

Board of Curators Meeting - Public Session

University of Missouri System

Student Union, Multipurpose Room 401, University of Missouri - Kansas City

2024-09-12 08:00 - 18:00 CDT

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**Board of Curators Meeting
September 12, 2024
Public Session**



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.

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.

No. 1

Recommended Action – Resolution for Executive Session of the Board of Curators Meeting September 12,2024

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Board of Curators meeting September 12,2024 for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(2), RSMo**, relating to matters identified in that provision, which include leasing, purchase, or sale of real estate; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021(12), RSMo**, relating to matters identified in that provision, which include sealed bids and related documents and sealed proposals and related documents or documents related to a negotiated contract; and
- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment.

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

The motion _____.

September 12,2024

AUDIT, COMPLIANCE AND ETHICS COMMITTEE

Keith A. Holloway, Chair

Lyda Krewson

Jeanne C. Siquefield

Michael A. Williams

The Audit, Compliance and Ethics Committee (“Committee”) will review and recommend policies to enhance the quality and effectiveness of the University’s financial reporting, internal control structure and compliance and ethics programs.

I. **Scope**

In carrying out its responsibilities, the Committee monitors and assesses the University’s financial reporting systems and controls, internal and external audit functions, and compliance and ethics programs.

II. **Executive Liaison**

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

III. **Responsibilities**

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

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

1. the University risk assessment, audit plan and compliance plan; and
2. the appointment, compensation, and termination of the university’s external auditors.

B. Providing governance oversight regarding:

1. development and monitoring a University code of conduct;
2. effectiveness of the internal control framework;
3. ensuring that the significant findings and recommendations are received, discussed and appropriately resolved;
4. procedures for reporting misconduct without the fear of retaliation;
5. university compliance with applicable laws, regulations, and policies that govern all aspects of University operations including but not limited to the following:
 - a. Administrative compliance risks
 - b. Healthcare compliance risks
 - c. Research compliance risks
 - d. Information security compliance risks
 - e. Privacy compliance risks

6. those additional matters customarily addressed by the audit, compliance and ethics committee of a governing board for an institution of higher education.

C. Reviewing periodic reports regarding:

1. the independence, performance, resources and structure of the internal audit, compliance and ethics functions;
2. audit reports and open audit issue status updates;
3. management's written responses to significant findings and recommendations by the auditors;
4. the adequacy of the University's information technology methodology with regards to security, internal controls and data integrity assurance;
5. annual external audit reports, including audited financial statements, single audit and required procedures;
6. the effectiveness of the compliance and ethics program ensuring it has appropriate standing and visibility across the system.

No. 1

Recommended Action - Resolution for Executive Session of the Audit, Compliance and Ethics Committee, September 12, 2024

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Board Audit, Compliance and Ethics Committee meeting September 12, 2024, for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(18), RSMo**, relating to matters identified in that provision, which include confidential or privileged communications between a public governmental body and its auditor.

Roll call vote of the Committee:	YES	NO
Curator Holloway		
Curator Krewson		
Curator Siquefield		
Curator Williams		

The motion _____.

UNIVERSITY OF MISSOURI
BOARD CHAIR REPORT

There are no materials for this information item.

PRESIDENT'S REPORT

Mun Y. Choi

Board of Curators Meeting

Sept. 12, 2024



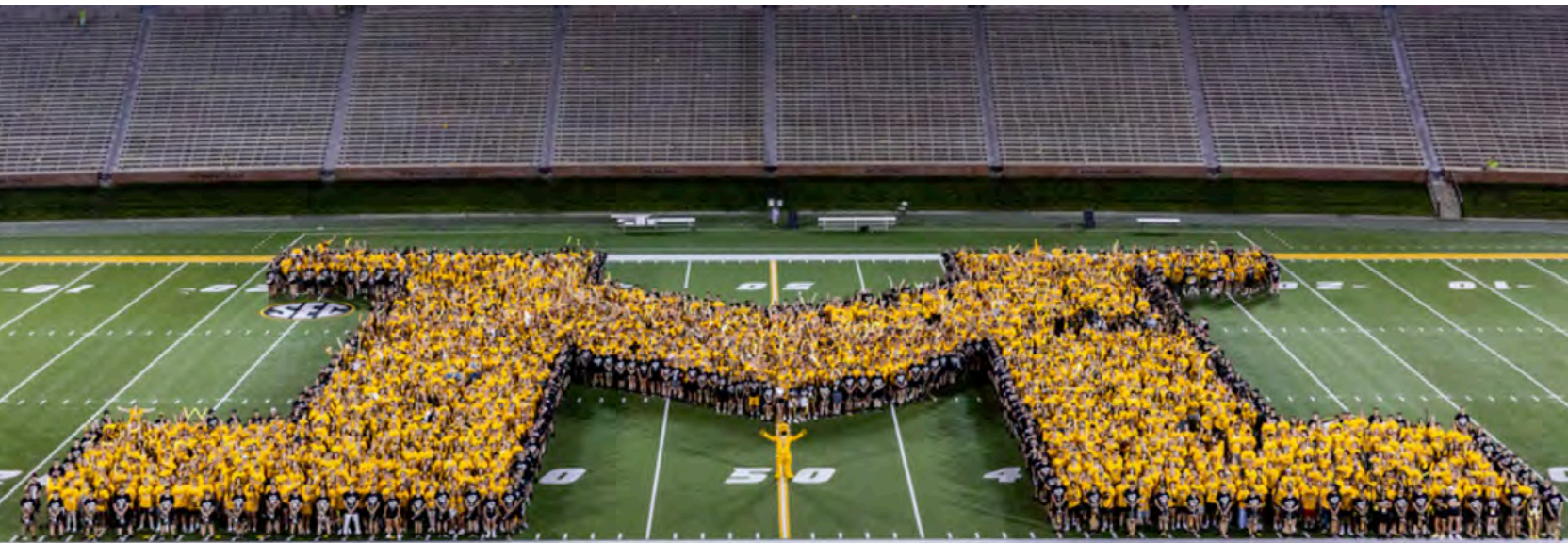
UMKC

MISSOURI
S&T

UMSL

University of Missouri System

Welcoming 17,000+ New Students



First Time College Enrollment

8/19/24	2017	2019	2021	2023	2024
MU	4,134	5,431	4,843	5,139	5,983 (16.1%)
UMKC	1,244	1,197	1,148	1,289	1,358 (4.1%)
S&T	1,426	1,145	1,188	1,196	1,265 (5.6%)
UMSL	482	447	296	464	587 (24.9%)

Transfer Enrollment

8/19/24	2017	2019	2021	2023	2024
MU	916	1,113	1,348	1,164	1,238 (6.8%)
UMKC	1,160	1,017	999	930	987 (2.3%)
S&T	348	278	234	279	275 (-1.4%)
UMSL	1,425	1,164	1,045	979	970 (-2.9%)

Student Success Highlights



UMSL

Paula Penagos
Supply Chain Analytics



UMKC

Genesis Ventura Amaro
Early Childhood Education

Recipient of the Milken
Teacher Leader of Tomorrow
Award



MU

Owen Ziliak
Photojournalism

Placed second in the 2023-24
Hearst National
Photojournalism Championship



Kaylee Denbo
Ginger Ramirez
*Environmental
Engineering*

MISSOURI
S&T

Awarded Science
Undergraduate
Laboratory Internships
from the U.S. DOE

New Faculty Hires



179

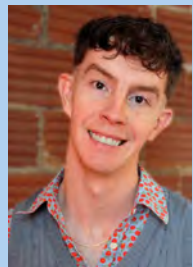


66 T/TT

113 NTT



43

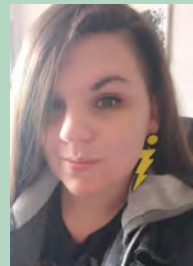
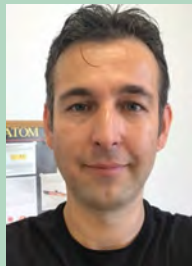


25 T/TT

17 NTT



39



22 T/TT

17 NTT



21



9 T/TT

12 NTT

Faculty Success Highlights



UMSL

Dr. Michael Cosmopoulos,
Professor of *Archaeology*



UMKC

Dr. Anthony Caruso, Vice Chanc.
and **Professor of Physics**

Selected to lead the National Science
Foundation SECURE Midwest Center



MU

Dr. Lori Popejoy, Dean and
Professor of Nursing

Named a Gerontological Society of
America Fellow



**MISSOURI
S&T**

Dr. Steve Watkins, Professor of
Electrical and Computer Engineering

Recipient of the 2024 Tau Beta Pi
McDonald Mentor Award

Major Grants



UMSL

Dr. Lon Chubiz
Assoc. Prof. Biology



UMKC

Dr. Michael Pragman
*Sr Program Director, Regional
Professional Development
Center*

\$4.1M MODESE grant RPDC program expansion



UMKC

Dr. Kristi Holsinger
*Senior Vice Provost for Student
Success*

\$4.1M MODHEWD grant to expand Student Success initiatives and programs



**MISSOURI
S&T**

Dr. Samuel Frimpong
*Robert H. Quenon Missouri
Endowed Chair of Mining
Engineering*

\$1.9M CDC grant to research technologies that eliminate mining fatalities

Major Grants



Dr. Olga Baker
*Prof. of Otolaryngology and
Biochemistry*

\$2.9M NIH grant to investigate role of copper transport in radiation-induced fibrosis and loss of salivary gland function.



Dr. Roman Ganta ([MizzouForward](#))
*McKee Endowed Professor of
Veterinary Pathobiology and Bond
Life Sciences Center investigator*

\$2.6M NIH grant for research that will advance our understanding of pathogenesis and bacterial cellular and molecular interactions.



\$1.9M NIH grant to better understand the molecular mechanics of proteasome degradation.



Dr. Keith Herman
*Curators' Distinguished Professor,
Educational, School and
Counseling Psychology*

\$3.9M U.S. Dep. of Ed. grant to research the effectiveness of an online version of the CHAMPS program in rural middle schools.

Major Grants



Dr. Ron Mittler
*Curators' Distinguished Professor,
Plant Science and Technology*

\$2.4M NSF grant to research methods to increase crop plant yield under drought and heat stress conditions.



Dr. Chad Rose
Assoc. Prof. Special Education

Two \$3.9M U.S. Dept. of Ed. grants to evaluate aspects of social dynamics in student groups.



\$1.5M NIH grant to develop and test a novel immune activating agent with preventive efficacy against various cancer types.



Dr. Tyler Smith ([MizzouForward](#))
*Assist. Prof. Educational, School
and Counseling Psychology*

\$1.9M U.S. Dep. of Ed. grant to aid middle school teachers in developing communication strategies to engage student families.

Major Grants



\$3.1M Eunice Kennedy Shriver National Institute of Child Health and Human Development grant to investigate uterine development.

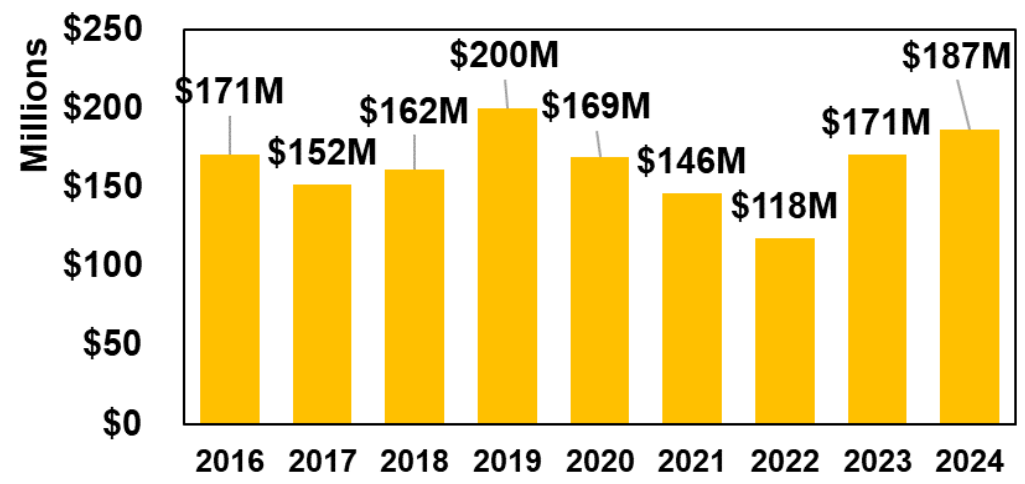


Dr. Adam Yokom
(MizzouForward)
Assist. Prof. Biochemistry

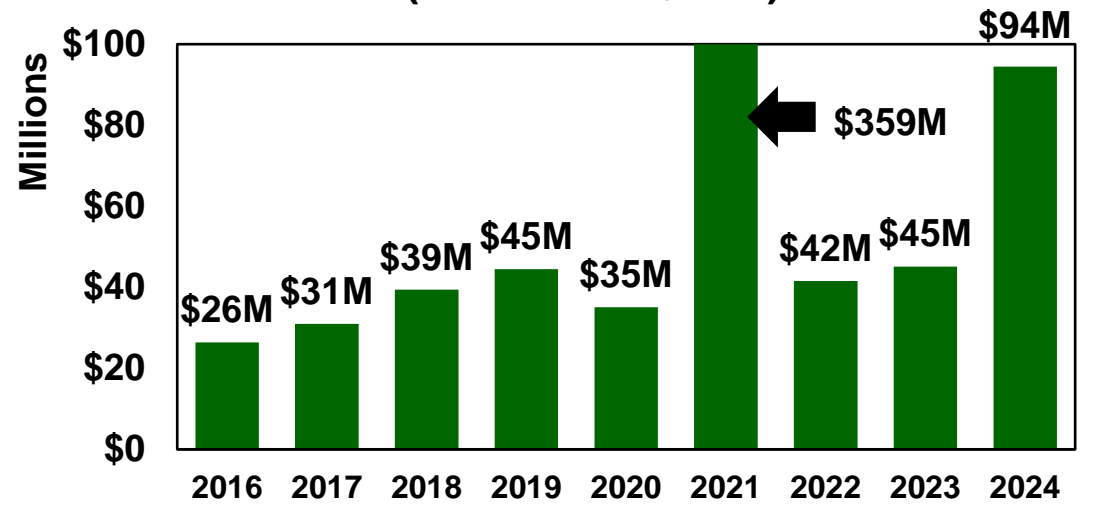
\$1.9M NIH grant to investigate the mechanistic interactions of proteins to promote autophagy completion.

FYTD Philanthropy

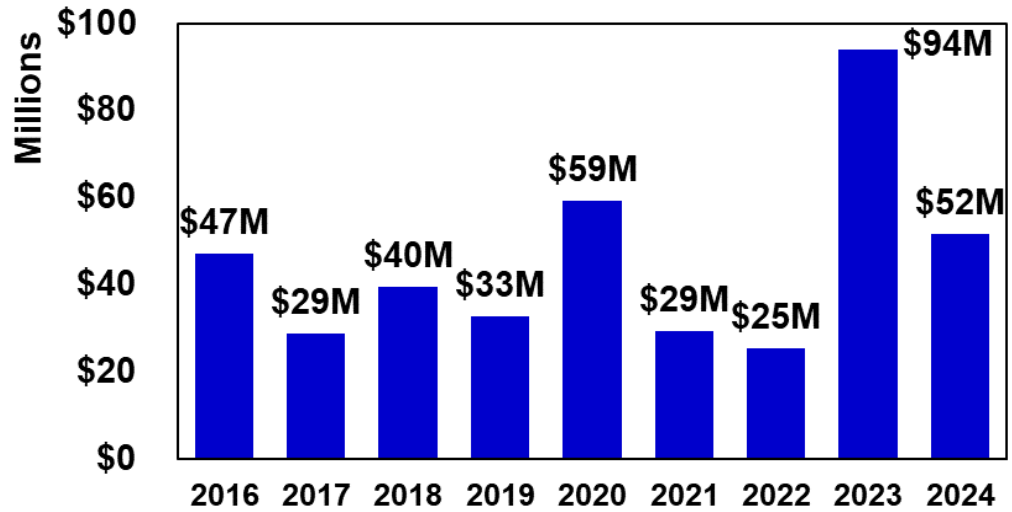
MU (FY Goal of \$201M)



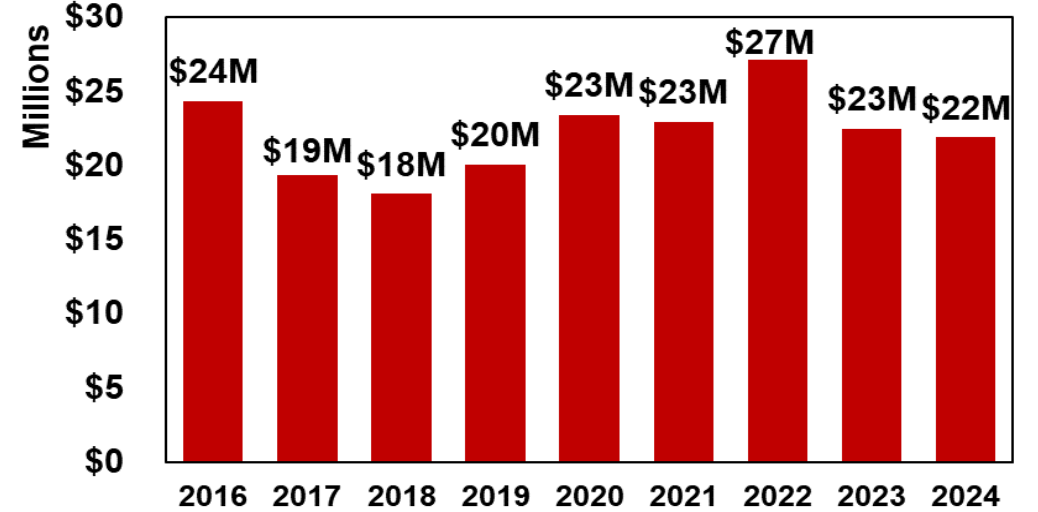
S&T (FY Goal of \$26M)



UMKC (FY Goal of \$45M)



UMSL (FY Goal of \$21M)





Kevin Sargent
*Assistant Vice
 Chancellor for
 Advancement Services*

Brian Houston
*Associate Provost
 for
 Academic
 Programs*

Rhonda Gibler
*Vice Chancellor for
 Finance & Interim Vice
 Provost for Enrollment
 Management*

Christine Smith
*Interim Vice
 Chancellor
 for Advancement*

**Marisa
 Chrysochoou**
*Dean of the
 College of
 Engineering*

**Srinand
 Sreevatsan**
*Dean of the
 College of
 Veterinary
 Medicine*



Greg Damron
*Chief Financial Officer,
 MU Health*

Tonya Johnson
*Health System Chief
 Operating Officer,
 MU Health*

Saadiya Fratila
*Assistant Vice
 Chancellor of
 Business Operations
 and Strategy*

Gary Grubbs
*Interim Vice Provost of
 Graduate Education*

Christine Getz
*Dean of School of
 Graduate Studies*



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

Accelerating our Momentum

2024 UMKC Chancellor Report



UMKC

2024 update of UMKC Strategic Plan raised bar

“
*At the five-year mark, we found **on some metrics... we outperformed our expectations and accomplished in five years what we set out to do in 10. On other metrics, we still have important work to do. We are not ready to rest on our laurels just yet, so we must raise the bar.***”

In today's reports, here are some highlights of our progress in 2024:



University of Missouri–Kansas City

STRATEGIC PLAN

2018-2028

UMKC on the brink of achieving Carnegie R1 research status

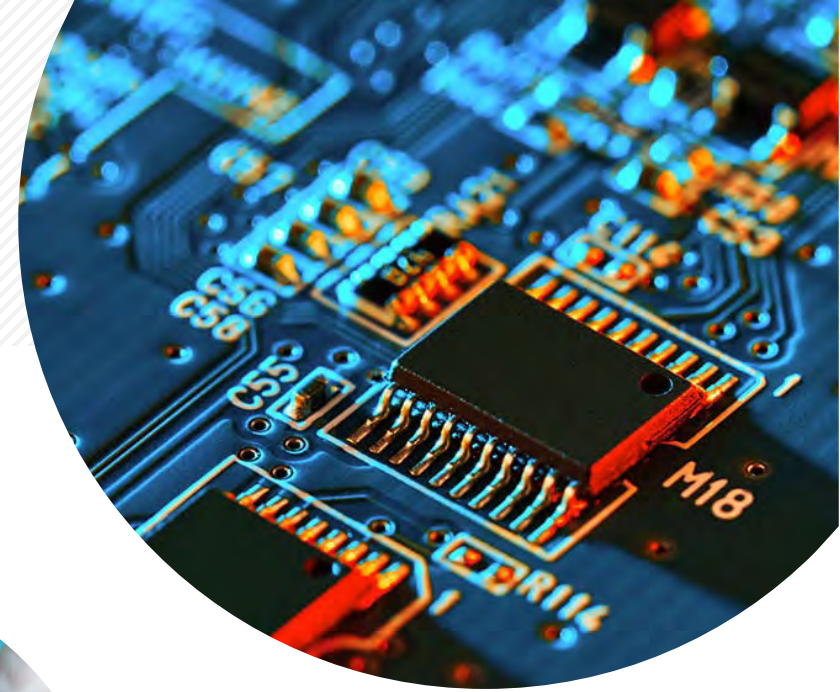
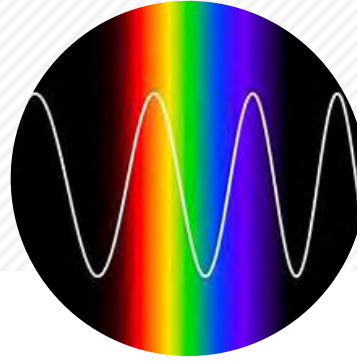
R1 research status within reach

- From 2018-2023, UMKC more than doubled total research expenditures and almost quadrupled total research and sponsored grants.
- Based on proposed criteria, UMKC could achieve R1 as soon as 2025, putting it in elite tier of research universities nationwide.
- New Strategic Plan metrics:
 - Higher bar for grant proposals and total research awards.
 - Increased goals for patents, inventions and research publication.



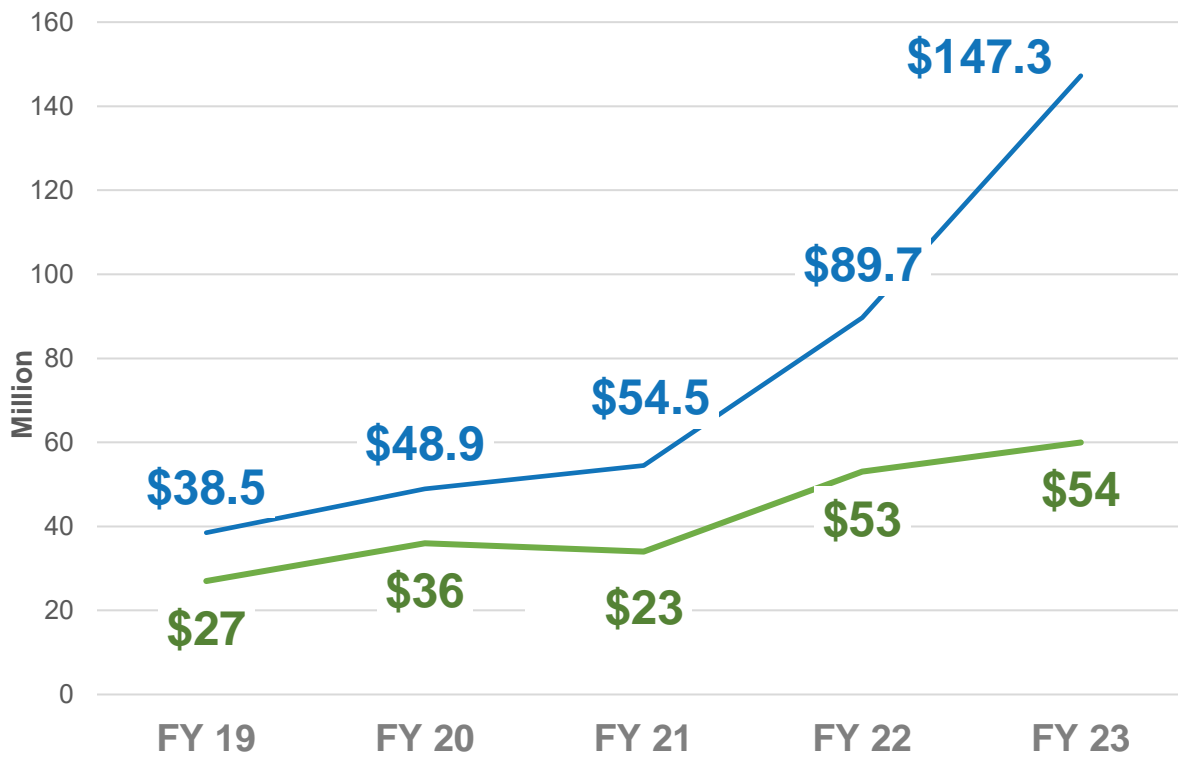
Top areas of research focused on healthcare and defense

- Electromagnetic radiation and energy
- Advanced and critical materials
- Unmanned platforms
- AI, cybersecurity and data science
- Digital humanities



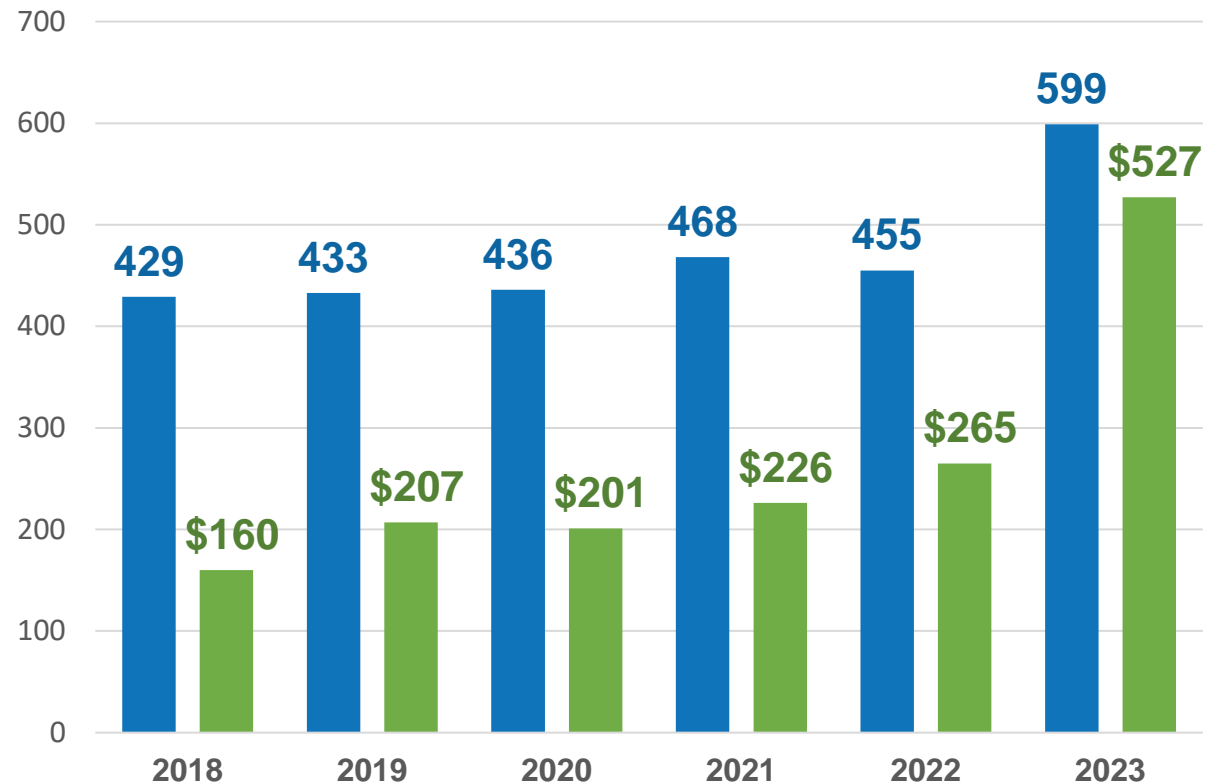
UMKC exceeding Strategic Plan goals in total awards and grant proposals

Total sponsored awards



— Total Sponsored Awards — Total Expenditures, NSF Herd

Grant Proposals



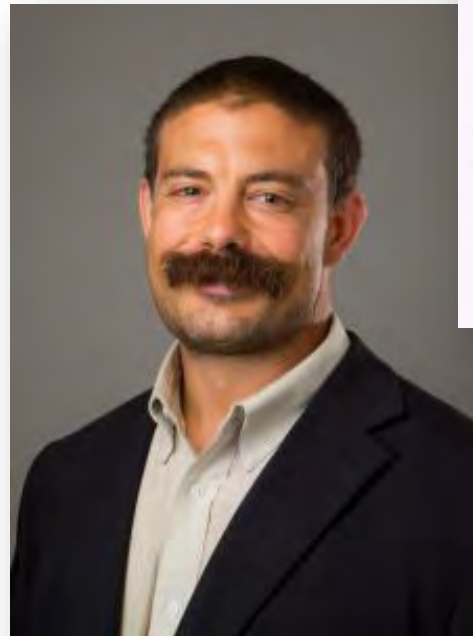
■ Number of proposals ■ Grant proposal dollars in millions

Strong leadership driving accelerated pace of UMKC research

UMKC has a rich bench of excellent leadership in research and innovation:

- New VC for Research **Sumeet Dua** from Louisiana Tech.
- Experienced research leader: **Anthony Caruso**, VC Strategic Initiatives and founder of MIDE.
- Innovation leader with national footprint: **Maria Meyers**, VC for Commercialization and Entrepreneurship.

Caruso



Dua

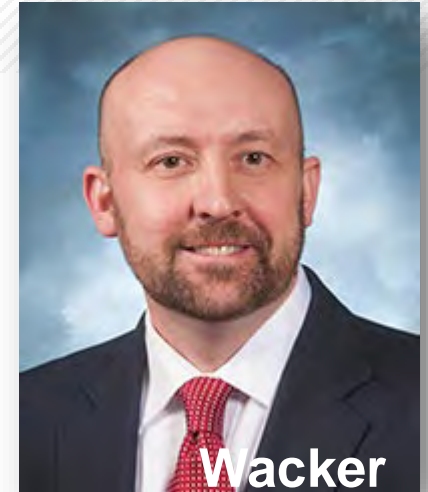
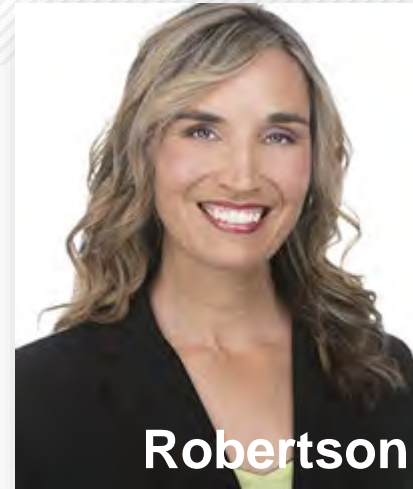


Meyers



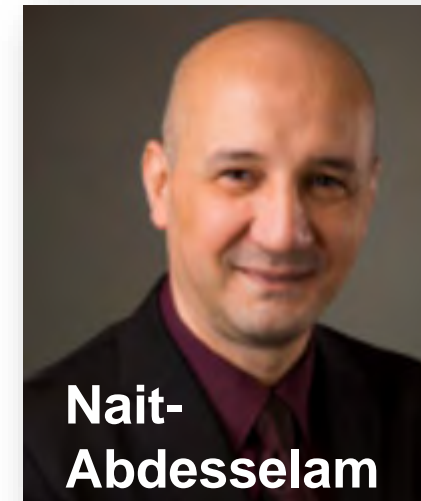
UMKC faculty at forefront of successful grantsmanship

Amy Robertson, Conservatory. Researching effects of music therapy on preemie infants. Early results show reduced risk of brain bleeds and time on ventilator.



Michael Wacker, School of Medicine St. Joseph, \$2.5M grant for UMKC Rural Behavioral Health Workforce Education, Training and Initiatives.

Farid Nait-Abdesselam, Science and Engineering. \$3M NSF grant to study the use of AI to mitigate crisis of alcohol and drug abuse.



Thomas Menees, Science and Engineering. Frontiers Trailblazer Pilot award to further research into a promising drug therapy to treat ALS.

Innovation and economic impact

UMKC Innovation Center focuses on patents and inventions and converting discoveries into real world applications.

- Hired Director of Commercialization Ecosystem in December 2023 and Steering Committee in 2024.
- Will unveil new website, event series and marketing campaign internally this year.
- Exploring creation of a dedicated Research Foundation and a Research Accelerator, plus seeking to expand incubator and co-working spaces to bring in more community partners.

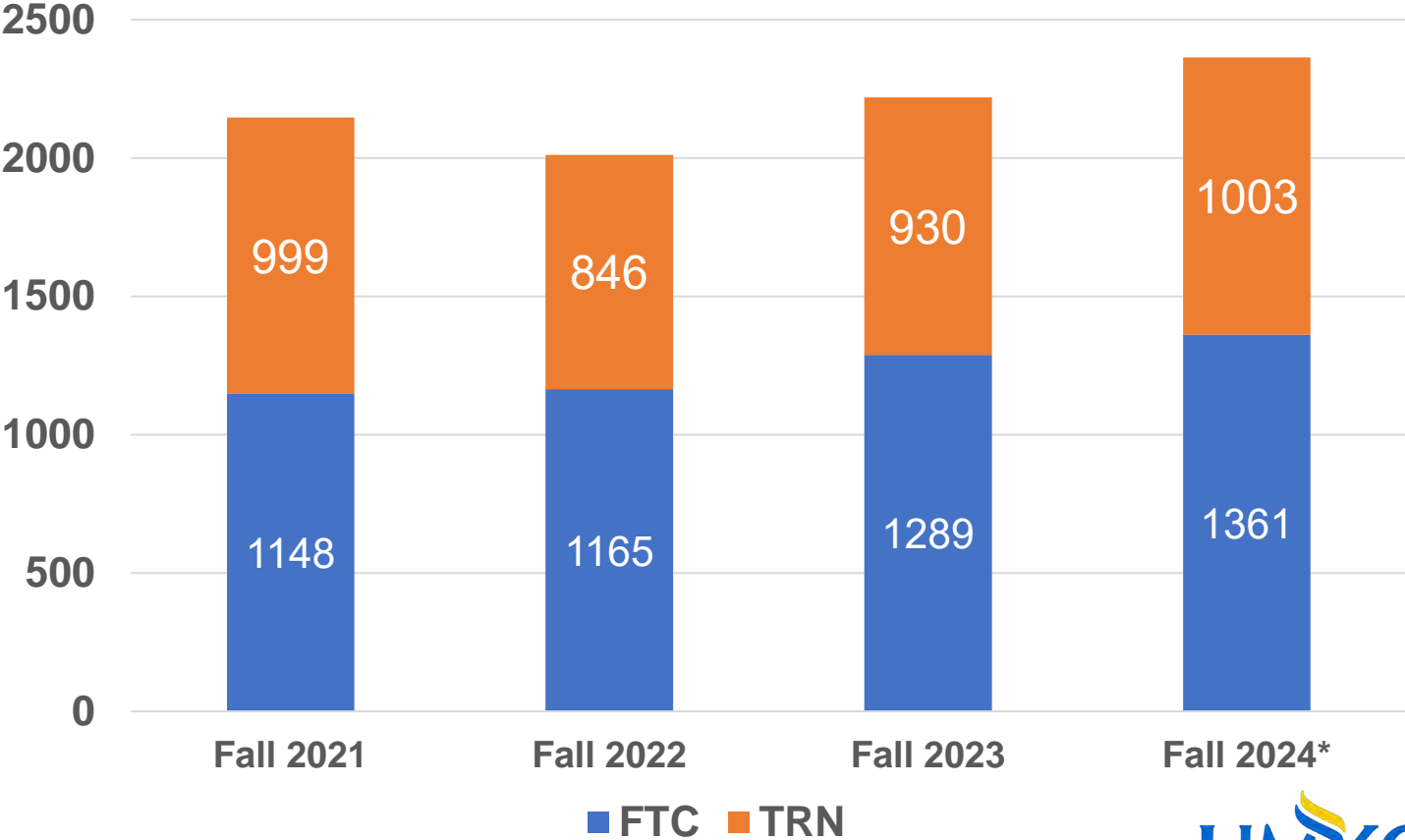


New strategies to close the gap on student achievement

Continued growth in UG enrollment and retention

- Up 5% percent in FTC students and 6% percent in UG Transfer students.
- Positive growth in continuing UG student enrollment: up 3.1%
- Incoming class is 57.7% First Gen students (vs. 53% in FS23).
- New undergrad degrees in biomedical engineering and architecture.

Growing UG enrollment for freshman class



*Projected based on August numbers. Not final until census.



Grad admissions work pays off in domestic enrollment

- Domestic grad applications up 15% and admits up almost 3% thanks to new Graduate Admissions director, new strategies.
- Next focus: Improve lagging international graduate enrollment.
- New Dean of Graduate Studies Christine Getz to continue development of graduate curriculum and pipeline.
 - 8 new Ph.D.'s launched to attract doctoral students in key areas.

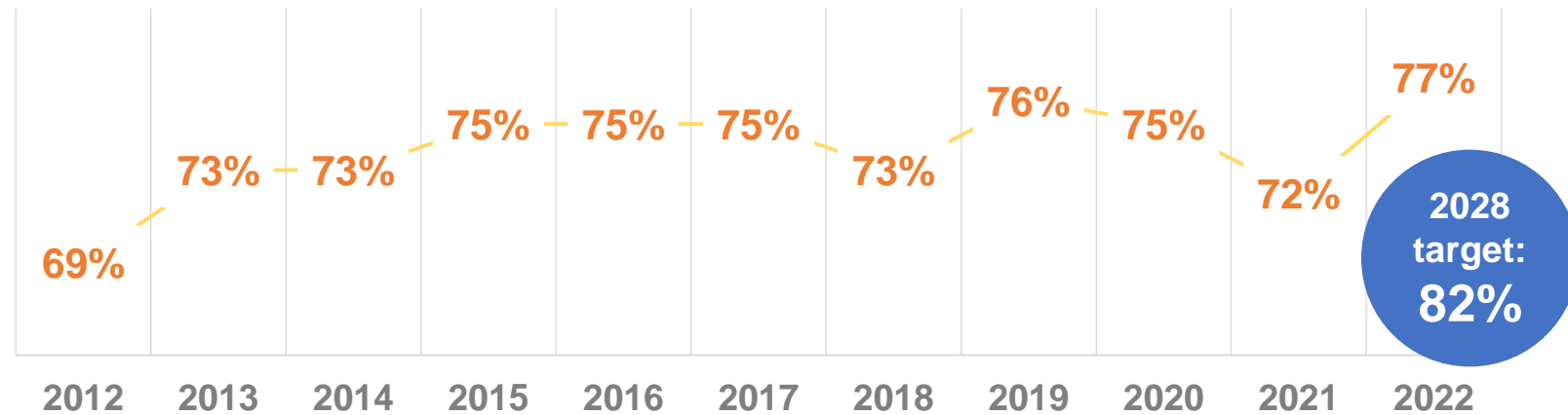


New strategies to accelerate retention and grad rates

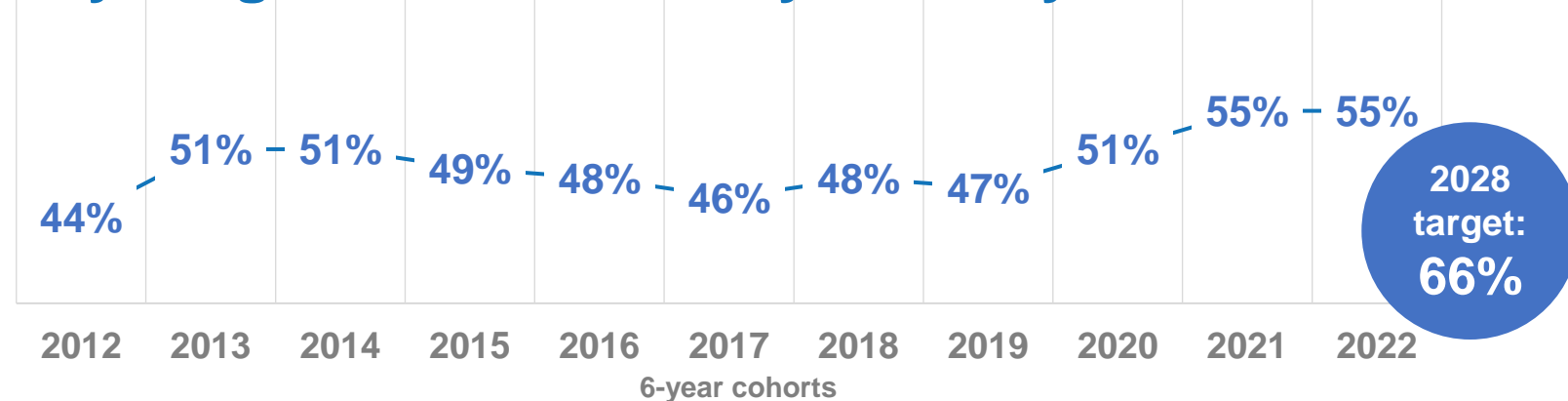
Worked with NISS to create new playbook, including:

- Intentional advising for first-year students on academic pathways and career prep.
- Systematic use of predictive analytics and early alerts.
- Increased data access for AUs to allow proactive, data informed support for students.
- Increased personalized student communications through text, AI and chatbots.

First-time, full-time first-year retention rate



6-year graduation rates by cohort year



Innovative programs for retention and grad rates continue strong outcomes

Highlights from 2024:

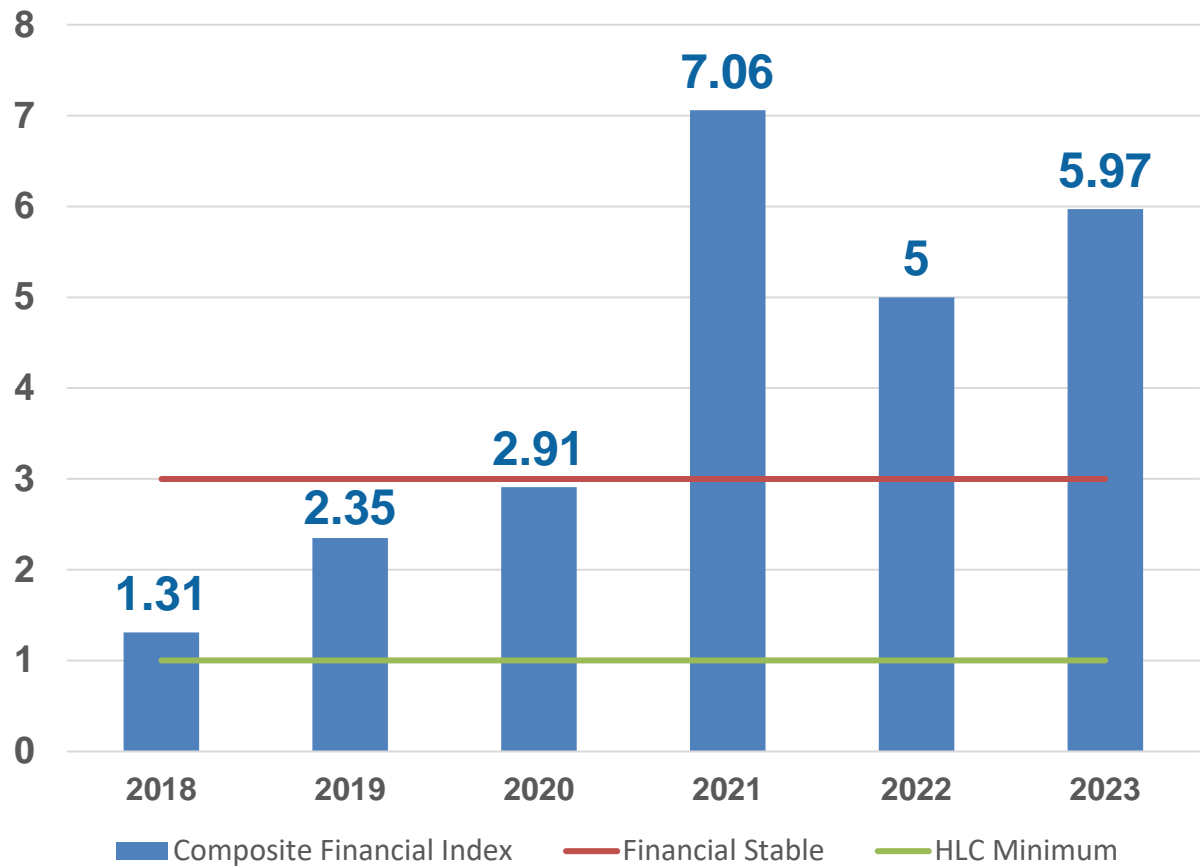
- FirstGen Roos Scholars outperformed all FTC students on GPA (3.2 v. 3.14) and retention rates (84.8% v. 77.4%).
- MoCA students: 97% retention rate in first year; 3.0 average GPA
- UMKC signed new 2+2 programs with area community colleges, including MCC, KCKCC, JCCC
- New partnerships with Chiefs and KC Current yielded scholarship and intern opportunities



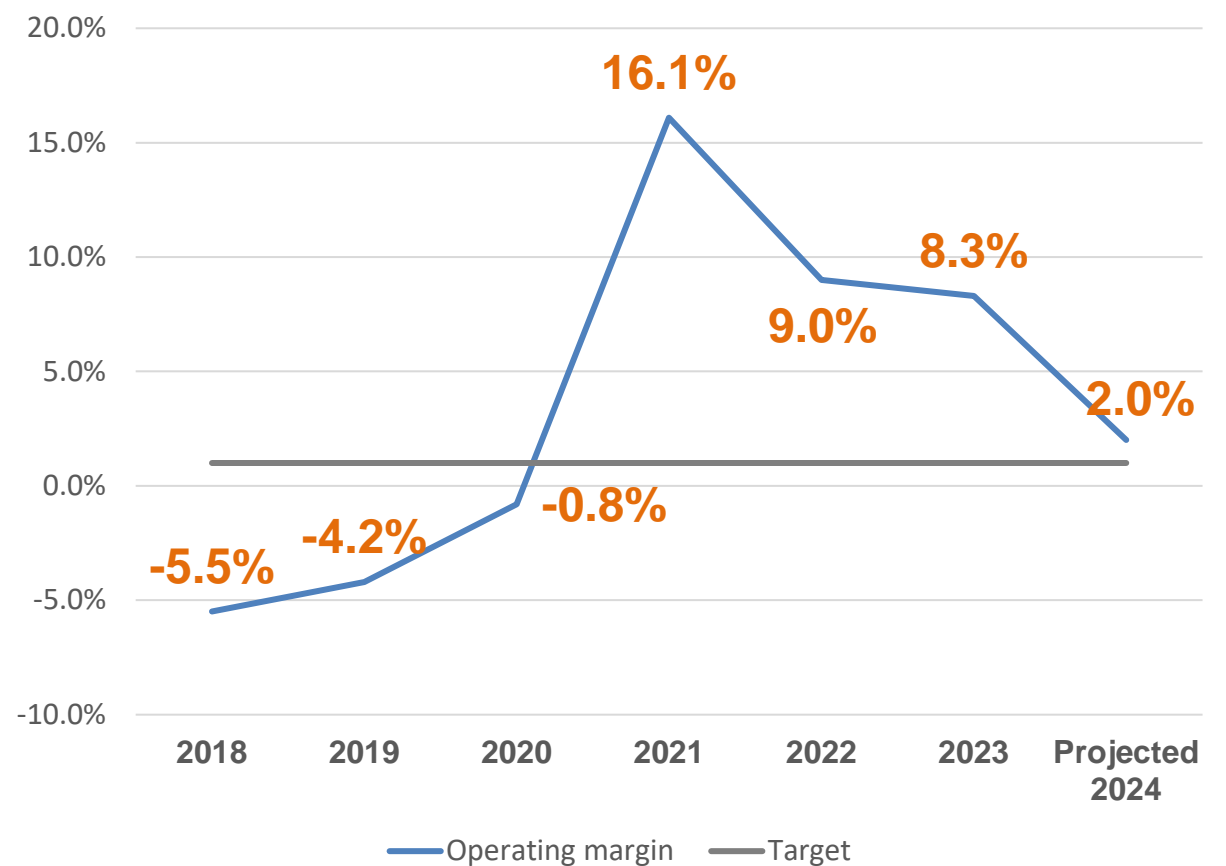
Continued strong results in financial performance and philanthropy

Improved financial metrics

Composite Financial Index

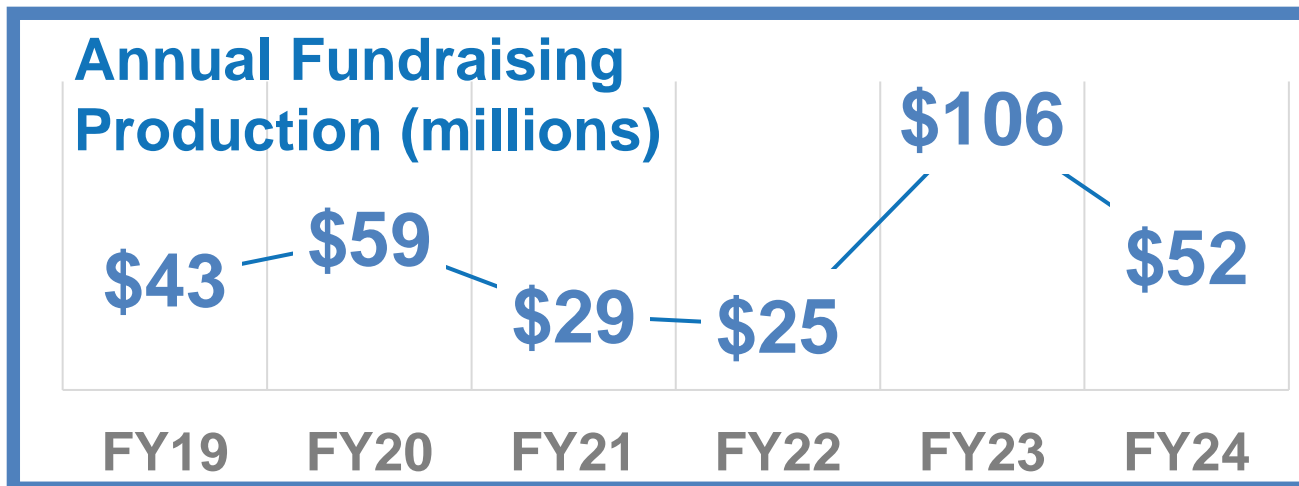


Operating Margin



Record year in giving sets stage for planning capital campaign

- UMKC Giving Day hit highest ever goal -- \$521,940, quadruple the prior year.
- UMKC Foundation President Amanda Davis has added and restructured staff to better cultivate relationships with donors and alumni.
- UMKC will kick off \$500M capital campaign in October 2025.



Significant progress in advancing facilities

Healthcare Delivery and Innovation Building, Sept. 2026 | \$145M





St. Joseph School of Medicine Campus, August 2025 | \$14.5M



Foodiverse – Campus food parlor, January 2025



Phase 1: Student Success – 4th Floor Miller Nichols, May 2025

51st Street Pedestrian Plaza – Fall 2024



Continued excellence: Faculty, staff and student achievement

- CAFE fully staffed with its first full-time director.
- ~400 – # of unique faculty engaged since beginning in 2021.
- >15,000 – # of hours of professional learning since beginning.
- 4.7 – overall satisfaction with CAFE programming.



**Diane Filion Center for
Advancing Faculty Excellence**



Faculty honors for 2024

- **Clancy Martin** received UM System's top faculty honor, the Thomas Jefferson award.
- **Gayle Levy**, Humanities and Social Sciences, honored with Governor's Award for Excellence in Teaching.
- **Yi Chen**, Conservatory, won Harvard's prestigious Fromm Commission Award to compose new musical work.
- **Jannette Berkley-Patton**, Medicine, earned the AAMC Spencer Foreman Community Engagement Award.
- UMKC had three outgoing Fulbright winners: **Bryan Boots**, Bloch; **Ginny Blanton**, HSS, and **Yotam Haber**, Conservatory.



UMKC staff serve the university's mission of service and excellence

- **Aly Frydman** and **Sabrina Monsees** in Human Resources won national recognition at the Annual Meeting of the Minds conference for their work in mental health and wellbeing.
- **Onekia De Leon** and **Casey Bauer**, Nursing and Health Studies, volunteer for Team Smile, providing dental care for underserved children.
- **Madeline Fox** was named to a national list of 35 “rising stars” in public media.



Standout UMKC students

- **Liberty Gladden**, studying computer and information sciences, won a highly competitive Boren Scholarship and will pursue intensive Korean language study in South Korea.
- **Genesis Ventura Amaro**, early childhood ed alumna and IUE scholar, received the distinguished Milken Teacher Leader of Tomorrow Award, one of only 13 recipients in Missouri.
- **Hannah Kempker, Claire Vogl and Rylee Pitts**, fourth-year School of Pharmacy students, beat out more than 100 teams to win the top title at the American College of Clinical Pharmacy's 2023 ACCP Clinical Pharmacy Challenge.



UMKC Athletics: Building on successes to achieve new heights this year

- Four Coaches of Year:
 - Jess Smith, Women's Soccer
 - Cristi Posey, Volleyball
 - JW VandDenBorn, Golf
 - Marvin Menzies, Men's Basketball
- Men's Golf, Summit League champs in 2024.
- MBB second seed in league tourney for first time since 2015.
- Played in finals for Volleyball and Men's Soccer.



Roo Up!



REVIEW CONSENT AGENDA

There are no materials for this information item.

Consent A

Recommended Action - Minutes, June 27, 2024 Board of Curators Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the June 27, 2024 Board of Curators meeting be approved as presented.

Roll call vote:	YES	NO
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Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Sinquefield
Curator Wenneker
Curator Williams

The motion _____.

September 12, 2024

Consent B

Recommended Action - Minutes, July 30, 2024 Governance, Compensation and Human Resources Special Committee Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the Minutes, July 30, 2024 Governance, Compensation and Human Resources Special Committee Meeting be approved as presented.

Roll call vote: YES NO

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

The motion _____.

September 12, 2024

Consent C

Recommended Action - Minutes, August 6, 2024 Special Board of Curators Meeting and Committee Meeting Minutes

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the August 6, 2024 Special Board of Curators Meeting and Committee Meeting be approved as presented.

