analysts, contributing to innovations in government and industry.

The program leverages existing curricula across engineering and science disciplines and expands Missouri S&T's commitment to geospatial applications. Core courses build on established faculty expertise in our Earth Sciences and Engineering department, with interdisciplinary opportunities in computer science, mathematics, electrical engineering and aerospace engineering. Students can prioritize their career goals by specializing in Navigation and Autonomous Systems, Remote Sensing and Earth Observations, or Geodetic Systems.

With strong employer demand and minimal barriers to implementation, this program offers practical, industry-aligned education. The full proposal demonstrates strong support letters and aligns with Missouri S&T's North Star Goal of expanding enrollment while fostering a dynamic, future-focused academic environment.



Mohammad Dehghani, Ph.D.

1/16/2024
Date



College of Engineering and Computing

January 8, 2025

To: Dr. Colin Potts, Provost and Executive Vice Chancellor for Academic Affairs

From: Dr. David Borrok, Vice-Provost and Dean, College of Engineering and Computing

A handwritten signature in black ink, appearing to read "David Borrok".

Subject: Support for the creation of a MS-degree in Geospatial Engineering

The College of Engineering and Computing at Missouri S&T strongly supports the creation of a new MS-degree in Geospatial Engineering. Our reliance on geospatial technologies is rapidly expanding and includes areas as diverse as the spatial organization of large data sets to surveying, autonomous navigation, precision agriculture, and urban planning. The broad area of Geographic Information Systems represents a \$17.5 billion global market. Geospatial jobs are expected to increase by around 7% by 2030 and professionals with a MS-degree in this area typically earn 20% higher starting salaries than those with just a bachelor's degree.

We are taking a unique approach to the geospatial marketplace by focusing on the technical/engineering aspects as opposed to the more common or general focus areas of geography, GIS, and geointelligence. Specifically, the Geospatial Engineering degree is designed for students with BS degrees from a variety of technical fields who are interested in building, developing, or applying geospatial technology in their field of interest or work. Thus, the program will be designed for students from a broad range of backgrounds, but with strong STEM foundations.

The proposed MS program in Geospatial Engineering will be housed within and administered by the Department of Earth Sciences and Engineering (ESE) at Missouri S&T. The curriculum will leverage existing expertise and coursework within the ESE Department as well as important courses in Civil and Environmental Engineering, Electrical Engineering, Aerospace Engineering, and Computer Science. The courses are packaged into three specialty areas, (1) Remote Sensing and Earth Observation, (2) Navigation and Autonomous Systems, and (3) Geodetic Systems. The flexible course work packaged into specialty areas will allow students to choose among many different career pathways.

A core part of the mission of the College of Engineering and Computing (CEC) is to provide students with a transformative education that prepares and inspires them to shape the future. The Geospatial Engineering program fits perfectly with this mission, as knowledge and skills related to geospatial technology will transform our student's effectiveness, productivity, and creativity in creating value throughout their careers.

Finally, the proposed degree program will directly benefit the state of Missouri and the Midwest, where there is both a need within startups and tech companies currently in the state and the potential for drawing more companies and industries to the state. The program also addresses workforce needs for state and federal government agencies, including the National Geospatial-Intelligence Agency with over 3000 employees in St. Louis.



OPEN – ASARED – 2-25

April 17, 2025

305 McNutt Hall | 1400 Bishop Avenue | Rolla, MO 65409 | 573-341-4153 | borrok@mst.edu | cec.mst.edu



1200 East 151st Street
Olathe, Kansas 66062
P: 913-397-8200 F: 913-397-8282

January 3, 2025

David Borrok, Ph.D.
Vice Provost and Dean – College of Engineering and Computing
Missouri University of Science and Technology
305 McNutt Hall, 1400 N. Bishop
Rolla, MO 65409

Dear Dr. Borrok:

Garmin is pleased to express our strong support for the establishment of a new Master of Science degree program in Geospatial Engineering at Missouri S&T. We believe that this program will significantly contribute to the advancement of geospatial technology and the development of skilled professionals in this critical field.

As a leading provider of satellite navigation services, Garmin relies heavily on skilled professionals with expertise in geospatial engineering, including positioning systems, geospatial programming, and GNSS technology. The demand for such talent continues to grow as the applications of geospatial technology expand across various industries, particularly our consumer, automotive, and marine segments.

We strongly support the new MS program at Missouri S&T. We are willing to support the program through guest lectures, networking events, and career fairs.

Thank you for your time and consideration. We look forward to the successful launch of the program.

Sincerely,

GARMIN INTERNATIONAL, INC.

A handwritten signature in blue ink that reads "M.R. Wiegner".

Michael R. Wiegner
Vice President Consumer Engineering

MRW:kn

cc: Stephen Gao, Ph.D.
Jeremy Maurer, Ph.D.



December 6, 2024

To whom it may concern,

Ursa Space is pleased to express our strong support for the establishment of a new Master of Science degree program in Geospatial Engineering at Missouri S&T. We believe that this program will significantly contribute to the advancement of geospatial technology and the development of skilled professionals in this critical field.

As a leading provider of satellite data analytics services, Ursa Space relies heavily on skilled professionals with expertise in geospatial engineering, including remote sensing systems, geospatial programming, application of data science and AI to geospatial problems, and sensor technologies, including synthetic aperture radar (SAR), electro-optical (EO), radio frequency (RF), etc. The demand for such talent continues to grow as the applications of geospatial technology expand across various industries, including civil infrastructure monitoring, environmental monitoring, and disaster response.

We strongly support the new MS program at Missouri S&T. We are committed to supporting the program through guest lectures and potential research collaborations. In addition, we eagerly anticipate graduates of the program responding to our job postings.

Thank you for your time and consideration. We look forward to the successful launch of the program.

Sincerely,

A handwritten signature in black ink, appearing to read "Julie Baker".

Julie Baker, COO and Co-founder

Ursa Space Systems Inc.