Roll call vote: YES NO

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

The motion _____.

September 12, 2024

Consent D

Recommended Action - Minutes, August 26, 2024 Board of Curators Mizzou Intercollegiate Athletics and Finance Committee Meeting

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the August 26, 2024 Mizzou Intercollegiate Athletics and Finance Committee Meeting be approved as presented.

Roll call vote:	YES	NO
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- Curator Blitz
- Curator Fry
- Curator Graves
- Curator Holloway
- Curator Krewson
- Curator Layman
- Curator Sinquefield
- Curator Wenneker
- Curator Williams

The motion _____.

September 12, 2024

Consent E

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

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

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

Roll call vote of Board:

YES

NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Sinquefield

Curator Wenneker

Curator Williams

The motion _____.

Project Re-approval
Meat Science Education and Training Laboratory
MU

The University of Missouri – Columbia requests Project re-approval for the Meat Science Education and Training Laboratory project. During the 2024 legislative session, the University received an additional \$10,000,000 in appropriations for this project. The original total project budget of \$25,000,000 is requested to increase to \$35,000,000.

The project scope remains unchanged; however, the budget need is increased from \$25,000,000 to \$35,000,000. The pre-design cost analysis showed that escalation in material, equipment, and labor costs significantly limits the program square footage that can be built for this unique building type within the originally approved \$25,000,000 total project budget. Meat processing plants require robust and reliable mechanical systems and building envelope construction to maintain required sanitary and environmental control, allowing little leeway for alternatively less expensive equipment and building systems to be effectively and safely employed in this building type. Likewise, the ability to impactfully reduce program square footages are limited due to requirements for safe animal handling and meat processing workflow requirements. The project steering committee chose to secure funding in order to increase the total project budget by an additional \$10,000,000 to support a project that meets the University of Missouri’s land grant mission to provide a high-quality animal science program that includes the ability to process meat animals, and that effectively models meat processing research and best practices while supporting teaching, research and outreach across the state of Missouri. This funding has been secured through the 2024 legislative session and is now being presented for approval.

September 12, 2024

No. F

Recommended Action - Project Re-Approval, Meat Science Education and Training Laboratory, MU

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

the Project Re-Approval, Meat Science Education and Training Laboratory, MU

Funding of the project budget is from:

State Appropriations	<u>\$35,000,000</u>
Total Funding	\$35,000,000

Roll call vote Finance Committee YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____ .

Roll call vote Full Board: YES NO

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

The motion _____ .

**BOARD ACTION TO APPROVE
A RESOLUTION RECOGNIZING THE MUSEUM OF ART AND ARCHAEOLOGY
AT UNIVERSITY OF MISSOURI-COLUMBIA**

Executive Summary

This is a request for a statement of support from the Board of Curators.

The MU Museum of Art and Archaeology requests a statement of support from the Board of Curators (the “Board”) to fulfill requirements associated with its 2025 re-accreditation by the American Alliance of Museums (AAM). This accreditation is held by only 1,100 of more than 33,000 museums nationwide, highlighting the high standards of excellence to which the Museum of Art and Archaeology holds itself.

The Board last provided a statement of support in the form of a resolution as part of the Museum’s last accreditation process in 2008. Therefore, a similar resolution has been proposed for the Board’s consideration for the 2025 cycle and is included in your materials.

About the Museum of Art and Archaeology

The Museum is a department within the College of Arts and Science of the University of Missouri. Its mission is to preserve, research, interpret, and share art and artifacts with students, scholars, and the broader community to advance collective understanding of and respect for diverse artistic and cultural heritages. The Museum’s collections hold over 16,000 objects, from 6 continents, representing over 6,000 years of human history and creativity, such objects being made available to University faculty, students, and outside researchers for analysis and study.

Executive Summary
Proposed Revisions: Collected Rule and Regulation 600.020 “Sexual Harassment under Title IX – for mattes involving conduct alleged to have occurred on or after August 14, 2020”

This is a request for approval of a slight revision to CRR 600.020 “Sexual Harassment under Title IX – for mattes involving conduct alleged to have occurred on or after August 14, 2020”.

Overview: In June 2024, the Board approved a revision to CRR 600.020 to conform the definition of “Rape” in the CRR to the definition set forth in the FBI’s National Incident-Based Reporting System. In the version approved by the Board in June 2024, additional contextual language was inadvertently omitted that clarified the revised definition applied to incidences “without the consent of the victim”. Out of an abundance of caution, we are requesting a revision of CRR 600.020 to ensure there is no confusion that “rape”, as defined in CRR 600.020, occurs “without the consent of the victim”.

Key Changes: The requested change to CRR 600.020 would add the underlined language to the existing definition of “rape” in CRR 600.020:

“Rape” is penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, or by a sex-related object, without the consent of the victim. This definition also includes instances in which the victim is incapable of giving consent because of temporary or permanent mental or physical incapacity (including due to the influence of drugs or alcohol) or because of age. Physical resistance is not required on the part of the victim to demonstrate lack of consent. Attempted Rape is included.

September 12, 2024

600.020 Sexual Harassment under Title IX - for matters involving conduct alleged to have occurred on or after August 14, 2020

Executive Order 40, 4-8-14; Revised 6-19-14; Revised 9-22-14 by Executive Order 41. Revised 2-9-17 with an effective date of 3-1-17; Revised 7-28-20 with effective date of 8-14-20; [Revised 9-7-23](#); [Revised 6-27-24](#).

A) Sexual Harassment in Education. The University is committed to affording equal employment and education opportunities to its employees and students, and to creating an environment free from discrimination and harassment. In furtherance of these commitments, both University policy and applicable state and federal law, prohibit all students, employees, volunteers and visitors at the University from engaging in sexual harassment in a University education program or activity against a person in the United States.

This policy applies to sexual harassment in any phase of the University's employment process, any phase of its admission or financial aid programs, and all other aspects of its education programs or activities. For purposes of this policy, "education program or activity" includes locations, events, or circumstances over which the University exercised substantial control over both the respondent and the context in which the conduct occurs, and includes any building owned or controlled by a student organization that is officially recognized by the University. This policy and CRR 600.030 do not apply to sexual harassment that happens outside the United States, even when the conduct occurs in an education program or activity of the University.

B) Definitions

1) Sexual Harassment. Sexual harassment means conduct on the basis of sex that satisfies one or more of the following:

- a) "Quid Pro Quo" - An employee of the University conditioning the provision of an aid, benefit, or service of the University on an individual's participation in unwelcome sexual conduct;
- b) "Hostile Environment" - Unwelcome conduct determined by a reasonable person to be so severe, pervasive, and objectively offensive that it effectively denies a person equal access to the University's education program or activity;
- c) "Sexual assault" - Any sexual act that constitutes rape, sodomy, sexual assault with an object, fondling, incest, and statutory rape, as defined below:
 - (i) "Rape" is penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, or by a sex-related object, without the consent of the victim. This definition also includes instances in which the victim is incapable of giving consent because of temporary or permanent mental or physical incapacity (including due to the influence of drugs or alcohol) or because of age. Physical resistance is not required on the part of the victim to demonstrate lack of consent. Attempted Rape is included.
 - (ii) "Sodomy" is oral or anal sexual intercourse with another person, without the

consent of the victim, including instances where the victim is incapable of giving consent because of their age or because of their temporary or permanent mental or physical incapacity.

(iii) "Sexual Assault with an Object" is using an object or instrument to unlawfully penetrate, however slightly, the genital or anal opening of the body of another person, without the consent of the victim, including instances where the victim is incapable of giving consent because of their age or because of their temporary or permanent mental or physical incapacity. An "object" or "instrument" is anything used by the offender other than the offender's genitalia.

(iv) "Fondling" is the touching of the private body parts of another person for the purpose of sexual gratification, without the consent of the victim, including instances where the victim is incapable of giving consent because of their age or because of their temporary or permanent mental or physical incapacity.

(v) "Incest" is sexual intercourse between persons who are related to each other within the degrees wherein marriage is prohibited by Missouri law.

(vi) "Statutory Rape" is sexual intercourse with a person who is under the statutory age of consent as defined by Missouri law.

- d) "Dating Violence" - The term "dating violence" means violence committed by a person-- (A) who is or has been in a social relationship of a romantic or intimate nature with the victim; and (B) where the existence of such a relationship shall be determined based on a consideration of the following factors: (i) The length of the relationship, (ii) The type of relationship, and (iii) The frequency of interaction between the persons involved in the relationship.
- e) "Domestic violence" - The term "domestic violence" includes felony or misdemeanor crimes of violence committed by a current or former spouse or intimate partner of the victim, by a person with whom the victim shares a child in common, by a person who is cohabitating with or has cohabitated with the victim as a spouse or intimate partner, by a person similarly situated to a spouse of the victim under the domestic or family violence laws of Missouri, or by any other person against an adult or youth victim who is protected from that person's acts under the domestic or family violence laws of Missouri.
- f) "Stalking" - The term "stalking" means 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.
- 2) Consent to Sexual Activity. Consent to sexual activity is knowing and voluntary. Consent to sexual activity requires of all involved persons a conscious and voluntary agreement to engage in sexual activity. Each person engaged in the sexual activity must have met the legal age of consent. It is the responsibility of each person to ensure they have the consent of all others engaged in the sexual activity. Consent must be obtained at the time of the specific activity and can be withdrawn at any time. Consent, lack of consent, or withdrawal of consent may be communicated by words or non-verbal acts.
- Someone who is incapacitated cannot consent. Silence or absence of resistance does not establish consent. The existence of a dating relationship or past sexual relations between the Parties involved should never by itself be assumed to be an indicator of consent. Further, consent to one form of sexual activity does not imply consent to other forms of sexual activity. Consent to engage in sexual activity with one person does not imply consent to engage in sexual activity with another. Coercion and force, or threat of either, invalidates consent.
- 3) Incapacitated or incapacitation. A state in which rational decision-making or the ability to consent is rendered impossible because of a person's temporary or

permanent physical or mental impairment, including but not limited to physical or mental impairment resulting from drugs or alcohol, disability, sleep, unconsciousness or illness. Consent does not exist when the Respondent knew or should have known of the other individual's incapacitation. Incapacitation is determined based on the totality of the circumstances. Incapacitation is more than intoxication but intoxication can cause incapacitation.

Factors to consider in determining incapacity include, but are not limited to, the following:

- a) Lack of awareness of circumstances or surroundings (e.g., an inability to understand, either temporarily or permanently, the who, what, where, how and/or why of the circumstances; blackout state)
 - b) Inability to physically or verbally communicate coherently, particularly with regard to consent (e.g., slurred or incoherent speech)
 - c) Lack of full control over physical movements (e.g., difficulty walking or standing without stumbling or assistance)
 - d) Physical symptoms (e.g., vomiting or incontinence).
- C) Title IX Coordinators. Duties and responsibilities of the University's Title IX Coordinators include monitoring and oversight of overall implementation of Title IX compliance at the University, including coordination of training, education, communications and coordination with the Title IX Processes for faculty, staff, students and other members of the University community and investigation of Formal Complaints of sexual harassment, and to respond promptly to reports of sexual harassment of which the University has actual knowledge in University education programs and activities. The University may designate Deputy Coordinators as needed to assist in fulfillment of the Coordinator's duties and responsibilities. NOTE: All references to "Title IX Coordinator" throughout this policy refer to the Title IX Coordinator or the Coordinator's designee. For the purposes of this section, "actual knowledge" means notice of sexual harassment or allegations of sexual harassment to a University's Title IX Coordinator or any official of the University who has authority to institute corrective measures on behalf of the University. Imputation of knowledge based solely on vicarious liability or constructive notice is insufficient to constitute actual knowledge. This standard is not met when the only official of the University with actual knowledge is the respondent. The mere ability or obligation to report sexual harassment or to inform a student about how to report sexual harassment, or having been trained to do so, does not qualify an individual as one who has authority to institute corrective measures on behalf of the University. The following individuals serve as Title IX Coordinators and are designated to handle inquiries regarding the Anti-Discrimination policies and to serve as coordinators for purposes of Title IX compliance:

University of Missouri System and University of Missouri-Columbia

Andy Hayes, J.D.

Title IX Coordinator

Address:

University of Missouri

320 Jesse Hall

Columbia, MO 65211

Telephone: (573) 882-2824

Email: hayesas@missouri.edu

equity.missouri.edu

University of Missouri-Kansas City

KC Atchinson, J.D.

Title IX Coordinator
Address:
Administrative Center
5115 Oak Street, Room 212D
Kansas City, MO 64112
Telephone: 816-235-6705
Email: atchinsonk@umkc.edu
www.umkc.edu/titleix

Missouri University of Science and Technology
Paul Hirtz, Ph.D.
Title IX Coordinator
Address:
Technology Development Center
900 Innovation Drive, Suite 500
Rolla, MO 65409
Telephone: 573-341-4655
Email: hirtz@mst.edu
titleix.mst.edu

University of Missouri-St. Louis
Jessica Swederske
Title IX Coordinator
Address:
One University Boulevard
153 JC Penney North
St. Louis, MO 63121
Telephone: 314-516-5748
Email: swederskej@umsl.edu
www.umsl.edu/title-ix

University of Missouri Health System
Julia Ware, M.D., J.D., CPHRM, CPPS
Title IX Coordinator
Address:
One Hospital Drive
Columbia, MO 65212
Telephone: 573-882-8187
Email: wareja@health.missouri.edu

If the report of alleged sexual harassment in a University education program or activity involves the University's Title IX Coordinator, reports may be made to the System Title IX Coordinator. If the report involves the System Title IX Coordinator, reports may be made to the System President. The contact information for the System President is:

Office of the President
105 Jesse Hall
Columbia, MO 65211
Telephone: 573-882-2011
Email: president@umsystem.edu

NOTE: The above-listed contact information for Title IX Coordinators may be updated as needed and without requiring the approval of the Board of Curators.

D) Title IX Resolution Process. The University is committed to preventing and eliminating impermissible sexual harassment in its education programs, activities and employment. To that end, the University maintains policies regarding reporting, investigation, and resolution of complaints of sexual harassment. Specifically, please see:

Section 600.030 – Resolution Process for Resolving Complaints of Sexual Harassment Under Title IX

E) Designated Officials. The following are the officials designated by the University as those who have “authority to institute corrective measures.” These officials are mandated reporters and shall report to the Title IX Coordinators any information that puts them on notice of sexual harassment or allegations of sexual harassment.

- 1) The President of the University of Missouri System;
- 2) The Chancellors of each University in the University of Missouri System;
- 3) The Provosts of each University in the University of Missouri System; and
- 4) The Chief Human Resource Officers for each University in the University of Missouri System.

(a) Any person having inquiries concerning the application of Title IX should contact their respective UM System or University Title IX Coordinator.

F) Reporting Sexual Harassment

- 1) Students, Employees, Volunteers, and Visitors. Students, employees, volunteers, and visitors of the University who have experienced any form of sexual harassment are encouraged to report the incident promptly to the appropriate Title IX Coordinator listed in Section 600.020.C. above. In addition, students, volunteers, and visitors of the University who have witnessed such conduct are encouraged to report the incident promptly to the appropriate Title IX Coordinator. The University will respond to all such reports pursuant to one of its Title IX and Equity Resolution Processes (see Sections 600.030, 600.040, 600.050).
- 2) Mandated Reporters. Any employee of the University, except as noted below, who becomes aware of sexual harassment as defined in this policy is a Mandated Reporter, regardless of whether the recipient of the behavior is a student, employee, volunteer or visitor of the University.
- 3) Employees with a Legal Obligation or Privilege of Confidentiality. Employees with a legal obligation or privilege of confidentiality (including health care providers, counselors, lawyers, and their associated staff) are not considered Mandated Reporters and are not required to report when the information is learned in the course of a confidential communication. This also means that the employee seeking the exemption is employed by the University for that specific purpose and was acting in that capacity when the confidential disclosure was made. If the information is not learned in the course of confidential communication (for example, behavior is observed in class) then the employee has the same obligation as a Mandated Reporter.
- 4) Designated Confidential Employees. Consistent with the law and upon approval from the Office of the General Counsel, Universities may also designate non-professional counselors or advocates as confidential for purposes of this policy and, therefore, excluded from the definition of Mandated Reporters.
- 5) Required Reporting. A Mandated Reporter is required to promptly report the information to the appropriate Title IX Coordinator. The Mandated Report must be made regardless of whether the person reporting the information to the Mandated Reporter requests confidentiality and regardless of how the Mandated Reporter becomes aware of the offensive behavior (personal observation, direct information from the subject of the behavior, indirect information from a third party, etc.). If the

Complainant requests confidentiality or that a report not be pursued, the Mandated Reporter should warn the Complainant that, at this stage in the process, the Mandated Reporter must report all known information to the Title IX Coordinator.

- 6) Content of Mandated Report to Title IX Coordinator. Mandated Reporters must report all details that they possess. This includes names of the Parties, if known, and all other information in the Mandated Reporter's possession.
- 7) Non-compliance. Failure to comply with this policy can result in disciplinary action. Employees also are cautioned that non-compliance with this policy may increase their risk of personal liability. Further, an individual who fails to report as required under this policy may be determined to be ineligible for defense or protection under Section 490.010 of the University's Collected Rules and Regulations for any associated claims, causes of action, liabilities or damages.

G) Retaliation, False Reporting, and Witness Intimidation or Harassment.

- 1) 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 600.030. 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 Title IX Coordinator. The University will promptly respond to all claims of retaliation in accordance with this policy.
Examples of prohibited retaliation include, but are not limited to, giving a lesser grade than the student's academic work warrants because the student filed a report or Formal Complaint of sexual harassment; giving lower than justified performance appraisals because a person was a witness in an investigation of alleged sexual harassment; and threatening to spread false information about a person for filing a report or Formal Complaint of sexual harassment.
- 2) 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.
- 3) The University prohibits attempted or actual intimidation or harassment of any potential Party or witness. No individual participating in an investigation relating to a report or Formal Complaint that a violation of this policy has occurred should, directly or through others, take any action which may interfere with the investigation.
- 4) For situations involving alleged retaliation, false reporting, and witness intimidation or harassment, the Title IX Coordinator will refer the matter to the appropriate University process.

H) U.S. Department of Education—Office for Civil Rights. Inquiries concerning the application of Title IX also may be referred to the United States Department of Education's Office for Civil Rights. For further information on notice of nondiscrimination and for the address and phone number of the U.S. Department of Education office which serves your area call 1-800-421-3481.
The State of Missouri Regional Office for Civil Rights is located in Kansas City and is available to provide assistance.

(a) Office for Civil Rights
U.S. Department of Education
One Petticoat Lane
1010 Walnut, 3rd Floor, Suite 320

Kansas City, MO 64106
Telephone: 816-268-0550
FAX: 816-268-0559
TDD: 800-877-8339
Email: OCR.KansasCity@ed.gov

BOARD ACTION TO APPROVE

A RESOLUTION TO AMEND COLLECTED RULES AND REGULATIONS 330.015 “POLICY ON CONFLICT OF INTEREST”

Executive Summary

This is a request for the Board’s approval of a change to Collected Rules & Regulations 330.015 “Policy on Conflict of Interest,” set forth in the Board’s Consent Agenda.

The purpose of the requested change is to align CRR 330.015 with the recently issued Executive Order No. 50 “Malign Foreign Talent Recruitment Program”, which was issued to comply with the CHIPS and Science Act of 2022, as well as Department of Defense policies.

Background: On July 24, 2024, President Choi issued Executive Order No. 50, Malign Foreign Talent Recruitment Program. The executive order prohibits employees, recognized volunteers and all other appointments from participating in a malign foreign talent recruitment program. A malign foreign talent recruitment program is defined as:

1. A program in which an individual receives any kind of compensation from a foreign country or affiliated entity in exchange for engaging in specific activities, and
2. A program that is sponsored by a foreign country of concern (currently China, North Korea, Russia, and Iran) or other specific institutions or programs identified in the Defense Authorization Act.

This executive order was required to comply with the CHIPS and Science Act of 2022 and Department of Defense policies prohibiting federal funds from being used by individuals in a malign foreign talent recruitment program. The executive order was vetted with relevant groups across the four universities, including the Office of General Counsel, the four offices of Sponsored Programs and Conflicts of Interest, the HR Policy team, the four Vice Chancellors for Research, the four provosts and broader UM Academic Officers (UMAO) group, and the Intercampus Faculty Cabinet (IFC), whose members distributed the policy to their respective Faculty Senates and Council for suggestions and feedback.

Needed Action: To align CRR 330.015 – Policy on Conflict of Interest – with the new executive order, a sentence needs to be added to 330.015. The additional language reads:

Section E, Item 7: Malign Foreign Talent Recruitment Program. “As further defined and provided for in CRR 330.120, no Employee shall participate in a Malign Foreign Talent Recruitment Program.”

330.015 Policy on Conflict of Interest

Bd. Min. 1-25-90, Amended 10-05-07, Amended 11-29-07, Amended 3-22-11, Amended 7-27-12, Amended 6-17-16; Amended 4-9-20; Amended 7-28-20.

A. Conflict of Interest -- General Provisions

1. **Applicability.** This policy is applicable to all Employees of the University as defined herein. Additionally, for research involving human subjects, researchers and certain University officials must also comply with Collected Rules and Regulations (“CRR”) 410.020 pertaining to Institutional Conflicts of Interest in Human Subjects Research. Likewise, investigators on funded or proposed NSF or PHS research or educational activities must also comply with CRR 420.030.
2. **Policy.** Employees shall faithfully discharge their duties and shall refrain from knowingly engaging in any outside matters of financial interest or commitment incompatible with the impartial, objective, and effective performance of their University Responsibilities and in the conduct of University affairs. They shall not realize personal gain in any form which would influence improperly the conduct of their University Responsibilities. They shall not improperly use University property, funds, confidential or proprietary information, students, position or power for personal or political gain. They shall inform their chairpersons/supervisors in writing of their Outside Interests. Compliance with this policy promotes objectivity in research by establishing standards that provide a reasonable expectation that the proposal, design, conduct, and reporting of research will be free from bias resulting from Employee conflicts of interest.
3. **Sanctions.** Conduct by an Employee that violates the University's policies, regulations or rules pertaining to conflict of interest shall constitute a breach of the employment contract and may lead to disciplinary action. The Conflict of Interest Committee may make a determination of a violation of this policy and will report such violation to the Chancellor. After the finding of a violation, the Chancellor of each campus, in consultation with the respective Conflict of Interest Committee, may apply sanctions, including but not limited to, one or more of the following:
 - a. Letter of warning or admonishment.
 - b. Suspension or termination of research compliance committee approvals.
 - c. Suspension or termination of the privilege to submit sponsored activity proposals.
 - d. Suspension or termination of sponsored research activity spending authority.
 - e. Demotion or removal from assigned administrative roles.
 - f. Referral to campus Committee on Tenure or other appropriate committee for discipline or dismissal for cause of faculty.

- g. Suspension or termination of employment (pursuant and subject to CRR 310.060, Procedures in Case of Dismissal for Cause, for those faculty covered by that rule).

B. Definitions

1. "Employee" means:

- a. Any person receiving compensation from the University for services rendered, regardless of whether the person is benefit eligible or non-benefit eligible (e.g., full-time or part-time), or classified under other sections of the CRR as Academic Staff or Administrative, Service and Support Staff;
- b. Any person receiving compensation paid through the University from any funds placed in its hands for distribution; or
- c. Any person that has voluntarily elected to enter into an agreement or an agreement entered into on their behalf with the University to be treated as an "Employee" for purposes of this policy. For purposes of this policy, the receipt of compensation shall not be interpreted to include:
 - i. Receipt of student financial aid, including but not limited to, scholarships, grants, loans, tuition waivers and educational fee reductions, generally available to University students and unrelated to any provision of services by the student to the University; or
 - ii. Payments to independent contractors.

2. "Outside Interest" means:

- a. An employment, consulting, or other professional activity or service, paid or unpaid, for a third party that is not part of the Employee's University Responsibilities, and such activity or service for the third party nonetheless relates to work within the scope of the Employee's University Responsibilities. This includes, without limitation, any activity or service that involves the use of the Employee's expertise, the practice of the Employee's profession, or any activity or service that contributes to the Employee's professional competence or development; or
- b. A direct or indirect financial interest in an entity that proposes to do business or is doing business with the University; or
- c. A direct or indirect financial interest in an entity that proposes to acquire or has acquired rights to University owned intellectual property; or
- d. Whenever an Employee's duties include research or investigation, a direct or indirect financial interest in an entity conducting research or business that is relevant to the scope of the Employee's University Responsibilities; or
- e. Any other activity that could be construed as relating to or overlapping or competing with the core missions of the University.

3. “University Responsibilities” means an Employee's responsibilities for which such Employee was hired and conducted at or undertaken on behalf of the University, which may include, but is not limited to, activities such as research, research consultation, teaching, outreach/extension, professional practice, institutional committee memberships and service on University-based panels.
 4. “Manage” (or “Managed”) means taking action to address an actual or potential conflict of interest, which can include reducing or eliminating the conflict to ensure to the extent possible that the Employee's University Responsibilities will be free from bias. “Manage” may include, without limitation, a formal written Conflict of Interest Management Plan.
 5. “Gift” means any tangible or intangible item or items having a monetary value in excess of \$75. This maximum value applies to each gift transaction.
 6. “Prohibited Source” means any person or entity, public or private, outside the University, with interests, financial or otherwise, that may be substantially affected by the recommendations, decisions, performance or non-performance of the duties of the Employee.
- C. **Use of Confidential Information** -- Employees shall not use University confidential or proprietary information obtained by reason of their University employment with intent to cause financial gain to themselves or unfair advantage for another person.
- D. **Prohibition Against Acceptance of Gifts**
 Employees of the University shall avoid accepting Gifts for personal use, directly or indirectly, from Prohibited Sources, except as permitted in Section 330.015.D.1. below.
1. **Exceptions** -- The following shall not be considered a violation of this policy:
 - a. Gifts that are available to the Employee on the same conditions as for the general public;
 - b. Educational materials utilized in the performance of the Employee's University job;
 - c. Awards or honoraria administered by or through the University;
 - d. Gifts from the Employee's relatives, by blood or marriage;
 - e. Any item of food, refreshment, entertainment or other benefit provided to the Employee while attending a meeting, conference or convention provided on the same conditions as for other attendees; provided that if the item could be considered as lavish, then approval must be obtained under subparagraph f. below;
 - f. Any Gift if approved in writing in advance by an administrative superior who is a University General Officer, or in the event of the President, then approval of the Chair of the Board of Curators.
 2. Each General Officer approving acceptance of Gifts under Section 330.015.D.1.f. shall report all such approvals annually to the President.
- E. **Responsibilities of University Employees** -- An Employee's Outside Interests must not interfere with the Employee's University Responsibilities nor represent a conflict of interest that is not or cannot be Managed. Exempt staff and faculty Employees shall disclose all Outside Interests annually, and shall disclose any changes or acquisition of a new Outside Interest, as such interests arise. Provided that each campus may adopt

procedures by which adjunct faculty are not subject to annual reporting requirements (except as required by federal law) and instead disclose all Outside Interests prior to initial employment and disclose any changes or acquisition of a new Outside Interest as such interests arise. All other Employees shall disclose Outside Interests as such interests arise (e.g., transactional reporting). The following situations are illustrative of such activities and interests. This list should not be considered exhaustive.

1. **Grants and Contracts Involving an Employee Financial Interest.** When it is proposed that the University enter into (1) contracts for the sale of goods or services, or (2) research contracts or grants, or (3) other contracts with individuals, private firms or business entities in which an Employee knows the Employee has a direct or indirect financial interest, the following procedure shall be followed:

Before the proposed contract is negotiated by the University, the Employee shall make a disclosure of such financial interest, in writing, which disclosure shall be forwarded to the official having contract approval authority.

If there is a change in the financial interest of the Employee during the term of the contract, the change shall be disclosed immediately by the Employee, in writing, and forwarded to the official having contract approval authority.

Except as provided in Paragraph E.1.d., if the financial interest of the Employee in the private firm or business entity is such that it could influence the decision-making process of the private firm or business entity and the Employee could also influence the decision-making process of the University in entering into or performing the contract:

The University shall not enter into the contract or shall cancel the contract, if the terms of the contract so permit; or

The University and Employee shall enter into a Conflict of Interest Management Plan which shall, among other things require that:

The Employee shall take such action as is necessary to be removed from a relationship with the private firm or business entity which could influence the decision-making process of the private firm or business entity; and/or

The University shall establish a procedure to remove any opportunity for the Employee to influence the entering into the contract by the University or the manner in which the contract is performed by the University.

If the financial interest of the Employee is as an owner or employee in a private firm or business entity that is proposing to license or otherwise acquire University-owned intellectual property, then the University may enter into such transaction upon the approval of the applicable campus technology transfer office

and Chief Research Officer, and upon the adoption of a Conflict of Interest Management Plan.

2. **Overlapping Business Activities.** Before an Employee enters into or has a business activity which relates to, overlaps with, or competes with the University's teaching, research, service, or economic development missions, the Employee shall make a full disclosure, in writing. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity and such activity must be Managed.
3. **Full-time Employment - Faculty and Exempt Personnel.** Full-time faculty and full-time exempt personnel may not be concurrently employed full-time with another employer.
4. **Teaching.** An Employee of the University who teaches either credit or non-credit courses not connected with the University may have a conflict of interest. To avoid conflicts of interest an Employee must disclose the proposed teaching activity and secure written approval in advance. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. Approval for such teaching shall be granted unless the proposed teaching is not in the best interests of the University. In reaching the decision, the chairperson/supervisor and dean/director or Provost on campuses having no schools or colleges should consider all relevant matters including such concerns as duplication of University courses or programs and accreditation standards.
5. **Faculty-Authored Textbooks and Other Educational Materials.** Textbooks, tapes, software and other materials authored by the course instructor may be assigned to be purchased by students for a course taught by the author if the royalties arising from the purchase of the assigned materials are returned to the University, another educational institution, a charitable organization, or a not-for-profit foundation. Any proceeds from other University uses of such materials, such as purchase by the library, shall be the property of the author. Course instructors or any other Employee responsible for selecting, ordering, assigning course materials cannot accept Gifts, development grants, or other compensation from any company or organization for the adoption of course textbooks, software or other educational material.
6. **Consultation.** Consultation is a significant means of professional improvement as well as a form of community service. However, consultation may in some instances also constitute a business interest requiring disclosure and approval. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. It is the policy of the University generally to permit consulting activities of Employees which:
 - a. are related to the professional interest and development of the Employee,
 - b. do not interfere with regular duties,
 - c. do not utilize University materials, facilities, confidential or proprietary information, intellectual property, or resources except as provided in the University Business Policy Manual, or any campus-specific policies,

- d. are in agreement with the American Association of University Professors/American Council on Education (AAUP/ACE) Statement on Conflict of Interest and with the requirements of accreditation for the particular school or unit in question,
- e. do not compete with the work of the University,
- f. are not otherwise contrary to the best interests of the University,
- g. do not violate federal or state law, and
- h. any conflicts of interest are Managed.

7. Malign Foreign Talent Recruitment Program. As further defined and provided for in CRR 330.120, no Employee shall participate in a Malign Foreign Talent Recruitment Program

F. Responsibilities of Each Campus:

Each campus shall:

- 1. Establish a committee to coordinate the solicitation and review of disclosures of Outside Interests from each Employee, including development of campus specific standards and procedures, determine whether a conflict of interest exists, and determine what conditions or restrictions, if any, should be imposed by the campus to Manage such conflict of interest, resolve problems revealed, and enforce sanctions as appropriate, including adoption of a Conflict of Interest Management Plan.
- 2. Comply with all laws and regulations regarding conflict of interest, including the provision of initial and ongoing financial conflict of interest reports to the Public Health Service (PHS) as required pursuant to 42 C.F.R. Part 50 Subpart F and 45 C.F.R. Part 95.
- 3. Develop and publish corresponding procedures to support implementation of this policy and any other related laws or regulations regarding conflict of interest. Such procedures shall include, at a minimum, requirements for exempt staff and faculty Employees to submit annual reports disclosing all Outside Interests or verifying the absence of any Outside Interests (except to the extent that a campus may adopt alternative procedures for adjunct faculty as provided in Section 330.015.E).

G. Use of University Stationery -- Official University stationery may not be used in outside business, personal, and other private or political activities of Employees. However, for use in such activities, faculty may have printed at their own expense personal business stationery carrying their academic title, University address and telephone number.

H. Use of University Logos, Trademarks, and Service Marks -- It is a violation of University policy to use the name of the University or any of the University's logos, trademarks or service marks in materials intended to endorse or promote Employee Outside Interests or to otherwise enhance private gain without the written permission of the University President or the President's designee.

I. Appeals -- Appeals of decisions made under these procedures, except for decisions made by the Chancellor in applying a sanction (CRR 330.015, Section A.3.), should be brought to resolution informally and at the lowest possible administrative level. Should attempts to resolve appeals informally fail, procedures set forth in CRR 370.010 and CRR 380.010, shall be followed. Appeals of sanctions issued by the Chancellor shall be governed by the procedures set forth in Section 370.010.C.3.b. through 370.010.D.

Ethics, Compliance, and Audit Services Charter

UM

Background

In August 2024, the Board endorsed the plan to have the roles of chief audit executive and chief compliance officer continue to be combined into the role Chief Audit and Compliance Officer (CACO). The Board also approved a change in the reporting structure of the CACO. The CACO will report functionally to the Board through the Chair of the Audit, Ethics and Compliance committee and report administratively to the Chief Financial Officer (CFO). This action is consistent with the requirements set forth in the *Global Internal Audit Standards* (Standards), Standard 7.1: Organizational Independence, published by the Institute of Internal Auditors (The IIA) in January 2024 and which go into effect January 2025.

As required by the Standards, the current Internal Audit Charter should be updated to document these changes.

Recommendation

In partnership, the Chief Audit and Compliance Officer and the CFO recommend approval of the updated charter for the Office of Ethics, Compliance, and Audit Services (formerly the Internal Audit Charter). This charter now includes the following: 1) Documents the reporting lines approved by the Board in August 2024, 2) Clarifies the responsibilities of internal audit, compliance, and the other functions within Ethics Compliance Audit Services as required by the Standards and 3) Cites the new professional Standards which go into effect January 2025.

The rationale for this recommendation is provided in the appendix.

University of Missouri System Board of Curators

June 27, 2024
Audit, Compliance and Ethics Committee

Ethics, Compliance, and Audit Services (ECAS)
Action Item
UM System



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OPEN – CONSENT J-3

September 12, 2024

Ethics, Compliance, and Audit Services Charter

Formerly the Internal Audit Charter



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OPEN – CONSENT J-4

September 12, 2024

New Standards

January
2025

Global
Internal Audit
Standards™



- Board Oversight
- Integrity
- Objectivity
- Independence
- Authority
- Professionalism
- Quality of work
- Internal Audit Charter



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OPEN – CONSENT J-5

September 12, 2024

Recent Board Actions

Continue to combine the role of chief audit executive and chief compliance officer into the role Chief Audit and Compliance Officer (CACO)

Approved the reporting structure of CACO:

- Functionally to the Board through the chair of the Audit, Compliance and Ethics Committee
- Administratively to the Chief Financial Officer



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Through the Lens of The IIA

The CACO is responsible for the internal audit function, which internal audit Standards require be *independent and objective*. The CACO being responsible for functions in addition to audit can potentially impair internal audit independence and objectivity. The Standards help address this.

Per the Standards:

*When the chief audit executive has one or more ongoing roles beyond internal auditing, the responsibilities, nature of work, and established safeguards **must be documented in the internal audit charter**. If those areas of responsibility are subject to internal auditing, alternative processes to obtain assurance must be established, such as contracting with an objective, competent external assurance provider that reports independently to the board. (See Standards, p. 46.)*



Recommendation

Approve the updated charter (formerly the Internal Audit Charter) for the Office of Ethics, Compliance, and Audit Services (ECAS). The Ethics, Compliance, and Audit Services Charter now:

- 1) Documents the reporting lines approved by the Board in August 2024
- 2) Clarifies the responsibilities of internal audit, compliance, and the other functions within ECAS, as required by the Standards
- 3) Cites the new Standards which go into effect January 2025



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September 12, 2024

OPEN – CONSENT J-8

Questions?



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OPEN – CONSENT J-9

September 12, 2024



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

September 12, 2024

Naming Opportunity
Naming of the University Research Center for Critical Minerals to
The O'Keefe Center for Critical Minerals
Missouri S&T

Pursuant to CRR 110.080, naming and/or recognition for any Exterior Area, University Landmark, Interior Spaces, unit, or program requires Board approval. Missouri University of Science and Technology requests approval to name the University Research Center for Critical Minerals in Rolla, Missouri, to the "The O'Keefe Center for Critical Minerals" in recognition of Dr. Thomas J. O'Keefe.

Dr. Thomas J. O'Keefe graduated over 60 Ph.D. students, published 170 articles, had 11 issued patents and received numerous awards throughout his career. His primary areas of research focused on chemical and extractive metallurgy and the deposition of coatings. In the 1990's, he and chemistry Curator's Distinguished Professor Dr. James O. Stoffer began pioneering research to replace toxic chromates used as a corrosion inhibitor on military aircraft. Their work resulted in the first environmentally friendly alternative to toxic, chrome-based anti-corrosions coatings. Their discoveries are patented and used extensively in the aerospace industry as a certified standard solution for aircraft coatings. The research also led to an R&D 100 Award from R&D Magazine.

In 2008, the Dr. Thomas J. O'Keefe Lecture Series at Missouri S&T was created in his honor to bring accomplished metallurgists from industry to campus to share their expertise with students.

The Thomas J. O'Keefe Center for Critical Minerals is a group of S&T researchers that has been advancing critical minerals and materials research in Missouri. The researchers of the O'Keefe Center have over \$22 million in active research grants. This level of success is testament to the capability and scale of the opportunity. Elevating and naming the O'Keefe Center to the status of a university research center focused on critical minerals and materials will elevate this activity to its appropriate status and position it to flourish.

President Choi and Chancellor Dehghani are in support of this naming.

September 12, 2024

OPEN – CONSENT – K-1

No. K

Recommended Action - Naming of University Research Center to The O’Keefe Center for Critical Minerals located at Missouri S&T

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

To name the University Research Center for Critical Minerals to the O’Keefe Center for Critical Minerals

Roll call vote Finance Committee	YES	NO
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Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote Full Board:	YES	NO
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Curator Blitz
Curator Fry
Curator Graves
Curator Holloway
Curator Krewson
Curator Layman
Curator Siquefield
Curator Wenneker
Curator Williams

The motion _____.

September 12, 2024

Meeting Date	September 12, 2024
Action Title	Approval of Collected Rules & Regulations 140.012, 140.013, 140.015, 140.017
Action Type	Changes to Investment Policies

Executive Summary

The Board of Curators is being asked to approve recommended changes to the Retirement Plan and Endowment Pool investment policies. These recommendations result from asset allocation studies performed for both the Retirement Plan and Endowment Pool.

- Retirement Plan recommended asset allocation Mix B reduces investment risk, exceeds the return objective, offers the lowest projected Retirement Plan funding costs and simplifies the portfolio through elimination of two asset classes and reduction of leverage.
- Endowment Pool recommended asset allocation Mix A exceeds the return objective, reduces investment risk, increases equity exposure and simplifies the portfolio through elimination of three asset classes and the elimination of portable alpha leverage.

Table of Contents

1. Executive Summary [OPEN-CONSENT-L-1]

- *Provides a high-level overview of the asset allocation recommendations.*

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

- *The action to be voted upon by the Board to provide the necessary authorization to amend the Collected Rules & Regulations as recommended.*

3. Asset Allocation Presentation [OPEN-CONSENT-L-3-14]

- *Provides a summary of the asset allocation process, objectives and recommendations.*

Appendix

4. Asset Allocation Written Recommendations [APPENDIX-OPEN-CONSENT-L-15-26]

- *Provides an in-depth discussion of asset allocation process, objectives and recommendations, with additional background information on the University's private equity portfolios, US equities and portfolio leverage.*

5. Verus Asset Allocation for Asset-Liability Analysis [APPENDIX-OPEN-CONSENT-L-27-58]

- *Outlines the methodology and modeling outcomes for Retirement Plan and Endowment Pool asset allocation review performed by Verus, the University's investment consultant.*

6. Milliman Asset Liability Study [APPENDIX-OPEN-CONSENT-L-59-80]

- *Outlines the Retirement Plan's liability modeling and net funding cost projections performed by Milliman, the University's consulting actuary.*

7. Proposed Changes to Collected Rules & Regulations [APPENDIX-OPEN-CONSENT-L-81-115]

- *Includes redline and clean copies of Collected Rules & Regulations 140.012, 140.013, 140.015, 140.017*

Approval of Collected Rules & Regulations 140.012, 140.013, 140.015, 140.017

Executive Summary

The asset allocation recommendations being presented to the Board for approval come forward as a result of a process led by the Office of Investments, working closely with the UM System Finance Division, Verus (the University's investment consultant) and Milliman (the Retirement Plan's actuarial consultant). The process was guided by input from the Board Finance Committee as well as feedback from the Investment Advisory Committee.

The following objectives were identified for each portfolio:

Retirement Plan

- Reduce Investment Risk
- Meet or Exceed 7% Assumed Actuarial Return
- Minimize Plan Funding Costs

Endowment Pool

- Meet or Exceed 7.75% Policy Objective
- Risk Not to Exceed Current Policy Portfolio
- Increase Equity Exposure

Additionally, portfolio simplification and lower costs continue to be ongoing objectives.

Retirement Plan recommended Mix B reduces investment risk, exceeds the 7.0% actuarial assumed return by 1.1% and had the lowest cumulative pension funding cost. Mix B also offers meaningful simplification by eliminating two asset classes while reducing portfolio leverage from 22% to 20%.

Endowment Pool recommended Mix A exceeds the 7.75% policy objective by 0.25% at a risk level lower than the existing policy mix. Equity exposure increases by 5%. Mix A also offers meaningful simplification by eliminating three asset classes as well as the elimination of portable alpha leverage.

Summary of Proposed Changes to Collected Rules and Regulations

CRR 140.012 Investment Policy for General Pool

- Section D(2) – removes definition for Core Fixed Income, replaced by a reference to CRR 140.017 which contains centralized asset class definitions.
- Section D(3)(B) – updates Venture Capital limit from \$5 million to 0.5% of the combined Core and Strategic portfolios to better adapt to General Pool growth while still limiting exposure.

CRR 140.013 Investment Policy for Endowment Pool

- Section C – removes language on portable alpha / leverage from Investment Objectives.
- Section D – updates Asset Class Targets and Allowable Ranges for recommended Mix A.
- Section G – existing Portable Alpha Section removed.

CRR 140.015 Investment Policy for Retirement, Disability and Death Benefit Plan

- Section D - updates Asset Class Targets and Allowable Ranges for recommended Mix B.

CRR 140.017 Policy for Allowable Investments

- Section C(4) – existing section for Inflation-Linked Bonds is replaced with a new section for Core Fixed Income, which has been moved here from CRR 140.012.

No. L

Recommended Action - Approval of Collected Rules and Regulations 140.012 – 140.013, 140.015, 140.017 Investment Policies, UM

It was recommended by Executive Vice President Rapp, endorsed by President Mun Y. Choi, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the:

Existing investment policies of Collected Rules and Regulations, Section 140.012-140.013, 140.015, 140.017, be amended, as noted in the attached documents. Further, the asset allocation changes noted in Sections 140.013, 140.015 should occur in a methodical manner over a reasonable period of time as determined by investment staff:

Roll call vote of the Committee: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

The motion _____.

Roll call vote of Board of Curators: YES NO

Curator Blitz

Curator Fry

Curator Graves

Curator Holloway

Curator Krewson

Curator Layman

Curator Siquefield

Curator Wenneker

Curator Williams

The motion _____.

UM Asset Allocation Recommendations



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OPEN – CONSENT – L- 3

September 12, 2024

Investment Portfolio Cash Flows Inform Asset Allocation

Retirement Plan

Benefit payments to retirees currently total \$330 million annually; these payments will grow to \$445 million annually within 10 years. Benefit payments are paid monthly.

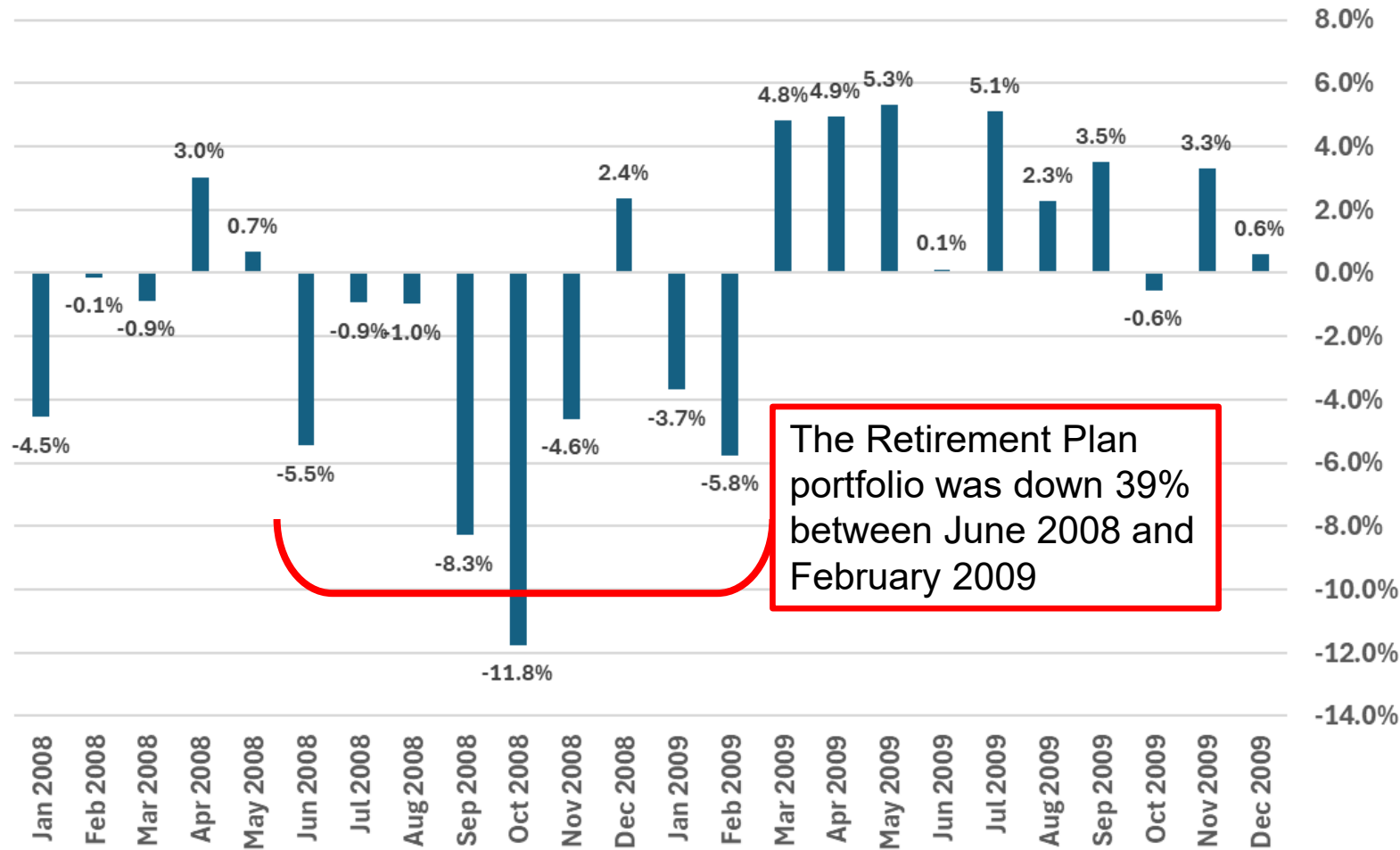
Endowment Pool

Spending distributions total approximately \$93 million per year. Nearly all new endowment gifts fund new endowment accounts. The existing 6,400 accounts will likely never receive another gift; as such, we are managing cash outflow risk on each existing endowment account in perpetuity.

Cash outflows during an investment market drawdown can be quite painful, with long-lasting effects. Diversified portfolios can help minimize drawdown risk.



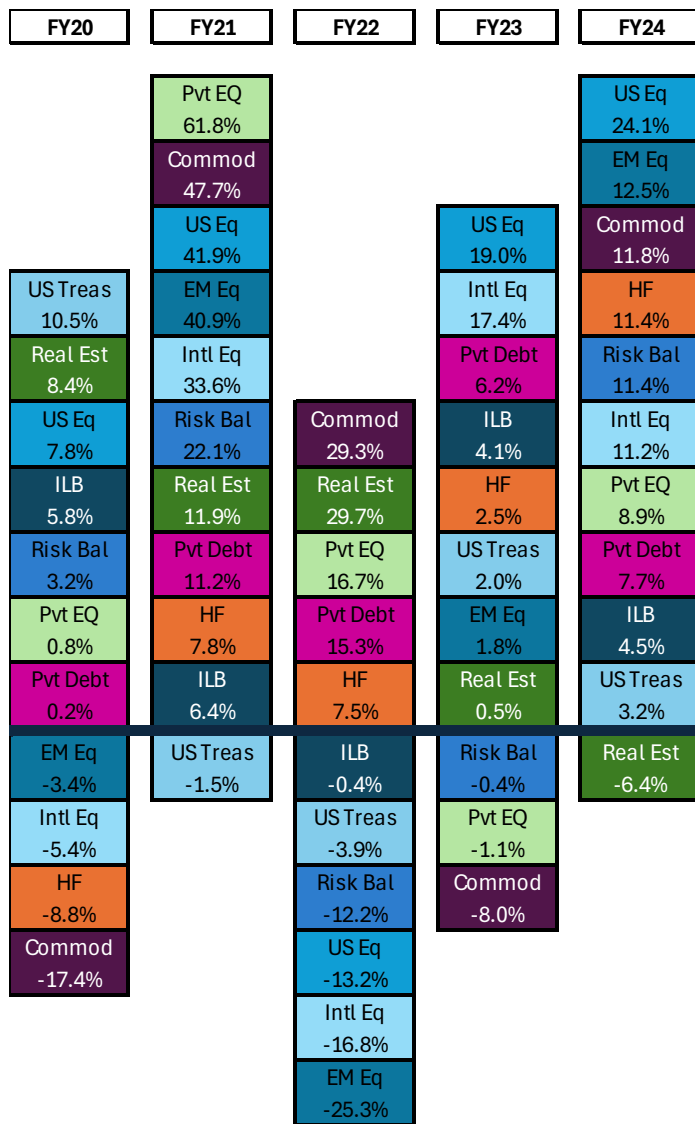
Retirement Monthly Returns - January 2008 to December 2009



Cash Flows Matter

- Retirement benefits are paid monthly.
- When portfolio returns go negative, assets must be sold in a down market to raise cash to pay benefits, locking in losses.
- Selling assets / realizing losses makes a recovery even more challenging due to the resulting smaller starting asset base.





Portfolio Diversification Can Help Manage Risks Across Time

- Equities are the primary driver of returns in most investment portfolios; equities also tend to be the riskiest assets in most investment portfolios.
- The primary objective of portfolio diversification is to help balance the risks of equities.
- Market returns are unpredictable; investment portfolios must be durable and able to withstand periods when equities underperform. FY22 provides a recent example when asset classes like commodities and real estate provided strong returns offsetting losses in public equities.
- Further back in time, the 10-year annualized return of the S&P 500 was -0.9% across the entire 2000s decade.



Asset Allocation Process

- Asset allocation reviews generally take place every three years:
 - General Pool – November 2022
 - Retirement – November 2020
 - Endowment – February 2021
- Asset allocation recommendations have been developed in collaboration with Verus (the University's investment consultant) and Milliman (the Retirement Plan's actuarial consultant).
- Reviewed and endorsed by the Investment Advisory Committee.



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Retirement Plan

Asset Allocation Objectives

- 1) Reduce Risk
- 2) Meet or Exceed 7% Assumed Actuarial Return
- 3) Minimize Funding Cost

	Expected Return	Current Policy	Mix A	Mix B	Mix C	Mix D
Global Equity	6.9%	34	34	34	48	-
US Equity	5.9%	-	-	-	-	80
Private Equity	9.0%	13	13	13	13	-
US TIPS	4.7%	9	-	-	-	-
US Treasuries	4.8%	8	8	20	10	-
Core Fixed Income	4.9%	-	8	9	10	20
Private Debt	9.4%	6	8	8	8	-
Real Estate	8.8%	13	11	11	11	-
Commodities	6.6%	5	3	5	-	-
Risk Balanced	7.2%	12	-	-	-	-
Absolute Return HF	7.1%	22	15	20	-	-
Cash / Leverage	4.1%	-22	-	-20	-	-
Total Portfolio		100	100	100	100	100
Expected Return		8.4%	7.8%	8.1%	7.6%	5.8%



	Current Policy	Mix A	Mix B	Mix C	Mix D
Expected Return %	8.4	7.8	8.1	7.6	5.8
Risk %	12.3	10.9	11.3	12.5	12.8
Sharpe Ratio	0.35	0.34	0.36	0.28	0.14
10 Year Funding Cost 50 th Percentile Stochastic (\$ billions)	0.55	0.91	0.73	0.99	1.83
Probability of Fully Funded in 10 Years %	42	32	37	34	24
10 Year Funding Cost Stress Test – 2000s (\$ billions)	1.96	2.23	1.90	2.50	4.05

Retirement Plan

Asset Allocation Objectives

- 1) Reduce Risk – **Mix A, Mix B**
- 2) Meet or Exceed 7% Assumed Actuarial Return – **Mix A, Mix B, Mix C**
- 3) Minimize Funding Cost – **Mix B**



Recommendation – Retirement Plan – Mix B

As an alternative to our current Policy Portfolio, Mix B is recommended by Staff, the University’s Investment Consultant and the Investment Advisory Committee. Mix B:

- Exceeds the 7.0% actuarial assumed return by 1.1%
- Offers a meaningful 1.0% reduction in portfolio risk, dropping from 12.3% to 11.3%, as compared to the current Policy Portfolio.
- Produces the best risk-adjusted return among all mixes (Sharpe Ratio of 0.36)
- Had the lowest cumulative pension funding cost of any mix (including the current Policy Portfolio) in our 2000s Decade stress test.
- Offers meaningful simplification by eliminating two existing asset classes (US TIPS, Risk Balanced) and reducing portfolio leverage from 22% to 20%, while focusing nearly all of the levered portfolio exposure to US Treasuries.



Endowment Pool

	Expected Return	Current Policy	Mix A	Mix B	Mix C	Mix D
Global Equity	6.9%	35	38	42	46	-
US Equity	5.9%	-	-	-	-	80
Private Equity	9.0%	15	17	18	19	-
US TIPS	4.7%	10	-	-	-	-
US Treasuries	4.8%	8	-	-	-	-
Core Fixed Income	4.9%	-	10	10	9	20
Private Debt	9.4%	7	8	9	10	-
Real Estate	8.8%	10	9	8	7	-
Commodities	6.6%	3	3	3	-	-
Risk Balanced	7.2%	12	-	-	-	-
Absolute Return HF	7.1%	22	15	10	9	-
Cash / Leverage	4.1%	-22	-	-	-	-
Total Portfolio		100	100	100	100	100
Expected Return		8.4%	8.0%	8.0%	8.0%	5.8%

Asset Allocation Objectives

- 1) Meet or Exceed 7.75% Policy Objective
- 2) Risk Not to Exceed Current Policy Portfolio
- 3) Greater Equity Exposure



	Current Policy	Mix A	Mix B	Mix C	Mix D
Expected Return %	8.4	8.0	8.0	8.0	5.8
Risk %	12.5	12.2	12.9	13.5	12.8
Sharpe Ratio	0.34	0.32	0.30	0.29	0.14
Combined Allocation to Public Equity and Private Equity	50	55	60	65	80
Private Markets Allocation	32	34	35	36	0

Long Term Objective: Transition away from public pension plan asset allocation, move toward endowment peers. This involves a greater allocation to private markets over time (the University is currently near the bottom of our endowment peer universe in terms of private markets allocation).

Endowment Pool

Asset Allocation Objectives

- 1) Meet or Exceed 7.75% Policy Objective - **Mix A, Mix B, Mix C**
- 2) Risk Not to Exceed Current Policy Portfolio - **Mix A**
- 3) Greater Equity Exposure – **Mix A, Mix B, Mix C, Mix D**



Recommendation – Endowment Pool – Mix A

As an alternative to our current Policy Portfolio, Mix A is recommended by Staff, the University’s Investment Consultant and Investment Advisory Committee. Mix A:

- Exceeds the 7.75% policy objective.
- Increases allocations to Global Equity and Private Equity.
- Simplifies the portfolio by eliminating US TIPS, US Treasuries, Risk Balanced and leverage.
- Produces the same expected return with a lower level of risk as compared to either Mix B or Mix C.
- Moves the asset allocation policy to be more like our university endowment peers, a long-term objective.



UMKC

MISSOURI
S&T

UMSL



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

Architect/Engineer Hire
UMSL School of Engineering – Stadler Renovation
UMSL

The University of Missouri – St. Louis requests approval for Architect/Engineer hiring for UMSL School of Engineering – Stadler Renovation project. A funding plan for the total project budget of \$15,000,000 will be presented as part of the request for project approval.

This project is aligned with UMSL’s ten-year Master Plan by focusing growth on the North Campus and leveraging underutilized space. Stadler Hall 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. To help meet Missouri’s growing demand for engineering talent, UMSL envisioned a campus-based School of Engineering that will expand upon engineering programming currently offered by the university’s 30-year joint undergraduate engineering program with Washington University. Recently, state funding was approved for the planning, design, and construction of dedicated lab spaces and other facilities to support a new on-campus engineering program. Local business leaders aligned with Greater St. Louis Inc. and the Regional Business Council, as well as top employers such as Ameren, Boeing, Emerson, Nidec, and Thermo Fisher Scientific helped advocate in support of the engineering funding.

This project will renovate underutilized space in Stadler Hall and other spaces to be determined within UMSL’s science complex to support the creation of a new on-campus UMSL School of Engineering. The project will construct a new welcome area for the “front-door” of the 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. The renovation will update mechanical, electrical, and plumbing systems as needed and provide updated technology and lab equipment to the facility. New collaboration zones will be created to promote interaction between researchers, students, and faculty. ADA improvements will also be made throughout the renovated spaces.

Patterhn Ives LLC, St. Louis, Missouri is the recommended architect for this project. Patterhn Ives LLC demonstrated successful experience with similar projects such as the master planning and completion of the Washington University Department of Computer Science & Engineering – James M McKelvey Sr. Hall project. They will collaborate with a dedicated lab planner at Perkins Eastman who has over 30 years of experience designing engineering labs and research labs in university settings. Patterhn Ives LLC recently led the design for UMSL’s Patient Care Center and Music & Fine Arts to AAB projects. Both project bids came in under budget despite the recent supply chain challenges in the market. Patterhn Ives LLC made it clear in their interview that they have a thorough approach to programming and budgeting and have the ability to design a space that recruits and retains engineering students for the newly established School of Engineering.

The selection committee also interviewed PGAV Architects, St. Louis, Missouri, Lamar Johnson Collaborative, St. Louis, Missouri, and JEMA, St. Louis, Missouri.

September 12, 2024

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 Type IV More Than Average Complexity and the calculated basic services fee is \$808,400 based upon 8.6% of the estimated \$9,400,000 construction cost.

The project is expected to complete by January 2027.

No. M

Recommended Action - Architect/Engineer Hire UMSL School of Engineering – Stadler Renovation, UMSL

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

The Architect / Engineer Hire for the UMSL School of Engineering – Stadler Renovation, UMSL at the maximum amount of \$808,400.

Roll call vote Finance Committee	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Krewson		
Curator Layman		
Curator Siquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

Architect/Engineer Hire
Central Utility Plant (North Campus)
UMSL

The University of Missouri – St. Louis requests approval for Architect/Engineer hiring for the Central Utility Plant (North Campus) project. A funding plan for the estimated total project budget of \$47,000,000 will be presented as part of the request for project approval and will consist of a combination of debt, campus reserves, and potential tax credits.

Currently there is limited interconnection between buildings on UMSL’s North Campus for heating & cooling supply. The majority of North Campus buildings utilities are isolated requiring each individual building to have its own system of boilers, chillers, and cooling towers to provide heating and cooling. This isolated setup means that when any critical equipment breaks within a building, that building is left without heating and cooling until a repair is complete. Most of the boiler, chiller, and cooling tower assets on UMSL’s campus are at the end of their useful life. The current status of these assets means that costly repairs are frequent and there is an increased risk that heating and cooling can be lost at any given moment. Failure to upgrade these systems will lead to heating & cooling outages on campus and increased maintenance costs.

A study was completed in 2023 & 2024 that looked at options to replace aging heating & cooling assets on campus and provide more efficient means of heating & cooling buildings on North Campus. The study recommended a distributed interconnected approach wherein new piping would be installed throughout UMSL’s North Campus to interconnect buildings in a loop system. The study also recommended right-sizing the boilers & chillers on North Campus in order to reduce the number of overall assets over time, leading to lower maintenance costs.

This study also looked at opportunities to leverage currently available tax credit for major infrastructure upgrades. The study recommends that UMSL adapts the proposed loop system to include geothermal wells similar to the system that has been implemented at the Missouri University of Science & Technology.

Implementation of this project would increase heating and cooling resiliency, reduce the total number of chillers and boilers on North Campus, lower maintenance costs by retiring end-of-life assets, and take advantage of tax credits by incorporating geothermal wells into the system. The study anticipates that there will be overall utility cost savings when the infrastructure improvements are completed.

McClure Engineering, St. Louis, Missouri is the recommended engineer for this project. McClure Engineering demonstrated successful experience with similar projects such as the Missouri University of Science & Technology Geothermal Energy System. Their comprehensive understanding of geothermal systems and successful applications of the technology in Missouri was impressive and a key differentiation compared to the other engineering firms that were considered. McClure Engineering also completed a study of the proposed geothermal system at UMSL in 2023 and 2024. The McClure Engineering team includes Patterhn Ives Architects (WBE), David Mason & Associates (MBE) civil and

September 12, 2024

structural engineer.

The selection committee also interviewed Introba, St. Louis, Missouri and Burns & McDonnell 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 Type VI Engineering Projects and the calculated basic services fee is \$2,293,600 based upon 6.1% of the estimated \$37,600,000 construction cost.

The project is expected to complete by Fall 2030.

No. N

Recommended Action - Architect/Engineer Hire for Central Utility Plan (North Campus),
UMSL

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

the Architect/Engineer Hire for the Central Utility Plant (North Campus)
, UMSL at the maximum amount of 2,293,600

Roll call vote Finance Committee	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Krewson		
Curator Layman		
Curator Sinquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

Investment Consultant Annual Approval
UM

Management is recommending the retention of Verus for Board of Curators approval. Verus, a fiduciary to the Board, provides general investment consulting services for the University's \$10 billion in assets under management across the Retirement Plan, Endowment Pool, and General Pool.

In 2018, after a formal RFP process, the Board of Curators retained Verus as the general investment consultant. The Board of Curators approves the appointment of the general investment consultant on an annual basis. The proposed fee for the upcoming year beginning on October 1, 2024 is \$626,834. This represents a fee increase of \$8,000. The fee increase is from the annual inflation adjustment tied to CPI and capped at 3%.

Separately, the University's Investment Oversight Committee for Participant Directed Savings Plans selected Verus to provide investment consulting services for the University's Participant Directed Savings Plans as allowed by CRR 140.030 "Investment Policy for Participant Directed Savings Plans." The annual fee for these services is \$70,000.

An overview of Verus is attached for your review.

No. O

Recommended Action - Investment Consultant Annual Approval, UM

It was recommended by Executive Vice President Rapp, endorsed by President Choi, recommended by the Finance Committee, moved by Curator _____ and seconded by Curator _____, that the investment consulting firm, Verus, be retained for one year:

Roll call vote of the Committee: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote of The Board of Curators: YES NO

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

The motion _____.

Project Approval
South Campus Utility Improvements
MU

University of Missouri – Columbia requests project approval for the South Campus Utility Improvement project. The project budget of \$9,800,000 will be funded by University Reserves recovered through utility charges.

The new north endzone plaza overlaps a planned utility corridor for a new campus chilled water loop necessary to support future development on the south side of Stadium Blvd, including the Memorial Stadium improvement project. The project will install 1,000LF of new chilled water infrastructure, 500LF of water line infrastructure, 800LF of telecom duct bank, 180LF of steam chase and construction of two steam manholes. The project will also include 360LF of steel casing to bore water and chilled water utilities under Stadium Blvd. The project is scaled to support the new project and potential other expansions to that area of campus.

DLR Group with SK Design from Kansas City, Missouri, was selected as the engineering firm under the Memorial Stadium Improvements project. DLR was originally selected through an RFQ process for the Memorial Stadium Improvements, approved at the April 2024 Board meeting. DLR/ SK Design are best suited for this additional overlapping construction area and scopes of work.

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 VI – New Construction (Engineering Project), and the calculated basic services fee is \$528,950 based upon 7.1% of the estimated \$ 7,450,000 construction cost.

The project will be delivered using Construction Manager at Risk (CMR) due to the aggressive schedule, coordination and risk associated with the site and schedule overlap of the Memorial Stadium Improvements project and the need for multiple bid packages.

September 12, 2024

ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE

Jeanne C. Sinquefield, Chair

Robert D. Blitz

Todd P. Graves

Michael A. Williams

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

I. Scope

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

II. Executive Liaison

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

III. Ex Officio Member

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

IV. Responsibilities

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

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

Executive Summary
Intercollegiate Athletics Annual Report - UMKC

This is a regular update on athletics for UMKC. This is not an action item for the Board.

At the September meeting, Dr. Brandon Martin, Vice Chancellor and Director of Athletics at UMKC, will provide an update on UMKC athletics to the Board.

Per Collected Rule and Regulation 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.”

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 to the Board on their athletic programs for general awareness.



UNIVERSITY OF MISSOURI
KANSAS
CITY



1. Kansas City Athletics Overview:

1. 14 Sports – 6 men, 8 women
2. 215 Scholarship Student-Athletes
3. 26 Walk On Student-Athletes

2. Athletic Success:

1. Men's Golf Summit League Champions
2. Volleyball Regular Season Champions
3. Men's Basketball 2nd in Regular Season
4. Four Summit League Coaches of the Year
 1. Jessica Smith – Women's Soccer
 2. Christi Posey – Volleyball
 3. Marvin Menzies – Men's Basketball
 4. JW Vandenberg – Men's Golf





Academic Success

1. GPA Success

1. 13/14 teams above 3.0
2. 3.37 spring 2024 women's team average
3. 3.28 spring 2024 men's team average

2. Graduation Success Rate (GSR)

1. 91% Graduation Success Rate
2. 67% Federal Rate – student-athletes
3. 55% Federal Rate – all students





1. Financials

1. Overall Expenses \$17,404,162
2. House Settlement & NCAA Impacts
3. Cost of Business
4. NIL Growth
5. Overall change in net assets (1,465,134)

2. Elevation & Forward Movement

1. Impact Plan of Excellence
2. Investment in external staffing
3. Brand Relevance and visibility
4. Intentional Excellence





THANK YOU!
QUESTIONS/COMMENTS?

EXECUTIVE SUMMARY

Strategic Plan Update – MU

This is a request to approve an update to MU's strategic plan.

At the September meeting, MU Provost and Executive Vice Chancellor for Academic Affairs Matthew Martens will provide a brief presentation of MU's new strategic plan, with additional time allocated for questions and discussion. Updates to UMKC and UMSL's strategic plans were approved by the Board in February 2024, and S&T's strategic plan was approved in April 2024.

At regular intervals, the four universities engage in strategic planning efforts to outline objectives, goals, and key metrics for the coming years. The last set of strategic plans for the four UM System universities were approved by the Board of Curators in September 2018, with MU, S&T, and UMSL putting forward 5-year plans (2018-2023) and UMKC putting forward a 10-year plan (2018-2028).

Beginning in 2023, each university began an independent review of its existing strategic plan and efforts to outline strategies for advancing their objectives and mission over the next five years. This resulted in the development of new or revised strategic plans at each university.

No. 1

Recommended Action – Strategic Plan Update – 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 _____, and seconded by Curator _____ that the following action be approved:

that the University of Missouri–Columbia strategic plan be approved as provided in the materials.

Roll call vote of the Committee:	YES	NO
Curator Blitz		
Curator Graves		
Curator Sinquefield		
Curator Williams		
The motion _____.		

Roll call vote of Board:	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Krewson		
Curator Layman		
Curator Sinquefield		
Curator Wenneker		
Curator Williams		

The motion_____.

UNIVERSITY OF MISSOURI STRATEGIC PLAN

Matthew P. Martens

Provost & Executive Vice Chancellor for Academic Affairs

September 12, 2024



STRATEGIC PLAN PROCESS

- Five subcommittees of faculty, staff, and administrators established in August 2023
 - Submitted recommendations for new/revised goals in November 2023
- Leadership reviewed recommendations and finalized draft goals and strategies
 - Key principle is to have goals that are tangible with clearly defined outcomes
- Received feedback from constituent groups on draft goals/strategies and finalized plan –Summer 2024



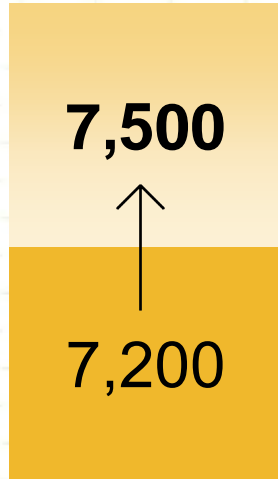
STRATEGIC THEMES

- Promote student success
- Elevate high-impact research, scholarship & creative works
- Foster meaningful outreach & engagement

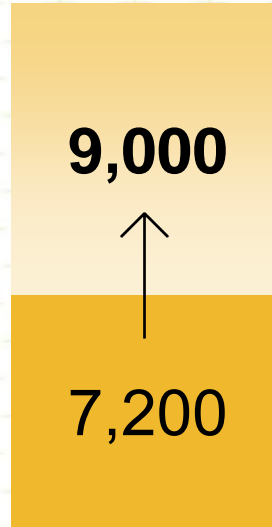


GOALS RELATED TO STUDENT SUCCESS – RECRUITMENT & ENROLLMENT

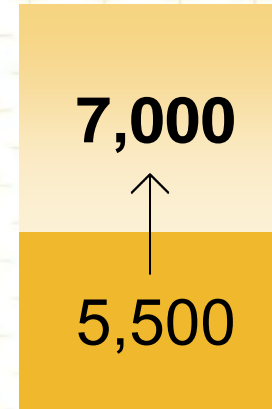
BY 2030 ...



Increase size of new incoming undergraduate student class



Increase the number of graduate & professional students

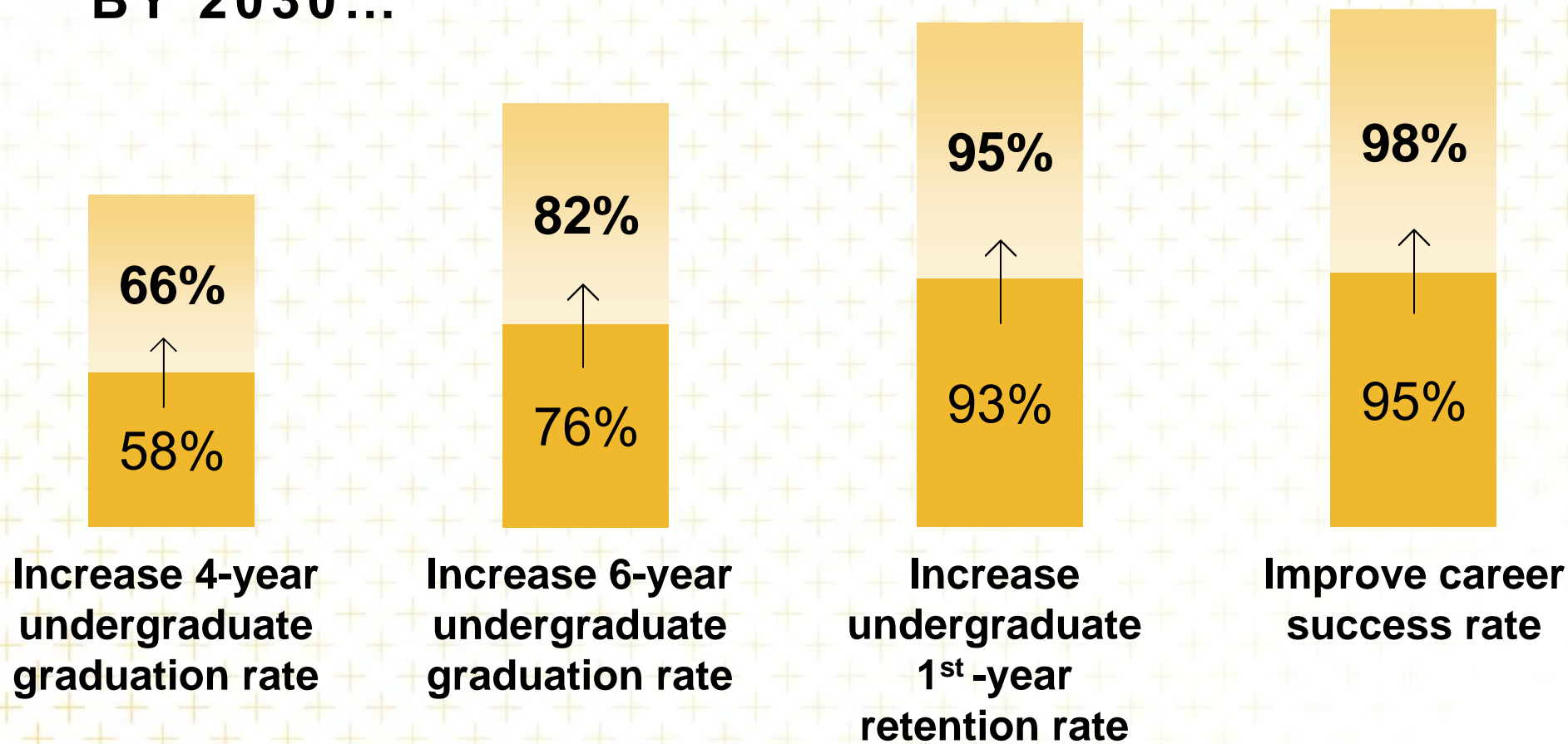


Increase the number of online students enrolled in a degree program



GOALS RELATED TO STUDENT SUCCESS – RETENTION & GRADUATION

BY 2030...



OTHER GOALS RELATED TO **STUDENT SUCCESS** BY 2030...

Achieve 100% participation rate of graduating seniors in 3+ high-impact educational practices

Increase the number of undergraduate & graduate students applying for prestigious external awards, grants, & fellowships from 30 → 100



STUDENT SUCCESS STRATEGIES

- **For example:**
 - **Establishing the Mizzou 101 course (Enhancing Student Experiences)**
 - **Establishing emergency aid policy (Supporting Financial Wellness)**
 - **Implementing Stellic academic pathways mapping (Enhancing proactive advising)**



GOALS RELATED TO HIGH-IMPACT RESEARCH, SCHOLARSHIP & CREATIVE WORKS

BY 2030...

Increase total research expenditures from

\$485M



\$700M



Increase the average number of scholarly books published by faculty from 40 → 60 per year



Increase the number of faculty with highly prestigious external awards from 52 → 100



GOALS RELATED TO HIGH-IMPACT RESEARCH, SCHOLARSHIP & CREATIVE WORKS

BY 2030...

Increase citations in Web of Science from 164,000 → 200,000

Secure 5 new federally-funded research centers

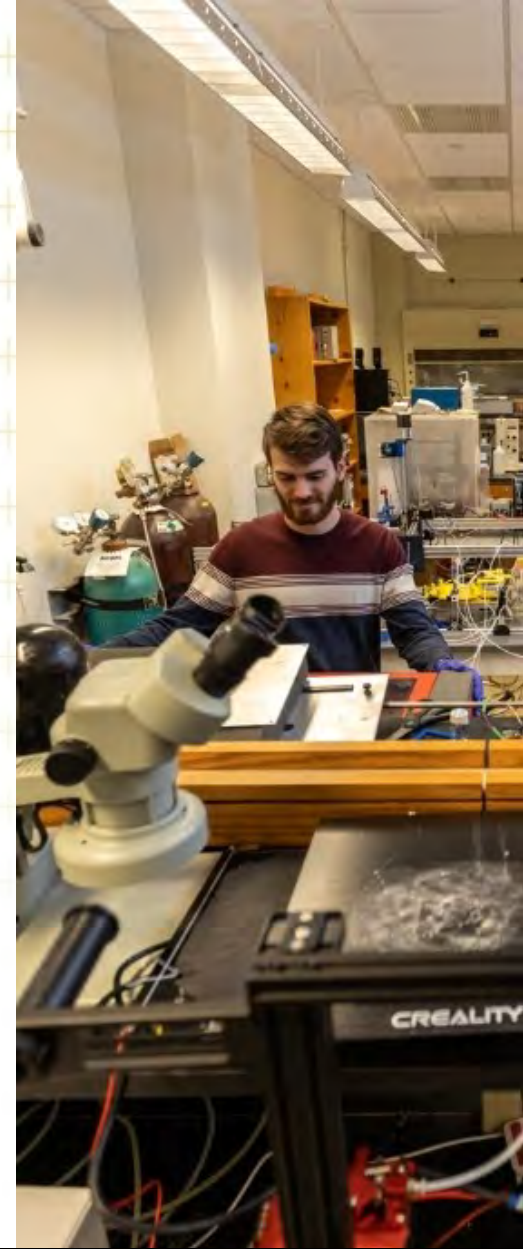
Increase percentage of externally-funded graduate research assistantships from 60% → 85%

Increase the number of annual patents filed from 67 → 100



RESEARCH, SCHOLARSHIP & CREATIVE WORKS STRATEGIES

- **For example:**
 - **Identify priority hiring areas annually (Leveraging MizzouForward as a strategic initiative)**
 - **Coordinate resources for large-scale, interdisciplinary research proposals (Developing and diversifying scholarly initiatives)**
 - **Hold regular trainings/workshops for faculty, graduate students and post-doctoral fellows for proposal development**

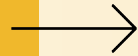


GOALS RELATED TO MEANINGFUL OUTREACH & ENGAGEMENT

BY 2030...

Expand engagement with Extension programs from

###,###0 contacts/year



###,###0 contacts/year

Increase engagement among farmers, ranchers,
& agri-entrepreneurs at Extension events from

21,000



27,000



GOALS RELATED TO MEANINGFUL OUTREACH & ENGAGEMENT

BY 2030...

Increase the number of participants in continuing education programs that helps improve work skills/opportunities from

12,000



15,000

Increase the number of businesses served by our entrepreneurial program from

300 → 350



GOALS RELATED TO MEANINGFUL OUTREACH & ENGAGEMENT

BY 2030...

Increase the number of counties implementing
Digitally Connected Communities from

8 → 20

Increase the number of faculty engaged in communicating
the outcomes of their research with Missourians from

250



350



GOALS RELATED TO MEANINGFUL OUTREACH & ENGAGEMENT

BY 2030...

Establish **2** new Extension sites per year in rural Missouri to deliver primary health care & telehealth clinic to improve access to health services

Establish **24** new K-12 partnerships for in- and after- school initiatives



OUTREACH & ENGAGEMENT STRATEGIES

- **For example:**
 - **Increase support for agri-technology testing (Support agricultural partners in the state)**
 - **Increasing number of Show-Me Echo programs (Improving community health)**
 - **Implement Digital Ambassador program throughout the state (Support economic development)**



QUESTIONS?



FINANCE COMMITTEE

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

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

I. Scope

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

II. Executive Liaison

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

III. Responsibilities

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

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

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

Meeting Date	September 12, 2024
Action Title	Fiscal Year 2024 Investment Performance Review, UM
Action Type	Information Item

Executive Summary

Each of Retirement Plan, Endowment Pool and General Pool portfolios delivered strong absolute returns in FY24 which also exceeded each respective policy benchmark:

- **Retirement Plan** - 11.1% actual FY24 return compared to 8.8% Policy Benchmark return. Excess return of 2.3% is the equivalent of \$94 million in additional investment income.
- **Endowment Pool** – 11.3% actual FY24 return compared to 9.0% Policy Benchmark return. Excess return of 2.3% is the equivalent of \$51 million in additional investment income.
- **General Pool** – 7.5% actual FY24 return compared to 6.5% Policy Benchmark return. Excess return of 1.0% is the equivalent of \$37 million in additional investment income.

Table of Contents

- 1. Executive Summary [OPEN – FIN – INFO 1-1]**
 - *Provides a high-level overview of each of the University’s three investment portfolios (Retirement Plan, Endowment Pool, General Pool) with performance over multiple time horizons.*
- 2. FY24 Investment Performance Review PowerPoint [OPEN-FIN-INFO-1-2-6]**
 - *Provides broad overview of FY24 investment portfolio performance.*

Appendix

- 3. Investment Update Report [OPEN-FIN-INFO-1-12-28]**
 - *Report provides review of FY24 investment portfolio performance as well as results covering five- and ten-year periods. Additionally, the report includes information on investment asset class characteristics, benchmarks and fees. Finally, information on portfolio activity and liquidity is provided.*
- 4. Verus Annual Update Letter [OPEN-FIN-INFO-1-29-33]**
 - *Verus is the University’s investment consultant. The update letter reviews investment performance, provides a summary of the Market Environment and highlights engagement during the year with Office of Investment staff.*

Executive Summary
Fiscal Year 2024 Investment Performance Review
UM

The Collected Rules and Regulations require annual performance reporting to the Board for each of the following investment pools:

Retirement Plan ***\$4.5 billion at June 30, 2024***

Represents the invested assets of the University’s defined benefit plan, which serves approximately 30,000 members. The plan has been closed to new employees since 2019. Plan assets at October 1, 2023 totaled approximately \$4.2 billion against plan liabilities of \$5.6 billion, resulting in an unfunded liability of \$1.4 billion on a market value basis. Current annual benefit payments are approximately \$330 million, which exceed current contributions into the plan by nearly \$170 million. Within 10 years, annual benefit payments will grow to \$445 million resulting in net cash outflows of nearly \$300 million. The plan has a 7.0% assumed actuarial return on investments and is currently projected to reach a fully funded status by 2041.

Endowment Pool ***\$2.4 billion at June 30, 2024***

Commingled fund invests the assets of more than 6,400 separate endowment accounts restricted by each donor for specific purposes, nearly all of which involve support of scholarships, research, academic programs and faculty positions at each of the four universities. Endowment accounts distribute a 4.0% spending distribution and 1.25% administrative fee each year. All administrative fees are transferred directly to the universities to help fund advancement efforts. With current 10-year projected inflation at 2.5%, the required return objective of the Endowment Pool stands at 7.75% (4.00% + 1.25% + 2.50%).

General Pool ***\$3.2 billion at June 30, 2024***

Contains the University’s cash and reserves, both restricted and unrestricted, including operating funds, auxiliary funds, self-insurance funds, debt service funds and plant funds. Collectively, the General Pool represents the working capital of the University, and a source of financial strength and stability that is foundational to the university’s strong credit ratings from Moody’s and S&P.

Highlights of FY24 Performance:

	<u>Retirement</u>	<u>Endowment</u>	<u>General Pool</u>
Return, Net of Fees	11.1%	11.3%	7.5%
Policy Benchmark	8.8%	9.0%	6.5%
% Outperformance	2.3%	2.3%	1.0%
\$ Outperformance	<i>\$94 million</i>	<i>\$51 million</i>	<i>\$37 million</i>
Long-Term			
Policy Objective*	7.0%	7.75%	n/a

**Retirement Plan assumed actuarial return is 7.0%; Endowment Pool policy objective equals: 4.0% spending distribution + 1.25% administrative fee + 2.5% inflation assumption.*

University of Missouri System
Board of Curators
Finance Committee

September 12, 2024

FY2024 Investment Performance Review
UM



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN – INFO 1-2

September 12, 2024

General Investment Consultant

- Verus: Founded in 1986; 95 employees; 35 shareholders; 153 clients with \$742 billion in assets under advisement; offices in Seattle, San Francisco, Los Angeles and Pittsburgh.
- The University's consulting team continues under the leadership of Verus Chief Executive Officer Jeffrey MacLean.



UMKC

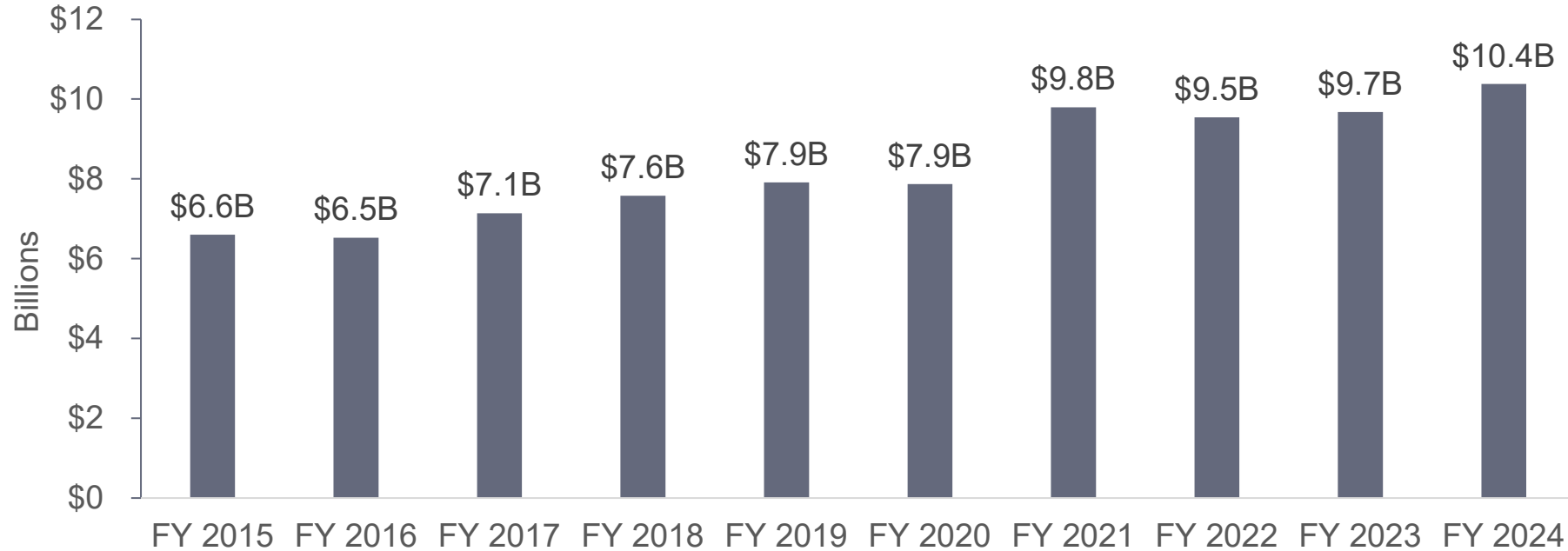
MISSOURI
S&T

UMSL

Investment Office

The Investment Office of the University of Missouri System is responsible for the management and oversight of the University's Retirement Plan, Endowment Pool and General Pool investment portfolios, in accordance with the University's Collected Rules and Regulations.

Assets Managed by Office of Investments



FY24 Market Returns



Investing for the Long Term

(as of June 30, 2024)

	Retirement Plan		Endowment Pool	
	Actual	Policy Benchmark	Actual	Policy Benchmark
5 Year	8.1%	7.0%	8.5%	7.5%
7 Year	7.8%	7.1%	8.2%	7.5%
10 Year	7.0%	6.0%	7.2%	6.5%

Longer-term returns are all above policy benchmarks.



UMKC

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University of Missouri System

OPEN – FIN – INFO 1-6

September 12, 2024

Retirement Plan Performance

	One Year	Five Years
Actual Return	11.1%	8.1%
Policy Benchmark	8.8%	7.0%
% Excess Return	2.3%	1.1%
\$ Excess Return	\$94 million	\$239 million
Global Passive Portfolio*	13.2%	6.7%
% Excess Return	-2.1%	1.4%
\$ Excess Return	-\$88 million	\$340 million
Peer Universe Percentile**	56th	20th

* 60% MSCI ACWI / 40% Barclays Global Aggregate

** Investment Metrics Peer Data – 1st percentile is top peer performance; 99th percentile is bottom peer performance.



Endowment Pool Performance

	One Year	Five Years
Actual Return	11.3%	8.5%
Policy Benchmark	9.0%	7.5%
% Excess Return	2.3%	1.0%
\$ Excess Return	\$51 million	\$114 million
Global Passive Portfolio*	13.2%	6.7%
% Excess Return	-1.9%	1.8%
\$ Excess Return	-\$41 million	\$211 million
Peer Universe Percentile**	57th	9th

* 60% MSCI ACWI / 40% Barclays Global Aggregate

** Investment Metrics Peer Data – 1st percentile is top peer performance; 99th percentile is bottom peer performance.



One Year Returns by Asset Class

As of June 30, 2024	Retirement Plan			Endowment Pool		
Asset Sector	Actual	Policy Benchmark	Variance	Actual	Policy Benchmark	Variance
Public Equity	19.2%	19.3%	-0.1%	19.1%	19.3%	-0.2%
US Treasuries	3.2%	3.4%	-0.2%	3.3%	3.4%	-0.1%
Inflation-Linked Bonds	4.5%	4.3%	0.2%	4.4%	4.3%	0.1%
Commodities	11.8%	8.1%	3.7%	9.7%	8.1%	1.6%
Risk Balanced	11.4%	11.4%	0.0%	11.4%	11.4%	0.0%
Private Equity	8.9%	4.9%	3.9%	8.5%	4.0%	4.5%
Private Debt	7.7%	12.4%	-4.8%	9.4%	12.5%	-3.1%
Real Estate	-6.4%	-12.0%	5.6%	-9.1%	12.0%	2.9%
Cash/Other	6.7%	5.4%	1.3%	5.9%	5.4%	0.5%
Total Beta Portfolio	9.8%	8.8%	1.0%	10.2%	9.0%	1.2%
Absolute Return	5.5%	-	-	5.4%	-	-
Total Portfolio	11.1%	8.8%	2.3%	11.3%	9.0%	2.3%



General Pool - Portfolio Returns

(Year Ended June 30, 2024)

	Mix 6/30/24	FY 2024	Policy Benchmark	Excess
Total Working Capital	29%	6.2%	4.5%	1.7%
Total Core & Strategic Portfolio	71%	8.1%	7.4%	0.8%
Total General Pool	100%	7.5%	6.5%	1.0%

FY24 was a strong year for General Pool performance, resulting in a record \$67 million Strategic Dividend.



Questions?



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN – INFO 1-11

September 12, 2024

Meeting Date	September 12, 2024
Action Title	Fiscal Year 2025 Strategic Dividend Distribution
Action Type	Strategic Dividend Distribution Approval

Executive Summary

The Board of Curators is being asked to approve the dividend generated from investment earnings on the University’s General Pool. Universities need to meet minimum financial performance thresholds to utilize the dividend funds.

The general pool returned 7.5% in FY2024, and the dividend distribution is \$66,682,000; the distribution is as follows:

	MU	S&T	UMKC	UMSL
Dividend	\$42,910,000	\$7,181,000	\$10,664,000	\$5,927,000
% of General Pool	64%	11%	16%	9%

Table of Contents

- 1. Executive Summary [OPEN – FIN – 1-1]**
 - *Provides a high-level overview Dividend Distribution*

- 2. Recommended Action & Roll Call Vote [OPEN – FIN – 1-2]**
 - *The formal approval of the strategic use of investment earnings from UM System as presented.*

- 3. Strategic Dividend Use Presentation [OPEN – FIN – 1-3-12]**
 - *Strategic Dividend Use*

Fiscal Year 2025 Strategic Dividend Distribution
UM

Each University requests Board approval of the plans that follow for use of the dividend generated from investment earnings on the University’s General Pool. The total dividend is split amongst the Universities based upon their share of the general pool. Universities need to meet minimum financial performance thresholds to utilize the dividend funds.

At the time of this mailing, the University’s close process is not yet complete. Each University is expected to meet minimum thresholds for FY2024 and will be able to utilize the dividend for FY2025. The Board will receive an update on FY2024 financial performance at the November 20th Board of Curators meeting.

The general pool returned 7.5% in FY2024, and the dividend distribution is \$66,682,000; the distribution is as follows:

	MU	S&T	UMKC	UMSL
Dividend	\$42,910,000	\$7,181,000	\$10,664,000	\$5,927,000
% of General Pool	64%	11%	16%	9%

The annual investment performance review is included as a separate information item for the Finance Committee. Dividend amounts are distributed to each University based upon their proportional share of the University’s General Pool. The accompanying proposals outline plans for each University’s dividend amount listed above. Each University’s plans for use address a strategic priority or capital need for the campus:

- MU Mizzou Momentum: investments in campus infrastructure and renovation, NextGen MURR and Memoreial Stadium Improvements.
- S&T Physics Building Renovation: address critical maintenance and repair needs.
- UMKC Renovations: investment in campus infrastructure to address critical maintenance and repair issues.
- UMSL Space Consolidation & Soccer Sponsorship: funds support space consolidation to reduce deferred maintenance and the sponsorship of the MLS soccer team to improve brand awareness.

Background on Strategic Dividend

The strategic dividend is generated on the excess return from the investment of the University’s liquidity, otherwise referred to as the general pool. The general pool pays a fixed interest rate to the campuses, with the dividend representing the excess earnings for a given year. The dividend is allocated based upon each university’s relative share of the assets that generated the income. This is how the University’s endowment pool works as well, with the relative asset value receiving the allocation of the income.

The dividend is meant to be a source of funding to drive investment in new one-time initiatives at each University. These should be some of each University’s highest priority and each university. Each University proposes a project with the Board retaining the approval rights for the use of the funds. To propose a project, each University must meet minimum financial performance thresholds, otherwise the dividend will be used to recapitalize the underperforming university.

No. 1

September 12, 2024

Recommended Action - Fiscal Year 2025 Strategic Dividend Distribution, UM

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 following recommendations be approved:

- The strategic use of investment earnings from UM System as presented on the accompanying schedules.

Roll call vote of the Committee: YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____.

Roll call vote of The Board of Curators: YES NO

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

The motion _____.

Strategic Dividend Use

September 12, 2024



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – FIN – 1-3

Strategic Dividend Background

- Dividend represents the excess earnings from the general pool, which is the University's working capital
- The dividend is a source of strategic funding for the Universities to drive new initiatives
- Allocated to the Universities based on their relative share of the pool's assets.



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

FY2025 Strategic Dividend - \$66.7M

- Dividend results from returns on the General Pool of 7.5% in FY2024. Dividend distribution is \$66.7M.
- Each University submitted a strategic priority for use:
 - MU: Mizzou Momentum - \$42.9M
 - S&T: Physics Building Renovations - \$7.2M
 - UMKC: Infrastructure Renovations - \$10.7M
 - UMSL: Space Consolidation and Soccer Sponsorship - \$5.9M



UMKC

MISSOURI
S&T

UMSL



UMKC

MISSOURI
S&T

UMSL

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

Fiscal Year 2025 Strategic Dividend Distribution
University of Missouri – Columbia
MIZZOU Momentum

FY25 Dividend Use Summary

Timeframe

FY 2025 – FY 2027

Dividend Request Amount

\$42,910,000

Operating Expenses

Compensation \$0

Supplies, Services,

Other \$0

Capital Investment:

\$42,910,000

Measures of Success:

- Improvement in Facilities Condition Needs Index
- Increased Auxiliary Revenues

Mizzou is the first public university west of the Mississippi and is 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 in these projects allows this trajectory to continue and supports Mizzou’s transformational mission for all Missourians. The strategic dividend in the amount of \$42,910,000 will be used to leverage state, federal and philanthropic support for the projects below.

Academic Infrastructure

Jesse Hall Exterior Repairs

Estimated project cost is \$20,000,000

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

Electrical Interconnection

Estimated project cost is \$42,000,000

Mizzou’s electrical power needs have grown significantly and will soon reach levels beyond our power plant’s capacity. This initiative will increase the amount of electricity we can purchase from the electric grid.

NextGen MURR Phase II

Estimated project cost TBD

This project will continue to make Missouri a leader in radiopharmaceuticals and nuclear research. This will help continue the progress towards construction of a new, larger research reactor to expand that capacity and serve the next generation of nuclear research. Phase I of this project is currently underway, with programming and design work scheduled to begin later this year.

Memorial Stadium Improvements

Estimated project is \$250,000,000

This project imagines the next century of the game day experience by constructing an addition on the north concourse, adding open-air observation decks, modernizing existing concessions and restrooms, creating a new stadium gateway, and much more. The design preserves and memorializes the north end zone “Rock M.” The Memorial Stadium Improvement Project will be the face of Mizzou Athletics, creating a new standard for the Southeastern Conference (SEC) and an intimidating place for opposing teams to play.

September 12, 2024

Missouri University of Science and Technology
Physics Building Renovation
FY25 Dividend Use Summary

Timeframe

FY 2024 – FY 2027

Dividend Request Amount

\$7,181,000

Operating Expenses

Compensation \$0

Supplies, Services, Other \$0

Capital Investment:

\$7,181,000

Measures of Success:

- Improvement in Facilities Condition Needs Index

Missouri S&T will utilize the strategic dividend support facilities renewal on the campus. The Physics Building has an FCNI of 0.41 and has \$15,009,594 of facility renewal needs. The project is listed as a priority renovation project in the S&T campus master plan and will address all exterior maintenance needs and a portion of the interior needs.

Engineering Physics I and Engineering Physics II are core academic courses for engineering programs, and the Physics building is the location where these are primarily taught on the S&T campus.

Physic Building Renovation

Estimated project costs is \$27,100,000

This project will address deferred maintenance needs for the Physics Building including installation of fire suppression and fire alarm systems, tuckpointing and masonry repair, replacement of the curtainwall and windows, replacement of the existing elevator, accessibility improvements, HVAC upgrades.

The project will reduce the building's FCNI significantly. More than sixty percent of undergrad students take a course in the building, so the impact of renovation is widespread. Existing programming includes a large lecture hall, several classrooms, and many teaching and research labs.

The project is the second priority on S&T's Strategic Projects Development Plan, and it is a major priority for the campus.

**University of Missouri - Kansas City
Critical Renovations
FY25 Dividend Use Summary**

Timeframe: FY 2025 - 2026

Dividend Request Amount

\$10,644,000

Operating Expenses

Compensation \$0

Supplies, Services, Other

\$3,750,000

Capital Investment:

\$6,950,000

Measures of Success:

Improvement in Facilities

Conditions Needs Index

The proposed use of strategic dividends will address critical maintenance and repair including code compliance and life safety needs on the campus across academic, student support, campus infrastructure, and administrative buildings. Maintenance of these facilities is in keeping with the Master Plan and long-term plans for the buildings on the campus.

\$5,750,000 in deferred maintenance projects and \$4,950,000 for either the potential purchase of campus adjacent property located at 5220 Troost or for the Atterberry Student Success Center & Miller Nichols Library project.

Classroom Renovations

Estimated project cost is \$500,000

Renovations of centrally scheduled classrooms in Haag Hall, Education Building, and Scofield Hall. Renovations will update classrooms due to the age of the seating, flooring, and lighting, that appear to be original to the building and are in dire need of a refresh. The plan for these rooms involves removing asbestos containing tile and glue, installing new epoxy flooring, replacing the seating, installing new LED light fixtures, removing carpet lined peg boards, and a new coat of paint.

Replace Roof of Miller Nichols Library

Estimated project is the \$2,000,000

Miller Nichols Library roof is at end of life and in need of replacement. Timing of roof replacement is aligned with other capital renovations ongoing within the library. Project will be designed and bid following university policies for capital projects.

Cooling Tower Improvements

Estimated project cost is \$250,000.

Project will replace baffles within the central campus cooling plant towers, which have reached end of life. The project will be bid by our Master Contractor with construction beginning in spring 2024.

Administrative Center Asbestos Removal and Renovations

Estimated project cost is \$1,750,000.

The project will remove and replace the asbestos flooring on the second and first floors of the Administration Center. Workstation upgrades will be designed allowing for a more efficient use of the existing space. The project will eliminate existing Health and Life Safety issues. Construction schedule will start in fall 2024 and continue through FY25.

Parking Garage Access/Security Control

Estimated project cost is \$500,000.

Project will install access control mechanisms to improve security in Cherry Street and Rockhill parking garages. The project will be bid by our Master Contractor with construction beginning in fall 2024.

Campus Exterior Lighting Improvements

Estimated project cost is \$250,000.

Project will replace current lighting in Spencer Chemistry and Biology building parking lot to improve campus with LED efficient lighting. The project will be bid by our Master Contractor with construction beginning in Spring 2025.

Sidewalk/Stair Replacement

Estimated project cost is \$500,000.

Project will replace main pedestrian stairs between Oak and Cherry streets at 51st Street. Stairs are deteriorating beyond our ability to repair and need replaced in full. Corresponding sidewalk will be replaced from steps to street as well. The project will be completed in spring/summer of 2025.

Purchase of 5220 Troost or Student Success Renovations – Atterbury & Miller Nichols Library

Estimated project cost is \$8,200,000.

UMKC is pursuing purchase of an adjacent building located at 5220 Troost Avenue, currently valued at approximately \$8,200,000 and would potentially use \$4,950,000 towards this purchase. Alternatively, UMKC would use the \$4,950,000 towards the completion of the Board approved project (April, 2023) to improve student support service spaces located in Atterbury Student Success Center and Miller Nichols Library. Total project cost is \$30million, funded with \$15,000,000 in gifts and \$15,000,000 in internal funds. Allocation of \$4,950,000 of strategic dividends may be used as a portion of the internal funds for this multi-year and multi-phase project.

**University of Missouri – St. Louis
Facility Consolidation and Sponsorship
FY25 Dividend Use Summary**

Timeframe

FY 2025

Dividend Request Amount

\$5,927,000 total

Operating Expenses

Compensation \$0

Supplies, Services, Other

\$530,450

Capital Investment:

\$5,396,550

Measures of Success:

- Improvement of Facilities Conditions Need Index
- Improvement in enrollment

Facilities Consolidation Efforts and Deferred Maintenance related to American Rescue Plan (ARPA)

Estimated project cost is \$80,000,000

The University of Missouri – St. Louis (UMSL) campus has a footprint that encompasses 93 buildings and over 3.8 million square feet. Forty-eight percent of the buildings are over 50 years old with unfunded deferred maintenance estimated at \$390 million. Campus facilities consolidation is a multi-year project incorporated into the UMSL campus master facilities plan.

Timing and prioritization of projects is being made to leverage \$80 million of ARPA funding from both federal and state sources over five years. These are restricted funds dedicated to construction and renovation. The APRA funds specifically exclude several necessary costs required for successful project completion. Unallowable costs include UMSL staff time, general use furnishings and equipment including computer labs, and moving expenses.

UMSL proposes use of \$5,396,550 of the FY25 dividend to assist in funding necessary costs that may be unallowable on the restricted ARPA grants. Anticipated costs include project manager compensation, classroom and common space furniture, computer lab equipment and moving costs.

Specific projects scheduled for FY25 include renovations and relocation related to Colleges of Optometry and Education, Library and Honors College. Additional deferred maintenance projects include electrical infrastructure upgrades, sinkholes and building ventilation upgrades.

The campus consolidation has three primary objectives:

- Reduction in annual utilities/maintenance
- Reduction in unfunded deferred maintenance
- Consolidation of academic and student service units to north campus central “quad” increasing vibrancy of daily campus life.

St. Louis Major League Soccer Team Sponsorship - \$530,450

Estimated project cost is \$530,450

UMSL proposes use of \$530,450 FY25 dividend to enter a corporate sponsorship of the MLS St. Louis City soccer club professional team.

Benefits of sponsorship include:

- Exclusive partner in the higher education category
- Physical and digital marketing in the newly constructed 22,500 capacity Centene Stadium located in downtown St. Louis.
- Premiere partner for our Sports Management program
- Building of our eSports teams together with collective UMSL branding
- UMSL content integration as Official Higher Education Partner of St. Louis CITY SC into social media platforms.
- UMSL branding and brand placement opportunities
- Outreach to potential students, parents and adult learners

Meeting Date	September 12, 2024
Action Title	2024 University of Missouri – MU Master Plan
Action Type	Master Plan Authorization

Executive Summary

The Board of Curators is being asked to approve MU Master Plan. Each University submits a master plan for Board approval every five years. The MU Master Plan was presented as an informational item at the June Meeting for Board feedback and discussion. Based on the feedback, the following updates were made:

- Plan updated to emphasize historic nature of campus is maintained with any new projects
- Plan will continue vehicular access for ease of transportation
- Plan concepts will be applied to buildings and locations not part of main campus
- Plan updated to include modifications to improve East Campus aesthetics

The master plan serves as the guiding framework for project planning, and ensures that individual projects line up with the long term vision for the physical campus.

Table of Contents

- 1. Executive Summary [OPEN-FIN-2-1-2]**
 - *Provides a high-level overview of the MU Master Plan and modifications from Information Item in June.*
- 2. Recommended Action & Roll Call Vote [OPEN-FIN-2-3]**
 - *The formal resolution to be voted upon by the Board to approve the MU Master Plan.*

Appendix

- 3. MU Master Plan [OPEN-FIN-2-4-30]**
 - *The MU Master Plan*

2024 Campus Master Plan MU

The University of Missouri-Columbia requests approval of the 2024 Campus Master Plan Update.

In accordance with the University of Missouri Collected Rules and Regulations 70.060, each campus is required to bring updated Campus Master Plans for approval to the Board of Curators every five years or when significant changes are proposed.

The 2024 Campus Master Plan update builds upon past planning and integrates the goals stated in MizzouForward into a unified framework to guide future decision-making regarding renewal and growth of the campus alongside capital availability. The framework focuses on the Columbia campus and integrates the companion planning conducted by MU Healthcare and Mizzou Athletics. The plan is built around four main drivers:

MizzouForward: This plan incorporates the objectives of the MizzouForward strategic plan which is our largest investment in the history of the university. The plan identifies opportunities for infrastructure which will support student success, research excellence, and meaningful engagement.

Honoring our Iconic Campus: Established in 1839, our iconic campus features brick and limestone buildings along with a network of open spaces and a botanic garden designation. This heritage is of great importance and must be preserved.

More than buildings: This plan encompasses more than just buildings; it also addresses how pedestrians and vehicular traffic traverse the campus safely and efficiently in a variety of travel modes. Ensuring smooth and secure movement throughout the campus is a key focus.

Prepared for the future: This framework will allow Mizzou to adapt as the nature of higher education evolves. It ensures that the University is responsive to future developments.

Framework Highlights

- The current organization of the MU campus aligns communities of student success and faculty excellence facilities with connective zones and a compact footprint. This is a strength of the existing campus.
- Near term projects create momentum in strategic areas of campus as future investments are considered.
- Classroom environment improvements and new active learning space types are a high priority from stakeholders to lend support to student success and faculty excellence.
- The approach to building replacement and renewal addresses aging facility concerns while maintaining our iconic campus legacy and character.
- Enhancing the visitor experience in navigating the physical campus and integrating the MU brand in exterior environments creates a long-lasting connection for the

September 12, 2024

community and student body beyond their time on campus.

- Investment into utility infrastructure to support Mizzou’s robust research, health care, and athletics building portfolio will continue to be needed for sustainability and resiliency of the utility network.

Input from over 4,000 individuals was collected through stakeholder group discussions, campus pop-up conversations, and digital surveys. That input provided inspiration for the artist renderings included in the Master Plan which are intended to be examples (not directives) of potential changes on the campus.

After the June 2024 Board meeting, the plan was modified to incorporate feedback from the meeting. Notable examples include:

- Feedback from the planning process reinforces the value of MU’s most iconic facilities. Future modifications and investments in buildings will preserve the existing architectural character, improve greenspaces, and extend historic exterior spaces. The Curators’ interest in safeguarding Mizzou’s heritage will be a central consideration as opportunities for individual facility enhancements and stewardship are contemplated.
- A key aspect of the plan is providing efficient access to the key areas of campus. The Master Plan will maintain vehicular access to existing entry points and parking on campus.
- The Curators indicated there would be value to additional review of other aspects of the university, such as development at Discovery Ridge and other remote locations, planning for parking and transportation networks, and area specific studies. Future planning activities will build on the framework identified in the Master Plan for these spaces.
- Consistency of experience is a planning principle of the Master Plan. As Curators noted, East Campus is an area of campus which currently has minimal aesthetic consistency with other areas of campus but needs to support increasing research activity and outreach to the community. The Master Plan includes modifications of East Campus to improve consistency and clarity of access, wayfinding, and pathways.

No. 2

Recommended Action - 2024 Campus Master Plan, Missouri MU

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

that the 2024 University of Missouri - Columbia Campus Master Plan be approved.

Roll call vote Finance Committee	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Blitz		
Curator Fry		
Curator Graves		
Curator Holloway		
Curator Krewson		
Curator Layman		
Curator Siquefield		
Curator Wenneker		
Curator Williams		

The motion _____.

Meeting Date September 12, 2024

Action Title Fiscal Year 2025 Mid-Year Modifications to Capital Plans

Action Type Capital Plan Authorization

Executive Summary

The Board of Curators is being asked to approve the mid-year changes to the Capital Plans for each University and MU Healthcare. Capital Plans are also approved by the Board at the April Meeting. on the capital plan include projects within financial plans and also a list of strategic projects where project sources are still being determined. Changes on the capital plan include:

- Project additions / subtractions
- Changes to project budgets, timing, or scope
- Movements of projects between plan of finance and strategic projects

Capital projects exceeding \$5 million for new construction and renovations over \$8 million require Board Approval. Individual projects are presented to the board as separate action items for Architect/Engineer hire and project approval. The Capital plan shows the entire portfolio of upcoming projects for each unit.

Table of Contents

1. Executive Summary [OPEN-FIN-3-1]

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

2. Recommended Action & Roll Call Vote [OPEN-FIN-3-2-3]

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

3. Mid-Year Update to Capital Plan Presentation [OPEN-FIN-3-4-12]

- *High-level summary of the plan of finance for the proposed bond issuance*

Appendix

3. Mid-Year Update to Capital Plan [OPEN-FIN-3-13-32]

- *The Mid-Year update 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. 13-17*
 - *MUHC: p. 18-20*
 - *UMKC: p. 21-23*
 - *Missouri S&T: p. 24-26*
 - *UMSL: p. 27-30*
 - *Current Project Status: 31-33*

Fiscal Year 2025 Mid-Year Modifications to Five-year Capital Plans for MU, MU Health Care, Missouri S&T, UMKC, and UMSL

The capital planning process includes development of a five-year capital plan that will be reviewed and approved annually by the Board of Curators. The 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. This process allows for execution of the current year plans and provides additional time for fundraising, working with legislature, and additional due diligence during years two through five 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. The capital planning process is critical in ensuring the university upholds responsibility for capital over the long run.

Included herein is the FY 2025 Mid-Year Capital Project Plan Modification for review and approval. The projects impacted are highlighted in red in the following tables with a description of the modification below the table. Also included is the annual status report for projects approved by the Board of Curators.

No. 3

Recommended Action - Approval, Fiscal Year 2025 Mid-Year Modifications to 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 modifications included in Finance Plan:
- Modified NextGen MURR Phase One
 - Modified Radioisotope Facility at Discovery Ridge
 - Shifted Memorial Stadium Improvements
 - Added MURR Production Support Facility
 - Shifted Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement
- Strategic Projects Development Plan:
- Modified New Swine Research Facility
 - Added Energy Management – Campus Cooling Capacity
- MUHC: Capital Plan modifications included in Finance Plan:
- No Changes
- Strategic Projects Development Plan:
- Added Callaway County Rural Health Expansion
- UMKC: Capital Plan modifications included in Finance Plan:
- Modified KCUR Building
 - Shifted Olson Performing Arts Center Addition & Renovations
- Strategic Projects Development Plan:
- Shift as noted above.
- S&T: Capital Plan modifications included in Finance Plan:
- No changes
- Strategic Projects Development Plan:

- No Changes

UMSL: Capital Plan modifications included in Finance Plan:

- Modified Central Utility Plant – North Campus
- Added UMSL School of Engineering – Stadler Renovation

Strategic Projects Development Plan:

- Modified Stadler Hall Renovation (second phase)

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

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

Curator Blitz
 Curator Fry
 Curator Graves
 Curator Holloway

The motion _____.

Roll call vote:	Yes	No
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Curator Blitz
 Curator Fry
 Curator Graves
 Curator Holloway
 Curator Krewson
 Curator Layman
 Curator Sinquefield
 Curator Wencker
 Curator Williams

The motion _____.

University of Missouri System Board of Curators September 12, 2024

Fiscal Year 2025 Mid-Year Changes to Capital Plans
for MU, MU Health Care, S&T, UMKC, and UMSL

UM



Capital Planning

Capital Plan includes:

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

MU CAPITAL PLAN MID-YEAR CHANGES

Modified the following projects in the Capital Plan included in Finance Plan:

- NextGen MURR Phase One
- Radioisotope Facility at Discovery Ridge

Added the following projects to the Capital Plan included in Finance Plan:

- MURR Production Support Facility

MU CAPITAL PLAN MID-YEAR CHANGES

Shifted the following projects to the Capital Plan included in Finance Plan from Strategic Plan:

- Memorial Stadium Improvements
- Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement

Added the following projects to the Strategic Project Plan:

- Energy Management – Campus Cooling Capacity

Modified the following projects to the Strategic Project Plan:

- New Swine Research Facility

MUHC CAPITAL PLAN MID-YEAR CHANGES

No Changes to Capital Plan

Added the following projects to the Strategic Project Plan:

- Callaway County Rural Health Expansion

UMKC CAPITAL PLAN MID-YEAR CHANGES

Modified the following project in the Capital Plan included in Finance Plan:

- KCUR Building

Shifted the following projects to the Capital Plan included in Finance Plan from Strategic Plan:

- Olson Performing Arts Center Addition & Renovations

No other changes to the Strategic Projects Plan

S&T CAPITAL PLAN MID-YEAR CHANGES

No changes to the Capital Plan

No changes to the Strategic Plan

UMSL CAPITAL PLAN MID-YEAR CHANGES

Modified the following projects in the Capital Plan included in Finance Plan:

- Central Utility Plant – North Campus

Added the following projects to the Capital Plan included in Finance Plan:

- UMSL School of Engineering - Stadler Renovation

Modified the following projects in the Strategic Plan:

- Stadler Hall Renovation (second phase)



University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

Project Approval
Children's Hospital Facility – 3rd Floor – Surgery Suite
MU

The University of Missouri – Columbia requests Project Approval for the MU Health Care Children's Hospital Facility 3rd Floor – Surgery Suite project, with a total project budget of \$50,000,000. The project will be funded from MU Health Care Reserves and be repaid through Operations.

MU Health Care's service line planning has identified significant growth in research and patient care in oncology, cardiovascular care, neurosciences, women's services, and pediatrics. Each of these service lines include surgical care for patients that requires adequate operating room, preparation, and recovery space. The current surgery space and capacity located on the MUHC main campus (University Hospital and Missouri Orthopaedic Institute) encompasses thirty-six (36) Operating Rooms, seventy-four (74) Prep/Recovery and thirty-six (36) PACU rooms/bays. These spaces are inadequate to meet current and future volume projections and have created a need for additional operating rooms, prep/recovery and PACU space. In addition to general operating room space, there is a need for intraoperative MRI (iMRI) capabilities to support programmatic expansion in Neurosciences and to improve care delivery and outcomes of complex surgeries.

The Children's Hospital Facility Third Floor has been designated and shelled as a future Surgery Suite space. The connectivity is directly adjacent to the large Patient Care Tower Surgery Suite and serves as an operationally efficient expansion of that surgery core for MU Health Care at the UH location. The project consists of building-out the full shell space of approximately 27,885 square feet and includes: Seven (7) Operating Rooms, two (2) which are Intraoperative MRI Operating Rooms; an MRI Suite; Clean Core Supply Area; Fourteen (14) Pre-Post Rooms; Seven (7) PACU Private Rooms; and associated support and administrative work areas. Additionally, the expansion of the Surgery Suite requires both expansion and improvements to the Sterile Processing Department and Respiratory Therapy Department located in University Hospital, and this scope and cost is included as an enabling project.

Christner Architects, Inc. (WBE), St. Louis, Missouri, is the recommended architect/engineer for this project. Christner Architects will utilize and team with IMEG, St. Louis, Missouri, for all engineering discipline support (structural, mechanical, plumbing, fire protection and electrical) and medical equipment planning, management and procurement/delivery coordination. Christner presented a focused and well-balanced team of experts with in-depth knowledge of health care design in teaching hospital environments. This team has in-depth experience with numerous surgical suites, including several Intraoperative MRIs (iMRI), and specifically, a movable MRI on rails to serve two operating rooms.

The selection committee also interviewed Pulse Design Group, Kansas City, Missouri; Cannon Design, St. Louis, Missouri; and The Lawrence Group, St. Louis, Missouri.

The fee for basic services was determined from the University of Missouri's "Architectural and
September 12, 2024

Engineering Basic Services Fee Estimating Guidelines” with UM Facilities Planning and Development Office. The project is a Type V – Renovation (considerably more complex than average), and the maximum basic services calculated fee permitted is 9.10% of the \$15,150,000 construction cost, for \$1,378,650. Additional services to the basic design fee include: medical equipment planning, coordination, procurement assistance & delivery/installation assistance services; accelerated design schedule; iMRI shielding subconsultant coordination; structural engineering specialty for iMRI rail-system; early iMRI structural support & shielding bid packaging; a NICU enabling project bid package; and increased design fee for scope increase after pre-design. A total of \$850,350 in pre-approved additional services was added to the basic services fee amount to arrive at a total maximum fee of \$2,229,000.

The project is proposed to be delivered as a Construction Manager at Risk (CMR). This project will be logistically challenging based on the adjacency to an operational surgery suite and below NICU. The CMR will work to support the necessary enabling projects that are required to support this buildout and to accommodate the ambitious project schedule for opening in August 2027.

No. 4

Recommended Action - Project Approval, Children's Hospital Facility – 3rd Floor – Surgery Suite, MU

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

the Architect/Engineer hire and Project Approval, Children's Hospital Facility – 3rd Floor – Surgery Suite, MU HealthCare

Funding of the project budget is from:

Internal	<u>\$50,000,000</u>
Total Funding	\$50,000,000

Roll call vote Finance Committee YES NO

Curator Blitz
Curator Fry
Curator Graves
Curator Holloway

The motion _____ .

Roll call vote Full Board: YES NO

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

The motion _____ .

AUDIT, COMPLIANCE AND ETHICS COMMITTEE

Keith A. Holloway, Chair

Lyda Krewson

Jeanne C. Siquefield

Michael A. Williams

The Audit, Compliance and Ethics Committee (“Committee”) will review and recommend policies to enhance the quality and effectiveness of the University’s financial reporting, internal control structure and compliance and ethics programs.

I. **Scope**

In carrying out its responsibilities, the Committee monitors and assesses the University’s financial reporting systems and controls, internal and external audit functions, and compliance and ethics programs.

II. **Executive Liaison**

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

III. **Responsibilities**

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

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

1. the University risk assessment, audit plan and compliance plan; and
2. the appointment, compensation, and termination of the university’s external auditors.

B. Providing governance oversight regarding:

1. development and monitoring a University code of conduct;
2. effectiveness of the internal control framework;
3. ensuring that the significant findings and recommendations are received, discussed and appropriately resolved;
4. procedures for reporting misconduct without the fear of retaliation;
5. university compliance with applicable laws, regulations, and policies that govern all aspects of University operations including but not limited to the following:
 - a. Administrative compliance risks
 - b. Healthcare compliance risks
 - c. Research compliance risks
 - d. Information security compliance risks
 - e. Privacy compliance risks

6. those additional matters customarily addressed by the audit, compliance and ethics committee of a governing board for an institution of higher education.

C. Reviewing periodic reports regarding:

1. the independence, performance, resources and structure of the internal audit, compliance and ethics functions;
2. audit reports and open audit issue status updates;
3. management's written responses to significant findings and recommendations by the auditors;
4. the adequacy of the University's information technology methodology with regards to security, internal controls and data integrity assurance;
5. annual external audit reports, including audited financial statements, single audit and required procedures;
6. the effectiveness of the compliance and ethics program ensuring it has appropriate standing and visibility across the system.

Ethics, Compliance, and Audit Services (ECAS) Quarterly Report
UM System
September 12, 2024

INTERNAL AUDIT

Management Action Plan Status as of June 30, 2024

Follow-up procedures are performed twice a year to verify the status of management actions for previously issued audit reports. For this period, twenty-two (22) action items were due for completion by June 30, 2024. Two (2) additional items not yet due were also completed. Interim follow up was performed for two audits, with Progress Updates noted below.

The table at the end of this report lists audits with open action items. At least one action plan for the highlighted audit reports was due during the period February 29, 2024, through June 30, 2024. Eighteen (18) action items were completed (75%), and six (6) items (25%) were extended and assigned a revised due date.

Management Action Plans for five (5) audits are complete and are considered closed. These include Conflict of Interest audits at UMKC, MUHC, and UMSL, as well as the UMKC Lab Safety, and UMSL Scholarship audits.

Revised Due Dates:

This activity is reported in the “Revised Due Date” column of the Management Action Plan Summary table.

MU Athletics Standard Financial Controls

One (1) action item associated was extended and assigned a revised due date. This action item was extended to allow time for a new policy to be fully implemented.

MUHC Network Segregation Phase 2

One (1) action item associated was extended and assigned a revised due date. This action item was extended to allow time for implementation of a new system.

MUHC OR Charge Capture

Four (4) action items associated were extended and assigned a revised due date. These action items were extended to allow time for a new policy and process to be fully implemented.

Progress Updates:

MUHC Organized Health Care Arrangement (OHCA)

An interim review was conducted to follow up on the development of a management action plan for issues identified in the audit of MUHC Organized Health Care Arrangements (OHCA). Two of three action items have been completed. The final item requires a coordinated management action plan response involving technology, personnel, and processes. An adjustment to the action item has been discussed documented, and UM Compliance is convening a broad group of

operational stakeholders to address underlying process issues and departmental impacts that could hinder completion of this item. A final due date will be determined by this stakeholder group.

Management Action Plan Summary as of June 30, 2024

Entity	Report Name	Risk Rating	Total # of Action Plans in Report	Complete	Not Due	Past Due	Revised Due Date	Will Not Be Implemented
MU	Athletics Standard Financial Controls	High	6	1	4		1	
	MSEP Grant	Low	2		2			
UMKC	Lab Safety	Medium	5	5				
	Conflict of Interest Process	Low	4	4				
	Export Controls and Sanctions	Medium	17	6	11			
MUHC	Organized Health Care Arrangement	Medium	3	2	1			
	Network Segregation Phase 2	High	5	3	1		1	
	OR Charge Capture	Medium	7	3			4	
	Conflict of Interest Process	Low	1	1				
S&T	Lab Safety	Medium	7	6	1			
	Export Controls and Sanctions	High	7	2	5			
UMSL	Scholarships	Medium	6	6				
	Conflict of Interest Process	Low	3	3				
Totals			73	42	25	0	6	0

KEY: Audits with action plans due between Feb. 29, 2024, and June 30, 2024, are highlighted in GOLD. Audits in **BOLD** font have revised due dates; **RED** are past due; **GREEN** are closed.

University of Missouri System Board of Curators

September 12, 2024
Audit, Compliance and Ethics Committee

Ethics, Audit, and Compliance (ECAS)
Quarterly Report
UM System



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

OPEN – ACE – INFO 1-4

September 12, 2024

Internal Audit



UMKC

MISSOURI
S&T

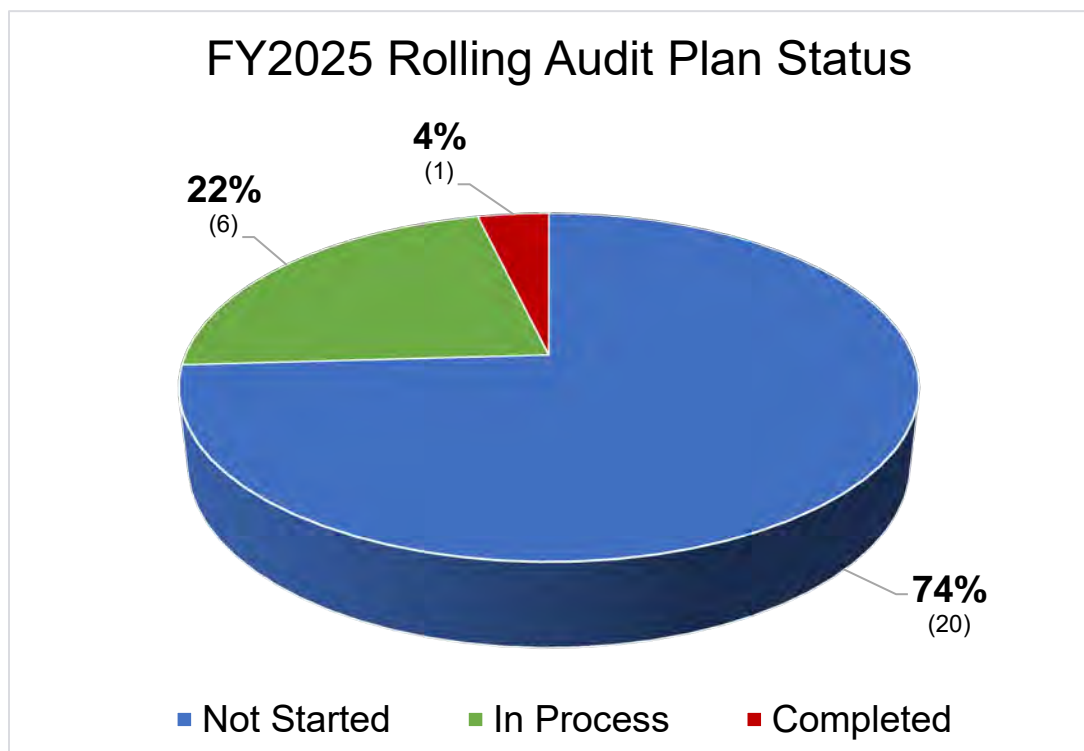
UMSL

University of Missouri System

OPEN – ACE – INFO 1-5

September 12, 2024

Summary of Internal Audit Activity



Since June 2024	Status
Internal Audits	1 completed; 6 in process; 20 not started
Audit Investigations	2 completed; 1 in progress
Bi-annual Follow-up	See attached



Audit Follow-up

Management Action Plan Status Report



UMKC

MISSOURI
S&T

UMSL

University of Missouri System

September 12, 2024

OPEN – ACE – INFO 1-7

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*

February 29, 2024, to June 30, 2024	#
Action Items Due	24
Interim Progress Updates Due	2
Action Items Completed	18
Action Items Extended	6
Audits Closed	5

*Full Management Action Plan Summary table and information can be found in the accompanying written report





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

September 12, 2024

GOVERNANCE, COMPENSATION AND HUMAN RESOURCES COMMITTEE

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

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

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

II. **Governance**

A. **Scope**

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

B. **Executive Liaison**

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

C. **Responsibilities**

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

1. ensuring that Board members are prepared to carry out their fiduciary duties to the University;
2. providing and monitoring a substantive orientation process for all new Board members and a continuous board education program for existing Board members;
3. periodic review and coordination, with timing and substance agreed upon with the Board Chair, of appropriate Board self-assessments;
4. establishing expectations and monitoring compliance of individual Board members, when made necessary by circumstances or requested by the Board Chair;

5. periodic review of the Board's adherence to its rules of conduct, including conflict-of-interest and disclosure policies, and that it otherwise maintains the highest levels of integrity in everything it does;
6. periodic review of the adequacy of the Board's bylaws and other Collected Rules and Regulations adopted by the Board that pertain to its internal operations (all recommendations for bylaws amendment shall first be considered by this Committee);
7. periodic review and identification of best practices in institutional and Board governance;
8. monitoring and assessing external influences and relationships with affiliated entities; and
9. those additional matters customarily addressed by the governance committee of a governing board for an institution of higher education.

III. Compensation and Human Resources

A. Scope

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

B. Executive Liaison

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

C. Responsibilities

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

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

Pursuant to Section 270.060 of the Collected Rules and Regulations, contracts for Directors of Intercollegiate Athletics and Head Coaches may not exceed five (5) years and shall not include buyout clauses calling for the individual to receive more than the balance of the contractually anticipated annual compensation (excluding incentives, allowances, expense

stipends, etc.) the individual would have earned under the remaining terms of the contract, unless approved by the UM Board of Curators upon the recommendation of the President.

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

Governance Review documents located in Appendix

HEALTH AFFAIRS COMMITTEE

Michael A. Williams, Chair
Robert W. Fry
Keith A. Holloway
Jeff L. Layman
Ronald G. Ashworth (non-curator)
Philip Burger (non-curator)
Daniel P. Devers (non-curator)

The Health Affairs Committee (“Committee”) assists the Board of Curators in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University’s teaching, research, and clinical missions.

I. Scope

The Committee provides oversight for the University’s clinical health care operations in the areas of:

- Mission, vision, and strategy;
- Governance and operational oversight;
- Quality of care and patient safety;
- Regulatory compliance;
- Financial planning and performance; and
- Coordination of the clinical, teaching, and research missions.
- Specific projects that enable meaningful collaboration among UM universities.

II. Executive Liaison

The Executive Vice Chancellor for Health Affairs of the University of Missouri-Columbia or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting Committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities regarding clinical health care operations, the charge of the Committee shall include:

- A. Reviewing and making recommendations to the Board regarding:
 1. actions that are appropriate or necessary to assist the Board in overseeing clinical health care operations or coordinating the teaching, research, and clinical missions;
 2. significant actions related to health care which should require advance notice or approval by the Committee or Board; and
 3. other matters referred to it by the Board and University officers.
- B. Requesting, receiving, and reviewing reports and other information from University officers and advisors regarding health care operations, coordination of the teaching, research, and clinical missions, and related matters, including meeting at least quarterly and receiving regular reports from appropriate officers of University of Missouri Health Care, the MU School of Medicine, and the MU Health Chief Compliance Officer.

- C. Additional matters customarily addressed by the health affairs committee of a governing board for an institution of higher education.

IV. Committee Membership and Quorum Requirements

The Committee's membership may include non-Curator members in addition to Curator members. Subject to approval of the Board, the Board Chair shall determine the number of Curator and non-Curator members to appoint to the Committee and shall select individuals to serve as members of the Committee; provided that, the number of non-Curator members on the Committee shall not exceed the number of Curator members on the Committee, unless the Committee temporarily has more non-Curator members than Curator members because a Curator member of the Committee has resigned from the Board or the Committee. Non-Curator members may resign their Committee membership by providing written notice to the Board Chair. Non-Curator members of the Committee serve at the pleasure of the Board and may be removed by the Board Chair at any time, subject to approval of the Board.

A quorum for the transaction of any and all business of the Committee shall exist when:

1. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held in conjunction with meetings of the Board; or
2. Both all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are not held in conjunction with meetings of the Board; or
3. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held solely for the purpose of reviewing and overseeing compliance matters.

Executive Vice Chancellor Report located in Appendix

MIZZOU INTERCOLLEGIATE ATHLETICS SPECIAL COMMITTEE

Robert D. Blitz
Todd P. Graves
Jeff L. Layman
Robin R. Wenneker

The University of Missouri Board of Curators has created a Mizzou 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.

Curator Blitz will chair this committee. Committee members will be Curators Graves, Layman and Wenneker.

MIZZOU ATHLETICS UPDATE

Materials for this information item will be distributed prior to the meeting.

FINANCE COMMITTEE

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

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

I. Scope

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

II. Executive Liaison

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

III. Responsibilities

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

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

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

UNIVERSITY OF MISSOURI BOARD OF CURATORS RESOLUTION:

Memorial Stadium Improvements, MU

The University of Missouri Board of Curators, meeting on this 12th day of September 2024, resolves as follows:

Whereas, MU Athletics is an integral part of the University of Missouri and plays a critical and visible role in the University's and State of Missouri's overall reputation, image, and brand; and

Whereas, MU Athletics and its success galvanizes Missourians in support of the University, its mission, and its athletics programs, further enhancing sentiment in favor of the University and public higher education; and

Whereas, the Memorial Stadium, which opened in 1926, currently has a seating capacity for 61,620 fans and needs upgrades to improve the fan experience and increase capacity to be competitive in the SEC; and

Whereas, the completion of the \$250,000,000 Memorial Stadium projects improves the stadium to offer a fan experience commensurate with the high standards of the SEC, while respecting the history and tradition of Memorial Stadium and the MU Campus; and

Whereas, improvements to Memorial Stadium are expected to generate new revenues including significant philanthropic support; and

Whereas, through the pre-design effort, the concept now envisions a new multi-level North End Zone Addition with a variety of premium seating options and an enhanced open-air concourse.

Whereas, the project approval allows for the continued progression of the project on an accelerated schedule for a targeted opening in the fall of 2026, the 100th anniversary of Memorial Stadium; and

Whereas, construction and operation of an improved Memorial Stadium will support the economic development efforts of the University and Missouri.

September 12, 2024

NOW, THEREFORE, BE IT RESOLVED, that the Board of Curators does hereby adopt, direct, and authorize the following actions to be taken by MU:

1. Proceed with the Memorial Stadium Improvement project with a total budget of \$250,000,000.
2. The project shall consist primarily of a new multi-level North Concourse infill component of approximately 191,000 gross square feet total, with approximately 99,000 gross square feet of enclosed conditioned area.

Primary elements of the new structure shall include:

- Premium Seating Options
 - A Variety of Improved and Modernized Food & Beverage Concessions
 - New Restroom Facilities
 - New Stadium Entry Plaza
 - New Retail Outlet for Mizzou Merchandise
 - Improved Wayfinding and Graphics
 - Transparent and Strengthened Engagement between Memorial Stadium and MU Campus
 - Integration of New and Enhanced North Endzone Scoreboard
 - Preservation and Memorialization of the North End Zone “M” constructed of Rocks
 - Recruiting Room/Suite
3. In addition, the Memorial Stadium Improvements project include a menu of items pertaining to broader stadium-wide program and facilities improvement needs including:
 - Conversion of the South End Zone Bunker Club into a Recruiting Center
 - Enhanced LED Field Lighting
 - Wi-Fi Improvements
 - Concourse Toilets & Concession Upgrades
 - Stadium Structural Repairs
 - Wayfinding & Environmental Branding Improvements
 - HVAC for Visitor’s Locker Room
 - Auxiliary Locker Room Conversion
 4. The project may borrow up to \$200 million in debt secured by project generated revenues, university revenues and gift pledge payments.

September 12, 2024

REPORT FROM SEC COMMISSIONER GREG SANKEY

There are no materials for this information item.

GOOD AND WELFARE
OF THE BOARD

There are no materials for this information item.

**Board of Curators Meeting
September 12, 2024
Appendix**

**A RESOLUTION RECOGNIZING THE MUSEUM OF ART AND ARCHAEOLOGY AT
UNIVERSITY OF MISSOURI-COLUMBIA**

WHEREAS, the mission of the Museum of Art and Archaeology (“Museum”), a department within the College of Arts and Science of the University of Missouri (“University”), is to preserve, research, interpret, and share art and artifacts with students, scholars, and the broader community to advance collective understanding of and respect for diverse artistic and cultural heritages; and

WHEREAS, the Museum’s collections hold over 16,000 objects, from 6 continents, representing over 6,000 years of human history and creativity, such objects being made available to University faculty, students, and outside researchers for analysis and study; and

WHEREAS, the Museum develops and presents multiple exhibitions and education programs each year, free of charge, for the benefit of the students, faculty, and staff of the University and the citizens of and visitors to mid-Missouri; and

WHEREAS, the University supports the Museum through annual allocations that cover staff salaries and benefits and most of the Museum’s operating expenses, and the University maintains the building that houses the Museum as well as the surrounding grounds, and provides other services to the Museum through the College of Arts and Science and the University’s advancement, information technology, human resources, marketing and communications, security, and other departments; and

WHEREAS, of the more than 33,000 museums nationwide, only approximately 1,100 have achieved accreditation through the American Alliance of Museums, which recognizes a museum’s commitment to excellence, accountability, high professional standards, and continued improvement; and

WHEREAS, the Museum is the only accredited museum within the University of Missouri System, and the only accredited museum of its kind in mid-Missouri;

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

- The Museum is valuable intellectual and educational resource, and the Museum and its collections are essential components of the educational experience at the University; and
- The University is committed to the Museum’s continued success in fulfilling its mission and meeting its public trust responsibilities, especially with regard to the Museum’s collections and information relating to the collections; and
- The University is committed to following American Alliance of Museums and museum field standards, particularly with regard to the Museum’s collections, the use of deaccession proceeds, and collecting and gift-acceptance policies; and
- The University looks forward to the Museum’s continuing service to the campus community and the people of Missouri for years to come.

--end--

RESOLUTION

Recognizing the
Museum of Art and Archaeology
University of Missouri-Columbia

WHEREAS, the Museum of Art and Archaeology advances understanding of our artistic and cultural heritage through research, collection and interpretation, and

WHEREAS, the Museum helps students, scholars and the broader community to experience authentic and significant art and artifacts firsthand, and to place them in meaningful contexts, and

WHEREAS, the Museum furthers this mission by preserving, enhancing and providing access to the collections for the benefit of present and future generations, and

WHEREAS, the Museum pursues this mission through the efforts of its staff, supporting and enriching the educational mission of the University of Missouri, and

WHEREAS, of the more than 17,000 museums nationwide, less than 800 have achieved accreditation through the American Association of Museums, which recognizes a museum's commitment to excellence, accountability, high professional standards, and continued institutional improvement, and

WHEREAS, the Museum of Art and Archaeology is the only accredited museum within the University of Missouri, and the only accredited museum of its kind in mid-Missouri, and

WHEREAS, a statement of permanence from the Museum's governing authority is expected as part of its ongoing reaccreditation process, now

THEREFORE, BE IT RESOLVED that the Board of Curators of the University of Missouri hereby declares the Museum of Art and Archaeology a valued, integral and lasting part of the University, and looks forward to its continuing service to the University and the people of Missouri in the years to come.



Digitally signed by Dr.
Alex Barker
DN: cn=Dr. Alex Barker,
c=US, o=University of
Missouri, ou=Museum of
Art and Archaeology,
email=barkeraw@missouri.edu
Date: 2008.05.Zg
08:53:54 -05'00'

UNIVERSITY OF MISSOURI
Columbia . Kansas City . Rolla . St. Louis



BOARD OF CURATORS

Minutes of Board of Curators Meeting
Missouri University of Science and Technology
April 3-4, 2008

Finance and Audit Committee Meeting

Curator Doug Russell, Chair
Curator Marion H. Cairns
Curator Bo Fraser
Curator Don Walsworth

Curator Russell, Chairman of the Finance and Audit Committee, convened an open meeting of the Finance and Audit Committee at 8:05 A.M., on Thursday, April 3, 2008, in the Silver and Gold Room of the Havener Center on the Missouri University of Science and Technology campus, pursuant to public notice given of said meeting.

Present

The Honorable Marion H. Cairns
The Honorable Bo Fraser
The Honorable Judith G. Haggard
The Honorable Doug Russell
The Honorable Cheryl D.S. Walker
The Honorable Don Walsworth
Student Representative Anton H. Luetkemeyer

Also Present

Mr. Gary D. Forsee, President, University of Missouri System
Mr. Stephen J. Owens, General Counsel
Ms. Kathleen M. Miller, Secretary of the Board of Curators
Dr. Gordon H. Lamb, Executive Vice President
Dr. Steven W. Graham, Interim Vice President for Academic Affairs
Ms. Natalie "Nikki" Krawitz, Vice President for Finance and Administration
Ms. Shirley S. DeJarnette, Treasurer
Ms. Robin Pellish, Rocaton Investments Advisor

7. Statement of Permanence and Value for the Museum of Art and Archaeology, UMC

the statement of permanence and value for the Museum of Art and Archeology on the Columbia campus for their 2008 accreditation process with the American Association of Museums shall be approved as follows:

RESOLUTION

Recognizing the Museum of Art and Archaeology
University of Missouri-Columbia

WHEREAS, the Museum of Art and Archaeology advances understanding of our artistic and cultural heritage through research, collection and interpretation, and

WHEREAS, the Museum helps students, scholars and the broader community to experience authentic and significant art and artifacts firsthand, and to place them in meaningful contexts, and

WHEREAS, the Museum furthers this mission by preserving, enhancing and providing access to the collections for the benefit of present and future generations, and

WHEREAS, the Museum pursues this mission through the efforts of its staff, supporting and enriching the educational mission of the University of Missouri, and

WHEREAS, of the more than 17,000 museums nationwide, less than 800 have achieved accreditation through the American Association of Museums, which recognizes a museum's commitment to excellence, accountability, high professional standards, and continued institutional improvement, and

WHEREAS, the Museum of Art and Archaeology is the only accredited museum within the University of Missouri, and the only accredited museum of its kind in mid-Missouri, and

WHEREAS, a statement of permanence from the Museum's governing authority is expected as part of its ongoing reaccreditation process, now

THEREFORE, BE IT RESOLVED that the Board of Curators of the University of Missouri hereby declares the Museum of Art and Archaeology a valued, integral and lasting part of the

University, and looks forward to its continuing service to the University and the people of Missouri in the years to come.

8. Collected Rules and Regulations 370.015: Academic Grievance Procedure Extension, UMC

the pilot period for Collected Rules and Regulations 370.015 Academic Grievance Procedure for the University of Missouri-Columbia shall be extended one calendar year.

Roll call vote on Consent Agenda:

Curator Cairns voted yes.
Curator Carnahan was absent for the vote.
Curator Erdman voted yes.
Curator Fraser voted yes.
Curator Haggard voted yes.
Curator Russell voted yes.
Curator Walker voted yes.
Curator Walsworth voted yes.
Curator Wasinger voted yes.

The motion carried by a vote of eight and zero.

Academic and Student Affairs

Curator Judith G. Haggard, Chair
Curator Marion H. Cairns
Curator Doug Russell
Curator David G. Wasinger
Student Representative Tony Luetkemeyer, ex officio

Curator Haggard provided a brief recap of the committee meeting held on April 3, 2008, at which meeting the Academic and Student Affairs Committee received a report on and discussed the following two information items:

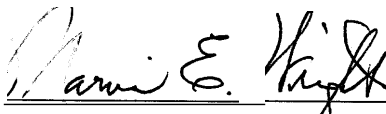
Information

1. Enrollment, Success and Exceptions Report
2. Enrollment Managers: Future Student - Demographic Trends

Compensation and Human Resources

Curator Warren K. Erdman, Chair
Curator John M. Carnahan III
Curator Bo Fraser

I, Marvin E. Wright, hereby certify that I am General Counsel of the University of Missouri and Assistant Secretary of the Board of Curators, the governing body of the University, and that in such capacities I am familiar with the records and actions of the governing board and that the Board of Curators did at its regular meeting in June 1973, by appropriately adopted resolution, recognized the Missouri of Art and Archaeology on the Columbia campus of the University as the permanent and lasting depository of objects of art and history to be displayed for the furthering of research interest of scholars and the education of students and that the action remains in full force and effect on the date of this certificate.

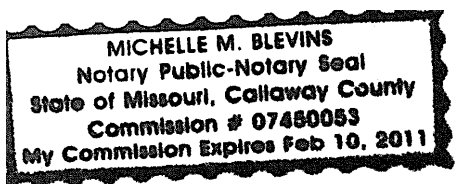

 Marvin E. Wright
 General Counsel
 University of Missouri

STATE OF MISSOURI)
)ss.
 COUNTY OF BOONE)

On this 11th day of December, 2007, before me personally appeared Marvin E. Wright, to me known to be the person described in and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal, at my office in (Dhuub·rn., nw) the day and year first above written.

My term expires Z.) 'c. 1c.c.11



Michelle M. Blevins
 Notary Public

UNIVERSITY OF MISSOURI

COLUMBIA

KANSAS CITY

ROLLA

ST. LOUIS

UNIVERSITY WIDE

Board Recommendation

36735

Date 19 June 1973

Subject Museum of Art and Archaeology

To The Chancellor, the President and the Curators:

It is recommended that

the Museum of Art and Archaeology, currently housed in the Ellis Library, be recognized as a lasting depository of objects of art and history to be displayed for the furthering of research interest of scholars and the education of students.

Approved

[Signature]
Chancellor

Signed

Typewrite, using a separate sheet for each subject.

Approved

[Signature]
President

Date

6-24-73

600.020 Sexual Harassment under Title IX - for matters involving conduct alleged to have occurred on or after August 14, 2020

Executive Order 40, 4-8-14; Revised 6-19-14; Revised 9-22-14 by Executive Order 41. Revised 2-9-17 with an effective date of 3-1-17; Revised 7-28-20 with effective date of 8-14-20; [Revised 9-7-23](#); [Revised 6-27-24](#).

A) Sexual Harassment in Education. The University is committed to affording equal employment and education opportunities to its employees and students, and to creating an environment free from discrimination and harassment. In furtherance of these commitments, both University policy and applicable state and federal law, prohibit all students, employees, volunteers and visitors at the University from engaging in sexual harassment in a University education program or activity against a person in the United States.

This policy applies to sexual harassment in any phase of the University's employment process, any phase of its admission or financial aid programs, and all other aspects of its education programs or activities. For purposes of this policy, "education program or activity" includes locations, events, or circumstances over which the University exercised substantial control over both the respondent and the context in which the conduct occurs, and includes any building owned or controlled by a student organization that is officially recognized by the University. This policy and CRR 600.030 do not apply to sexual harassment that happens outside the United States, even when the conduct occurs in an education program or activity of the University.

B) Definitions

1) Sexual Harassment. Sexual harassment means conduct on the basis of sex that satisfies one or more of the following:

- a) "Quid Pro Quo" - An employee of the University conditioning the provision of an aid, benefit, or service of the University on an individual's participation in unwelcome sexual conduct;
- b) "Hostile Environment" - Unwelcome conduct determined by a reasonable person to be so severe, pervasive, and objectively offensive that it effectively denies a person equal access to the University's education program or activity;
- c) "Sexual assault" - Any sexual act that constitutes rape, sodomy, sexual assault with an object, fondling, incest, and statutory rape, as defined below:
 - (i) "Rape" is penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, or by a sex-related object, without the consent of the victim. This definition also includes instances in which the victim is incapable of giving consent because of temporary or permanent mental or physical incapacity (including due to the influence of drugs or alcohol) or because of age. Physical resistance is not required on the part of the victim to demonstrate lack of consent. Attempted Rape is included.
 - (ii) "Sodomy" is oral or anal sexual intercourse with another person, without the

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consent of the victim, including instances where the victim is incapable of giving consent because of their age or because of their temporary or permanent mental or physical incapacity.

(iii) "Sexual Assault with an Object" is using an object or instrument to unlawfully penetrate, however slightly, the genital or anal opening of the body of another person, without the consent of the victim, including instances where the victim is incapable of giving consent because of their age or because of their temporary or permanent mental or physical incapacity. An "object" or "instrument" is anything used by the offender other than the offender's genitalia.

(iv) "Fondling" is the touching of the private body parts of another person for the purpose of sexual gratification, without the consent of the victim, including instances where the victim is incapable of giving consent because of their age or because of their temporary or permanent mental or physical incapacity.

(v) "Incest" is sexual intercourse between persons who are related to each other within the degrees wherein marriage is prohibited by Missouri law.

(vi) "Statutory Rape" is sexual intercourse with a person who is under the statutory age of consent as defined by Missouri law.

- d) "Dating Violence" - The term "dating violence" means violence committed by a person-- (A) who is or has been in a social relationship of a romantic or intimate nature with the victim; and (B) where the existence of such a relationship shall be determined based on a consideration of the following factors: (i) The length of the relationship, (ii) The type of relationship, and (iii) The frequency of interaction between the persons involved in the relationship.
- e) "Domestic violence" - The term "domestic violence" includes felony or misdemeanor crimes of violence committed by a current or former spouse or intimate partner of the victim, by a person with whom the victim shares a child in common, by a person who is cohabitating with or has cohabitated with the victim as a spouse or intimate partner, by a person similarly situated to a spouse of the victim under the domestic or family violence laws of Missouri, or by any other person against an adult or youth victim who is protected from that person's acts under the domestic or family violence laws of Missouri.
- f) "Stalking" - The term "stalking" means 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.
- 2) Consent to Sexual Activity. Consent to sexual activity is knowing and voluntary. Consent to sexual activity requires of all involved persons a conscious and voluntary agreement to engage in sexual activity. Each person engaged in the sexual activity must have met the legal age of consent. It is the responsibility of each person to ensure they have the consent of all others engaged in the sexual activity. Consent must be obtained at the time of the specific activity and can be withdrawn at any time. Consent, lack of consent, or withdrawal of consent may be communicated by words or non-verbal acts.
- Someone who is incapacitated cannot consent. Silence or absence of resistance does not establish consent. The existence of a dating relationship or past sexual relations between the Parties involved should never by itself be assumed to be an indicator of consent. Further, consent to one form of sexual activity does not imply consent to other forms of sexual activity. Consent to engage in sexual activity with one person does not imply consent to engage in sexual activity with another. Coercion and force, or threat of either, invalidates consent.
- 3) Incapacitated or incapacitation. A state in which rational decision-making or the ability to consent is rendered impossible because of a person's temporary or

permanent physical or mental impairment, including but not limited to physical or mental impairment resulting from drugs or alcohol, disability, sleep, unconsciousness or illness. Consent does not exist when the Respondent knew or should have known of the other individual's incapacitation. Incapacitation is determined based on the totality of the circumstances. Incapacitation is more than intoxication but intoxication can cause incapacitation.

Factors to consider in determining incapacity include, but are not limited to, the following:

- a) Lack of awareness of circumstances or surroundings (e.g., an inability to understand, either temporarily or permanently, the who, what, where, how and/or why of the circumstances; blackout state)
 - b) Inability to physically or verbally communicate coherently, particularly with regard to consent (e.g., slurred or incoherent speech)
 - c) Lack of full control over physical movements (e.g., difficulty walking or standing without stumbling or assistance)
 - d) Physical symptoms (e.g., vomiting or incontinence).
- C) Title IX Coordinators. Duties and responsibilities of the University's Title IX Coordinators include monitoring and oversight of overall implementation of Title IX compliance at the University, including coordination of training, education, communications and coordination with the Title IX Processes for faculty, staff, students and other members of the University community and investigation of Formal Complaints of sexual harassment, and to respond promptly to reports of sexual harassment of which the University has actual knowledge in University education programs and activities. The University may designate Deputy Coordinators as needed to assist in fulfillment of the Coordinator's duties and responsibilities. NOTE: All references to "Title IX Coordinator" throughout this policy refer to the Title IX Coordinator or the Coordinator's designee. For the purposes of this section, "actual knowledge" means notice of sexual harassment or allegations of sexual harassment to a University's Title IX Coordinator or any official of the University who has authority to institute corrective measures on behalf of the University. Imputation of knowledge based solely on vicarious liability or constructive notice is insufficient to constitute actual knowledge. This standard is not met when the only official of the University with actual knowledge is the respondent. The mere ability or obligation to report sexual harassment or to inform a student about how to report sexual harassment, or having been trained to do so, does not qualify an individual as one who has authority to institute corrective measures on behalf of the University. The following individuals serve as Title IX Coordinators and are designated to handle inquiries regarding the Anti-Discrimination policies and to serve as coordinators for purposes of Title IX compliance:

University of Missouri System and University of Missouri-Columbia

Andy Hayes, J.D.

Title IX Coordinator

Address:

University of Missouri

320 Jesse Hall

Columbia, MO 65211

Telephone: (573) 882-2824

Email: hayesas@missouri.edu

equity.missouri.edu

University of Missouri-Kansas City

KC Atchinson, J.D.

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Title IX Coordinator
Address:
Administrative Center
5115 Oak Street, Room 212D
Kansas City, MO 64112
Telephone: 816-235-6705
Email: atchinsonk@umkc.edu
www.umkc.edu/titleix

Missouri University of Science and Technology
Paul Hirtz, Ph.D.
Title IX Coordinator
Address:
Technology Development Center
900 Innovation Drive, Suite 500
Rolla, MO 65409
Telephone: 573-341-4655
Email: hirtz@mst.edu
titleix.mst.edu

University of Missouri-St. Louis
Jessica Swederske
Title IX Coordinator
Address:
One University Boulevard
153 JC Penney North
St. Louis, MO 63121
Telephone: 314-516-5748
Email: swederskej@umsl.edu
www.umsl.edu/title-ix

University of Missouri Health System
Julia Ware, M.D., J.D., CPHRM, CPPS
Title IX Coordinator
Address:
One Hospital Drive
Columbia, MO 65212
Telephone: 573-882-8187
Email: wareja@health.missouri.edu

If the report of alleged sexual harassment in a University education program or activity involves the University's Title IX Coordinator, reports may be made to the System Title IX Coordinator. If the report involves the System Title IX Coordinator, reports may be made to the System President. The contact information for the System President is:

Office of the President
105 Jesse Hall
Columbia, MO 65211
Telephone: 573-882-2011
Email: president@umsystem.edu

NOTE: The above-listed contact information for Title IX Coordinators may be updated as needed and without requiring the approval of the Board of Curators.

September 12, 2024

D) Title IX Resolution Process. The University is committed to preventing and eliminating impermissible sexual harassment in its education programs, activities and employment. To that end, the University maintains policies regarding reporting, investigation, and resolution of complaints of sexual harassment. Specifically, please see:

Section 600.030 – Resolution Process for Resolving Complaints of Sexual Harassment Under Title IX

E) Designated Officials. The following are the officials designated by the University as those who have “authority to institute corrective measures.” These officials are mandated reporters and shall report to the Title IX Coordinators any information that puts them on notice of sexual harassment or allegations of sexual harassment.

- 1) The President of the University of Missouri System;
- 2) The Chancellors of each University in the University of Missouri System;
- 3) The Provosts of each University in the University of Missouri System; and
- 4) The Chief Human Resource Officers for each University in the University of Missouri System.

(a) Any person having inquiries concerning the application of Title IX should contact their respective UM System or University Title IX Coordinator.

F) Reporting Sexual Harassment

- 1) Students, Employees, Volunteers, and Visitors. Students, employees, volunteers, and visitors of the University who have experienced any form of sexual harassment are encouraged to report the incident promptly to the appropriate Title IX Coordinator listed in Section 600.020.C. above. In addition, students, volunteers, and visitors of the University who have witnessed such conduct are encouraged to report the incident promptly to the appropriate Title IX Coordinator. The University will respond to all such reports pursuant to one of its Title IX and Equity Resolution Processes (see Sections 600.030, 600.040, 600.050).
- 2) Mandated Reporters. Any employee of the University, except as noted below, who becomes aware of sexual harassment as defined in this policy is a Mandated Reporter, regardless of whether the recipient of the behavior is a student, employee, volunteer or visitor of the University.
- 3) Employees with a Legal Obligation or Privilege of Confidentiality. Employees with a legal obligation or privilege of confidentiality (including health care providers, counselors, lawyers, and their associated staff) are not considered Mandated Reporters and are not required to report when the information is learned in the course of a confidential communication. This also means that the employee seeking the exemption is employed by the University for that specific purpose and was acting in that capacity when the confidential disclosure was made. If the information is not learned in the course of confidential communication (for example, behavior is observed in class) then the employee has the same obligation as a Mandated Reporter.
- 4) Designated Confidential Employees. Consistent with the law and upon approval from the Office of the General Counsel, Universities may also designate non-professional counselors or advocates as confidential for purposes of this policy and, therefore, excluded from the definition of Mandated Reporters.
- 5) Required Reporting. A Mandated Reporter is required to promptly report the information to the appropriate Title IX Coordinator. The Mandated Report must be made regardless of whether the person reporting the information to the Mandated Reporter requests confidentiality and regardless of how the Mandated Reporter becomes aware of the offensive behavior (personal observation, direct information from the subject of the behavior, indirect information from a third party, etc.). If the

Complainant requests confidentiality or that a report not be pursued, the Mandated Reporter should warn the Complainant that, at this stage in the process, the Mandated Reporter must report all known information to the Title IX Coordinator.

- 6) Content of Mandated Report to Title IX Coordinator. Mandated Reporters must report all details that they possess. This includes names of the Parties, if known, and all other information in the Mandated Reporter's possession.
- 7) Non-compliance. Failure to comply with this policy can result in disciplinary action. Employees also are cautioned that non-compliance with this policy may increase their risk of personal liability. Further, an individual who fails to report as required under this policy may be determined to be ineligible for defense or protection under Section 490.010 of the University's Collected Rules and Regulations for any associated claims, causes of action, liabilities or damages.

G) Retaliation, False Reporting, and Witness Intimidation or Harassment.

- 1) 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 600.030. 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 Title IX Coordinator. The University will promptly respond to all claims of retaliation in accordance with this policy.
Examples of prohibited retaliation include, but are not limited to, giving a lesser grade than the student's academic work warrants because the student filed a report or Formal Complaint of sexual harassment; giving lower than justified performance appraisals because a person was a witness in an investigation of alleged sexual harassment; and threatening to spread false information about a person for filing a report or Formal Complaint of sexual harassment.
- 2) 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.
- 3) The University prohibits attempted or actual intimidation or harassment of any potential Party or witness. No individual participating in an investigation relating to a report or Formal Complaint that a violation of this policy has occurred should, directly or through others, take any action which may interfere with the investigation.
- 4) For situations involving alleged retaliation, false reporting, and witness intimidation or harassment, the Title IX Coordinator will refer the matter to the appropriate University process.

H) U.S. Department of Education—Office for Civil Rights. Inquiries concerning the application of Title IX also may be referred to the United States Department of Education's Office for Civil Rights. For further information on notice of nondiscrimination and for the address and phone number of the U.S. Department of Education office which serves your area call 1-800-421-3481.
The State of Missouri Regional Office for Civil Rights is located in Kansas City and is available to provide assistance.

(a) Office for Civil Rights
U.S. Department of Education
One Petticoat Lane
1010 Walnut, 3rd Floor, Suite 320

September 12, 2024

Kansas City, MO 64106
Telephone: 816-268-0550
FAX: 816-268-0559
TDD: 800-877-8339
Email: OCR.KansasCity@ed.gov

330.015 Policy on Conflict of Interest

Bd. Min. 1-25-90, Amended 10-05-07, Amended 11-29-07, Amended 3-22-11, Amended 7-27-12, Amended 6-17-16; Amended 4-9-20; Amended 7-28-20.

A. Conflict of Interest -- General Provisions

1. **Applicability.** This policy is applicable to all Employees of the University as defined herein. Additionally, for research involving human subjects, researchers and certain University officials must also comply with Collected Rules and Regulations (“CRR”) 410.020 pertaining to Institutional Conflicts of Interest in Human Subjects Research. Likewise, investigators on funded or proposed NSF or PHS research or educational activities must also comply with CRR 420.030.
2. **Policy.** Employees shall faithfully discharge their duties and shall refrain from knowingly engaging in any outside matters of financial interest or commitment incompatible with the impartial, objective, and effective performance of their University Responsibilities and in the conduct of University affairs. They shall not realize personal gain in any form which would influence improperly the conduct of their University Responsibilities. They shall not improperly use University property, funds, confidential or proprietary information, students, position or power for personal or political gain. They shall inform their chairpersons/supervisors in writing of their Outside Interests. Compliance with this policy promotes objectivity in research by establishing standards that provide a reasonable expectation that the proposal, design, conduct, and reporting of research will be free from bias resulting from Employee conflicts of interest.
3. **Sanctions.** Conduct by an Employee that violates the University's policies, regulations or rules pertaining to conflict of interest shall constitute a breach of the employment contract and may lead to disciplinary action. The Conflict of Interest Committee may make a determination of a violation of this policy and will report such violation to the Chancellor. After the finding of a violation, the Chancellor of each campus, in consultation with the respective Conflict of Interest Committee, may apply sanctions, including but not limited to, one or more of the following:
 - a. Letter of warning or admonishment.
 - b. Suspension or termination of research compliance committee approvals.
 - c. Suspension or termination of the privilege to submit sponsored activity proposals.
 - d. Suspension or termination of sponsored research activity spending authority.
 - e. Demotion or removal from assigned administrative roles.
 - f. Referral to campus Committee on Tenure or other appropriate committee for discipline or dismissal for cause of faculty.

- g. Suspension or termination of employment (pursuant and subject to CRR 310.060, Procedures in Case of Dismissal for Cause, for those faculty covered by that rule).

B. Definitions

1. “Employee” means:

- a. Any person receiving compensation from the University for services rendered, regardless of whether the person is benefit eligible or non-benefit eligible (e.g., full-time or part-time), or classified under other sections of the CRR as Academic Staff or Administrative, Service and Support Staff;
- b. Any person receiving compensation paid through the University from any funds placed in its hands for distribution; or
- c. Any person that has voluntarily elected to enter into an agreement or an agreement entered into on their behalf with the University to be treated as an “Employee” for purposes of this policy. For purposes of this policy, the receipt of compensation shall not be interpreted to include:
 - i. Receipt of student financial aid, including but not limited to, scholarships, grants, loans, tuition waivers and educational fee reductions, generally available to University students and unrelated to any provision of services by the student to the University; or
 - ii. Payments to independent contractors.

2. “Outside Interest” means:

- a. An employment, consulting, or other professional activity or service, paid or unpaid, for a third party that is not part of the Employee's University Responsibilities, and such activity or service for the third party nonetheless relates to work within the scope of the Employee's University Responsibilities. This includes, without limitation, any activity or service that involves the use of the Employee's expertise, the practice of the Employee's profession, or any activity or service that contributes to the Employee's professional competence or development; or
- b. A direct or indirect financial interest in an entity that proposes to do business or is doing business with the University; or
- c. A direct or indirect financial interest in an entity that proposes to acquire or has acquired rights to University owned intellectual property; or
- d. Whenever an Employee's duties include research or investigation, a direct or indirect financial interest in an entity conducting research or business that is relevant to the scope of the Employee's University Responsibilities; or
- e. Any other activity that could be construed as relating to or overlapping or competing with the core missions of the University.

3. “University Responsibilities” means an Employee's responsibilities for which such Employee was hired and conducted at or undertaken on behalf of the University, which may include, but is not limited to, activities such as research, research consultation, teaching, outreach/extension, professional practice, institutional committee memberships and service on University-based panels.
 4. “Manage” (or “Managed”) means taking action to address an actual or potential conflict of interest, which can include reducing or eliminating the conflict to ensure to the extent possible that the Employee's University Responsibilities will be free from bias. “Manage” may include, without limitation, a formal written Conflict of Interest Management Plan.
 5. “Gift” means any tangible or intangible item or items having a monetary value in excess of \$75. This maximum value applies to each gift transaction.
 6. “Prohibited Source” means any person or entity, public or private, outside the University, with interests, financial or otherwise, that may be substantially affected by the recommendations, decisions, performance or non-performance of the duties of the Employee.
- C. **Use of Confidential Information** -- Employees shall not use University confidential or proprietary information obtained by reason of their University employment with intent to cause financial gain to themselves or unfair advantage for another person.
- D. **Prohibition Against Acceptance of Gifts**
 Employees of the University shall avoid accepting Gifts for personal use, directly or indirectly, from Prohibited Sources, except as permitted in Section 330.015.D.1. below.
1. **Exceptions** -- The following shall not be considered a violation of this policy:
 - a. Gifts that are available to the Employee on the same conditions as for the general public;
 - b. Educational materials utilized in the performance of the Employee's University job;
 - c. Awards or honoraria administered by or through the University;
 - d. Gifts from the Employee's relatives, by blood or marriage;
 - e. Any item of food, refreshment, entertainment or other benefit provided to the Employee while attending a meeting, conference or convention provided on the same conditions as for other attendees; provided that if the item could be considered as lavish, then approval must be obtained under subparagraph f. below;
 - f. Any Gift if approved in writing in advance by an administrative superior who is a University General Officer, or in the event of the President, then approval of the Chair of the Board of Curators.
 2. Each General Officer approving acceptance of Gifts under Section 330.015.D.1.f. shall report all such approvals annually to the President.
- E. **Responsibilities of University Employees** -- An Employee's Outside Interests must not interfere with the Employee's University Responsibilities nor represent a conflict of interest that is not or cannot be Managed. Exempt staff and faculty Employees shall disclose all Outside Interests annually, and shall disclose any changes or acquisition of a new Outside Interest, as such interests arise. Provided that each campus may adopt

procedures by which adjunct faculty are not subject to annual reporting requirements (except as required by federal law) and instead disclose all Outside Interests prior to initial employment and disclose any changes or acquisition of a new Outside Interest as such interests arise. All other Employees shall disclose Outside Interests as such interests arise (e.g., transactional reporting). The following situations are illustrative of such activities and interests. This list should not be considered exhaustive.

1. **Grants and Contracts Involving an Employee Financial Interest.** When it is proposed that the University enter into (1) contracts for the sale of goods or services, or (2) research contracts or grants, or (3) other contracts with individuals, private firms or business entities in which an Employee knows the Employee has a direct or indirect financial interest, the following procedure shall be followed:

Before the proposed contract is negotiated by the University, the Employee shall make a disclosure of such financial interest, in writing, which disclosure shall be forwarded to the official having contract approval authority.

If there is a change in the financial interest of the Employee during the term of the contract, the change shall be disclosed immediately by the Employee, in writing, and forwarded to the official having contract approval authority.

Except as provided in Paragraph E.1.d., if the financial interest of the Employee in the private firm or business entity is such that it could influence the decision-making process of the private firm or business entity and the Employee could also influence the decision-making process of the University in entering into or performing the contract:

The University shall not enter into the contract or shall cancel the contract, if the terms of the contract so permit; or

The University and Employee shall enter into a Conflict of Interest Management Plan which shall, among other things require that:

The Employee shall take such action as is necessary to be removed from a relationship with the private firm or business entity which could influence the decision-making process of the private firm or business entity; and/or

The University shall establish a procedure to remove any opportunity for the Employee to influence the entering into the contract by the University or the manner in which the contract is performed by the University.

If the financial interest of the Employee is as an owner or employee in a private firm or business entity that is proposing to license or otherwise acquire University-owned intellectual property, then the University may enter into such transaction upon the approval of the applicable campus technology transfer office

and Chief Research Officer, and upon the adoption of a Conflict of Interest Management Plan.

2. **Overlapping Business Activities.** Before an Employee enters into or has a business activity which relates to, overlaps with, or competes with the University's teaching, research, service, or economic development missions, the Employee shall make a full disclosure, in writing. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity and such activity must be Managed.
3. **Full-time Employment - Faculty and Exempt Personnel.** Full-time faculty and full-time exempt personnel may not be concurrently employed full-time with another employer.
4. **Teaching.** An Employee of the University who teaches either credit or non-credit courses not connected with the University may have a conflict of interest. To avoid conflicts of interest an Employee must disclose the proposed teaching activity and secure written approval in advance. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. Approval for such teaching shall be granted unless the proposed teaching is not in the best interests of the University. In reaching the decision, the chairperson/supervisor and dean/director or Provost on campuses having no schools or colleges should consider all relevant matters including such concerns as duplication of University courses or programs and accreditation standards.
5. **Faculty-Authored Textbooks and Other Educational Materials.** Textbooks, tapes, software and other materials authored by the course instructor may be assigned to be purchased by students for a course taught by the author if the royalties arising from the purchase of the assigned materials are returned to the University, another educational institution, a charitable organization, or a not-for-profit foundation. Any proceeds from other University uses of such materials, such as purchase by the library, shall be the property of the author. Course instructors or any other Employee responsible for selecting, ordering, assigning course materials cannot accept Gifts, development grants, or other compensation from any company or organization for the adoption of course textbooks, software or other educational material.
6. **Consultation.** Consultation is a significant means of professional improvement as well as a form of community service. However, consultation may in some instances also constitute a business interest requiring disclosure and approval. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. It is the policy of the University generally to permit consulting activities of Employees which:
 - a. are related to the professional interest and development of the Employee,
 - b. do not interfere with regular duties,
 - c. do not utilize University materials, facilities, confidential or proprietary information, intellectual property, or resources except as provided in the University Business Policy Manual, or any campus-specific policies,

- d. are in agreement with the American Association of University Professors/American Council on Education (AAUP/ACE) Statement on Conflict of Interest and with the requirements of accreditation for the particular school or unit in question,
- e. do not compete with the work of the University,
- f. are not otherwise contrary to the best interests of the University,
- g. do not violate federal or state law, and
- h. any conflicts of interest are Managed.

- 7. **Malign Foreign Talent Recruitment Program.** As further defined and provided for in CRR 330.120, no Employee shall participate in a Malign Foreign Talent Recruitment Program

F. Responsibilities of Each Campus:

Each campus shall:

- 1. Establish a committee to coordinate the solicitation and review of disclosures of Outside Interests from each Employee, including development of campus specific standards and procedures, determine whether a conflict of interest exists, and determine what conditions or restrictions, if any, should be imposed by the campus to Manage such conflict of interest, resolve problems revealed, and enforce sanctions as appropriate, including adoption of a Conflict of Interest Management Plan.
- 2. Comply with all laws and regulations regarding conflict of interest, including the provision of initial and ongoing financial conflict of interest reports to the Public Health Service (PHS) as required pursuant to 42 C.F.R. Part 50 Subpart F and 45 C.F.R. Part 95.
- 3. Develop and publish corresponding procedures to support implementation of this policy and any other related laws or regulations regarding conflict of interest. Such procedures shall include, at a minimum, requirements for exempt staff and faculty Employees to submit annual reports disclosing all Outside Interests or verifying the absence of any Outside Interests (except to the extent that a campus may adopt alternative procedures for adjunct faculty as provided in Section 330.015.E).

- G. Use of University Stationery** -- Official University stationery may not be used in outside business, personal, and other private or political activities of Employees. However, for use in such activities, faculty may have printed at their own expense personal business stationery carrying their academic title, University address and telephone number.

- H. Use of University Logos, Trademarks, and Service Marks** -- It is a violation of University policy to use the name of the University or any of the University's logos, trademarks or service marks in materials intended to endorse or promote Employee Outside Interests or to otherwise enhance private gain without the written permission of the University President or the President's designee.

- I. Appeals** -- Appeals of decisions made under these procedures, except for decisions made by the Chancellor in applying a sanction (CRR 330.015, Section A.3.), should be brought to resolution informally and at the lowest possible administrative level. Should attempts to resolve appeals informally fail, procedures set forth in CRR 370.010 and CRR 380.010, shall be followed. Appeals of sanctions issued by the Chancellor shall be governed by the procedures set forth in Section 370.010.C.3.b. through 370.010.D.

Rationale for Recommendation

The Global Internal Audit Standards

The internal audit profession is administered using standards and guidance published by the Institute of Internal Auditors (The IIA). The IIA oversees the internal audit profession globally using the International Professional Practices Framework. One recent development within that framework is that The IIA recently published new *Global Internal Audit Standards* (Standards) in January 2024. These Standards go into effect January 2025.

A Review: The IIA’s Three Lines Model, Internal Audit, and Compliance

In addition to the Standards, the IIA publishes additional guidance to help professionals understand the role of internal audit as it relates to other functions within an organization. The Three Lines Model is a visual representation of how a governing body, management, and internal audit work together to help an organization achieve its objectives. Each “line” has responsibilities related to governance and risk management. An overview of the Three Lines Model is outlined below.

Overview of the Three Lines Model		
Governing Body: Establishes and oversees an independent, objective, and competent internal audit function		
Management	First Line	Leaders and managers are <i>responsible for directing the operations of an organization</i> in a manner that will achieve organizational objectives, which includes primary responsibility for managing risk.
	Second Line	Provide complementary expertise, support, monitoring, and other services that will <i>assist</i> the organization in managing risk. Areas of responsibility can include IT, QA, continuous improvement, risk management, compliance , sustainability, ERM, etc.
Third Line: Internal Audit		Provides <i>independent assurance</i> to both the governing body and the first and second line (including management) that effective processes and controls are in place that will enable the organization to achieve its objectives.

A copy of *The IIA’s Three Lines Model* summary document can be provided upon request.

As previously discussed, at UM, when it was determined that a compliance function was necessary, the decision was made to combine the role of chief audit executive (“third line”) with the role of chief compliance officer (“second line”) to create the role of Chief Audit and Compliance Officer (CACO). The CACO role would oversee not only the internal audit function, but also the new centralized ethics/compliance function.

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Additionally, central investigations, privacy, and custodian of records (all “second line”) have since been included as part of this portfolio. This work is closely coordinated with Human Resources and the Office of General Counsel.

Chartering Ethics, Compliance, and Audit Services (ECAS)

The Standards require an internal audit charter. Per the Standards, the internal audit charter is “a formal document that includes the internal audit function’s mandate, organizational position, reporting relationships, scope of work, types of services and other specifications” (see Standards, p. 12) and the Board has ultimate responsibility to approve the internal audit charter (see Standards, p. 38, 40, 42).

The Standards also require internal audit be an independent, objective function. To achieve this, many organizations completely separate this department from all others. However, because it is often expedient and efficient, the Standards allow for internal audit to be combined with other functions, as has been done at UM. Standard 7.1 states:

*When the chief audit executive has one or more ongoing roles beyond internal auditing, the responsibilities, nature of work, and established safeguards **must be documented in the internal audit charter**. If those areas of responsibility are subject to internal auditing, alternative processes to obtain assurance must be established, such as contracting with an objective, competent external assurance provider that reports independently to the board. (See Standards, p. 46.)*

What the quote above means for UM, is that when internal audit is combined with other functions, as it is here, the necessary language to maintain internal audit independence must be documented in the charter.

Because UM is not the only system or entity where audit is combined with compliance and other functions, the charters of institutions of higher education where internal audit is combined with compliance were reviewed. These included:

- Oregon State University
- University of California System
- University of Kentucky
- University of Tennessee System
- Virginia Commonwealth University

Results of this review showed that four out of five of these institutions have a charter that addresses *all functions in the office, not just internal audit*. However, necessary elements required by the Standards for internal audit are present.

Recommendation

Approve the updated charter for the Office of Ethics, Compliance, and Audit Services (formerly the Internal Audit Charter). This charter includes the following: 1) Documents the reporting lines approved by the Board in August 2024, 2) Clarifies the responsibilities of

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internal audit, compliance, and the other functions within ECAS as required by the Standards, and 3) Cites the new professional Standards which go into effect January 2025.

Approval of Collected Rules & Regulations 140.012, 140.013, 140.015, 140.017

Management is presenting for Board approval investment policy changes resulting from asset allocation studies for the Retirement Plan and Endowment Pool.

The recommendations that follow come forward as a result of a process and collaboration led by the Office of Investments, working closely with the UM System Finance Division, Verus (the University's investment consultant) and Milliman (the Retirement Plan's actuarial consultant). The process was guided by input from the Board Finance Committee as well as feedback from the Investment Advisory Committee.

Asset Allocation Objectives

The following objectives were identified for each portfolio:

Retirement Plan

- Reduce Investment Risk
- Meet or Exceed 7% Assumed Actuarial Return
- Minimize Plan Funding Costs

Endowment Pool

- Meet or Exceed 7.75% Policy Objective
- Risk Not to Exceed Current Policy Portfolio
- Increase Equity Exposure

Additionally, portfolio simplification and lower costs continue to be ongoing objectives.

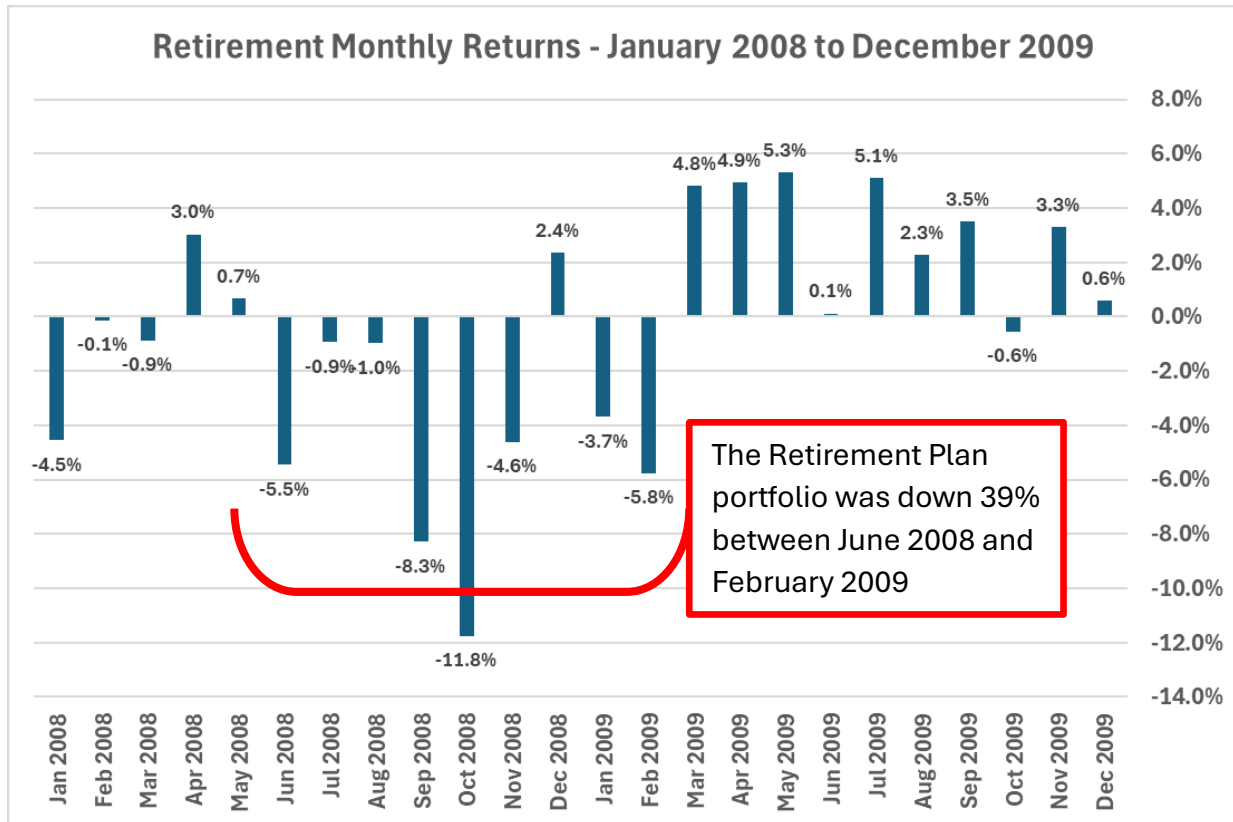
Investment Portfolio Cash Flows Inform Asset Allocation

Unlike an individual actively saving for retirement over a working lifetime, or building wealth to pass to the next generation, institutional portfolios are more like someone in retirement, dependent upon income from their savings to meet day-to-day living expenses. Understanding a portfolio's incoming and outgoing cash flows is an essential driver of an effective asset allocation process. From an investment perspective, liquidity needs in times of market stress can significantly affect outcomes as assets may need to be sold at market bottoms to fund continuing payments.

Each of the portfolios have significant required cash outflows which would continue to occur regardless of investment losses or disruptions to the University's revenue streams.

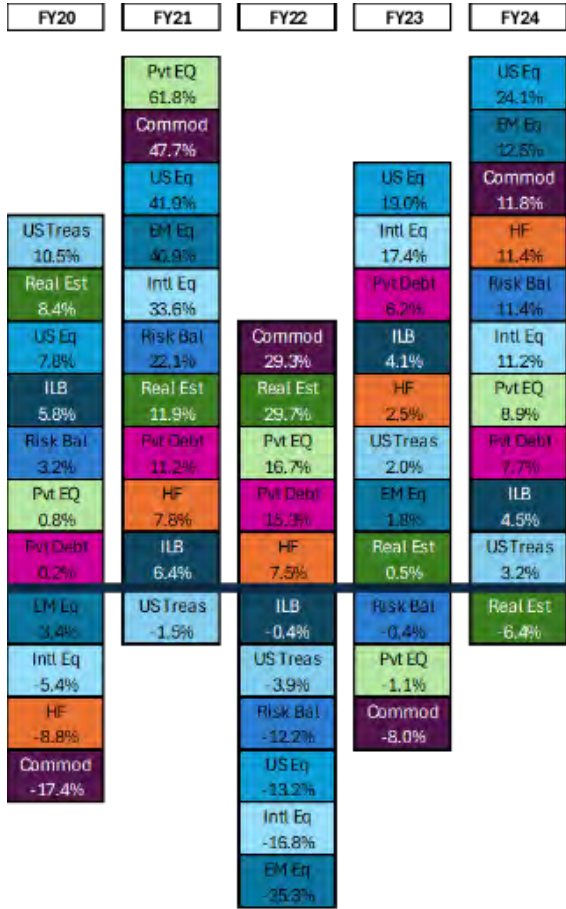
- Retirement Plan – benefit payments to retirees currently total \$330 million annually; these payments will grow to \$445 million annually in ten years. Benefit payments are paid monthly, regardless of market conditions.
- Endowment Pool – spending distributions from our 6,400 separate endowment accounts total approximately \$93 million per year. These distributions – which fund scholarships, faculty positions, research and academic program support - are paid monthly, regardless of market conditions. Very few of the existing 6,400 endowment accounts will receive a new gift, meaning cash outflow risk will be managed in perpetuity.

Each of these portfolios have unique cash outflow demands, which can work against us in fairly significant, at times painful, ways during times of market losses, similar to what the University (and most other institutional investors) experienced during the 2008-09 financial crisis.



When portfolio returns go negative, assets must be sold in a down market to raise cash to pay benefits, locking in losses. Selling assets / realizing losses makes a recovery even more challenging due to the resulting smaller asset base. It is with this understanding that our investment objectives focus on greater portfolio diversification, which can help dampen investment losses, softening the impact of cash outflows while a portfolio is sustaining investment losses.

Portfolio Diversification



Equities are the primary driver of returns in most investment portfolios; equities also tend to be the riskiest assets in most investment portfolios. Accordingly, the primary objective of portfolio diversification efforts is to help balance the risks of equities.

Market returns are unpredictable and investment portfolios must be durable and able to withstand periods of time when equities underperform. The graph to the left shows a wide range of returns across asset classes that have occurred just over the past five years.

While it's natural to focus on our most recent market experiences when forming future expectations, as long-term investors we must look across decades and be prepared for a variety of outcomes.

US equity markets have delivered historically strong returns over the past decade – surpassing all other global public markets. But as recently as the 2000s decade (January 2000 through December 2009), the 10-year annualized return of the S&P 500 was -0.9%.

Recommendations for Retirement Plan

The University's Financial Management Policy for the Retirement Plan (CRR 530.020) provides the following guidance for asset allocation:

With a pension plan closed to new participants, annual contributions going into the plan will decline over time, leaving a closed plan increasingly reliant on investment income and, ultimately, plan assets to fund the plan's liabilities. As such, reducing the risk and volatility of the plan's investments becomes increasingly important as the plan matures in closure.

Given the new economic regime which has emerged post-COVID, with the relative normalization of interest rates, the resulting changes in capital market return assumptions have presented an opportunity to revisit asset allocation for the Retirement Plan. Starting with a broad range of options, we are able to present two new asset mix options which meet the criteria of the University's Financial Management Policy (to reduce risk). As shown on the following page, alternate mix options A and B both exceed the retirement plan's 7% assumed actuarial return, and both have lower risk levels as compared to current investment policy.

	Current Policy	Mix A	Mix B	Mix C	Mix D
Global Equity	34	34	34	48	-
US Equity	-	-	-	-	80
Private Equity	13	13	13	13	-
US TIPS	9	-	-	-	-
US Treasuries	8	8	20	10	-
Core Fixed Income	-	8	9	10	20
Private Debt	6	8	8	8	-
Real Estate	13	11	11	11	-
Commodities	5	3	5	-	-
Risk Balanced	12	-	-	-	-
Absolute Return HF	22	15	20	-	-
Leverage	-22	-	-20	-	-
Total Portfolio	100	100	100	100	100
Expected Return %	8.4	7.8	8.1	7.6	5.8
Risk %	12.3	10.9	11.3	12.5	12.8
Sharpe Ratio	0.35	0.34	0.36	0.28	0.14
Probability of Full Funding in 10 Years %	42	32	37	34	24
Net Funding Cost over 10 Years – 50 th percentile outcome (\$ billions)	0.55	0.91	0.73	0.99	1.83
Net Funding Cost over the 2000s Decade Stress Test (\$ billions)	1.96	2.23	1.90	2.50	4.05

Recommendation – Mix B

As an alternative to our current Policy Portfolio, Mix B is recommended by Staff, the University's Investment Consultant and the Investment Advisory Committee as it exceeds the actuarial assumed return by 1.1%, and produces the best risk-adjusted return among all mixes (Sharpe Ratio of 0.36). As compared to the current Policy Portfolio, Mix B offers a meaningful 1.0% reduction in portfolio risk, dropping from 12.3% to 11.3%, while only giving up 0.3% in return. Mix B had the lowest cumulative cost of any mix (including the current Policy Portfolio) in our 2000s Decade stress test.

Mix B also offers meaningful simplification by eliminating two existing asset classes (US TIPS, Risk Balanced) and reducing portfolio leverage from 22% to 20%, while focusing nearly all of the levered portfolio exposure to US Treasuries.

No Leverage Option – Mix A

While not recommended, if the primary objective is further portfolio simplification, Mix A removes leverage from the portfolio, meets the objectives of the Financial Management Policy, achieves the lowest portfolio risk of any mix, but with an annual return projection of 0.6% less than the current Policy Portfolio (7.8% vs. 8.4%), and 0.3% less than Mix B (7.8% vs. 8.1%). As a result, Mix A would significantly increase Retirement Plan funding costs in both Stochastic and Stress Test modeling.

Recommendations for Endowment Pool

The University’s Investment Policy for the Endowment Pool (CRR 140.013) states the following investment objectives:

The Endowment Pool must be managed to provide ongoing support of endowed programs in perpetuity, in conformance with donor stipulations. To accomplish this, investment returns, net of inflation, should be sufficient over time to cover annual spending distributions while maintaining or growing the underlying purchasing power of each endowed gift.

More specifically, the Endowment Pool has a return objective of 7.75%, which is equal to the following: 4.00% annual spending distribution + 1.25% administrative fee + 2.50% current 10-year inflation assumption.

Historically, the Endowment Pool’s asset allocation has closely tracked the Retirement Plan. As the Endowment Pool continues to grow in relative sizing, and the Retirement Plan continues to reduce risk in accordance with its Financial Management Policy, the University continues to seek further differentiation in asset allocation for the Endowment Pool as compared to the Retirement Plan. The University continues to pursue marginal changes in asset allocation to make the Endowment Pool more “endowment-like” and less “pension-like.” As discussed above, a key component of this objective will be continuing to increase our private equity exposures over time.

	Current <u>Policy</u>	<u>Mix A</u>	<u>Mix B</u>	<u>Mix C</u>	<u>Mix D</u>
Global Equity	35	38	42	46	-
US Equity	-	-	-	-	80
Private Equity	15	17	18	19	-
US TIPS	10	-	-	-	-
US Treasuries	8	-	-	-	-
Core Fixed Income	-	10	10	9	20
Private Debt	7	8	9	10	-
Real Estate	10	9	8	7	-
Commodities	3	3	3	-	-
Risk Balanced	12	-	-	-	-
Absolute Return HF	22	15	10	9	-
Leverage	-22	-	-	-	-
Total Portfolio	100	100	100	100	100
Expected Return %	8.4	8.0	8.0	8.0	5.8
Risk %	12.5	12.2	12.9	13.5	12.8
Sharpe Ratio	0.34	0.32	0.30	0.29	0.14

Alternative mixes A, B and C all satisfy the Endowment Pool’s minimum 7.75% return requirement. Each of these three mixes offers some simplification in asset allocation as compared to the current Policy Portfolio, through the elimination of portfolio leverage, US TIPS, US Treasuries and Risk Balanced. Each also takes steps to increase equity exposure, becoming more “endowment-like” through greater allocations to public and private equity. Yet each has an expected return 0.4% less than the current Policy Portfolio

(8.0% as compared to 8.4%), with increasingly lower risk adjusted returns as measured by the Sharpe Ratio (0.34 for Policy Portfolio as compared to 0.32, 0.30 and 0.29 for alternate Mixes A, B, and C, respectively).

Recommendation – Mix A

As an alternative to our current Policy Portfolio, Mix A is recommended by Staff, the University's Investment Consultant and Investment Advisory Committee. This mix increases allocations to Global Equity, Private Equity and Private Debt. It simplifies the portfolio by eliminating US TIPS, US Treasuries, Risk Balanced and leverage while offering the same expected return with a lower level of risk as compared to either Mix B or Mix C. Mix A also moves the asset allocation policy to be more like our university endowment peers, a long-term overriding goal.

Summary of Proposed Changes to Collected Rules and Regulations

CRR 140.012 *Investment Policy for General Pool*

- Section D(2) – removes existing definition for Core Fixed Income, replaced by a reference to CRR 140.017 *Policy for Allowable Investments*, which contains asset class definitions for all three portfolios in one central location.
- Section D(3)(B) – changes the characterization of the limit on Venture Capital from a fixed dollar amount (\$5 million) to a limit of no more than 0.5% of the combined Core and Strategic portfolios, which adapts for growth of the General Pool over time while still significantly limiting exposure.

CRR 140.013 *Investment Policy for Endowment Pool*

- Section C – removes language on portable alpha / leverage from Investment Objectives.
- Section D – updates Asset Class Targets and Allowable Ranges for recommended Mix A.
- Section G – existing Portable Alpha Section removed.

CRR 140.015 *Investment Policy for Retirement, Disability and Death Benefit Plan*

- Section D - updates Asset Class Targets and Allowable Ranges for recommended Mix B.

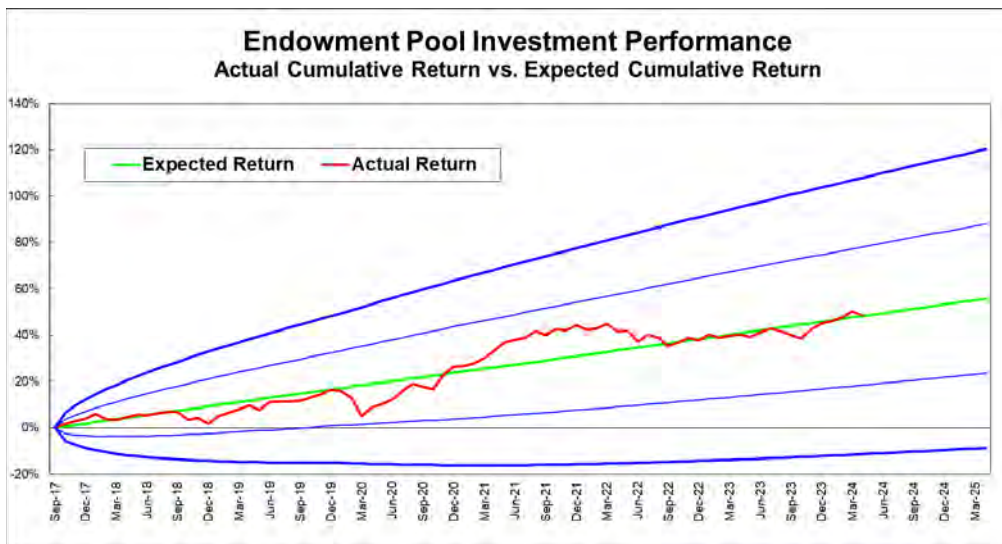
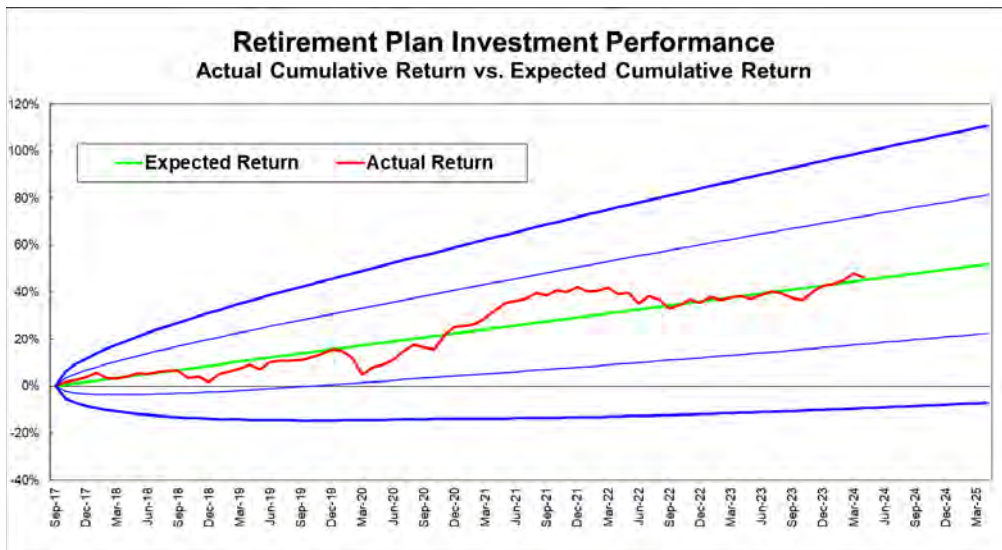
CRR 140.017 *Policy for Allowable Investments*

- Section C(4) – existing section for Inflation-Linked Bonds is replaced with a new section for Core Fixed Income, which has been moved here from CRR 140.012 *Investment Policy for General Pool*. The Core Fixed Income asset class has been added to recommended mixes for Retirement and Endowment.

APPENDIX

The Reliability of Asset Allocation Modeling

Expectations for asset allocation modeling are that projected returns and risk characteristics will be “directionally correct” over a longer period of time. To that point, it can be instructive to examine past results, comparing what was expected vs. what actually happened. The following “cone charts” document the expected portfolio returns for both Retirement and Endowment, starting in 2017 when the current diversified portfolio strategies were first adopted. The green line is the cumulative expected mean return modeled during asset allocation exercises. The thin blue lines represent one standard deviation from the mean; the thick blue lines represent two standard deviations. Given basic statistics, we would expect returns to be within the thin blue lines approximately 2/3 of the time.



With nearly seven years of actual results, we can see that the actual cumulative return for each portfolio (red line) tracks well with expected results; we remain on track with what had been expected through several modeling exercises that have occurred since 2017.

Private Equity Overview

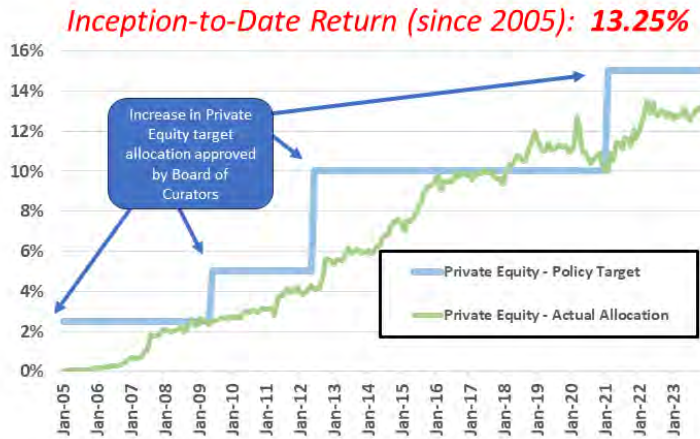
Private equity represents an opportunity for sophisticated institutional investors to deploy long-term, patient capital into largely inefficient markets through funds managed by private equity firms for purposes of acquiring, growing, and improving the profitability of businesses. The University's private equity program targets primarily smaller-to-medium sized businesses at favorable valuations relative to growth potential, with stronger probabilities for overall business improvements through the intentional, active involvement of aligned experts within each private equity firm. Private equity investments are generally not available to individual investors.

The University's private equity program is highly diversified. The Retirement portfolio is managed by more than 30 private equity firms with combined investments in 700 different companies across more than 20 industry sub-sectors.

Sector	Industry	Number of Companies	Current Balance	Weighting
Information Technology	Software	191	\$105M	21.8%
	Equipment, IT Services, Semiconductors, Hardware	47	\$16M	3.3%
Health Care	Health Care - Equipment, services, technology & providers	76	\$62M	12.8%
	Biotechnology	86	\$37M	7.6%
	Life Sciences Tools, Services, Pharmaceuticals	17	\$14M	2.9%
Industrials	Commercial Services & Supplies	11	\$20M	4.1%
	Aerospace & Defense	6	\$17M	3.6%
	Machinery	15	\$15M	3.0%
	Construction & Engineering	6	\$13M	2.8%
	Air Freight & Logistics, Electrical Equipment, Transportation, Professional Services	22	\$18M	3.8%
Consumer Discretionary	Specialty Retail	18	\$29M	6.1%
	Textiles, Apparel, Luxury Goods, and Broadline Retail	11	\$21M	4.3%
	Automotive, Consumer Services, Household Durables, Leisure Products	29	\$16M	3.4%
Financials	Capital Markets, Consumer Finance, Financial Services, Insurance	58	\$31M	6.3%
Utilities	Water Utilities and Independent Power	4	\$20M	4.1%
Communication Services	Media, Telecommunications, Entertainment	41	\$14M	2.9%
Consumer Staples	Food, personal and household products	29	\$14M	2.8%
Real Estate	REITS - Various Property Types	21	\$11M	2.3%
Materials	Chemicals and Construction Materials	4	\$6M	1.2%
Energy	Equipment, Services and Fuels	10	\$5M	1.0%
Total		702	\$482M	100.0%

The Endowment Pool's private equity program is equally diversified. Likewise, the University's other private markets programs in real estate and private debt are structured similarly. Details on these programs are included in the appendix.

Private equity has been the best performing asset class in our portfolios, net of fees. First launched in 2005, private equity has an inception-to-date return of 13.25%, which has easily exceeded modeled expectations during past asset allocation studies. For reference, the annualized return of the S&P 500 index was 9.9% over this same time period.



<u>Board Approval</u>	<u>Policy Target</u>	<u>Assumed Return</u>
6/4/2009	5%	12.0%
9/26/2012	10%	10.7%
2/4/2021	15%	9.5%

Actual Private Equity returns have exceeded all modeled return expectations since program inception 18 years ago.

Over the past 10 years, our Private Equity portfolio returns have exceeded: 1) our global public equity portfolio returns by 7.0% annualized, net of fees; and, 2) the S&P 500 by 2.4% annualized, net of fees.

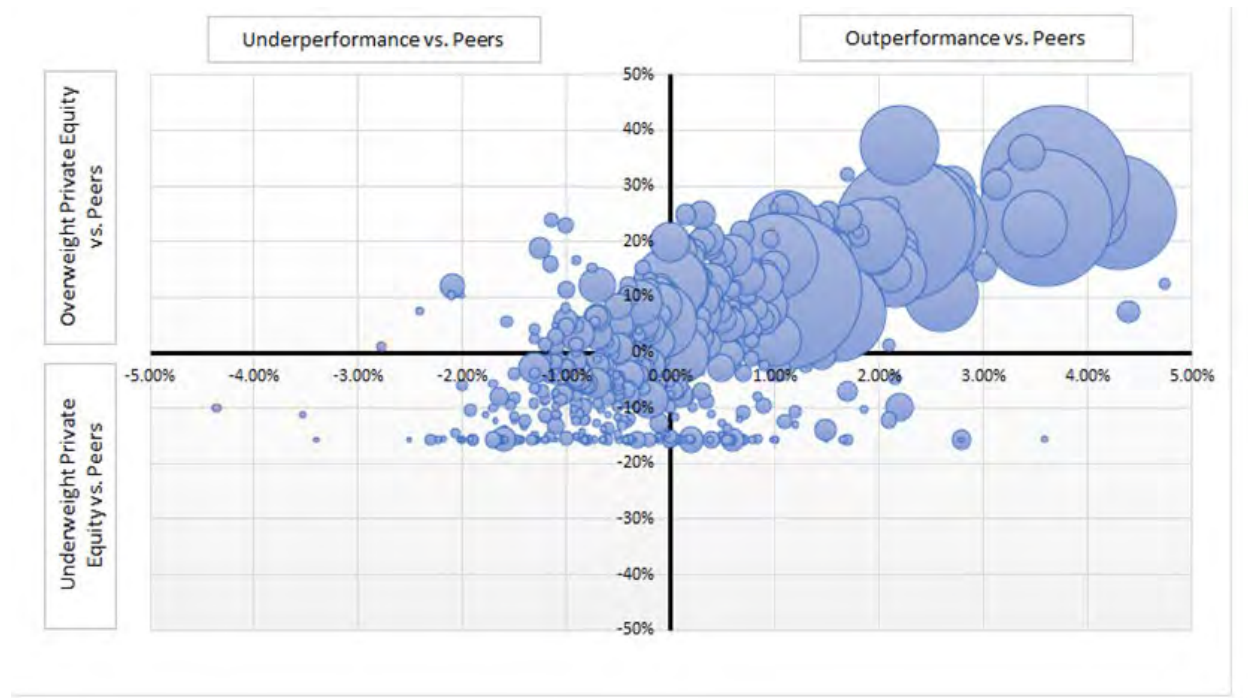
Capital market return assumptions for the next 10 years show continued private equity outperformance of 2.1% and 3.1% annually over global and US public equity, respectively.

Our current private markets target (inclusive of private equity, private debt and private real estate) for Retirement is 5% below the median (34%) for the 100 largest US public pension plans.

Among member institutions of the SEC, Big 10, Big 12 and ACC, our current private markets target for the Endowment Pool is ranked 46 out of 53 total institutions (i.e., near the bottom).

Specific to endowments generally, the data is clear: there is a direct relationship between sizing of private equity within an endowment and the total return of an endowment.

The following illustrates this relationship over the past 10 years:



The data, extracted from the FY23 NACUBO endowment report, clearly shows that endowments with an overweight to private equity relative to the peer universe median also have total 10 year returns above the peer universe median. More private equity has translated into higher total endowment returns. Further, with each institution represented by a bubble, it's also clear that larger endowments have higher allocations to private equity than smaller endowments (which is intuitive as skill and resources are needed to access private equity). One of our ongoing objectives in Endowment asset allocation has been to continue to increase our allocations to private equity in an effort to increase returns (consistent with what the peer data shows). To be clear, the performance of our private equity portfolio has been strong – we just have significantly less exposure to private equity as compared to our endowment peers.

As a final point, as a matter of math, with current capital market return assumptions, we would be unable to achieve our return targets for Retirement (7.00%) and Endowment (7.75%) without existing allocations to our private market's asset classes.

US Equities – Past Performance and Outlook

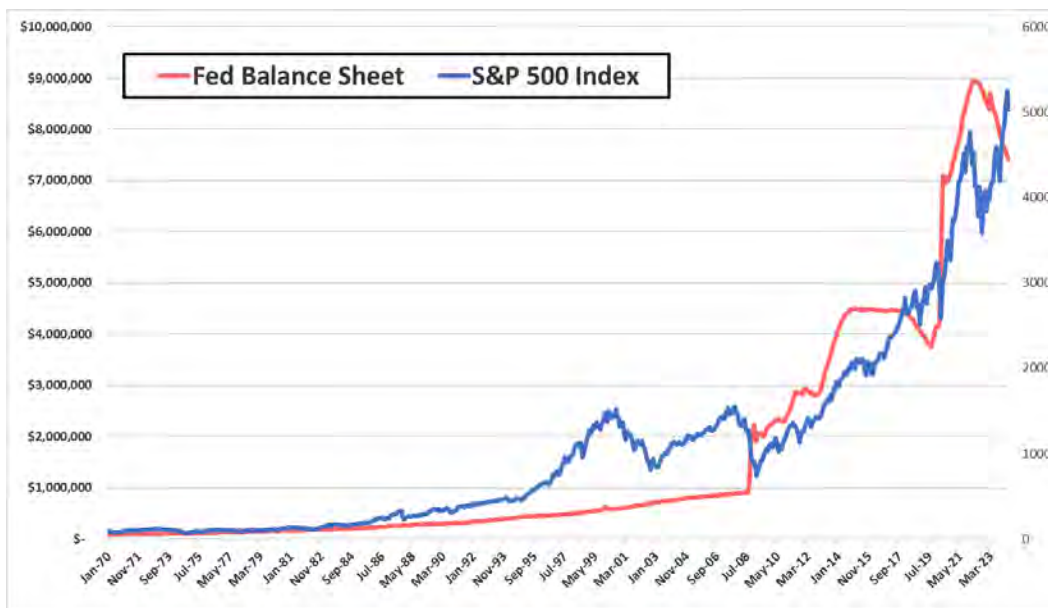
US equities have undeniably delivered the best returns of any public market asset class in the world over the past decade. In fact, US equities have delivered returns over the past decade stronger than any other 10 year period in the history of US equities. A portfolio dominated by US equities over the past 10 years has had stellar performance; over this same time period, relative to US equities, portfolio diversification has not delivered.

While this trend for US equities could certainly continue, there are several key factors to consider when thinking about the next 10 years vs. the past 10 years:

Starting Equity Valuations
 Inflation
 Fed Policy
 Geopolitical Risks
 Globalization
 Pro-Business Backdrop
Source: Bridgewater

	2010s	2020s
Starting Equity Valuations	Cheap	Expensive
Inflation	Low	Moderate
Fed Policy	Easy	Tight
Geopolitical Risks	Moderate	Elevated
Globalization	Increasing	Decreasing
Pro-Business Backdrop	Yes	No

To expand on the remarkable nature of the past 10 years, the following graph shows the price level of the S&P 500 index since 1970. The first observation is that the recent past cannot be considered “normal” for markets when viewed over the past 50 years. Further, although there are many factors to consider, there appears to be a meaningful relationship between recent unprecedented growth in US equities at a time of unprecedented growth in the Federal Reserve’s balance sheet. The recent run of the S&P 500 generally began around the same time as the emergence of very easy Fed policy, with massive injections of liquidity into markets following the 2008-09 financial crisis, followed by even more market liquidity from both the Fed and federal fiscal policies post-COVID.



While US equities easily outperformed a diversified portfolio over the past 10 years, one should exercise caution when thinking about the next 10 years. Based on changes in the fundamental market trends discussed above, it is more likely than not that diversification will outperform going forward.

Portfolio Leverage (Portable Alpha)

Consistent with our investment objectives, leverage has been utilized in Retirement and Endowment since 2015 to improve risk management through greater portfolio diversification gained primarily from meaningful exposures to US government securities which can offer protection against drawdowns in times of market stress. The challenge with inclusion of government securities into portfolios has been expected returns much lower than policy objectives. However, exposures to US government securities can be easily and safely implemented through common derivative instruments traded on highly regulated exchanges with

deep, liquid markets. The utilization of these instruments allows exposures to US government securities to be stacked on top of other asset classes. In our own case, we've utilized very specialized hedge funds as the base asset class, which have been engineered to deliver fairly consistent returns uncorrelated with things like equities and bonds (also called "alpha"). The following is a simple illustration of combining US Treasuries with our tailored hedge fund ("alpha") portfolio, based on current return expectations:

	A	B	A x B
<u>Asset Class</u>	<u>Allocation</u>	Expected <u>Return</u>	
US Treasuries	100%	4.8%	4.8%
Hedge Funds	100%	7.1%	7.1%
Leverage Cost ¹	-100%	4.4%	-4.4%
<i>Combined Return</i>			<u>7.5%</u>

¹ Leverage cost is estimated as the assumed cash return plus a financing spread of approximately 0.30% (4.40% = 4.10% + 0.30%)

As standalone portfolio line items, the expected return of hedge funds exceeds the 7.0% policy objective for Retirement, while US Treasuries falls well short given its 4.8% expected return. Yet Treasuries can be very diversifying / protective in most times of market stress. Because US Treasuries can be implemented with common derivative instruments requiring very little cash, we can add our US Treasuries exposure "on top" of the capital allocation to hedge funds. As illustrated above, even with the costs of leverage, the combined return of both asset classes together is expected to be 7.5%.

Using the same example, let's review how this levered combination would have performed in FY22, which was one of the worst years for investment portfolios since the 2008-09 financial crisis. As a reminder, our Retirement portfolio lost 1.8% in FY22, with public equities down 20% (a 60/40 passive portfolio was down about 12% in FY22).

Here are actual asset class results from Retirement in FY22 as applied to this example:

	A	B	A x B
<u>Asset Class</u>	<u>Allocation</u>	Actual <u>Return</u>	
US Treasuries	100%	-3.85%	-3.85%
Hedge Funds	100%	7.45%	7.45%
Leverage Cost ¹	-100%	0.16%	-0.16%
<i>Combined Return</i>			<u>3.44%</u>

Even though US Treasuries were down 3.85% (due to the Fed increasing interest rates), the combination of US Treasuries and hedge funds would have returned 3.44%. And that's in a year when public equities were down 20%.

Leverage as implemented for Retirement and Endowment has improved the risk characteristics of our portfolios through greater diversification. The Office of Investments has successfully implemented this program since 2015.



PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS



MAY 2024

University of Missouri

Retirement & Endowment Asset Allocation for Asset-Liability Analysis

APPENDIX - OPEN - CONSENT - L-27

September 12, 2024

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Analysis of asset mixes –
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***Past performance is no guarantee of future results.** This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Additional information about Verus Advisory, Inc. is available on the SEC’s website at www.adviserinfo.sec.gov. Verus – also known as Verus Advisory™.*

I. Introduction

Verus investment philosophy

At Verus, we think about our *Investment Philosophy* in terms of six components:

1. Return objectives, tolerance for risk, and the strategic mission of the enterprise should drive strategic asset allocation.

2. Risk-free rates and risk premia drive most market returns and are themselves influenced by market and economic fundamentals.

3. Investment skill exists, and the deployment of active management where inefficiencies can be exploited is often essential to achieving investment success in both public and private markets.

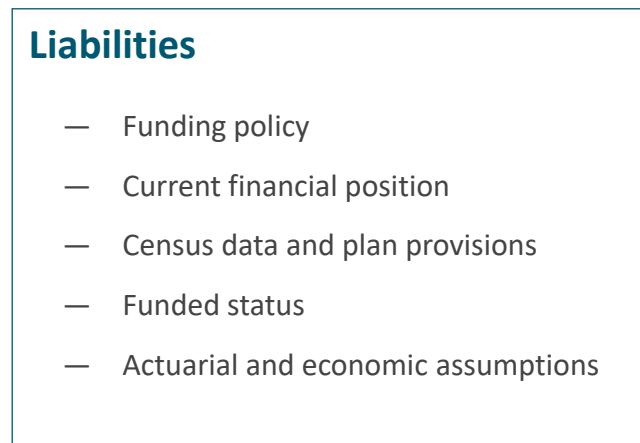
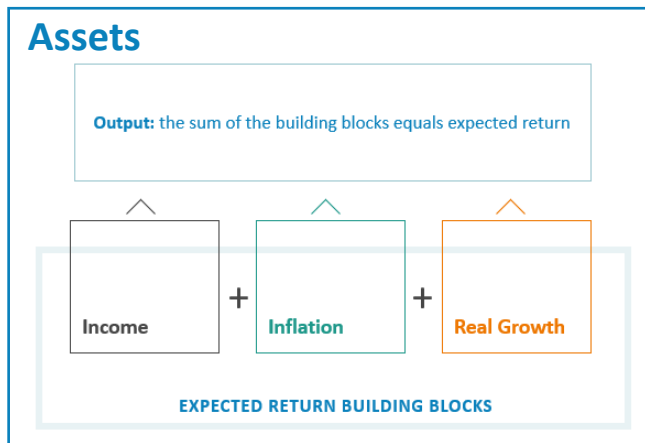
4. Fees and costs must be managed and minimized where appropriate.

5. Good results can best be achieved by managing uncertainty using varied risk management tools, complemented by discipline, skepticism and humility.

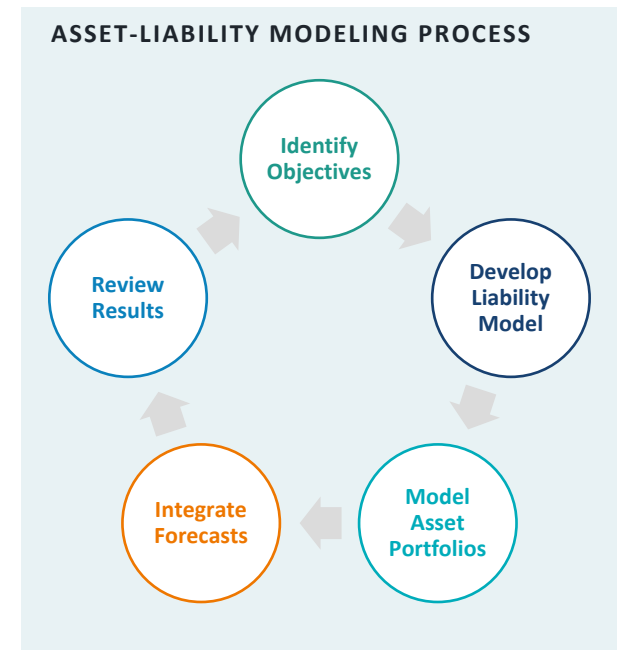
6. A portfolio should be as simple as possible for the goals it is designed to achieve. Investment complexity requires strong governance and appropriate investment oversight.

Asset allocation

Our approach is designed to meet **prospect's** enterprise objectives

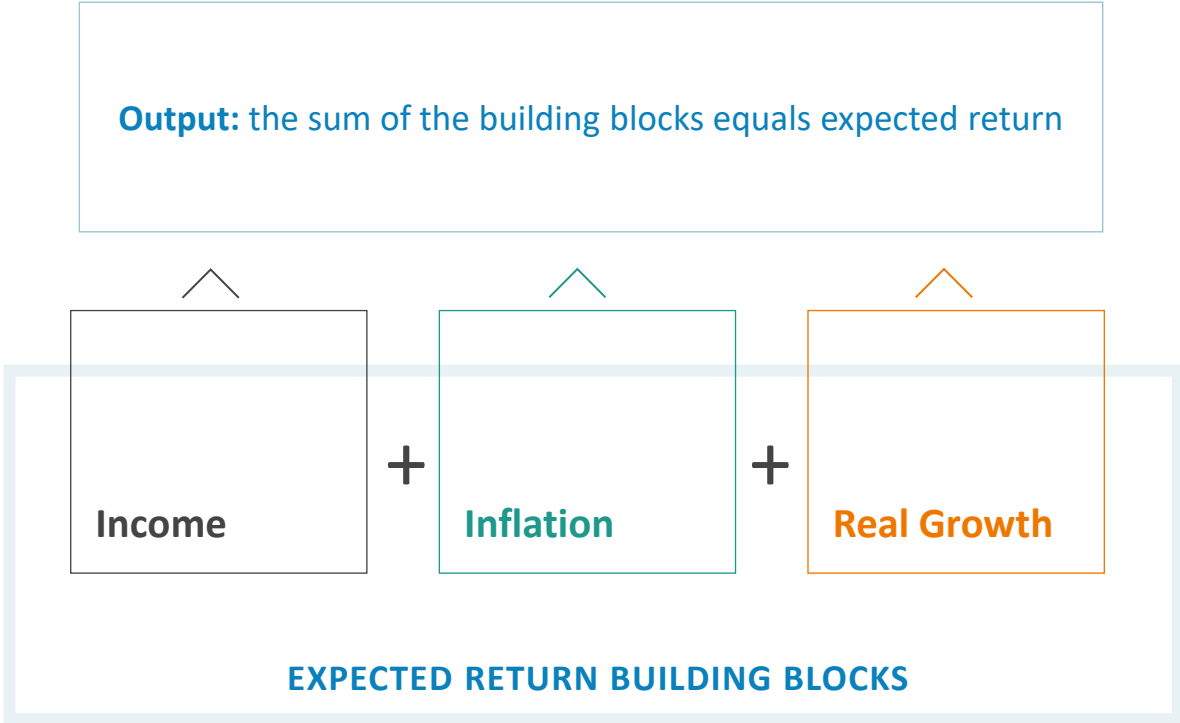


Holistic approach integrates **prospect's** liabilities and assets to support Board policy decision



II. Capital market assumptions

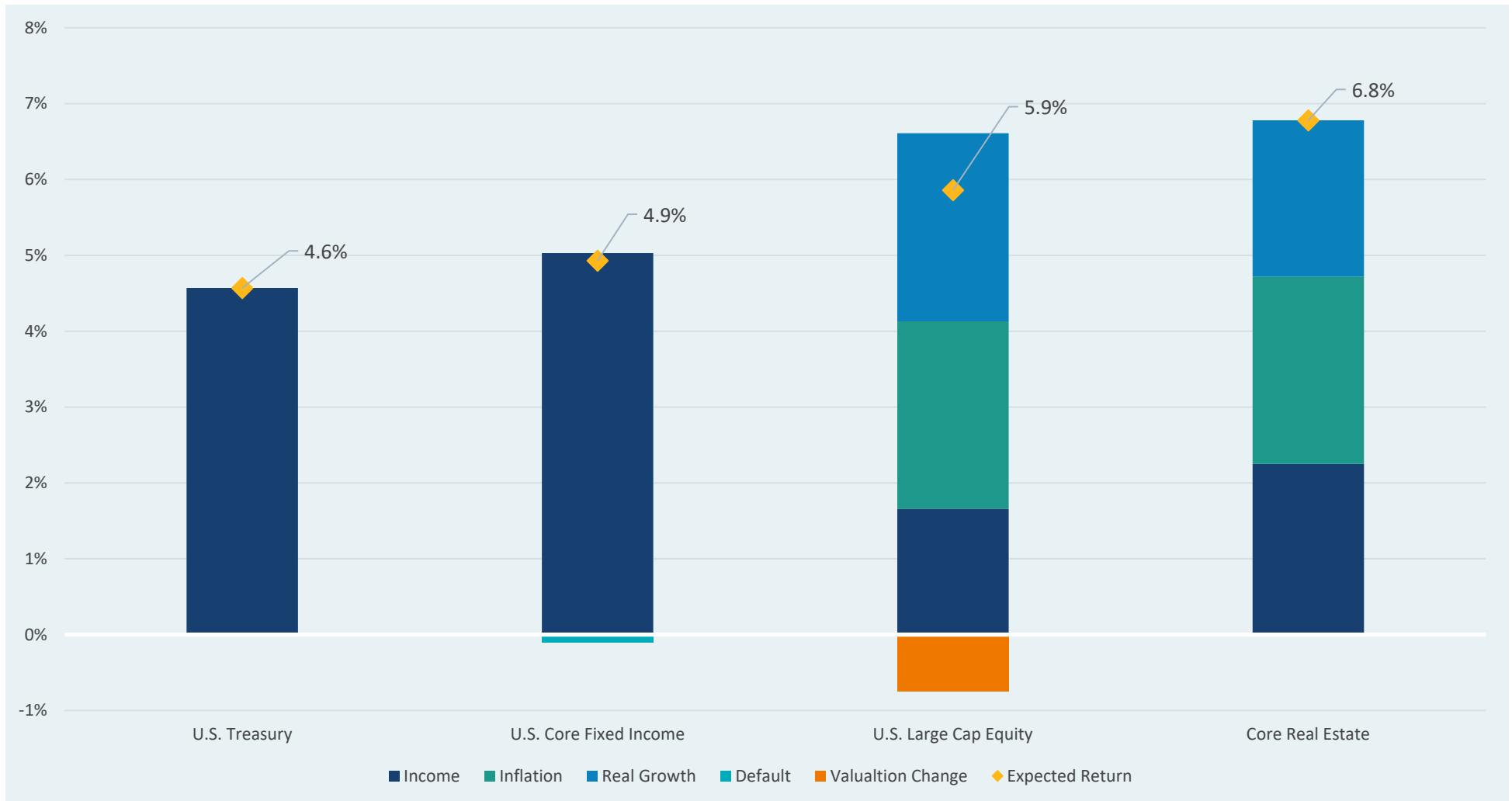
Capital market assumptions



Verus follows a disciplined methodology that has evolved over decades, and which is based on rigorous academic research and real-world experience

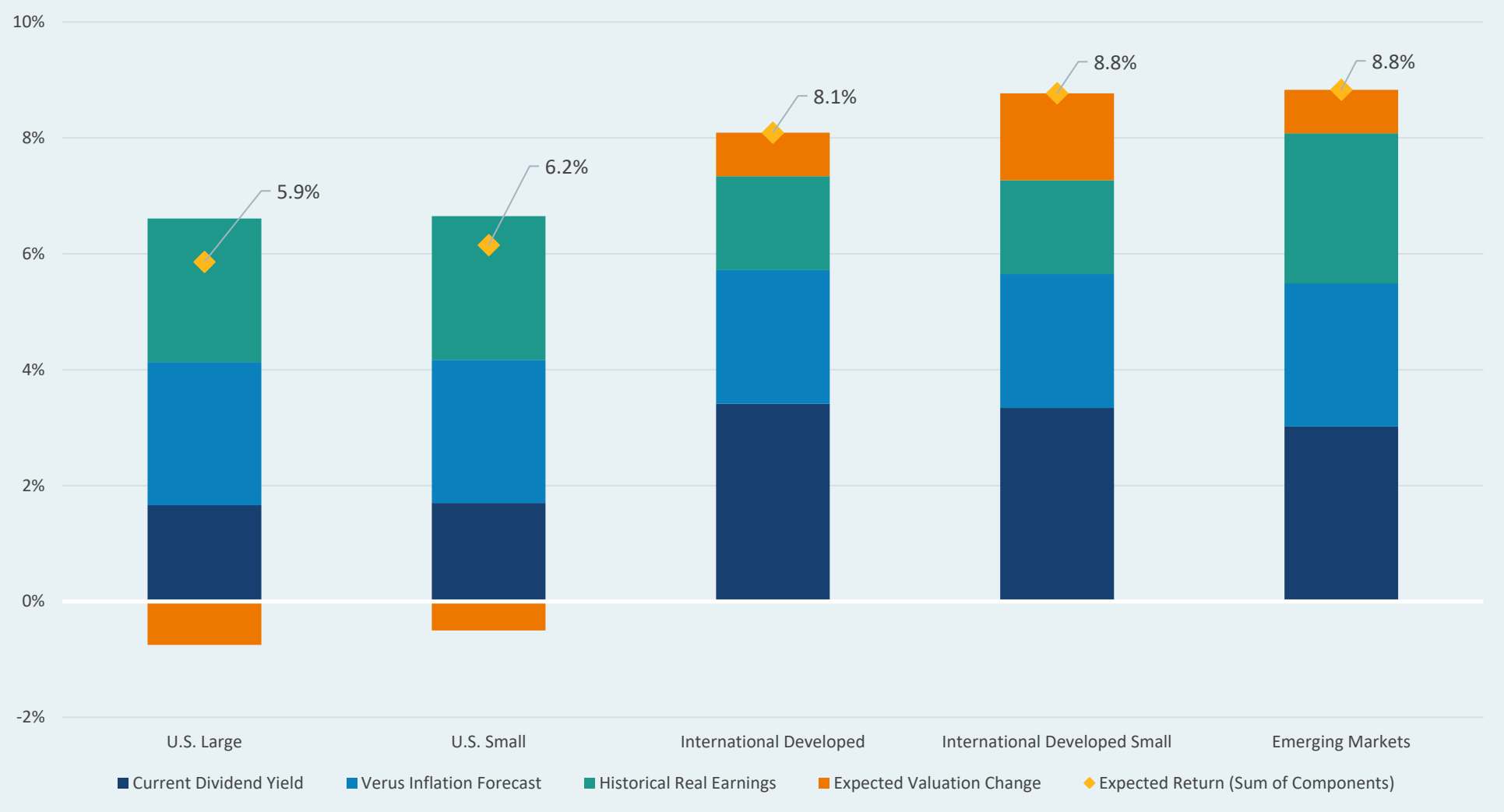
For illustrative purposes only

Fixed income return methodology



Source: Verus

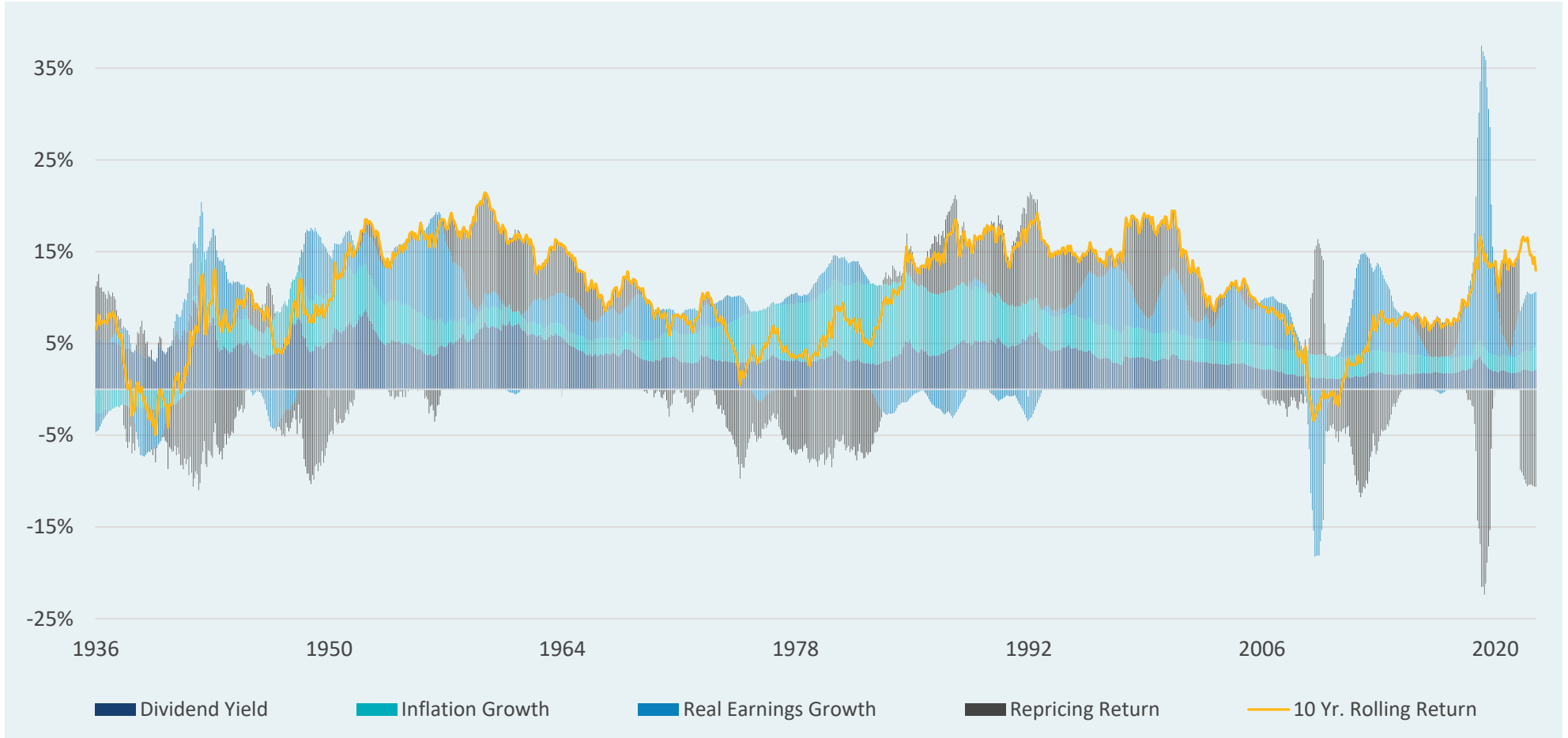
Equity return methodology



Source: Verus

Equity

Trailing 10-year return decomposition



Source: Robert Shiller data, as of 6/30/22

Detailed CMA methodology

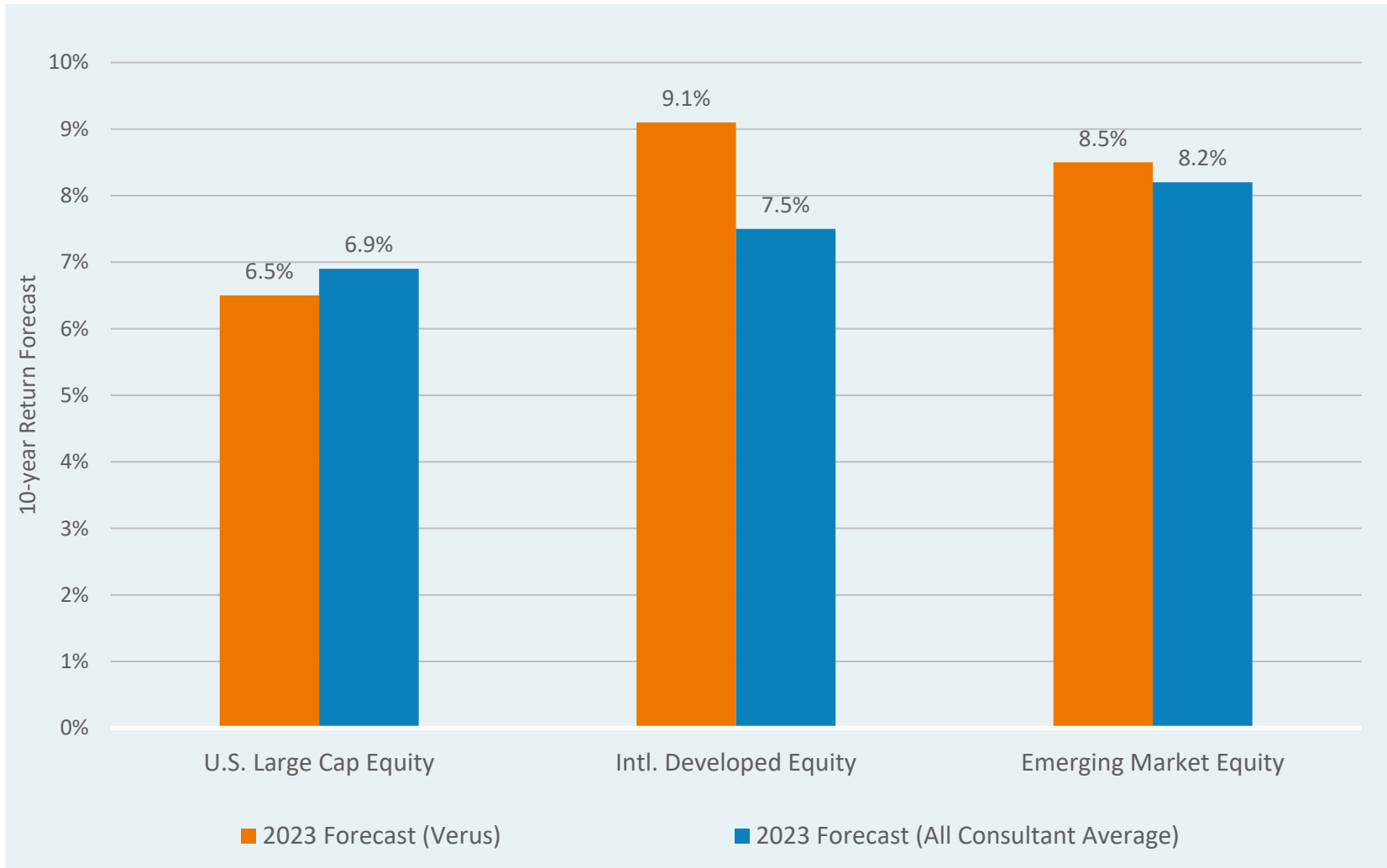
CORE INPUTS

- We use a fundamental building block approach based on several inputs, including historical data and academic research to create asset class return forecasts.
- For most asset classes, we use the long-term historical volatility after adjusting for autocorrelation.
- Correlations between asset classes are calculated based on the last 10 years. For illiquid assets, such as private equity and private real estate, we use BarraOne correlation estimates.

Asset	Return Methodology	Volatility Methodology*
Inflation	25% weight to the University of Michigan Survey 5-10 year ahead inflation expectation and the Survey of Professional Forecasters (Fed Survey), and the remaining 50% to the market's expectation for inflation as observed through the 10-year TIPS breakeven rate	-
Cash	75% * current federal funds rate + 25% * U.S. 10-year Treasury yield	Long-term volatility
Bonds	Nominal bonds: current yield; Real bonds: real yield + inflation forecast	Long-term volatility
International Bonds	Current yield	Long-term volatility
Credit	Current option-adjusted spread + U.S. 10-year Treasury – effective default rate	Long-term volatility
International Credit	Current option-adjusted spread + foreign 10-year Treasury – effective default rate	Long-term volatility
Private Credit	Levered gross return (LIBOR + spread + original issuance discounts) – management fees – carried interest	Estimated volatility
Equity	Current yield + real earnings growth (historical average) + inflation on earnings (inflation forecast) + expected P/E change	Long-term volatility
Intl Developed Equity	Current yield + real earnings growth (historical average) + inflation on earnings (intl. inflation forecast) + expected P/E change	Long-term volatility
Private Equity	US large cap domestic equity forecast * 1.85 beta adjustment	1.2 * Long-term volatility of U.S. small cap
Commodities	Collateral return (cash) + spot return (inflation forecast) + roll return (assumed to be zero)	Long-term volatility
Hedge Funds	Return coming from traditional betas + 15-year historical idiosyncratic return	Long-term volatility
Core Real Estate	Cap rate + real income growth – capex + inflation forecast	65% of REIT volatility
REITs	Core real estate	Long-term volatility
Value-Add Real Estate	Core real estate + 2%	Volatility to produce Sharpe Ratio (g) equal to core real estate
Opportunistic Real Estate	Core real estate + 3%	Volatility to produce Sharpe Ratio (g) equal to core real estate
Infrastructure	Current yield + real income growth + inflation on earnings (inflation forecast)	Long-term volatility
Risk Parity	Expected Sharpe Ratio * target volatility + cash rate	Target volatility

*Long-term historical volatility data is adjusted for autocorrelation (see Appendix)

Peer comparison

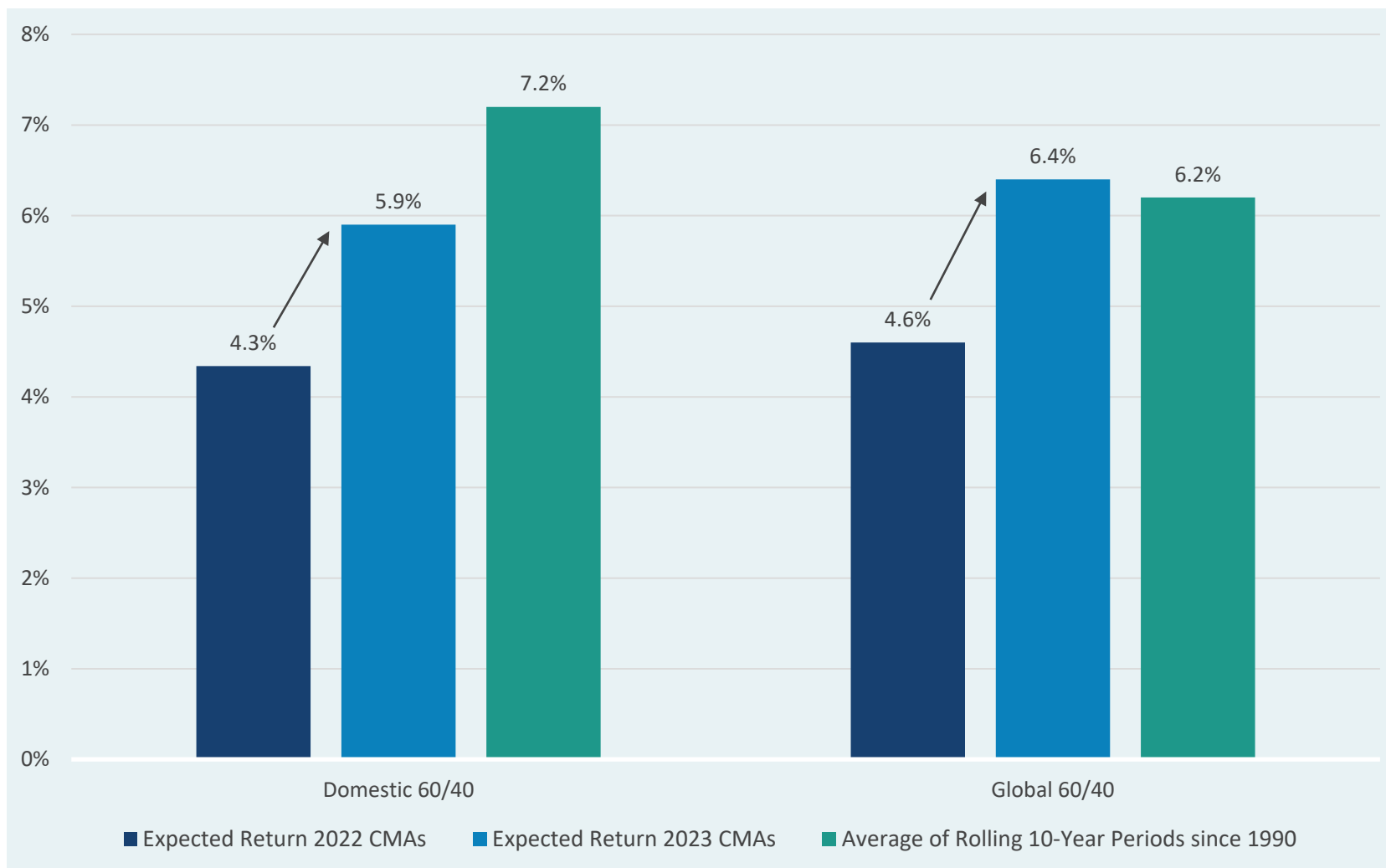


Horizon Actuarial publishes annually the average Capital Market Forecasts of investment consultants

The most recent report (CMAs of one year prior) shows that Verus forecasts were roughly in line with peers

Note: Horizon Actuarial Services survey of capital market assumptions 2023 edition, published August 2023 (note that the comparison is of CMAs one year older than the current Verus forecasts). This survey included 42 investment consultants.

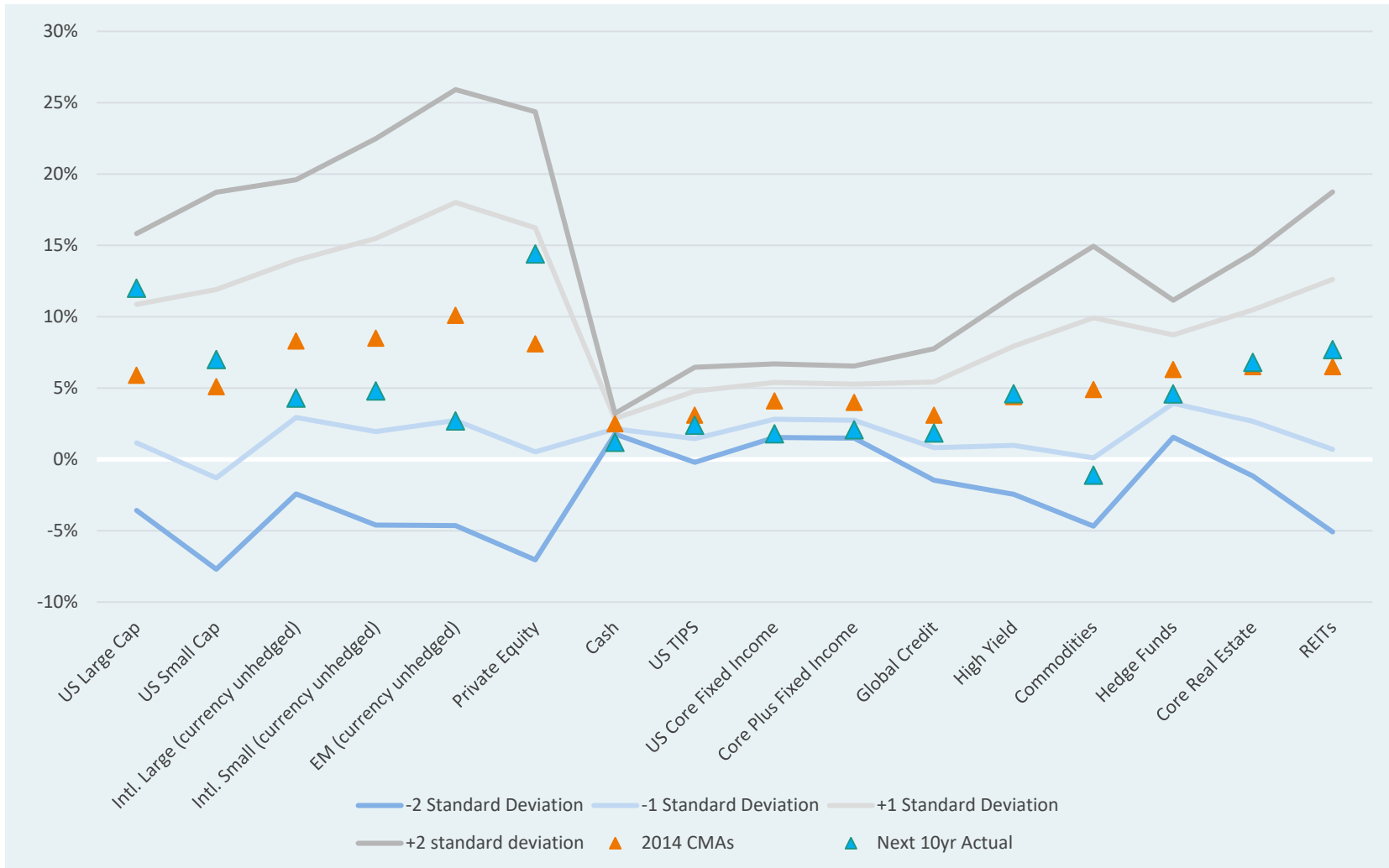
Portfolio expected returns



Rising interest rates and cheaper asset valuations have significantly boosted portfolio expected returns

Source: Verus, as of 9/30/22 - indices used include the S&P 500 Index, MSCI ACWI Index, and Bloomberg U.S. Aggregate Index

Historical forecasting accuracy



Accuracy of our 2014 capital market assumptions

Source: Verus

III. Analysis of asset mixes – Retirement

Portfolio statistics – Retirement

Asset Class	Target Allocations (%)						2024 CMA (w/Custom PA Return)		
	UM Retirement Policy	UM Retirement Mix A	UM Retirement Mix B	UM Retirement Mix C	UM Retirement Mix D	Median InvestorForce Public DB	Expected Return	Risk	Sharpe Ratio
Global Equity	34	34	34	48		52	6.9	16.8	0.17
US Large Cap Equity					80		5.9	15.6	0.11
Private Equity	13	13	13	13		7	9.0	25.6	0.19
US TIPS	9						4.7	5.6	0.11
US Treasury (Aggregate)	8	8	20	10			4.8	5.2	0.14
Core Fixed Income		8	9	10	20	27	4.9	4.9	0.16
UM Private Debt (Blended CMA)	6	8	8	8			9.4	12.5	0.43
UM Real Estate (Value Add CMA)	13	11	11	11			8.8	15.6	0.30
Core Real Estate						10	6.8	12.7	0.21
Commodities	5	3	5			3	6.6	16.1	0.16
Risk Parity 10 Vol	12						7.2	10.0	0.31
UM Portable Alpha/HF (Cash+3)	22	15	20				7.1	6.9	0.43
Cash (or Implicit Leverage)	-22		-20				4.1	1.2	0.00
	100	100	100	100	100	100			
Expected Return %	8.4	7.8	8.1	7.6	5.8	7.0			
Risk %	12.3	10.9	11.3	12.5	12.8	11.8			
Sharpe Ratio	0.35	0.34	0.36	0.28	0.14	0.24			
Expected Return %	8.4	7.8	8.1	7.6	5.8	7.0			
Minus Expected 10-Yr Inflation %	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5			
Expected Real Return %	5.9	5.3	5.6	5.1	3.3	4.5			
Actuarial Assumed Rate %	7.0	7.0	7.0	7.0	7.0	7.0			
Minus Actuarial Assumed Inflation %	-2.2	-2.2	-2.2	-2.2	-2.2	-2.2			
Actuarial Assumed Real Return %	4.8	4.8	4.8	4.8	4.8	4.8			

Expected returns are assumed to be either passive (traditional asset classes) or net of fees (alternatives).

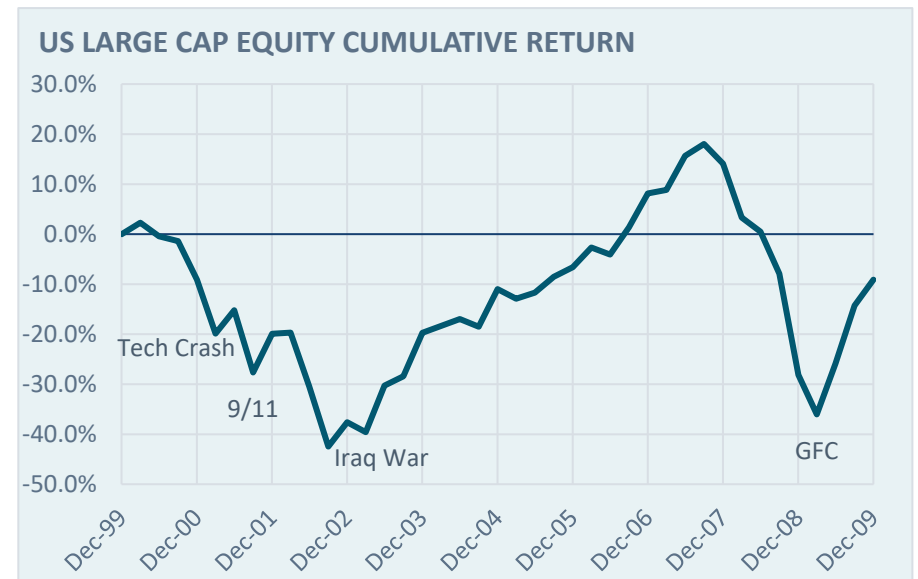
Data source: MPI

“Lost Decade” Scenario

Applying the market outcomes of the 2000-2009 to the current situation of the Retirement Plan

- In addition to incorporating Verus Capital Market Assumptions in their study, Milliman was asked to simulate plan outcomes under historical return scenarios
- Of particular interest: the decade of the 2000s
- Following Japan’s first lost decade of the 1990s, the US stock market had a lost decade in the 2000s
- Consecutive financial and geopolitical crises resulted in a near-zero ten-year annualized return to the S&P 500
 - Tech Crash (2000)
 - 9/11 (2001)
 - Iraq War Buildup/Oil Shock (2002-2003)
 - Global Financial Crisis (2007-2008)
- This scenario is especially concerning for closed (negative cash flow) plans:
 - Less ability to “buy the dips”
 - Buildup of unfunded liability less mitigated by contributions

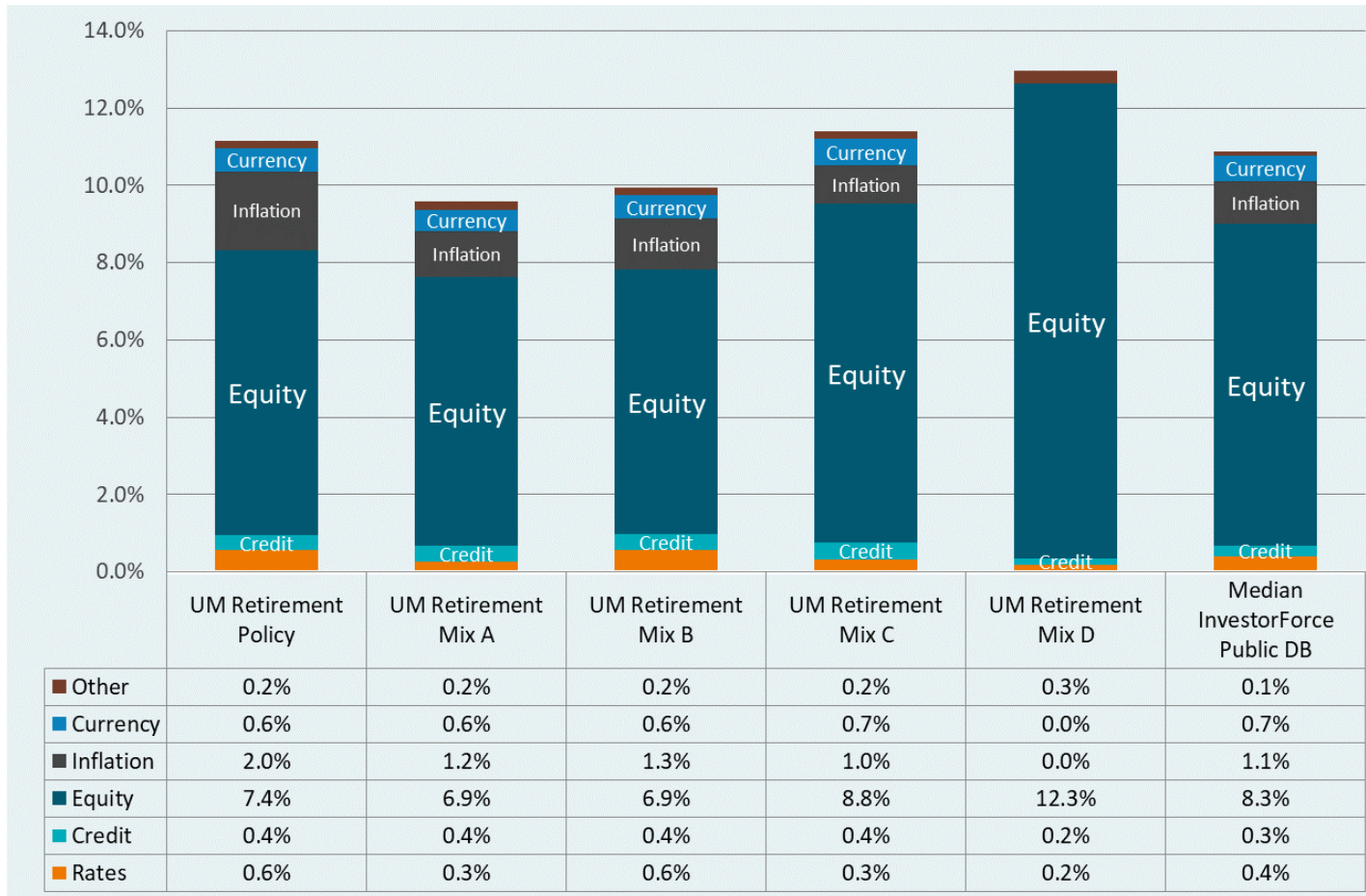
Asset Class	Representative Index	2000-2009 Annualized Return %
Global Equity	MSCI ACWI GR USD	0.9
US Large Cap Equity	S&P 500 TR USD	-0.9
Private Equity	Cambridge Associates US Private Equity	8.6
US TIPS	Bloomberg US Treasury US TIPS TR USD	7.7
US Treasury (Aggregate)	Bloomberg US Treasury TR USD	6.2
Core Fixed Income	Bloomberg US Agg Bond TR USD	6.3
Leveraged Loans	Morningstar LSTA US LL Index TR USD	4.7
Commodities	Bloomberg Commodity TR USD	7.1
Core Real Estate	NCREIF Property	7.3
Hedge Funds	HFRI Fund of Funds Composite Index	4.0
Hedge Funds (Low Beta)	HFRI Macro: Systematic Diversified Index	9.0



Data source: MPI

Risk decomposition – Retirement

RISK CONTRIBUTION BY FACTOR CATEGORY



Contribution to volatility is a means to understand where risk is coming from in your overall portfolio

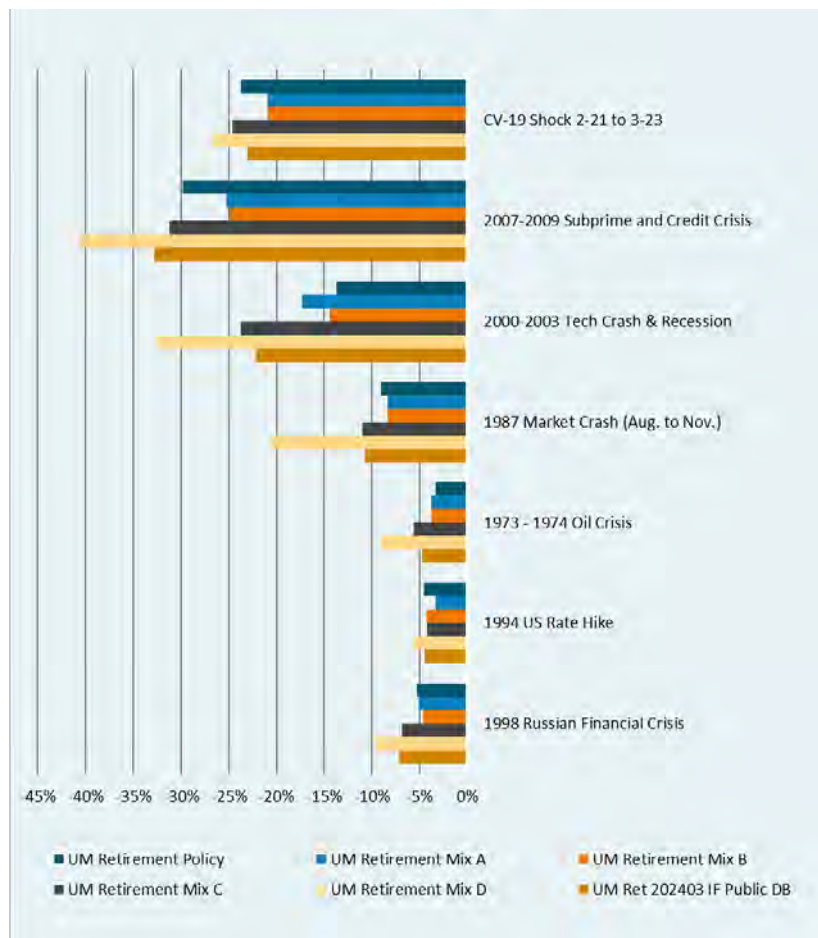
Equity risk dominates long-term institutional portfolios

The current Retirement Fund policy aims to minimize this risk while still striving to achieve excellent long-term returns

Source: MSCI BARRA MAC.L factor model

Tail risk analysis – Retirement

TAIL RISK - SCENARIO ANALYSIS



TAIL RISK - STRESS TESTS



Different risk factors dominate during different market shocks.

A factor analysis allows us to see how each asset mix responds

The current Retirement Fund policy limits drawdowns in most scenarios relative to peers and the 80/20 low-fee passive alternative (Mix D)

Mixes A and B provide additional downside protection in sharp downturn scenarios like CV-19 but not in prolonged bear market scenarios like 2000-2003

Source: MSCI BARRA MAC.L factor model

III. Analysis of asset mixes – Endowment

Portfolio statistics – Endowment

Asset Class	Target Allocations (%)					NACUBO Peer Endowment Avg	2024 CMA (w/Custom PA Return)		
	UM Endowment Policy	UM Endowment Mix A	UM Endowment Mix B	UM Endowment Mix C	UM Endowment Mix D		Expected Return	Risk	Sharpe Ratio
Global Equity	35	38	42	46		31	6.9	16.8	0.17
US Large Cap Equity					80		5.9	15.6	0.11
UM Private Equity (Direct CMA)	15	17	18	19		30	9.0	25.6	0.19
US TIPS	10						4.7	5.6	0.11
US Treasury (Aggregate)	8						4.8	5.2	0.14
Core Fixed Income		10	10	9	20	6	4.9	4.9	0.16
UM Private Debt (Blended CMA)	7	8	9	10		2	9.4	12.5	0.43
UM Real Estate (Value Add CMA)	10	9	8	7		9	8.8	15.6	0.30
Commodities	3	3	3			4	6.6	16.1	0.16
Risk Parity 10 Vol	12						7.2	10.0	0.31
UM Portable Alpha/HF (Cash+3)	22	15	10	9		16	7.1	6.9	0.43
Cash (or Implicit Leverage)	-22					3	4.1	1.2	0.00
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>			
Expected Return %	8.4	8.0	8.0	8.0	5.8	8.2			
Risk %	12.5	12.2	12.9	13.5	12.8	13.7			
Sharpe Ratio	0.34	0.32	0.30	0.29	0.14	0.30			
Expected Return %	8.4	8.0	8.0	8.0	5.8				
Less Expected Benefits %	-4.0	-4.0	-4.0	-4.0	-4.0				
Less Expected Admin Fee %	-1.25	-1.25	-1.25	-1.25	-1.25				
Less Expected 10-Yr Inflation %	-2.5	-2.5	-2.5	-2.5	-2.5				
Expected Real Growth %	<u>0.6</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>-1.9</u>				

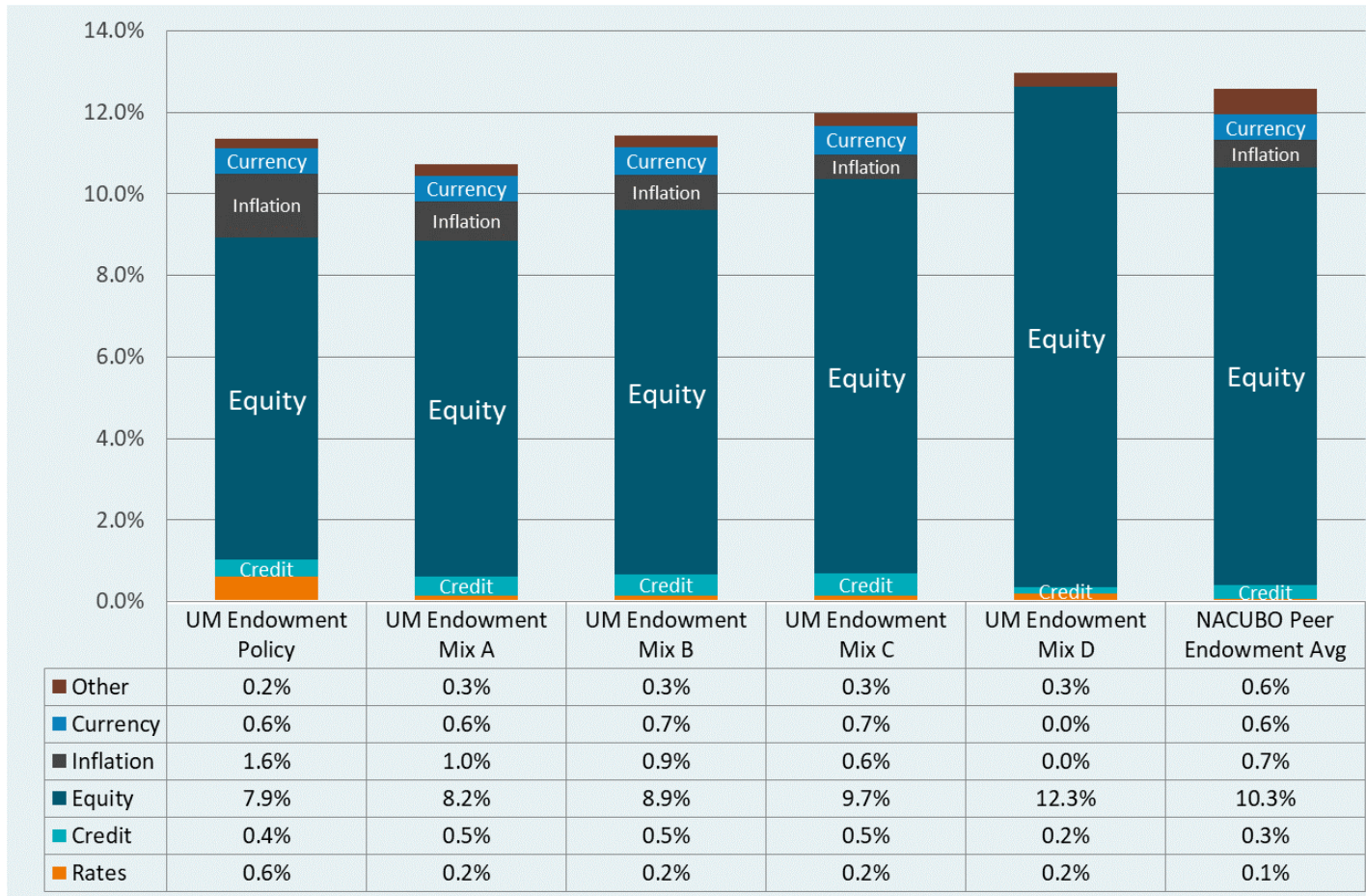
Except for the low-fee alternative (Mix D), we expect that all the lower-risk mixes would continue to provide modest real long-term growth of principal

Expected returns are assumed to be either passive (traditional asset classes) or net of fees (alternatives).

Source: MPI

Risk decomposition – Endowment

RISK CONTRIBUTION BY FACTOR CATEGORY



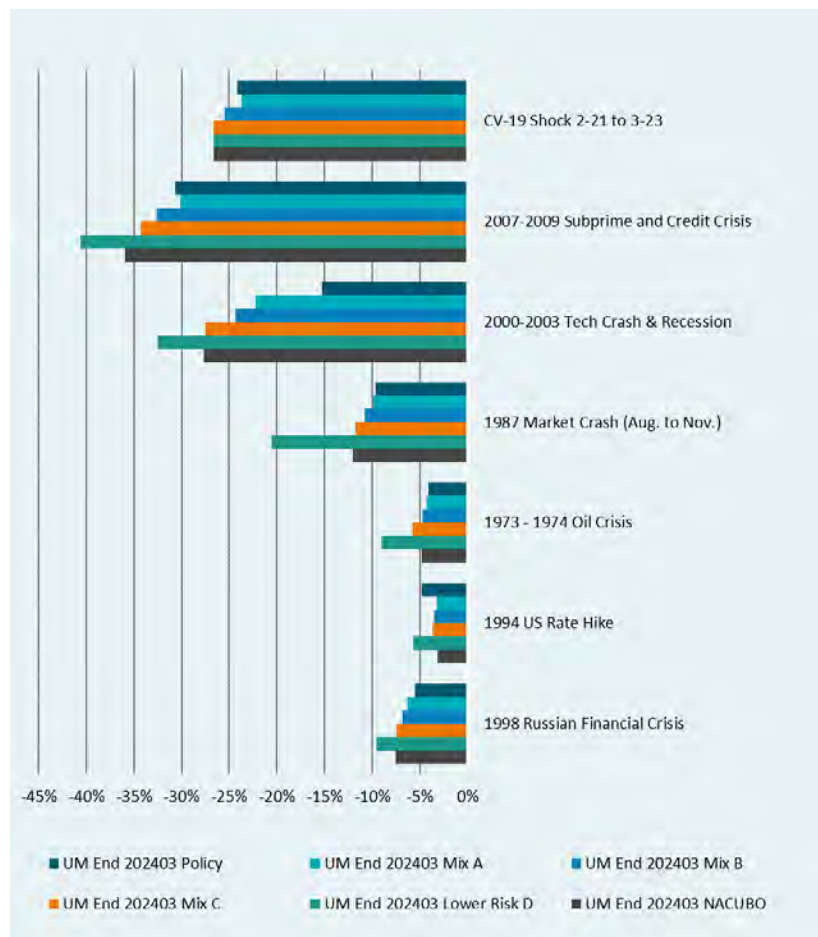
Equity risk dominates long-term institutional portfolios, especially endowment funds

The current Endowment Pool policy aims to mitigate this risk while still striving to achieve excellent long-term returns

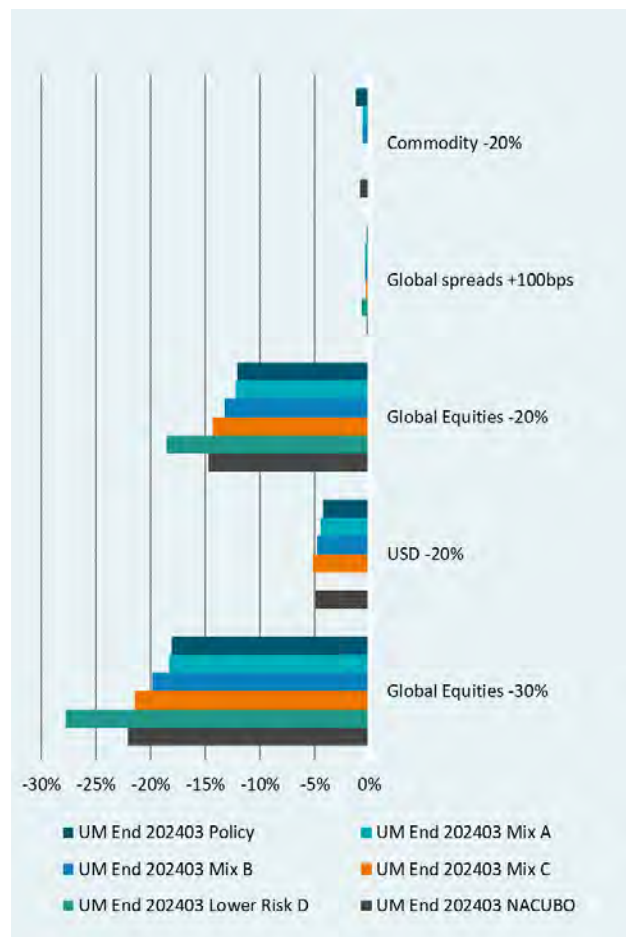
Source: MSCI BARRA MAC.L factor model

Tail risk analysis – Endowment

TAIL RISK - SCENARIO ANALYSIS



TAIL RISK - STRESS TESTS



The current Endowment Pool policy limits drawdowns in most scenarios relative to peers and the alternative mixes

However, the unlevered alternative Mix A (with more Private Equity) performed slightly better in the GFC and COVID scenarios

Source: MSCI BARRA

IV. Appendix

2024 10-year return & risk assumptions

Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio Forecast (g)	Sharpe Ratio Forecast (a)	10-Year Historical Sharpe Ratio (g)	10-Year Historical Sharpe Ratio (a)
		Geometric	Arithmetic					
Equities								
U.S. Large	S&P 500	5.9%	7.0%	15.5%	0.12	0.19	0.72	0.75
U.S. Small	Russell 2000	6.2%	8.2%	21.4%	0.10	0.19	0.28	0.37
International Developed	MSCI EAFE	8.1%	9.5%	17.6%	0.23	0.31	0.18	0.25
International Small	MSCI EAFE Small Cap	8.8%	10.9%	21.7%	0.22	0.31	0.20	0.27
Emerging Markets	MSCI EM	8.8%	11.4%	24.6%	0.19	0.30	0.06	0.14
Global Equity	MSCI ACWI	6.9%	8.2%	16.7%	0.17	0.25	0.44	0.50
Global Equity ex USA	MSCI ACWI ex USA	8.5%	10.2%	19.5%	0.23	0.31	0.15	0.22
Private Equity	CA Private Equity	8.0%	10.9%	25.6%	0.15	0.27	-	-
Private Equity Direct	CA Private Equity	9.0%	11.8%	25.6%	0.19	0.30	-	-
Private Equity (FoF)	CA Private Equity	7.0%	9.9%	25.6%	0.11	0.23	-	-
Fixed Income								
Cash	30 Day T-Bills	4.1%	4.1%	1.1%	-	-	-	-
U.S. TIPS	Bloomberg U.S. TIPS 5-10	4.7%	4.8%	5.5%	0.11	0.13	0.13	0.15
Non-U.S. Inflation Linked Bonds	Bbg World Govt. Inflation Linked Bond ex U.S.	3.9%	4.2%	7.4%	(0.03)	0.01	(0.15)	(0.11)
U.S. Treasury	Bloomberg Treasury 7-10 Year	4.6%	4.8%	7.1%	0.07	0.10	(0.05)	(0.02)
Long U.S. Treasury	Bloomberg Treasury 20+ Year	4.7%	5.5%	13.2%	0.05	0.11	0.00	0.25
Global Sovereign ex U.S.	Bloomberg Global Treasury ex U.S.	2.7%	3.2%	9.9%	(0.14)	(0.09)	(0.40)	(0.36)
Global Aggregate	Bloomberg Global Aggregate	4.1%	4.3%	6.6%	0.00	0.03	(0.27)	(0.24)
Core Fixed Income	Bloomberg U.S. Aggregate Bond	4.9%	5.0%	4.8%	0.17	0.19	0.00	0.02
Core Plus Fixed Income	Bloomberg U.S. Universal	5.2%	5.3%	4.5%	0.24	0.27	0.07	0.09
Investment Grade Corp. Credit	Bloomberg U.S. Corporate Investment Grade	5.7%	6.0%	8.4%	0.19	0.23	0.17	0.20
Short-Term Gov't/Credit	Bloomberg U.S. Gov't/Credit 1-3 Year	4.7%	4.8%	3.6%	0.17	0.19	(0.07)	(0.07)
Short-Term Credit	Bloomberg Credit 1-3 Year	5.1%	5.2%	3.6%	0.28	0.31	0.23	0.24
Long-Term Credit	Bloomberg Long U.S. Credit	5.7%	6.3%	10.9%	0.15	0.20	0.15	0.20
High Yield Corp. Credit	Bloomberg U.S. Corporate High Yield	6.6%	7.2%	11.0%	0.23	0.28	0.42	0.44
Bank Loans	Morningstar LSTA Leveraged Loan	8.0%	8.4%	9.0%	0.43	0.48	0.58	0.59
Global Credit	Bloomberg Global Credit	5.1%	5.4%	7.7%	0.13	0.17	0.01	0.04
Emerging Markets Debt (Hard)	JPM EMBI Global Diversified	8.7%	9.2%	10.6%	0.43	0.48	0.15	0.20
Emerging Markets Debt (Local)	JPM GBI-EM Global Diversified	6.5%	7.2%	12.2%	0.20	0.25	(0.17)	(0.12)
Private Credit	Morningstar LSTA Leveraged Loan	9.2%	9.8%	11.9%	0.43	0.48	-	-
Private Credit (Direct Lending - Unlevered)	Morningstar LSTA Leveraged Loan	8.0%	8.4%	9.0%	0.43	0.48	-	-
Private Credit (Direct Lending - Levered)	Morningstar LSTA Leveraged Loan	9.5%	10.2%	12.6%	0.43	0.48	-	-
Private Credit (Credit Opportunities)	Morningstar LSTA Leveraged Loan	9.6%	10.3%	12.8%	0.43	0.48	-	-
Private Credit (Junior Capital / Mezzanine)	Morningstar LSTA Leveraged Loan	9.0%	9.6%	11.4%	0.43	0.48	-	-
Private Credit (Distressed)	Morningstar LSTA Leveraged Loan	9.1%	12.7%	29.1%	0.17	0.30	-	-

Investors wishing to produce expected geometric return forecasts for their portfolios should use the arithmetic return forecasts provided here as inputs into that calculation, rather than the single-asset-class geometric return forecasts. This is the industry standard approach, but requires a complex explanation only a heavy quant could love, so we have chosen not to provide further details in this document – we will happily provide those details to any readers of this who are interested.

2024 10-year return & risk assumptions

Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio Forecast (g)	Sharpe Ratio Forecast (a)	10-Year Historical Sharpe Ratio (g)	10-Year Historical Sharpe Ratio (a)
		Geometric	Arithmetic					
Other								
Commodities	Bloomberg Commodity	6.6%	7.8%	16.1%	0.16	0.23	(0.13)	(0.06)
Hedge Funds	HFRI Fund Weighted Composite	4.3%	4.6%	7.5%	0.03	0.07	0.48	0.49
Hedge Fund of Funds	HFRI Fund of Funds Composite	3.3%	3.6%	7.5%	(0.11)	(0.07)	-	-
Hedge Funds (Equity Style)	Custom HFRI Benchmark Mix*	7.2%	8.1%	14.1%	0.22	0.28	-	-
Hedge Funds (Credit Style)	Custom HFRI Benchmark Mix*	7.3%	7.7%	9.4%	0.34	0.38	-	-
Hedge Funds (Asymmetric Style)	Custom HFRI Benchmark Mix*	5.4%	5.6%	6.4%	0.20	0.23	-	-
Real Estate Debt	Bloomberg CMBS IG	7.4%	7.7%	7.5%	0.44	0.48	0.14	0.15
Core Real Estate	NCREIF Property	6.8%	7.5%	12.5%	0.22	0.27	-	-
Value-Add Real Estate	NCREIF Property + 200bps	8.8%	9.9%	15.4%	0.31	0.38	-	-
Opportunistic Real Estate	NCREIF Property + 300bps	9.8%	11.7%	21.1%	0.27	0.36	-	-
REITs	Wilshire REIT	6.8%	8.5%	19.2%	0.14	0.23	0.35	0.42
Global Infrastructure	S&P Global Infrastructure	8.4%	9.7%	16.9%	0.25	0.33	0.20	0.28
Risk Parity**	S&P Risk Parity 10% Vol Index	7.2%	7.8%	10.0%	0.31	0.37	-	-
Currency Beta	MSCI Currency Factor Index	2.3%	2.4%	3.4%	(0.52)	(0.49)	(0.06)	0.21
Inflation		2.5%	-	-	-	-	-	-

Investors wishing to produce expected geometric return forecasts for their portfolios should use the arithmetic return forecasts provided here as inputs into that calculation, rather than the single-asset-class geometric return forecasts. This is the industry standard approach, but requires a complex explanation only a heavy quant could love, so we have chosen not to provide further details in this document – we will happily provide those details to any readers of this who are interested.

*To represent hedge fund styles, we use a combination of HFRI benchmarks: Equity Style = 33% HFRI Fundamental Growth, 33% HFRI Fundamental Value, 33% HFRI Activist. Credit Style = 20% HFRI Distressed/Restructuring, 20% HFRI Credit Arbitrage, 20% HFRI Fixed Income-Corporate, 20% HFRI Fixed Income-Convertible Arbitrage, 20% HFRI Fixed Income-Asset Backed. Asymmetric Style = 50% HFRI Relative Value, 50% HFRI Macro

**The Risk Parity forecast shown here assumes a 10% target volatility strategy. We recommend customizing this forecast to the target volatility specifications of the risk parity strategy that an investor wishes to model. Please speak with your Verus consultant for customization needs.

2024 Correlation assumptions

	Cash	US Large	US Small	Intl Large	Intl Small	EM	Global Equity	PE	US TIPS	US Treasury	Global Sovereign ex-US	US Core	Core Plus	Short-Term Gov't/Credit	Short-Term Credit	Long-Term Credit	US HY	Bank Loans	Global Credit	EMD USD	EMD Local	Commodities	Hedge Funds	Real Estate	REITs	Infrastructure	Currency Beta	Risk Parity	
Cash	1.0																												
US Large	-0.1	1.0																											
US Small	-0.2	0.9	1.0																										
Intl Large	-0.1	0.9	0.8	1.0																									
Intl Small	-0.1	0.9	0.8	1.0	1.0																								
EM	-0.1	0.7	0.6	0.8	0.8	1.0																							
Global Equity	-0.1	1.0	0.9	0.9	0.9	0.8	1.0																						
PE	-0.2	0.7	0.7	0.6	0.6	0.6	0.7	1.0																					
US TIPS	-0.1	0.4	0.3	0.4	0.4	0.4	0.5	0.2	1.0																				
US Treasury	0.0	0.1	-0.1	0.0	0.0	0.1	0.1	-0.1	0.7	1.0																			
Global Sovereign ex-US	0.1	0.3	0.2	0.4	0.4	0.5	0.4	0.1	0.7	0.6	1.0																		
US Core	0.0	0.3	0.2	0.3	0.3	0.4	0.3	0.0	0.8	0.9	0.7	1.0																	
Core Plus	0.0	0.4	0.3	0.4	0.4	0.5	0.4	0.1	0.8	0.8	0.8	1.0	1.0																
Short-Term Gov't/Credit	0.2	0.2	0.0	0.2	0.2	0.3	0.2	0.0	0.7	0.8	0.6	0.8	0.8	1.0															
Short-Term Credit	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.2	0.6	0.5	0.7	0.7	0.8	0.7	1.0														
Long-Term Credit	0.0	0.5	0.4	0.5	0.5	0.5	0.6	0.2	0.8	0.7	0.7	0.9	0.9	0.6	0.8	1.0													
US HY	-0.1	0.8	0.8	0.8	0.8	0.7	0.8	0.5	0.6	0.1	0.5	0.4	0.6	0.3	0.6	0.7	1.0												
Bank Loans	-0.1	0.6	0.6	0.6	0.7	0.6	0.6	0.5	0.3	-0.2	0.2	0.1	0.3	0.0	0.5	0.4	0.8	1.0											
Global Credit	0.0	0.7	0.5	0.7	0.7	0.7	0.7	0.3	0.7	0.5	0.8	0.8	0.9	0.6	0.8	0.9	0.8	0.6	1.0										
EMD USD	-0.1	0.7	0.6	0.7	0.7	0.7	0.7	0.4	0.6	0.3	0.6	0.6	0.7	0.4	0.6	0.8	0.8	0.7	0.9	1.0									
EMD Local	0.0	0.5	0.4	0.7	0.6	0.8	0.7	0.4	0.4	0.2	0.6	0.4	0.5	0.4	0.5	0.6	0.7	0.5	0.8	0.8	1.0								
Commodities	-0.1	0.4	0.4	0.5	0.5	0.5	0.5	0.3	0.2	-0.2	0.2	0.0	0.1	0.0	0.2	0.1	0.5	0.5	0.3	0.4	0.4	1.0							
Hedge Funds	-0.1	0.8	0.9	0.8	0.9	0.8	0.9	0.6	0.3	-0.2	0.3	0.2	0.3	0.0	0.4	0.5	0.8	0.8	0.6	0.7	0.6	0.6	1.0						
Real Estate	-0.3	0.6	0.6	0.5	0.5	0.5	0.6	0.4	0.2	0.0	-0.1	0.1	0.2	0.0	-0.2	0.2	0.4	0.4	0.3	0.4	0.4	0.2	0.5	1.0					
REITs	-0.2	0.7	0.7	0.6	0.6	0.5	0.7	0.5	0.6	0.3	0.3	0.5	0.5	0.2	0.3	0.6	0.7	0.5	0.6	0.6	0.5	0.3	0.6	0.7	1.0				
Infrastructure	-0.2	0.8	0.7	0.8	0.8	0.7	0.8	0.6	0.5	0.1	0.5	0.4	0.5	0.2	0.5	0.6	0.8	0.7	0.7	0.8	0.7	0.6	0.8	0.6	0.7	1.0			
Currency Beta	-0.1	0.0	0.0	-0.2	-0.2	-0.2	-0.1	0.1	-0.2	-0.1	-0.3	-0.2	-0.2	-0.1	-0.3	-0.2	-0.1	-0.1	-0.3	-0.2	-0.2	-0.2	-0.1	0.1	0.0	-0.1	1.0		
Risk Parity	0.0	0.7	0.6	0.7	0.7	0.6	0.7	0.7	0.4	0.4	0.0	0.5	0.5	0.7	0.3	0.7	0.7	0.7	0.5	0.7	0.6	0.5	0.5	0.4	0.0	0.7	-0.2	1.0	

Note: as of 9/30/23 - Correlation assumptions are based on the last ten years. Private Equity and Real Estate correlations are especially difficult to model – we have therefore used BarraOne correlation data to strengthen these correlation estimates.

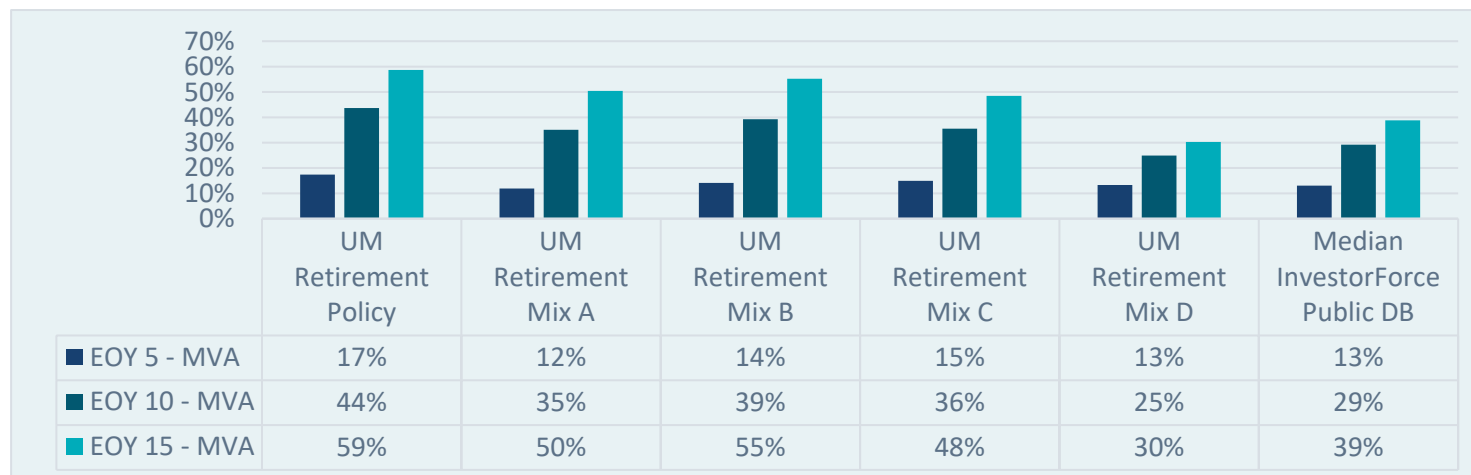
Full Detail of Correlation Assumptions

	Cash	US Large	US Small	International Developed	Emerging Markets	Global Equity	Private Equity	Private Equity (Direct)	US TIPS	US Treasury	US Long Treasury	Global Sovereign ex-US	Core Fixed Income	Emerging Market Debt (Hard)
Cash	1.00	-0.13	-0.17	-0.06	-0.05	-0.10	-0.15	-0.15	-0.12	-0.01	-0.02	0.09	-0.01	-0.06
US Large	-0.13	1.00	0.87	0.87	0.69	0.97	0.67	0.67	0.45	0.06	0.04	0.33	0.31	0.65
US Small	-0.17	0.87	1.00	0.77	0.63	0.86	0.66	0.66	0.32	-0.08	-0.09	0.20	0.17	0.55
International Developed	-0.06	0.87	0.77	1.00	0.80	0.95	0.65	0.65	0.43	0.06	0.02	0.44	0.33	0.72
Emerging Markets	-0.05	0.69	0.63	0.80	1.00	0.81	0.57	0.57	0.42	0.09	0.08	0.54	0.35	0.73
Global Equity	-0.10	0.97	0.86	0.95	0.81	1.00	0.69	0.69	0.47	0.07	0.04	0.41	0.33	0.72
Private Equity	-0.15	0.67	0.66	0.65	0.57	0.69	1.00	1.00	0.19	-0.06	-0.07	0.06	0.02	0.44
Private Equity (Direct)	-0.15	0.67	0.66	0.65	0.57	0.69	1.00	1.00	0.19	-0.06	-0.07	0.06	0.02	0.44
US TIPS	-0.12	0.45	0.32	0.43	0.42	0.47	0.19	0.19	1.00	0.76	0.69	0.66	0.82	0.59
US Treasury	-0.01	0.06	-0.08	0.06	0.09	0.07	-0.06	-0.06	0.76	1.00	0.93	0.58	0.89	0.33
US Long Treasury	-0.02	0.04	-0.09	0.02	0.08	0.04	-0.07	-0.07	0.69	0.93	1.00	0.55	0.86	0.32
Global Sovereign ex-US	0.09	0.33	0.20	0.44	0.54	0.41	0.06	0.06	0.66	0.58	0.55	1.00	0.73	0.62
Core Fixed Income	-0.01	0.31	0.17	0.33	0.35	0.33	0.02	0.02	0.82	0.89	0.86	0.73	1.00	0.61
Emerging Market Debt (Hard)	-0.06	0.65	0.55	0.72	0.73	0.72	0.44	0.44	0.59	0.33	0.32	0.62	0.61	1.00
Emerging Market Debt (Local)	0.04	0.54	0.43	0.69	0.82	0.66	0.43	0.43	0.45	0.22	0.19	0.66	0.43	0.81
Private Credit	-0.07	0.60	0.64	0.61	0.57	0.64	0.49	0.49	0.31	-0.16	-0.16	0.21	0.14	0.68
Private Credit (Direct Lending - Unlevered)	-0.07	0.60	0.64	0.61	0.57	0.64	0.49	0.49	0.31	-0.16	-0.16	0.21	0.14	0.68
Private Credit (Direct Lending - Levered)	-0.07	0.60	0.64	0.61	0.57	0.64	0.49	0.49	0.31	-0.16	-0.16	0.21	0.14	0.68
Private Credit (Credit Opportunities)	-0.07	0.60	0.64	0.61	0.57	0.64	0.49	0.49	0.31	-0.16	-0.16	0.21	0.14	0.68
Private Credit (Junior Capital - Mezzanine)	-0.07	0.60	0.64	0.61	0.57	0.64	0.49	0.49	0.31	-0.16	-0.16	0.21	0.14	0.68
Private Credit (Distressed)	-0.07	0.60	0.64	0.61	0.57	0.64	0.49	0.49	0.31	-0.16	-0.16	0.21	0.14	0.68
Value Add Real Estate	-0.24	0.58	0.54	0.50	0.47	0.58	0.43	0.43	0.20	-0.01	0.02	-0.12	0.09	0.42
Commodities	-0.13	0.44	0.45	0.50	0.51	0.50	0.28	0.28	0.22	-0.20	-0.26	0.23	-0.04	0.38
Hedge Fund	-0.13	0.82	0.86	0.83	0.76	0.87	0.59	0.59	0.32	-0.14	-0.12	0.31	0.18	0.67
Hedge Fund (Equity Style)	-0.13	0.87	0.90	0.87	0.77	0.91	0.59	0.59	0.36	-0.10	-0.09	0.34	0.23	0.69
Hedge Fund (Credit Style)	-0.18	0.62	0.69	0.68	0.65	0.69	0.58	0.58	0.30	-0.15	-0.15	0.22	0.13	0.70
UM Portable Alpha	-0.24	0.16	0.21	0.19	0.18	0.19	0.54	0.54	-0.12	-0.39	-0.37	-0.27	-0.31	0.25
Core Real Estate	-0.24	0.58	0.54	0.50	0.47	0.58	0.43	0.43	0.20	-0.01	0.02	-0.12	0.09	0.42
Risk Balanced 14 Vol	-0.03	0.72	0.67	0.75	0.63	0.76	0.43	0.43	0.63	0.28	0.24	0.67	0.55	0.70

	Emerging Market Debt (Local)	Private Credit (Direct Lending - Unlevered)	Private Credit (Direct Lending - Levered)	Private Credit (Credit Opportunities)	Private Credit (Junior Capital - Mezzanine)	Private Credit (Distressed)	Value Add Real Estate	Commodities	Hedge Fund	Hedge Fund (Equity Style)	Hedge Fund (Credit Style)	UM Portable Alpha	Core Real Estate	Risk Balanced 14 Vol
Cash	0.04	-0.07	-0.07	-0.07	-0.07	-0.07	-0.24	-0.13	-0.13	-0.13	-0.18	-0.24	-0.24	-0.03
US Large	0.54	0.60	0.60	0.60	0.60	0.60	0.58	0.44	0.82	0.87	0.62	0.16	0.58	0.72
US Small	0.43	0.64	0.64	0.64	0.64	0.64	0.54	0.45	0.86	0.90	0.69	0.21	0.54	0.67
International Developed	0.69	0.61	0.61	0.61	0.61	0.61	0.50	0.50	0.83	0.87	0.68	0.19	0.50	0.75
Emerging Markets	0.82	0.57	0.57	0.57	0.57	0.57	0.47	0.51	0.76	0.77	0.65	0.18	0.47	0.63
Global Equity	0.66	0.64	0.64	0.64	0.64	0.64	0.58	0.50	0.87	0.91	0.69	0.19	0.58	0.76
Private Equity	0.43	0.49	0.49	0.49	0.49	0.49	0.43	0.28	0.59	0.59	0.58	0.54	0.43	0.43
Private Equity (Direct)	0.43	0.49	0.49	0.49	0.49	0.49	0.43	0.28	0.59	0.59	0.58	0.54	0.43	0.43
US TIPS	0.45	0.31	0.31	0.31	0.31	0.31	0.20	0.22	0.32	0.36	0.30	-0.12	0.20	0.63
US Treasury	0.22	-0.16	-0.16	-0.16	-0.16	-0.16	-0.01	-0.20	-0.14	-0.10	-0.15	-0.39	-0.01	0.28
US Long Treasury	0.19	-0.16	-0.16	-0.16	-0.16	-0.16	0.02	-0.26	-0.12	-0.09	-0.15	-0.37	0.02	0.24
Global Sovereign ex-US	0.66	0.21	0.21	0.21	0.21	0.21	-0.12	0.23	0.31	0.34	0.22	-0.27	-0.12	0.67
Core Fixed Income	0.43	0.14	0.14	0.14	0.14	0.14	0.09	-0.04	0.18	0.23	0.13	-0.31	0.09	0.55
Emerging Market Debt (Hard)	0.81	0.68	0.68	0.68	0.68	0.68	0.42	0.38	0.67	0.69	0.70	0.25	0.42	0.70
Emerging Market Debt (Local)	1.00	0.51	0.51	0.51	0.51	0.51	0.37	0.45	0.56	0.58	0.52	0.19	0.37	0.57
Private Credit	0.51	1.00	1.00	1.00	1.00	1.00	0.39	0.51	0.78	0.77	0.92	0.48	0.39	0.56
Private Credit (Direct Lending - Unlevered)	0.51	1.00	1.00	1.00	1.00	1.00	0.39	0.51	0.78	0.77	0.92	0.48	0.39	0.56
Private Credit (Direct Lending - Levered)	0.51	1.00	1.00	1.00	1.00	1.00	0.39	0.51	0.78	0.77	0.92	0.48	0.39	0.56
Private Credit (Credit Opportunities)	0.51	1.00	1.00	1.00	1.00	1.00	0.39	0.51	0.78	0.77	0.92	0.48	0.39	0.56
Private Credit (Junior Capital - Mezzanine)	0.51	1.00	1.00	1.00	1.00	1.00	0.39	0.51	0.78	0.77	0.92	0.48	0.39	0.56
Private Credit (Distressed)	0.51	1.00	1.00	1.00	1.00	1.00	0.39	0.51	0.78	0.77	0.92	0.48	0.39	0.56
Value Add Real Estate	0.37	0.39	0.39	0.39	0.39	0.39	1.00	0.23	0.51	0.50	0.47	0.39	1.00	0.01
Commodities	0.45	0.51	0.51	0.51	0.51	0.51	0.23	1.00	0.57	0.52	0.55	0.34	0.23	0.55
Hedge Fund	0.56	0.78	0.78	0.78	0.78	0.78	0.51	0.57	1.00	0.97	0.85	0.36	0.51	0.71
Hedge Fund (Equity Style)	0.58	0.77	0.77	0.77	0.77	0.77	0.50	0.52	0.97	1.00	0.82	0.27	0.50	0.76
Hedge Fund (Credit Style)	0.52	0.92	0.92	0.92	0.92	0.92	0.47	0.55	0.85	0.82	1.00	0.54	0.47	0.56
UM Portable Alpha	0.19	0.48	0.48	0.48	0.48	0.48	0.39	0.34	0.36	0.27	0.54	1.00	0.39	-0.04
Core Real Estate	0.37	0.39	0.39	0.39	0.39	0.39	1.00	0.23	0.51	0.50	0.47	0.39	1.00	0.01
Risk Balanced 14 Vol	0.57	0.56	0.56	0.56	0.56	0.56	0.01	0.55	0.71	0.76	0.56	-0.04	0.01	1.00

Retirement asset-liability projections

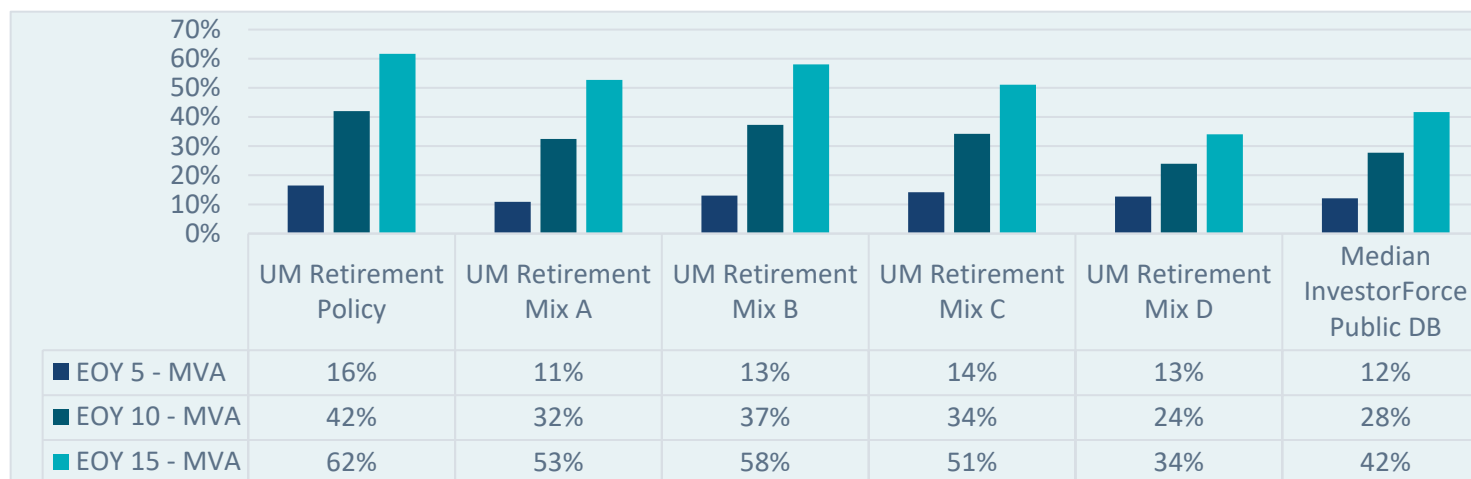
PROBABILITY OF FULL FUNDING – CONSTANT CONTRIBUTIONS (NO NEW AMORTIZATION)



Milliman was the consulting actuary for this project

Replicating the Verus asset model as closely as possible, Milliman produced a full set of stochastic (random) plan outcomes

PROBABILITY OF FULL FUNDING – VARIABLE CONTRIBUTIONS (AMORTIZATION)

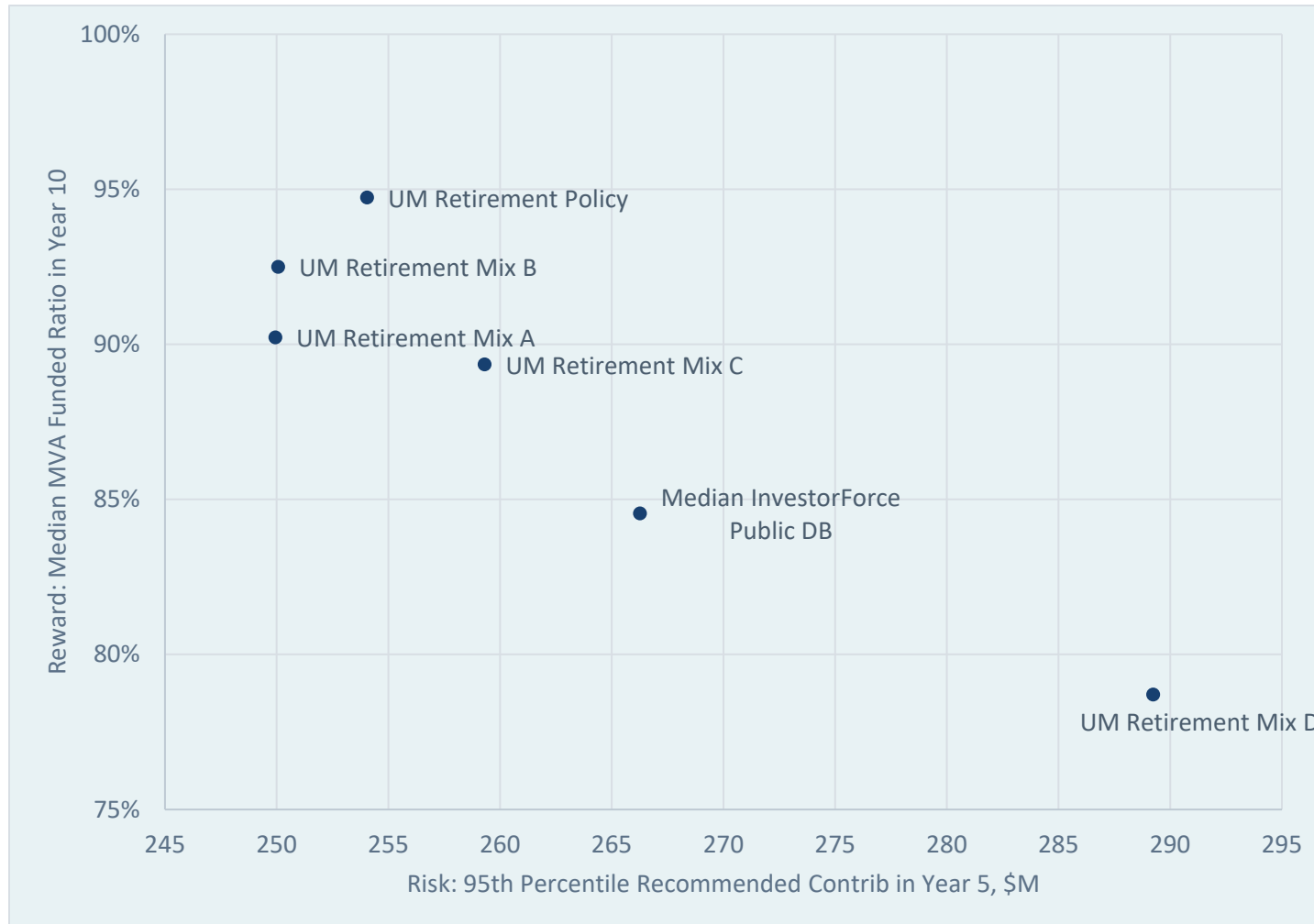


Looking here at projected funded status (the reward of taking investment risk), we see that the current policy mix provides the highest probability of achieving full-funding within ten or fifteen years, followed by Mix B

Source: Milliman, Verus; these simulations used historical private markets volatilities rather than the “de-smoothed” (higher) volatilities in the Verus Capital Markets Assumptions

Retirement asset-liability projections (cont.)

ASSET-LIABILITY RISK/REWARD (VARIABLE CONTRIBUTIONS)



Vertical axis: long-term investment reward (year 10 funded ratio median outcome)

Horizontal axis: shorter-term risk (year 5 contribution bad case outcome)

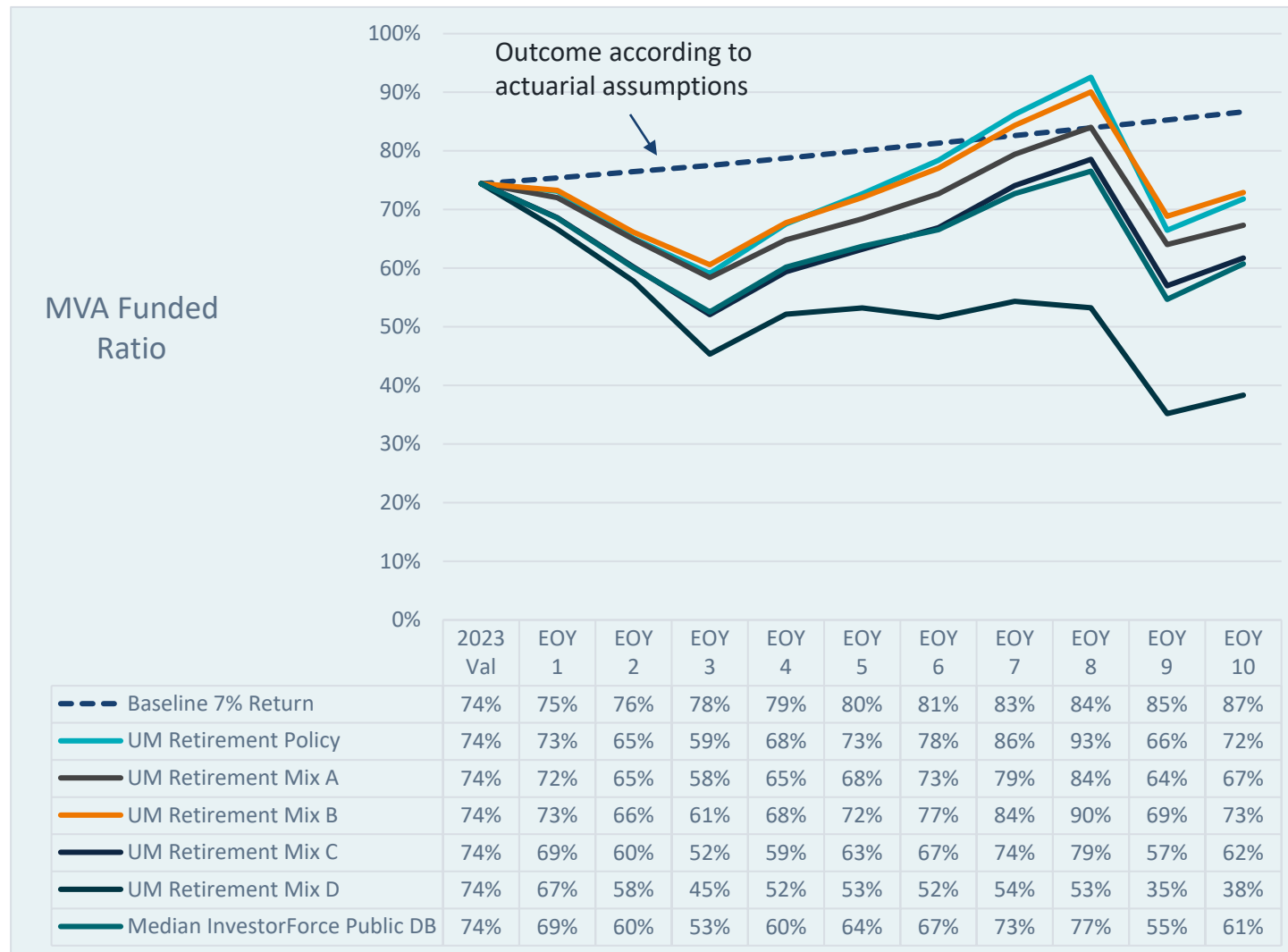
Mix B shows a somewhat lower long-term median funded status than the current policy but also a lower contribution level after a bad (95th percentile) five years

In other words, Mix B has a similar risk/reward tradeoff as the current policy

Source: Milliman, Verus; note: these simulations used historical private markets volatilities rather than the “de-smoothed” (higher) volatilities in the Verus Capital Markets Assumptions

Retirement asset-liability projections (cont.)

LOST DECADE (10 YEARS STARTING JAN 2000)



Source: Milliman, Verus

At the request of the University & Verus, Milliman was also able to apply historical return scenarios to the plan's current status

Of the periods examined, the decade following the 2000 tech crash is of particular interest

We see that the current policy and alternative Mix B would have provided the best results in under these conditions

Fixed contributions are again assumed here, regardless of investment return

Notices & disclosures

Past performance is no guarantee of future results. This report or presentation is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and should not be relied upon by retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. The opinions and information expressed are current as of the date provided or cited only and are subject to change without notice. This information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. This report or presentation cannot be used by the recipient for advertising or sales promotion purposes.

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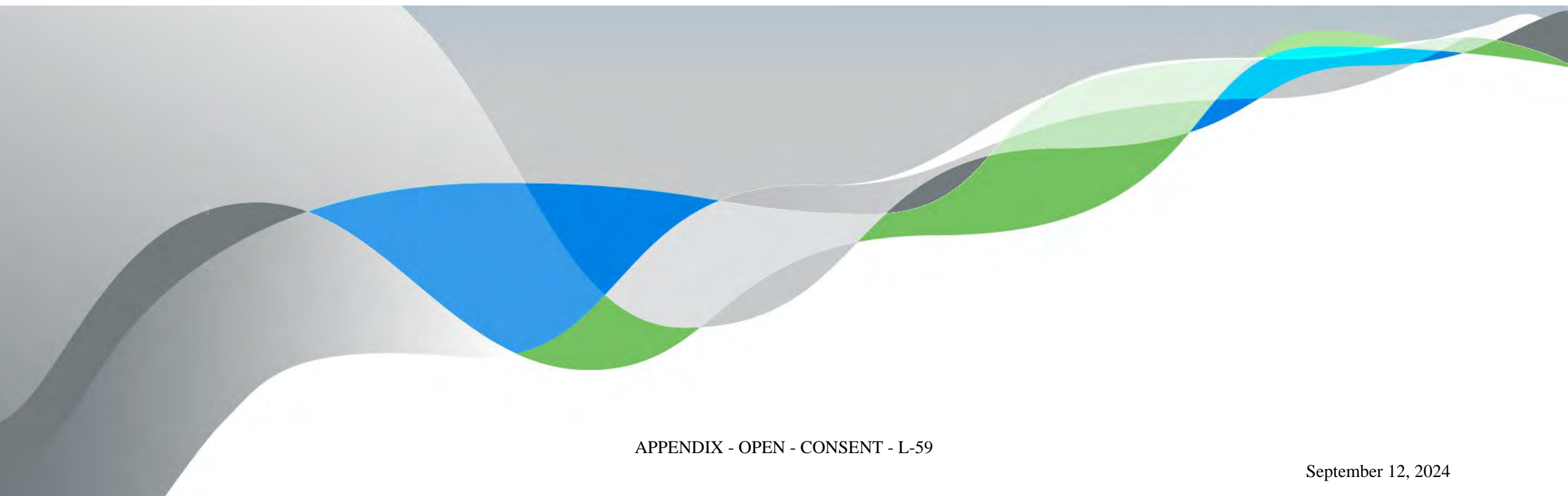
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Asset Liability Study

Milliman Presentation for University of Missouri

William Strange, FSA, EA

MAY 31, 2024



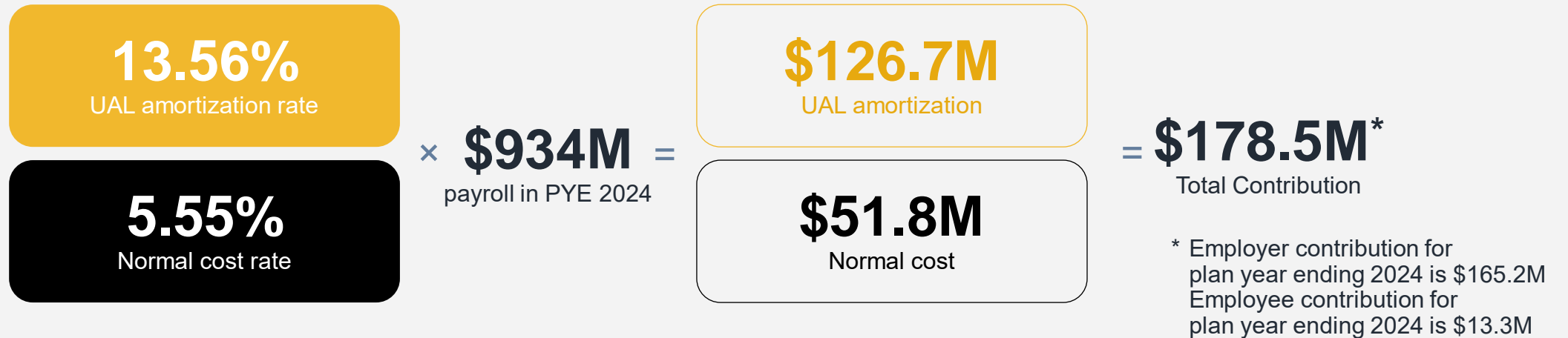
Current Funding Policy



Current Funding Policy

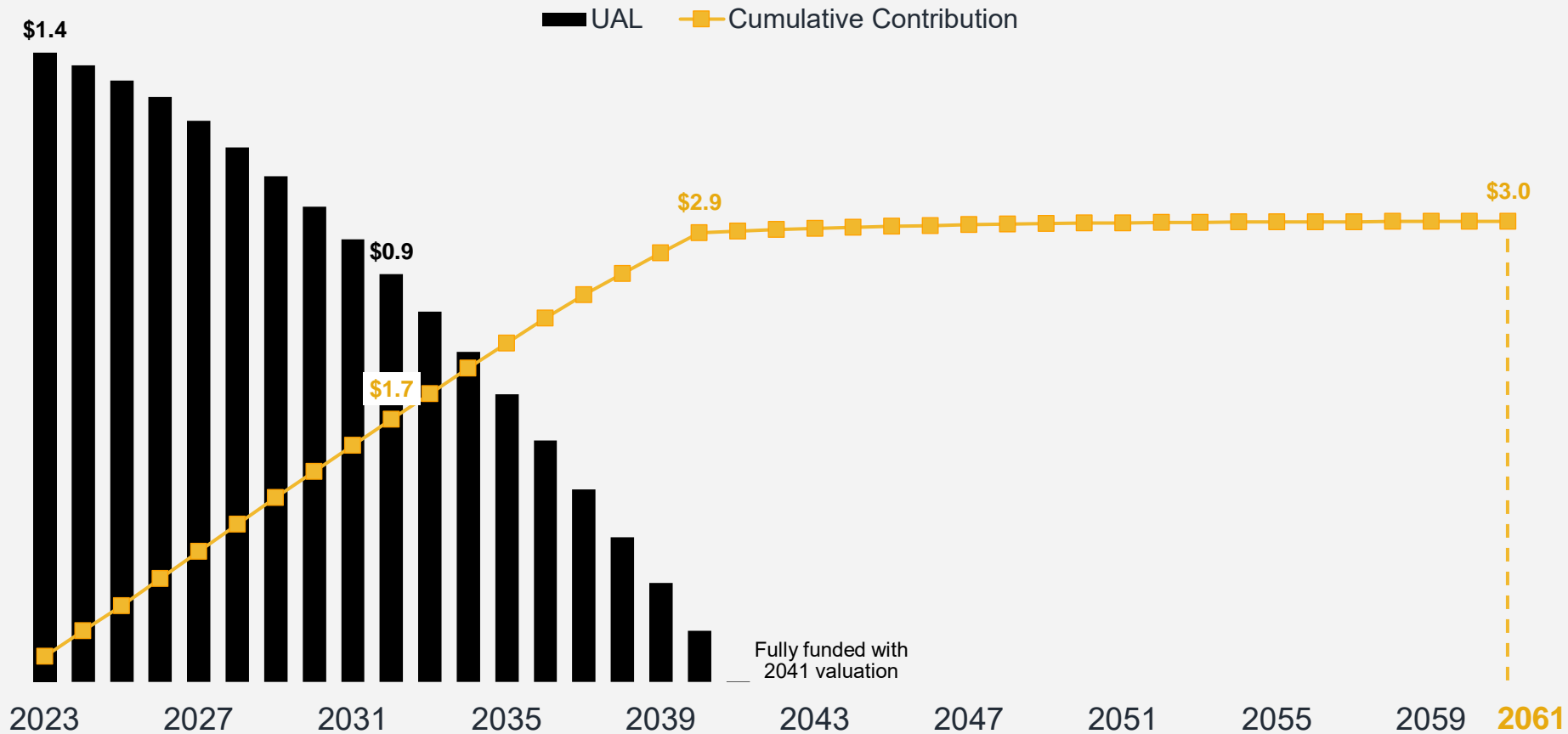
Funding Policy

- Actuarially Determined Contribution (ADC) comprised of: Normal Cost + Unfunded Actuarial Liability (UAL) Amortization
- Initial UAL Amortization established as of October 1, 2021 as 20-year level dollar amortization of unfunded liability
- Subsequent gains are amortized over 25 years while subsequent losses are amortized over 15 years, which is sometimes referred to as asymmetric amortization. Assumption changes are amortized over 20 years.
- UAL Amortization for a given year cannot be less than the annual recognition of Initial UAL Amortization determined as of October 1, 2021 (\$94.8 million) until the plan is fully funded. This is referred to as the Minimum Actuarially Determined Contribution (MADC). The October 1, 2023 Valuation results in a UAL Amortization in excess of the October 1, 2021 Valuation.



Unfunded Actuarial Liability – Current Funding Policy

Projections (\$ in billions)

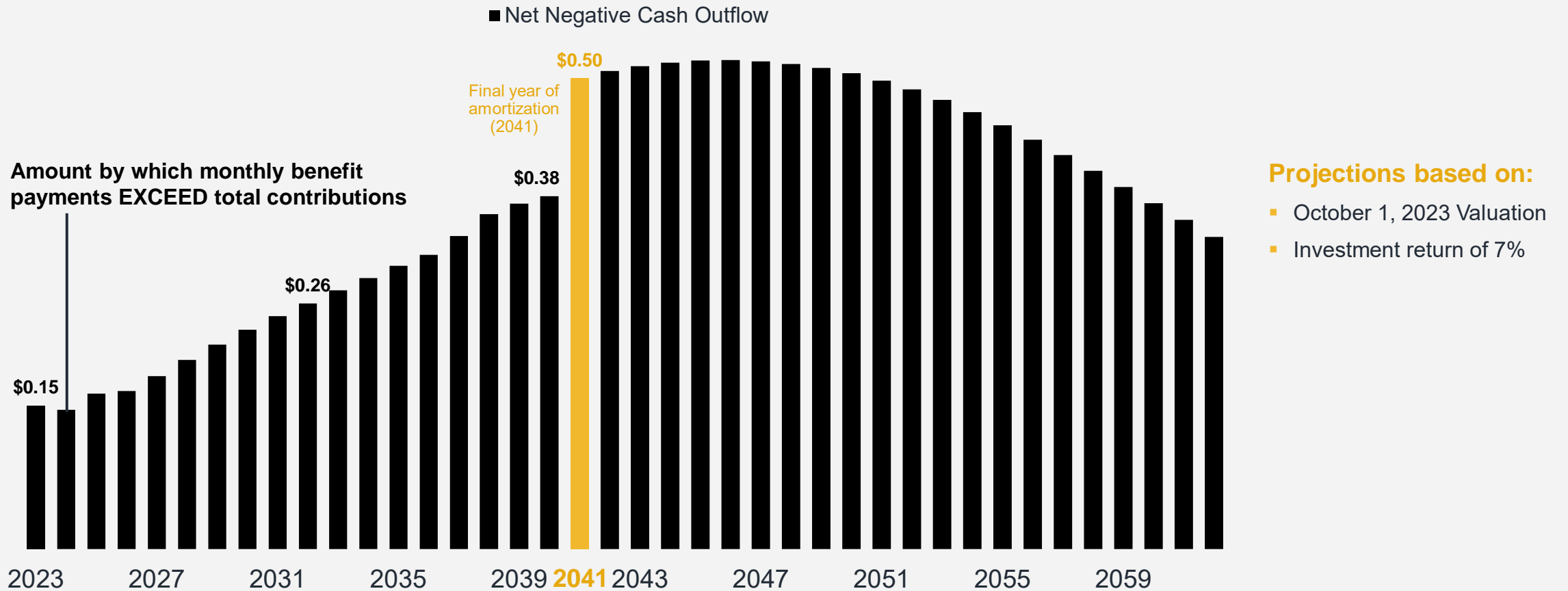


Projections based on:

- October 1, 2023 Valuation
- Investment return of 7%
- Layered amortization with gains spread over 25 years and losses over 15 years
- Loss from 2022 not fully amortized until 2042
- Market value basis for UAL

Baseline – Net Negative Cash Outflow

Projections (\$ in billions)



Baseline – Net Funding Cost (10 years)

Defining “Net Funding Cost”

- Combines Cumulative UM Contributions with Changes in the Unfunded Actuarial Liability (UAL) over a scenario’s time horizon to present a more holistic view of the costs associated with each asset mix
- A negative “net funding cost” would reflect a decline in the UAL which exceeds UM Contributions (a net **benefit** to UM)

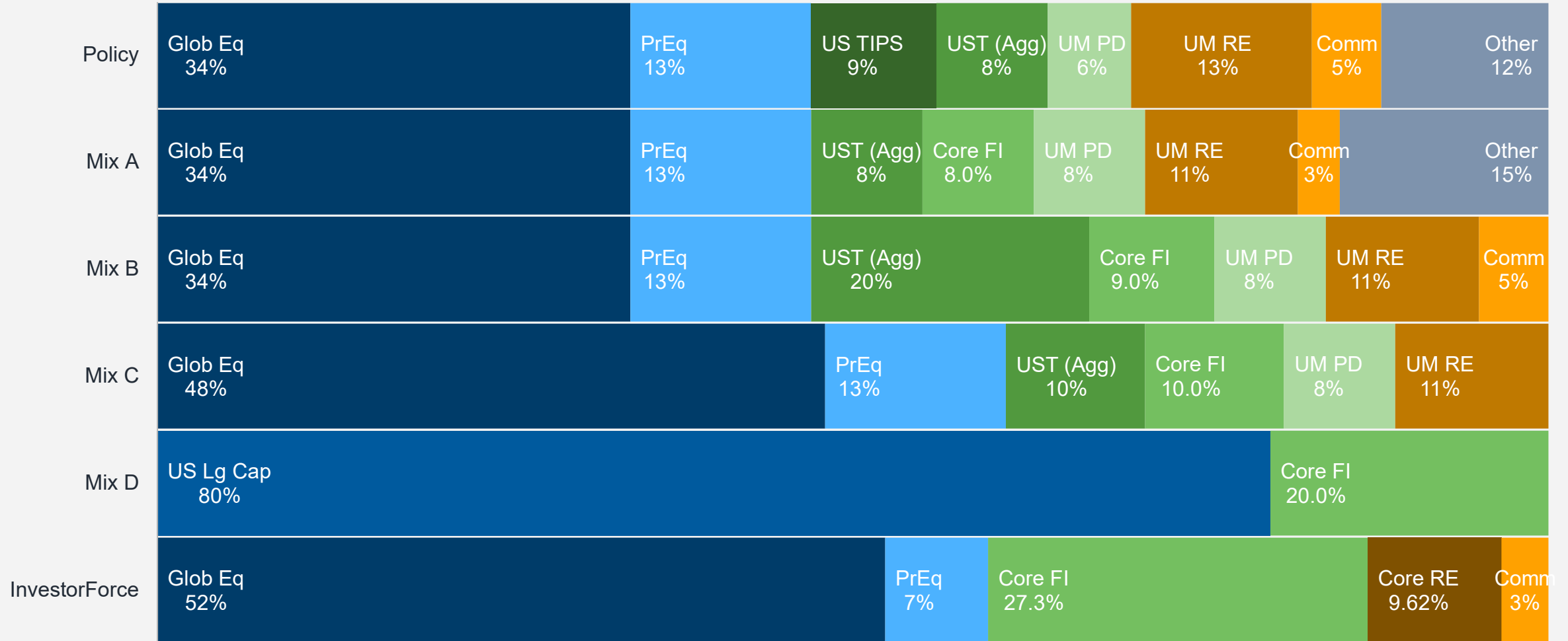


* This is an illustration of the Net Funding Cost under the baseline projection using 7% annual return over 10 years.

Asset Allocations



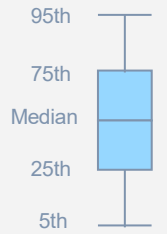
Asset Allocation



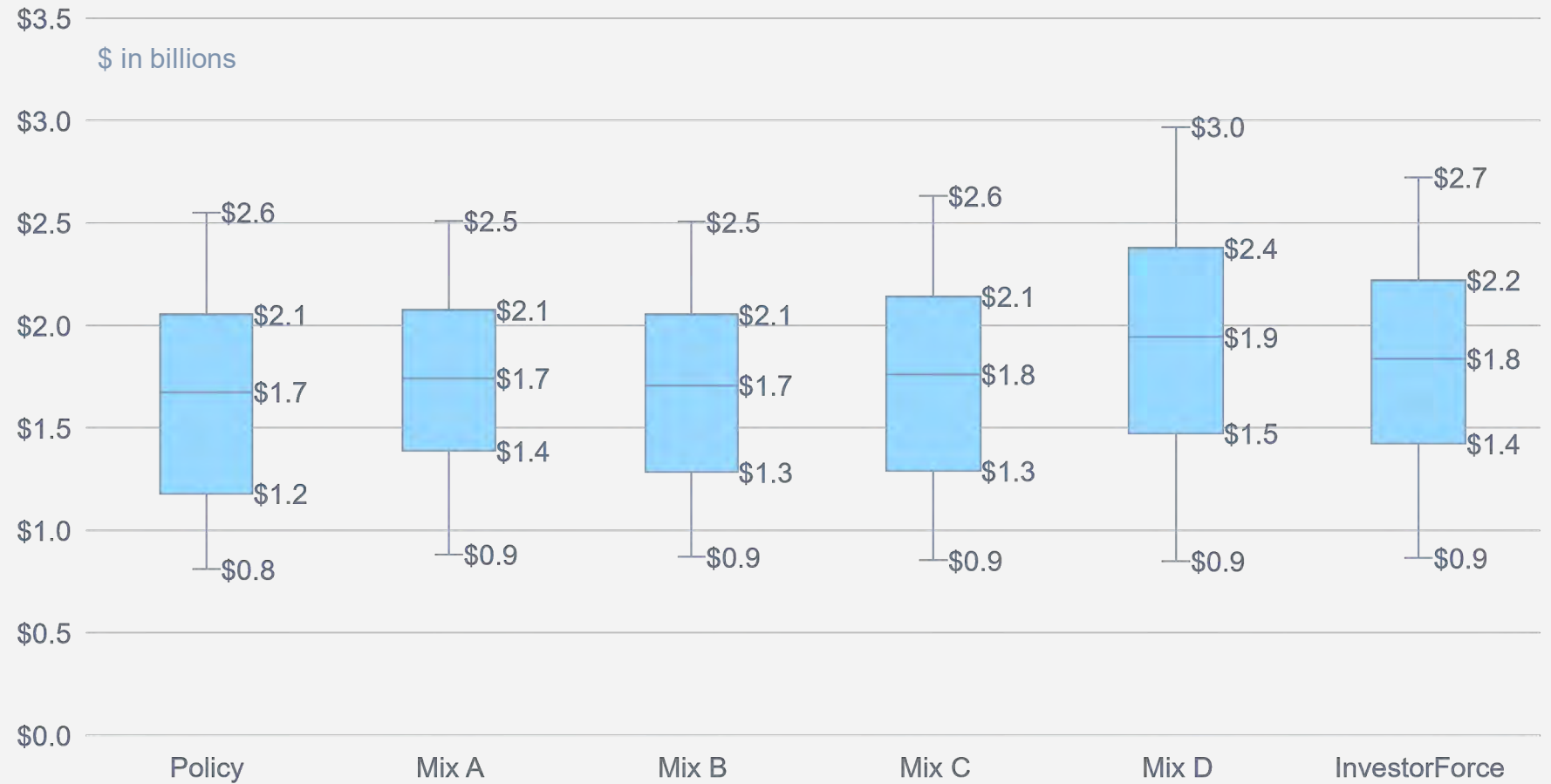
Variable Contributions



Cumulative Employer Contributions over Next 10 Years



- **Contribution / amortization Policy based on initial closed 20yr, level-dollar amortization policy established with the October 1, 2021 valuation**
- When UAL is eliminated, amortization payments by UM end
- Gains occurring after the October 1, 2021 valuation are amortized over 25 years
- Losses occurring after the October 1, 2021 valuation are amortized over 15 years
- Assumption changes occurring after the October 1, 2021 valuation are amortized over 20 years

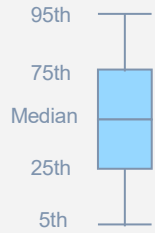


Net Funding Cost over Next 10 Years – Stochastic Results

\$ in billions	Baseline	Policy	Mix A	Mix B	Mix C	Mix D	Investor Force
50th Percentile Results (\$)							
Net Funding Cost – Baseline	1.10	1.10	1.10	1.10	1.10	1.10	1.10
(Decrease) / Increase in NFC*	-	(0.55)	(0.19)	(0.37)	(0.11)	0.73	0.26
Net Funding Cost – 50 th perc	1.10	0.55	0.91	0.73	0.99	1.83	1.36
(Decrease) / Increase in NFC* for range of outcomes (\$)							
95 th perc – worst outcome for UM	-	2.19	2.12	2.08	2.50	3.43	2.79
75 th perc	-	0.72	0.88	0.77	1.11	2.01	1.46
50 th perc	-	(0.55)	(0.19)	(0.37)	(0.11)	0.73	0.26
25 th perc	-	(2.06)	(1.42)	(1.69)	(1.60)	(0.89)	(1.17)
5 th perc – best outcome for UM	-	(4.83)	(3.65)	(4.09)	(4.34)	(3.97)	(3.86)

* (Decrease) / Increase in NFC reflects (reduction) / increase in cost to UM of each asset mix vs. the valuation assumption of 7% return over 10 years.

Net Funding Cost over Next 10 Years – Stochastic Graph

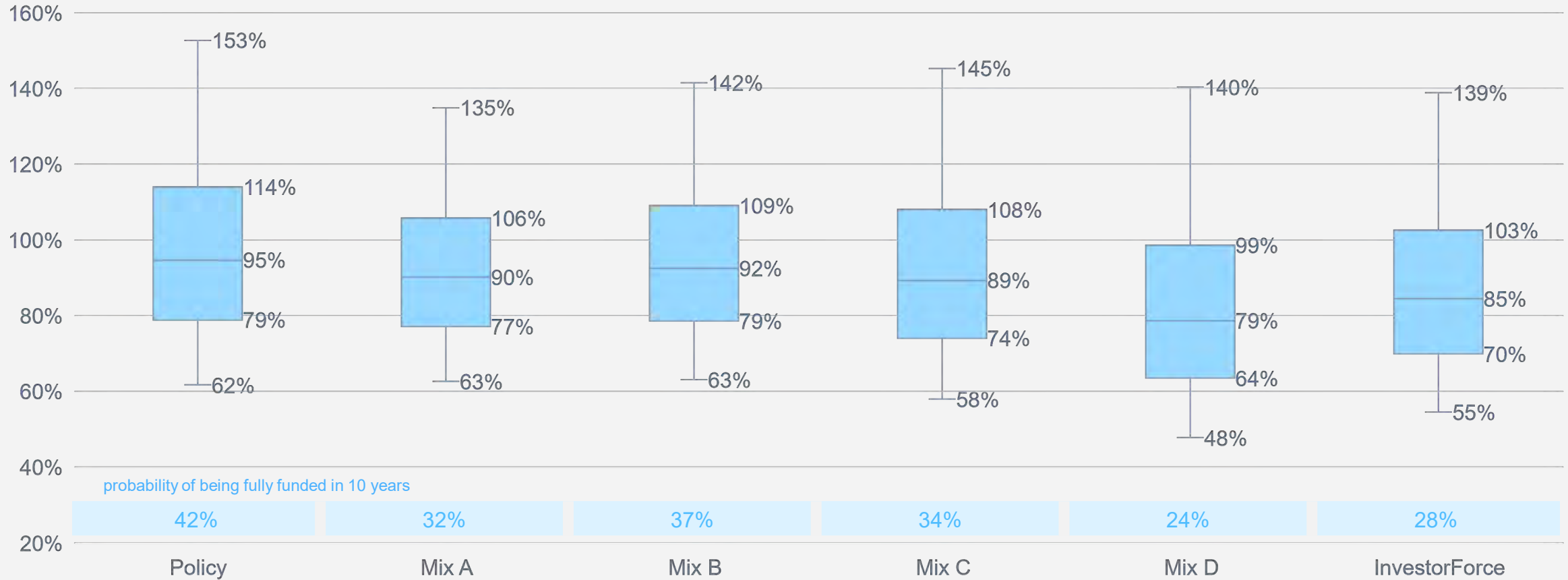
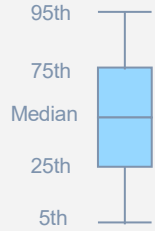


- Net funding cost is equal to the accumulated contributions in excess of the change in UAL
- Positive values mean the accumulated contributions exceed the reduction in UAL (less optimal outcome)
- **Negative values mean the reduction in UAL exceed the accumulated contributions (more optimal outcome)**



Funded Ratio Percentage After 10 Years

Currently 74% funded



Stress Testing Difficult Market Conditions – the 2000s Decade

Investment Returns from January 2000 through December 2009

\$ in billions	Baseline	Policy	Mix A	Mix B	Mix C	Mix D	Investor Force
Baseline projection							
UM Contributions	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Unfunded liability improvement	(0.59)	(0.59)	(0.59)	(0.59)	(0.59)	(0.59)	(0.59)
Net Funding Cost (\$)	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Cost of investment losses							
Additional contributions vs. Baseline	-	0.32	0.43	0.31	0.67	1.21	0.69
Additional UAL vs. Baseline	-	0.54	0.70	0.49	0.73	1.74	0.79
Subtotal (\$)	-	0.86	1.13	0.80	1.40	2.95	1.48
Net Funding Cost (\$)	1.10	1.96	2.23	1.90	2.50	4.05	2.58

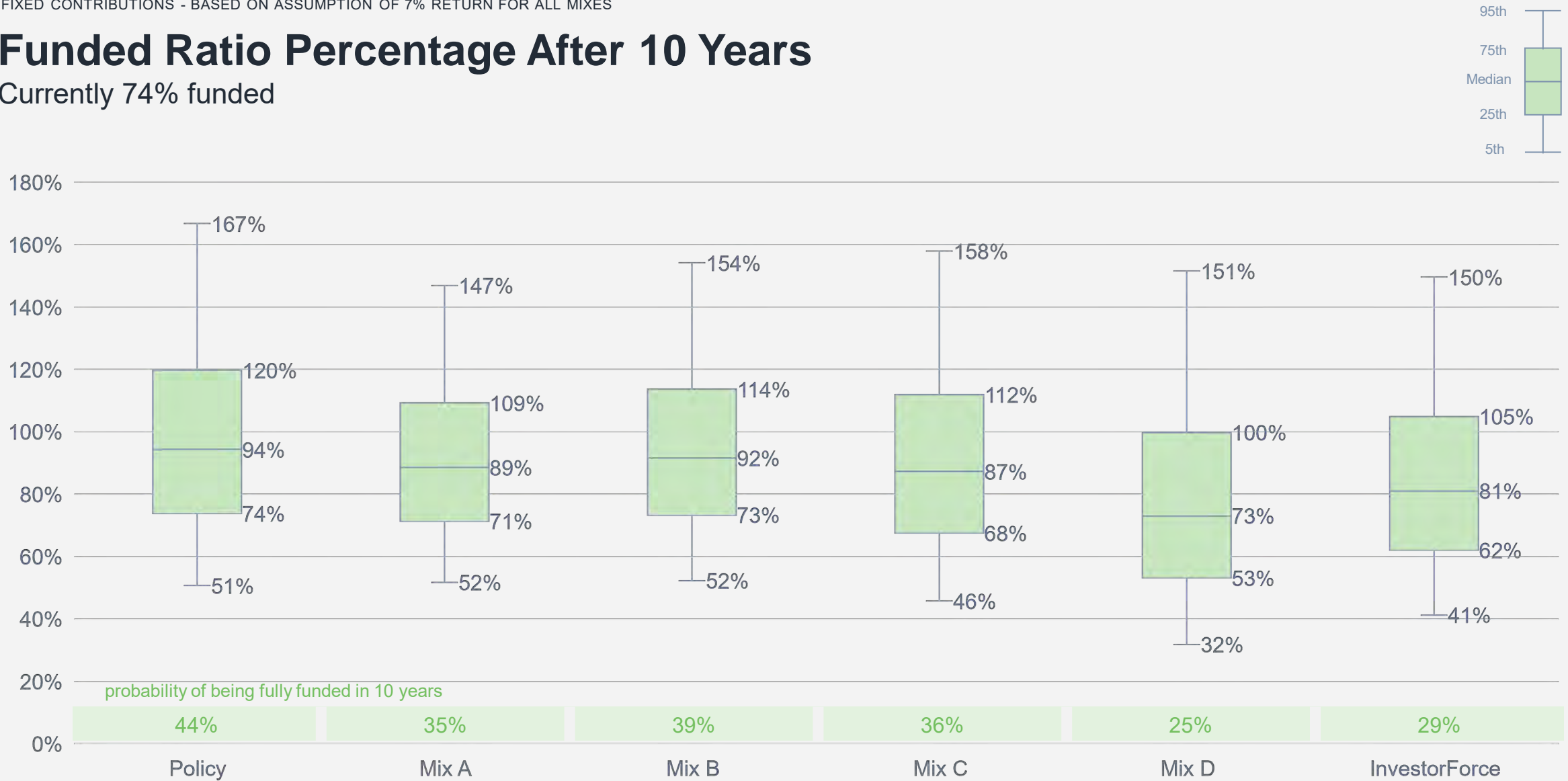
- Projections begin with the October 1, 2023 valuation
- Actual returns for each asset mix from January 1, 2000 through December 31, 2009 applied to projection beginning October 1, 2023
- “Baseline” uses the valuation return assumption of 7% for the next 10 years

Fixed Contributions



Funded Ratio Percentage After 10 Years

Currently 74% funded

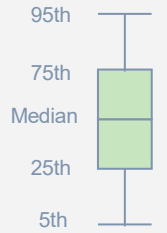


Net Funding Cost over Next 10 Years – Stochastic Results

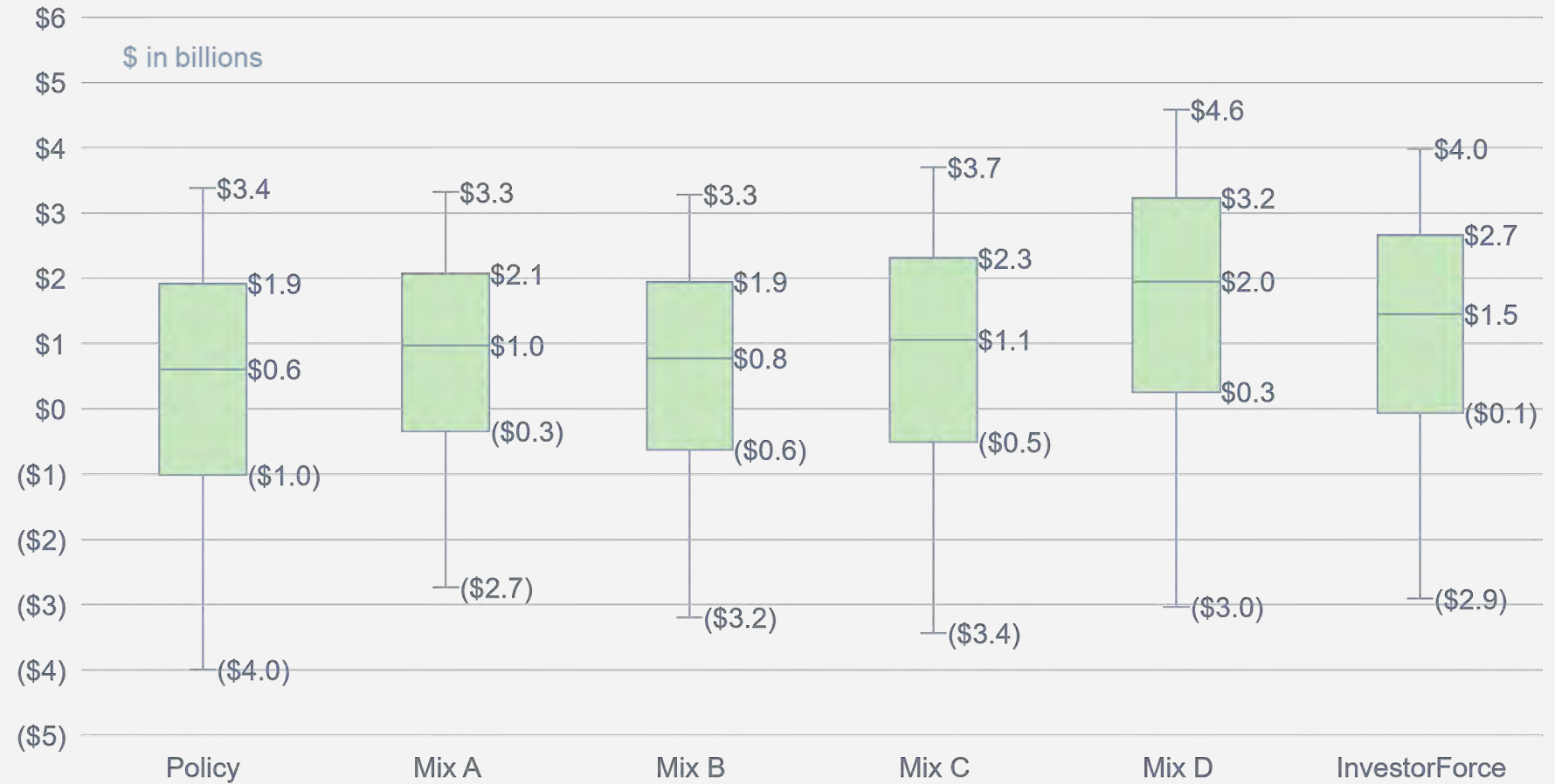
\$ in billions	Baseline	Policy	Mix A	Mix B	Mix C	Mix D	Investor Force
50th Percentile Results (\$)							
Net Funding Cost – Baseline	1.10	1.10	1.10	1.10	1.10	1.10	1.10
(Decrease) / Increase in NFC*	-	(0.49)	(0.13)	(0.32)	(0.04)	0.86	0.35
Net Funding Cost – 50 th perc	1.10	0.61	0.97	0.78	1.06	1.96	1.45
(Decrease) / Increase in NFC* for range of outcomes (\$)							
95 th perc – worst outcome for UM	-	2.28	2.22	2.18	2.60	3.49	2.89
75 th perc	-	0.82	0.97	0.85	1.21	2.13	1.57
50 th perc	-	(0.49)	(0.13)	(0.32)	(0.04)	0.86	0.35
25 th perc	-	(2.11)	(1.44)	(1.72)	(1.61)	(0.84)	(1.16)
5 th perc – best outcome for UM	-	(5.09)	(3.83)	(4.30)	(4.53)	(4.13)	(4.01)

* (Decrease) / Increase in NFC reflects (reduction) / increase in cost to UM of each asset mix vs. the valuation assumption of 7% return over 10 years.

Net Funding Cost over Next 10 Years – Stochastic Graph



- Fixed contribution projections are based on assuming a fixed 7% return for all asset mixes
- Net funding cost is equal to the accumulated contributions in excess of the change in UAL
- Positive values mean the accumulated contributions exceed the reduction in UAL (less optimal outcome)
- Negative values mean the reduction in UAL exceed the accumulated contributions (more optimal outcome)



Stress Testing Difficult Market Conditions – the 2000s Decade

Investment Returns from January 2000 through December 2009

\$ in billions	Baseline	Policy	Mix A	Mix B	Mix C	Mix D	Investor Force
Baseline projection							
UM Contributions	1.69	1.69	1.69	1.69	1.69	1.69	1.69
Unfunded liability improvement	(0.59)	(0.59)	(0.59)	(0.59)	(0.59)	(0.59)	(0.59)
Net Funding Cost (\$)	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Cost of investment losses							
Additional contributions vs. Baseline	-	fixed	fixed	fixed	fixed	fixed	fixed
Additional UAL vs. Baseline	-	0.95	1.23	0.88	1.59	3.07	1.65
Subtotal (\$)	-	0.95	1.23	0.88	1.59	3.07	1.65
Net Funding Cost (\$)	1.10	2.05	2.33	1.98	2.69	4.17	2.75

- Projections begin with the October 1, 2023 valuation
- Actual returns for each asset mix from January 1, 2000 through December 31, 2009 applied to projection beginning October 1, 2023
- “Baseline” uses the valuation return assumption of 7% for the next 10 years

Assumptions and methods

- Stochastic portfolio return projections are based on capital market assumptions provided by Verus.
- Milliman reviewed the capital market assumptions and found them to be reasonable.
- At the University's request, the volatility and correlation assumptions for private equity and private debt – which are unsmoothed by Verus – were adjusted by Milliman to reflect the smoothed returns expected to be reported by the fund managers.
- Unless otherwise stated, all assumptions and methods match those from the October 1, 2023 valuation.

Statements of Reliance and Limitations

This presentation is intended as a high level discussion of current issues in employee benefits. It should be considered a supplement to our latest actuarial valuation. Unless otherwise stated, any calculations herein are based on the same data, methods, and assumptions as disclosed in the most recent valuation report.

This information has been prepared for the internal use of and is only to be relied upon by University of Missouri. No portion of this presentation may be disclosed to any other party without Milliman's prior written consent. The presentation itself is incomplete without attendance at the meeting in which the contents were delivered and discussed. Milliman does not intend to benefit any third party recipient of its work product.

The information presented is only for the specific uses indicated within the presentation. Determinations for other purposes may be substantially different from those provided herein. Accordingly, other determinations will be needed for other purposes.

Please refer to the most recent valuation report for additional details on plan provisions, assumptions, limitations, and information about the Plan's risks. The Plan's risk is the potential that future actuarial measurements will differ from the current measurements presented in this projection because future experience is different than expected. Risks include investment risk, asset / liability mismatch risk, interest rate risk, longevity and other demographic risks, and contribution risk.

ASOP 56 provides guidance to actuaries in respect to the development and involvement of models used in their actuarial services. The results included were developed using models intended for valuations that use standard actuarial techniques. Milliman has reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice (ASOP).

Thank you

140.012 Investment Policy for General Pool

Bd. Min. 12-6-91; Amended Bd. Min. 12-9-93; Amended Bd. Min. 11-14-94; Amended Bd. Min. 12-13-96; Amended Bd. Min. 9-26-97; 1-21-98; Revised 2-01-00; Amended Bd. Min. 9-27-02; Amended Bd. Min. 11-22-02; Revised 1-5-04; Amended Bd. Min. 9-9-04; Amended Bd. Min. 1-26-07; Amended Bd. Min. 2-6-09; Amended Bd. Min. 6-5-09; Amended Bd. Min. 6-17-11; Revised in entirety, Bd. Min. 6-26-12. (Note: Board approval on 6-26-12 replaced previous rules 140.010, 140.011, 140.012 and 140.013 with new language and reissued new rules 140.010 through 140.016.) Amended Bd. Min. 1-31-13; Amended Bd. Min. 6-25-15; Amended Bd. Min. 10-1-15; Amended Bd. Min. 10-7-16; Amended Bd. Min. 11-15-18; Amended Bd. Min. 9-24-20; Amended Bd. Min. 4-21-22; Amended Bd. Min. 11-17-22; Amended Bd. Min. 6-29-23; Amended Bd. Min. 6-27-24; Amended Bd. Min. 9-12-24.

- A. **Introduction** – The General Pool represents the University’s cash and reserves, both restricted and unrestricted, including, but not limited to, operating funds, auxiliary funds, service operations funds, self-insurance funds, debt service funds, and plant funds.
- B. **Responsibilities and Authorities** – See CRR 140.010, “*Policy for Management and Oversight of Selected University Investment Pools*”
- C. **Investment Objectives** – The General Pool shall be managed in a way that both recognizes and balances the underlying needs of the pool, including, but not limited to, accommodation of University cash flow cyclicalities, satisfaction of various ongoing liquidity needs, maximization of risk-adjusted investment returns, diversification and preservation of capital.
- D. **Authorized Investments** – The General Pool shall be invested as follows:

	Working Capital	Core	Strategic
Management	Internal/External	External	External
Minimum Allocation	20%	0%	0%
Maximum Allocation	100%	60%	45%
Liquidity Objective	High	Moderate	Moderate/Low
Volatility Tolerance	Low	Moderate	Moderate/High
Return Expectation	Low	Moderate	Moderate/High

1. Working Capital

The Working Capital portfolio is expected to have very low volatility and low (cash-like) returns. It is the primary source of liquidity for the University’s operating cash flow needs, constructed utilizing securities and investment vehicles that primarily have same day liquidity with minimal day-to-day price fluctuations. Exposures will be obtained by investing in the following:

- a. Bank deposits covered by FDIC insurance or otherwise collateralized by U.S. Government and U.S. Government Agency securities.

- b. Money market funds which are SEC 2a-7 compliant and have received the highest possible rating by at least two Nationally Recognized Statistical Rating Organizations.
- c. Commercial Paper which has received a rating of at least A1 / P1 / F1 by two of the Nationally Recognized Statistical Rating Organizations
- d. Repurchase Agreements collateralized by the U.S. Government and U.S. Government Agency securities.
- e. Yield Enhancement Strategies that seek returns higher than, or comparable to, traditional cash investments, while diversifying the risk inherent in traditional cash investments. To implement these strategies, liquid non-cash-like securities are often purchased in conjunction with a hedge instrument that substantially hedges away the non-cash-like attributes of the securities. Instruments that may be part of such transactions include: U.S. Treasury securities, sovereign bonds issued by G10 countries, and other fixed income securities and precious metals. To hedge away the non-cash like attributes, the following instruments may be used: futures contracts, asset/interest rate swaps, currency forwards, securities lending agreements, and repurchase agreements.
- f. Other short-term investment vehicles of similar quality, with an average duration of one year or less.
- g. U.S. Treasury securities, U.S. Government Agency securities and U.S. Government guaranteed securities, including but not limited to: all direct obligations of the U.S. Government, Federal Farm Credit Banks, Federal Home Loan Banks, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.
- h. Internal short-term loans at market interest rates to the University's Central Bank as a substitute for commercial paper which could otherwise be issued externally by the Central Bank under the University's Commercial Paper Notes program. Such short-term loans must be approved by the Vice President for Finance.

2. **Core Portfolio**

The Core portfolio is expected to have moderate volatility with moderate returns, invested primarily in public debt securities and related investment vehicles. It will serve as a secondary source of liquidity, built utilizing excess operating funds not expected to be needed for purposes of funding the operational needs of the University under normal circumstances. This portfolio will be expected to generate higher returns than the Working Capital portfolio through the use of some combination of credit risk, interest rate risk, illiquidity risk and idiosyncratic (active) risk.

Approved asset class (as defined by CRR 140.017, "Policy for Allowable Investments"): Core Fixed Income – Section (C)(4)

~~Public Debt~~

~~Specific types of debt exposures include, but are not limited to, sovereign, corporate, inflation-linked, high yield, emerging market, commercial mortgage-backed securities, and residential mortgage-backed securities.~~

~~Exposures will be obtained through physical securities as well as~~

~~derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts, and reverse repurchase agreements may be utilized. Exposures may include long/short positions.~~

~~Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange trade funds and limited partnership agreements.~~

3. **Strategic Portfolio**

The Strategic portfolio will be built utilizing excess operating funds that should not be needed for liquidity purposes. As compared to the Core portfolio, the Strategic portfolio will have higher return expectations and a higher level of expected volatility. These are truly long-term funds and should be thought of similarly to retirement and endowment funds.

- a. Approved asset classes (as defined by CRR 140.017, "Policy for Allowable Investments"):

Private Debt - Section (C)(6)

Real Estate/Infrastructure - Section (C)(9)

Risk Balanced - Section (C)(8)

Alpha Portfolio - Section (D)(1)(d)

- b. Venture Capital

Investments shall be consistent with the University's mission to foster innovation in support of economic development. Maximum allocation shall be limited to 0.5% of the combined Core and Strategic portfolios\$5 million.

Investments require unanimous approval by the Executive Vice President for Finance and Operations and the Chief Investment Officer in consultation with the President.

Utilization of external managers shall be consistent with the guidelines established in CRR 140.011, "*Policy for Investment Manager Selection, Monitoring and Retention.*"

- c. Endowment Pool

As part of its Strategic Portfolio, the General Pool may invest in the University's Endowment Pool, as established and governed by CRR 140.013, "Investment Policy for Endowment Pool."

E. **Risk Management**

1. The Assistant Vice President for Treasury and Real Estate shall establish and implement procedures to:
 - a. Regularly monitor the University's cash flow forecasts.

- b. Determine and maintain minimum daily liquidity equal to 30 days operating cash outflows for the University.
 - c. Determine minimum weekly liquidity equal to 60 days operating cash outflows for the University.
 - d. As applicable, determine overall liquidity sufficient to satisfy credit rating agency guidelines for any self-liquidity needs of the University's debt portfolio.
 - e. Maintain a contingency funding plan to address unanticipated market / liquidity events, with the objective of having ready access to cash to meet the University's operating cash flow needs at all times.
2. The Chief Investment Officer shall establish and implement procedures to:
- a. Invest General Pool funds, primarily within the Working Capital and Core portfolios, in a manner which satisfies minimum requirements for weekly liquidity and contingency funding needs.
 - b. Maintain appropriate reserves within the General Pool to mitigate drawdown risk based on the level of projected risk within the General Pool, modeled in consultation with the University's Investment Consultant, allowing the University to better manage through periods of market volatility.
- F. **Excluded Instruments** – The General Pool shall not be deemed to include, and the limitations contained herein shall not be deemed applicable to, any program-related funds, instruments, and assets not held primarily for investment such as interests governed by CRR 70.070, "*Entrepreneurial Activity*."

140.012 Investment Policy for General Pool

Bd. Min. 12-6-91; Amended Bd. Min. 12-9-93; Amended Bd. Min. 11-14-94; Amended Bd. Min. 12-13-96; Amended Bd. Min. 9-26-97; 1-21-98; Revised 2-01-00; Amended Bd. Min. 9-27-02; Amended Bd. Min. 11-22-02; Revised 1-5-04; Amended Bd. Min. 9-9-04; Amended Bd. Min. 1-26-07; Amended Bd. Min.2-6-09; Amended Bd. Min. 6-5-09; Amended Bd. Min.6-17-11; Revised in entirety, Bd. Min. 6-26-12. (Note: Board approval on 6-26-12 replaced previous rules 140.010, 140.011, 140.012 and 140.013 with new language and reissued new rules 140.010 through 140.016.) Amended Bd. Min. 1-31-13; Amended Bd. Min. 6-25-15; Amended Bd. Min. 10-1-15; Amended Bd. Min. 10-7-16; Amended Bd. Min. 11-15-18; Amended Bd. Min. 9-24-20; Amended Bd. Min. 4-21-22; Amended Bd. Min. 11-17-22; Amended Bd. Min. 6-29-23; Amended Bd. Min. 6-27-24; Amended Bd. Min. 9-12-24.

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Volatility Tolerance	Low	Moderate	Moderate/High
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- b. Money market funds which are SEC 2a-7 compliant and have received the highest possible rating by at least two Nationally Recognized Statistical Rating Organizations.
- c. Commercial Paper which has received a rating of at least A1 / P1 / F1 by two of the Nationally Recognized Statistical Rating Organizations
- d. Repurchase Agreements collateralized by the U.S. Government and U.S. Government Agency securities.
- e. Yield Enhancement Strategies that seek returns higher than, or comparable to, traditional cash investments, while diversifying the risk inherent in traditional cash investments. To implement these strategies, liquid non-cash-like securities are often purchased in conjunction with a hedge instrument that substantially hedges away the non-cash-like attributes of the securities. Instruments that may be part of such transactions include: U.S. Treasury securities, sovereign bonds issued by G10 countries, and other fixed income securities and precious metals. To hedge away the non-cash like attributes, the following instruments may be used: futures contracts, asset/interest rate swaps, currency forwards, securities lending agreements, and repurchase agreements.
- f. Other short-term investment vehicles of similar quality, with an average duration of one year or less.
- g. U.S. Treasury securities, U.S. Government Agency securities and U.S. Government guaranteed securities, including but not limited to: all direct obligations of the U.S. Government, Federal Farm Credit Banks, Federal Home Loan Banks, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation.
- h. Internal short-term loans at market interest rates to the University's Central Bank as a substitute for commercial paper which could otherwise be issued externally by the Central Bank under the University's Commercial Paper Notes program. Such short-term loans must be approved by the Vice President for Finance.

2. **Core Portfolio**

The Core portfolio is expected to have moderate volatility with moderate returns, invested primarily in public debt securities and related investment vehicles. It will serve as a secondary source of liquidity, built utilizing excess operating funds not expected to be needed for purposes of funding the operational needs of the University under normal circumstances. This portfolio will be expected to generate higher returns than the Working Capital portfolio through the use of some combination of credit risk, interest rate risk, illiquidity risk and idiosyncratic (active) risk.

Approved asset class (as defined by CRR 140.017, "Policy for Allowable Investments"): Core Fixed Income – Section (C)(4)

3. **Strategic Portfolio**

The Strategic portfolio will be built utilizing excess operating funds that should not be needed for liquidity purposes. As compared to the Core portfolio, the Strategic portfolio will have higher return expectations and a higher level of expected volatility. These are truly long-term funds and should

be thought of similarly to retirement and endowment funds.

- a. Approved asset classes (as defined by CRR 140.017, "Policy for Allowable Investments"):

Private Debt - Section (C)(6)
 Real Estate/Infrastructure - Section (C)(9)
 Risk Balanced - Section (C)(8)
 Alpha Portfolio - Section (D)(1)(d)

- b. Venture Capital

Investments shall be consistent with the University's mission to foster innovation in support of economic development. Maximum allocation shall be limited to 0.5% of the combined Core and Strategic portfolios.

Investments require unanimous approval by the Executive Vice President for Finance and Operations and the Chief Investment Officer in consultation with the President.

Utilization of external managers shall be consistent with the guidelines established in CRR 140.011, "*Policy for Investment Manager Selection, Monitoring and Retention.*"

- c. Endowment Pool

As part of its Strategic Portfolio, the General Pool may invest in the University's Endowment Pool, as established and governed by CRR 140.013, "Investment Policy for Endowment Pool."

E. Risk Management

1. The Assistant Vice President for Treasury and Real Estate shall establish and implement procedures to:
 - a. Regularly monitor the University's cash flow forecasts.
 - b. Determine and maintain minimum daily liquidity equal to 30 days operating cash outflows for the University.
 - c. Determine minimum weekly liquidity equal to 60 days operating cash outflows for the University.
 - d. As applicable, determine overall liquidity sufficient to satisfy credit rating agency guidelines for any self-liquidity needs of the University's debt portfolio.
 - e. Maintain a contingency funding plan to address unanticipated market / liquidity events, with the objective of having ready access to cash to meet the University's operating cash flow needs at all times.

2. The Chief Investment Officer shall establish and implement procedures to:
 - a. Invest General Pool funds, primarily within the Working Capital and Core portfolios, in a manner which satisfies minimum requirements for weekly liquidity and contingency funding needs.

- b. Maintain appropriate reserves within the General Pool to mitigate drawdown risk based on the level of projected risk within the General Pool, modeled in consultation with the University's Investment Consultant, allowing the University to better manage through periods of market volatility.
- F. **Excluded Instruments** – The General Pool shall not be deemed to include, and the limitations contained herein shall not be deemed applicable to, any program-related funds, instruments, and assets not held primarily for investment such as interests governed by CRR 70.070, "*Entrepreneurial Activity*."

140.013 Investment Policy for Endowment Pool

Bd. Min 7-22-11. Revised in entirety, Bd. Min. 6-26-12. (Note: Board approval on 6-26-12 replaced previous rules 140.010, 140.011, 140.012 and 140.013 with new language and reissued new rules 140.010 through and including 140.016.) Revised Bd. Min 6-14-13; Revised 9-12-13; Revised 6-25-15; Revised 2-4-16; Revised 4-14-16; Revised 6-23-17; Revised Bd. Min. 9-28-17; Revised Bd. Min. 2-4-21; Amended 9-2-21; Amended 6-29-23; Amended 9-12-24.

- A. **Introduction** -- The University's Endowment Pool (also known as the Endowment Fund) contains gifts, bequests and other funds directed to be used to support a University program in perpetuity. Some donors require such a commitment as a condition of their gift ("true endowments"). Also, funds may be assigned to function as endowments by the Board of Curators or by University administration ("quasi endowments").
- B. **Responsibilities and Authorities** – See CRR 140.010 *"Policy for Management and Oversight of Selected University Investment Pools."*
- C. **Investment Objectives** -- The Endowment Pool must be managed to provide ongoing support of endowed programs in perpetuity, in conformance with donor stipulations. To accomplish this, investment returns, net of inflation, should be sufficient over time to cover annual spending distributions while maintaining or growing the underlying purchasing power of each endowed gift.

Endowment Pool investments should be managed in a manner that maximizes returns while attempting to minimize losses during adverse economic and market events, with an overall appetite for risk governed by the objectives noted above. This will be accomplished through a ~~more 'risk-balanced'~~ portfolio that seeks meaningful diversification of assets, ~~which necessarily means less equity risk and more long-term bond exposure relative to peers. To offset potentially lower returns from a more risk-balanced portfolio, a key component of this strategy includes a less common, yet prudent, program of return enhancement commonly referred to in the investment industry as portable alpha.~~ These investment objectives seek to prioritize the long-term structural needs of the Endowment Pool over short-term performance comparisons of the investment portfolio relative to peers.

- D. **Authorized Investments** – The Endowment Pool shall be invested in externally managed funds, consistent with the guidelines established in CRR 140.011, *"Policy for Investment Manager Selection, Monitoring and Retention"* and CRR 140.017, *"Allowable Investments,"* in the following asset classes:

Asset Class	Asset Class Target	Allowable Range
<u>Absolute Return / Alpha</u>	<u>15%</u>	<u>5%-20%</u>
Commodities	3%	0%-13%
Core Fixed Income Inflation-Linked Bonds	10%	3%-20%

Opportunistic	0%	0%-7%
Private Debt	87%	3%-1 20 %
Private Equity	1 75 %	10%-2 20 %
Public Equity	3 85 %	20%-4 85 %
Real Estate / Infrastructure	910 %	5%-1 45 %
Risk Balanced	012 %	07 %- 175 %
Sovereign Bonds	8 %	3 %- 18 %
Cash and Cash Equivalents	0%	0%-20%
Total Portfolio	100%	

E. Portfolio Rebalancing

Asset allocations shall be monitored on an ongoing basis as changes in market behavior may cause variations from the target asset mix. Rebalancing of the portfolio shall be considered at least quarterly, and more often if necessary to maintain allocations within the allowable range. The need to rebalance shall take into account any logistical issues associated with fully funding a particular asset sector, as well as any tactical decisions to overweight or underweight a particular asset sector based on current market conditions. The University may utilize external managers to rebalance portfolio exposures consistent with targets and allowable ranges established by this policy. In those instances, conventional derivative instruments commonly accepted by other institutional investors, such as futures, swaps, options, forward contracts and reverse repurchase agreements may be utilized.

Actual asset class allocations shall not fall outside of the allowable ranges, with the exception of violations caused solely by periods of extreme market distress, when it may not be possible or advisable to immediately bring such allocations back to within the allowable ranges.

F. Currency Risk Management

In the context of a global investment portfolio, currency risk exists to the extent that investments contain exposures to foreign currencies. The desirability of this currency exposure is not necessarily aligned dollar for dollar with the desired exposure to assets denominated in foreign currencies. As such, external managers in any asset class may implement currency strategies to alter the currency exposure of the portfolio when deemed prudent to do so in the context of the particular investment mandate. In addition, the University may utilize external managers to implement currency strategies to alter exposures in an active or passive manner as part of a portfolio or asset class overlay when deemed prudent to do so.

~~**G. Portable Alpha Program**~~

~~When any combination of market beta exposures (Public Equity, Sovereign Bonds, Inflation-Linked Bonds, Commodities, etc.) are obtained through the use of derivative instruments, a portion of the cash underlying the notional exposures may be used to fund an Alpha Portfolio. At a total portfolio level, the objective of a~~

~~Portable Alpha Program is to generate excess returns through alpha exposures which, in aggregate, are diversifying to the Endowment Pool overall. Overall management of the Portable Alpha Program is subject to the provisions of CRR 140.017 "Policy for Allowable Investments."~~

~~a. Sizing of Alpha Portfolio — Allowable Range~~

~~The allowable range of the Alpha Portfolio shall be 0-27% of the total Endowment Pool, which would represent total portfolio leverage of 100% to 127%.~~

~~b. Minimum Cash Margin~~

~~The Endowment Pool shall maintain a 10% margin of safety in addition to the level of Cash Margin determined necessary to cover drawdowns across an average of the three worst modeled economic and market stress scenarios as defined by the greatest depletion of Cash Margin.~~

H.G. Spending Policy – To provide ongoing support to endowed programs in perpetuity, the spending policy must be managed in conjunction with investment objectives and other factors in compliance with applicable law, such that the spending rate plus an inflationary assumption shall not exceed expected investment returns over time. At minimum, the spending policy should be reviewed in conjunction with asset/liability studies performed by the Investment Consultant not less than once every three years.

- a. The formula used to determine the Endowment Pool spending distribution for each fiscal year shall apply a rate of 4.0% to a base equal to the 28-quarter trailing average of market values as of December 31st of the prior fiscal year. Endowment spending distributions shall be paid on a monthly basis.
- b. In addition to the spending distribution noted above, the President shall have the discretion to distribute from the Endowment Pool an administrative fee each fiscal year to be used for support of internal endowment administration and development functions. Such administrative fee shall be calculated by applying a rate of up to 1.25% to a base equal to the 28-quarter trailing average of market values as of December 31st of the prior fiscal year. The administrative fee shall be paid on a monthly basis. In addition, internal investment management, accounting and legal expenses may be charged directly to the Endowment Pool.
- c. The spending policy, spending distribution formula and administrative fee may be adjusted over time by the Board to respond to general economic conditions and other factors as appropriate and in compliance with applicable law.
- d. Implementation of the spending policy is delegated to the Executive Vice President for Finance or her/his designees.

140.013 Investment Policy for Endowment Pool

Bd. Min 7-22-11. Revised in entirety, Bd. Min. 6-26-12. (Note: Board approval on 6-26-12 replaced previous rules 140.010, 140.011, 140.012 and 140.013 with new language and reissued new rules 140.010 through and including 140.016.) Revised Bd. Min 6-14-13; Revised 9-12-13; Revised 6-25-15; Revised 2-4-16; Revised 4-14-16; Revised 6-23-17; Revised Bd. Min. 9-28-17; Revised Bd. Min. 2-4-21; Amended 9-2-21; Amended 6-29-23; Amended 9-12-24.

- A. **Introduction** -- The University's Endowment Pool (also known as the Endowment Fund) contains gifts, bequests and other funds directed to be used to support a University program in perpetuity. Some donors require such a commitment as a condition of their gift ("true endowments"). Also, funds may be assigned to function as endowments by the Board of Curators or by University administration ("quasi endowments").
- B. **Responsibilities and Authorities** – See CRR 140.010 *"Policy for Management and Oversight of Selected University Investment Pools."*
- C. **Investment Objectives** -- The Endowment Pool must be managed to provide ongoing support of endowed programs in perpetuity, in conformance with donor stipulations. To accomplish this, investment returns, net of inflation, should be sufficient over time to cover annual spending distributions while maintaining or growing the underlying purchasing power of each endowed gift.

Endowment Pool investments should be managed in a manner that maximizes returns while attempting to minimize losses during adverse economic and market events, with an overall appetite for risk governed by the objectives noted above. This will be accomplished through a portfolio that seeks meaningful diversification of assets. These investment objectives seek to prioritize the long-term structural needs of the Endowment Pool over short-term performance comparisons of the investment portfolio relative to peers.

- D. **Authorized Investments** – The Endowment Pool shall be invested in externally managed funds, consistent with the guidelines established in CRR 140.011, *"Policy for Investment Manager Selection, Monitoring and Retention"* and CRR 140.017, *"Allowable Investments,"* in the following asset classes:

Asset Class	Asset Class Target	Allowable Range
Absolute Return / Alpha	15%	5%-20%
Commodities	3%	0%-13%
Core Fixed Income	10%	3%-20%
Opportunistic	0%	0%-7%
Private Debt	8%	3%-12%
Private Equity	17%	10%-22%

Public Equity	38%	20%-48%
Real Estate / Infrastructure	9%	5%-14%
Risk Balanced	0%	0%-5%
Cash and Cash Equivalents	0%	0%-20%
Total Portfolio	100%	

E. Portfolio Rebalancing

Asset allocations shall be monitored on an ongoing basis as changes in market behavior may cause variations from the target asset mix. Rebalancing of the portfolio shall be considered at least quarterly, and more often if necessary to maintain allocations within the allowable range. The need to rebalance shall take into account any logistical issues associated with fully funding a particular asset sector, as well as any tactical decisions to overweight or underweight a particular asset sector based on current market conditions. The University may utilize external managers to rebalance portfolio exposures consistent with targets and allowable ranges established by this policy. In those instances, conventional derivative instruments commonly accepted by other institutional investors, such as futures, swaps, options, forward contracts and reverse repurchase agreements may be utilized.

Actual asset class allocations shall not fall outside of the allowable ranges, with the exception of violations caused solely by periods of extreme market distress, when it may not be possible or advisable to immediately bring such allocations back to within the allowable ranges.

F. Currency Risk Management

In the context of a global investment portfolio, currency risk exists to the extent that investments contain exposures to foreign currencies. The desirability of this currency exposure is not necessarily aligned dollar for dollar with the desired exposure to assets denominated in foreign currencies. As such, external managers in any asset class may implement currency strategies to alter the currency exposure of the portfolio when deemed prudent to do so in the context of the particular investment mandate. In addition, the University may utilize external managers to implement currency strategies to alter exposures in an active or passive manner as part of a portfolio or asset class overlay when deemed prudent to do so.

G. Spending Policy – To provide ongoing support to endowed programs in perpetuity, the spending policy must be managed in conjunction with investment objectives and other factors in compliance with applicable law, such that the spending rate plus an inflationary assumption shall not exceed expected investment returns over time. At minimum, the spending policy should be reviewed in conjunction with asset/liability studies performed by the Investment Consultant not less than once every three years.

- a. The formula used to determine the Endowment Pool spending distribution for each fiscal year shall apply a rate of 4.0% to a base equal to the 28-quarter trailing average of market values as of December 31st of the prior fiscal year. Endowment spending distributions shall be paid on a monthly basis.

- b. In addition to the spending distribution noted above, the President shall have the discretion to distribute from the Endowment Pool an administrative fee each fiscal year to be used for support of internal endowment administration and development functions. Such administrative fee shall be calculated by applying a rate of up to 1.25% to a base equal to the 28-quarter trailing average of market values as of December 31st of the prior fiscal year. The administrative fee shall be paid on a monthly basis. In addition, internal investment management, accounting and legal expenses may be charged directly to the Endowment Pool.
- c. The spending policy, spending distribution formula and administrative fee may be adjusted over time by the Board to respond to general economic conditions and other factors as appropriate and in compliance with applicable law.
- d. Implementation of the spending policy is delegated to the Executive Vice President for Finance or her/his designees.

140.015 Investment Policy for Retirement, Disability and Death Benefit Plan

Bd. Min. 6-26-12, Revised Bd. Min. 6-14-13, Revised Bd. Min. 9-12-13, Revised 6-25-15, Revised 2-4-16; Revised 4-14-16; Amended Bd. Min. 9-28-17; Amended Bd. Min. 11-19-20; Bd. Min. 4-21-22; Amended 6-29-23; [Amended 9-12-24](#).

- A. **Introduction** -- The University's Retirement, Disability and Death Benefit Plan ("Plan") was established to provide retirement income and other stipulated benefits to qualified employees in amounts and under the conditions described in the plan. A Trust was established in 1958 and is being funded to provide the financial security of those benefits.
- B. **Responsibilities and Authorities** – See CRR 140.010 "*Policy for Management and Oversight of Selected University Investment Pools.*"
- C. **Investment objectives** -- The primary objective to be achieved in the active management of Trust assets is to provide for the full and timely payment of retirement, disability and death benefits to qualified employees. In order to fulfill this objective the University must maintain a prudent actuarially sound funding of the Plan's liabilities. This funding requirement is derived from three principal sources; the total investment return on Trust assets and the amount of University and employee contributions.

Trust assets should be managed in a manner that maximizes returns while attempting to minimize losses during adverse economic and market events, with an overall appetite for risk governed by the Plan's liability structure and the need to make promised benefit payments to members over time. This will be accomplished through a more 'risk-balanced' portfolio that seeks meaningful diversification of assets, which necessarily means less equity risk and more long-term bond exposure relative to peers. To offset potentially lower returns from a more risk-balanced portfolio, a key component of this strategy includes a less common, yet prudent, program of return enhancement commonly referred to in the investment industry as portable alpha. These investment objectives seek to prioritize the long-term structural needs of our Retirement Plan over short-term performance comparisons of the investment portfolio relative to peers.

- D. **Authorized Investments** – The Plan shall be invested in externally managed funds, consistent with the guidelines established in CRR 140.011, "*Policy for Investment Manager Selection, Monitoring and Retention*" and CRR 140.017, "*Allowable Investments,*" in the following asset classes:

Asset Class	Asset Class Target	Allowable Range
Commodities	5%	0%-15%

Core Fixed Income Inflation-Linked Bonds	9%	3%-19%
Opportunistic	0%	0%-7%
Private Debt	86%	3%- 129%
Private Equity	13%	9%-17%
Public Equity	34%	20%-45%
Real Estate / Infrastructure	113%	79% - 157%
Risk Balanced	012%	07% - 517%
Sovereign Bonds Treasuries	208%	103% - 3048%
Cash and Cash Equivalents	0%	0%-20%
Total Portfolio	100%	

E. Portfolio Rebalancing

Asset allocations shall be monitored on an ongoing basis as changes in market behavior may cause variations from the target asset mix. Rebalancing of the portfolio shall be considered at least quarterly, and more often if necessary to maintain allocations within the allowable ranges. The need to rebalance shall take into account any logistical issues associated with fully funding a particular asset sector, as well as any tactical decisions to overweight or underweight a particular asset sector based on current market conditions. The University may utilize external managers to rebalance portfolio exposures consistent with targets and allowable ranges established by this policy. In those instances, conventional derivative instruments commonly accepted by other institutional investors, such as futures, swaps, options, forward contracts and reverse repurchase agreements may be utilized.

Actual asset classes allocations shall not fall outside of the allowable ranges, with the exception of violations caused solely by periods of extreme market distress, when it may not be possible or advisable to immediately bring such allocations back to within the allowable ranges.

F. Currency Risk Management

In the context of a global investment portfolio, currency risk exists to the extent that investments contain exposures to foreign currencies. The desirability of this currency exposure is not necessarily aligned dollar for dollar with the desired exposure to assets denominated in foreign currencies. As such, external managers in any asset class may implement currency strategies to alter the currency exposure

of the portfolio when deemed prudent to do so in the context of the particular investment mandate. In addition, the University may utilize external managers to implement currency strategies to alter exposures in an active or passive manner as part of a portfolio or asset class overlay when deemed prudent to do so.

G. **Portable Alpha Program**

When any combination of market beta exposures (Public Equity, Sovereign Bonds, ~~Inflation-Linked Bonds~~, Commodities, etc.) are obtained through the use of derivative instruments, a portion of the cash underlying the notional exposures may be used to fund an Alpha Portfolio. At a total portfolio level, the objective of a Portable Alpha Program is to generate excess returns through alpha exposures which, in aggregate, are diversifying to the Retirement Plan overall. Overall management of the Portable Alpha Program is subject to the provisions of CRR 140.017 "Policy for Allowable Investments."

a. Sizing of Alpha Portfolio – Allowable Range

The allowable range of the portable alpha portfolio shall be 0-27% of the total Retirement Plan, which would represent total portfolio leverage of 100% to 127%. The current alpha portfolio target is 20%.

b. Minimum Cash Margin

The Retirement Plan shall maintain a 10% margin of safety in addition to the level of Cash Margin determined necessary to cover drawdowns across an average of the three worst modeled economic and market stress scenarios as defined by the greatest depletion of Cash Margin.

140.015 Investment Policy for Retirement, Disability and Death Benefit Plan

Bd. Min. 6-26-12, Revised Bd. Min. 6-14-13, Revised Bd. Min. 9-12-13, Revised 6-25-15, Revised 2-4-16; Revised 4-14-16; Amended Bd. Min. 9-28-17; Amended Bd. Min. 11-19-20; Bd. Min. 4-21-22; Amended 6-29-23; Amended 9-12-24.

- A. **Introduction** -- The University's Retirement, Disability and Death Benefit Plan ("Plan") was established to provide retirement income and other stipulated benefits to qualified employees in amounts and under the conditions described in the plan. A Trust was established in 1958 and is being funded to provide the financial security of those benefits.
- B. **Responsibilities and Authorities** – See CRR 140.010 "*Policy for Management and Oversight of Selected University Investment Pools.*"
- C. **Investment objectives** -- The primary objective to be achieved in the active management of Trust assets is to provide for the full and timely payment of retirement, disability and death benefits to qualified employees. In order to fulfill this objective the University must maintain a prudent actuarially sound funding of the Plan's liabilities. This funding requirement is derived from three principal sources; the total investment return on Trust assets and the amount of University and employee contributions.

Trust assets should be managed in a manner that maximizes returns while attempting to minimize losses during adverse economic and market events, with an overall appetite for risk governed by the Plan's liability structure and the need to make promised benefit payments to members over time. This will be accomplished through a more 'risk-balanced' portfolio that seeks meaningful diversification of assets, which necessarily means less equity risk and more long-term bond exposure relative to peers. To offset potentially lower returns from a more risk-balanced portfolio, a key component of this strategy includes a less common, yet prudent, program of return enhancement commonly referred to in the investment industry as portable alpha. These investment objectives seek to prioritize the long-term structural needs of our Retirement Plan over short-term performance comparisons of the investment portfolio relative to peers.

- D. **Authorized Investments** – The Plan shall be invested in externally managed funds, consistent with the guidelines established in CRR 140.011, "*Policy for Investment Manager Selection, Monitoring and Retention*" and CRR 140.017, "*Allowable Investments,*" in the following asset classes:

Asset Class	Asset Class Target	Allowable Range
Commodities	5%	0%-15%

Core Fixed Income	9%	3%-19%
Opportunistic	0%	0%-7%
Private Debt	8%	3%-12%
Private Equity	13%	9%-17%
Public Equity	34%	20%-45%
Real Estate / Infrastructure	11%	7%-15%
Risk Balanced	0%	0%-5%
Sovereign Bonds	20%	10%-30%
Cash and Cash Equivalents	0%	0%-20%
Total Portfolio	100%	

E. **Portfolio Rebalancing**

Asset allocations shall be monitored on an ongoing basis as changes in market behavior may cause variations from the target asset mix. Rebalancing of the portfolio shall be considered at least quarterly, and more often if necessary to maintain allocations within the allowable ranges. The need to rebalance shall take into account any logistical issues associated with fully funding a particular asset sector, as well as any tactical decisions to overweight or underweight a particular asset sector based on current market conditions. The University may utilize external managers to rebalance portfolio exposures consistent with targets and allowable ranges established by this policy. In those instances, conventional derivative instruments commonly accepted by other institutional investors, such as futures, swaps, options, forward contracts and reverse repurchase agreements may be utilized.

Actual asset classes allocations shall not fall outside of the allowable ranges, with the exception of violations caused solely by periods of extreme market distress, when it may not be possible or advisable to immediately bring such allocations back to within the allowable ranges.

F. **Currency Risk Management**

In the context of a global investment portfolio, currency risk exists to the extent that investments contain exposures to foreign currencies. The desirability of this currency exposure is not necessarily aligned dollar for dollar with the desired exposure to assets denominated in foreign currencies. As such, external managers in any asset class may implement currency strategies to alter the currency exposure of the portfolio when deemed prudent to do so in the context of the particular

investment mandate. In addition, the University may utilize external managers to implement currency strategies to alter exposures in an active or passive manner as part of a portfolio or asset class overlay when deemed prudent to do so.

G. Portable Alpha Program

When any combination of market beta exposures (Public Equity, Sovereign Bonds, Commodities, etc.) are obtained through the use of derivative instruments, a portion of the cash underlying the notional exposures may be used to fund an Alpha Portfolio. At a total portfolio level, the objective of a Portable Alpha Program is to generate excess returns through alpha exposures which, in aggregate, are diversifying to the Retirement Plan overall.

Overall management of the Portable Alpha Program is subject to the provisions of CRR 140.017 "Policy for Allowable Investments."

a. Sizing of Alpha Portfolio – Allowable Range

The allowable range of the portable alpha portfolio shall be 0-27% of the total Retirement Plan, which would represent total portfolio leverage of 100% to 127%. The current alpha portfolio target is 20%.

b. Minimum Cash Margin

The Retirement Plan shall maintain a 10% margin of safety in addition to the level of Cash Margin determined necessary to cover drawdowns across an average of the three worst modeled economic and market stress scenarios as defined by the greatest depletion of Cash Margin.

140.017 Policy for Allowable Investments

Bd. Min 9-28-17; Amended Bd. Min. 6-29-23; [Amended Bd. Min. 9-12-24](#).

- A. **Introduction** – This policy establishes general guidelines for asset classes and associated implementation matters for the following investment pools:
140.012 General Pool [Sections [D\(2\) “Core Portfolio”](#) and D(3) “Strategic Portfolio”]
140.013 Endowment Pool
140.015 Retirement, Disability and Death Benefit Plan
- B. **Responsibilities and Authorities** – See CRR 140.010 “Policy for Management and Oversight of Selected University Investment Pools.”
- C. **Asset Class Guidelines** – The following asset class descriptions and guidelines may be applicable to investment pools noted above, as specified by targets and ranges within each individual policy. The intent of this section is to provide descriptions and general implementation guidelines for each of the following asset classes:

1. **Public Equity**

The equity risk factor drives the returns of this class. Currency risk may also be present when investing in non-U.S. securities. Investments in this asset class may include U.S. and non-U.S. equity investments, including both long and long/short strategies with varying characteristics related to market capitalization, style and sector.

Exposure will be obtained through physical securities and/or conventional derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts and reverse repurchase agreements. Public Equity exposures may be used to fund a Portable Alpha Program. Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-traded funds and limited partnership agreements.

2. **Private Equity**

These investments are primarily driven by the equity and liquidity risk factors yet, because of their diverse nature, some of these investments may include currency risk and other idiosyncratic risks.

Investments in this asset class may include U.S. and non-U.S. private equity strategies including, but not limited to, buyout, venture, and special situations. Legal account structures will primarily be in the form of limited partnership agreements or other similar forms with average tenure of 10-12 years.

3. **Sovereign Bonds**

Interest rates [and inflation](#) are the primary risk factor driving the returns of this sub-class of securities. Currency risk may also be present when investing in non-U.S. Government Securities.

Investments in this asset class may include U.S. and non-U.S. bonds that have been issued, collateralized or guaranteed: (i) by the U.S. Government, its

agencies, or its instrumentalities (collectively known as U.S. Government Securities) or (ii) by investment grade non-U.S. sovereign governments, their agencies or their instrumentalities (collectively known as non-U.S. Government Securities).

Exposure will be obtained through physical securities and/or conventional derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts and reverse repurchase agreements. Sovereign Bond exposures may be used to fund a Portable Alpha Program.

Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-traded funds and limited partnership agreements.

~~4. Inflation-Linked Bonds~~

~~Interest rates and inflation are the primary risk factors driving the returns of this sub-class of securities. Currency risk may also be present when investing in non-U.S. Government Securities.~~

- ~~5. Investments in this asset class may include U.S. and non-U.S. bonds that have been issued, collateralized or guaranteed: (i) by the U.S. Government, its agencies, or its instrumentalities (collectively known as U.S. Government Securities) or (ii) by investment grade non-U.S. sovereign governments, their Agencies or their instrumentalities (collectively known as non-U.S. Government Securities).~~

~~Exposure will be obtained through physical securities and/or conventional derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts and reverse repurchase agreements. Inflation-Linked Bond exposures may be used to fund a Portable Alpha Program.~~

~~Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-traded funds and limited partnership agreements.~~

4. Core Fixed Income

Specific types of debt exposures include, but are not limited to, sovereign, corporate, inflation-linked, high yield, emerging market, commercial mortgage-backed securities, and residential mortgage-backed securities.

Exposures will be obtained through physical securities as well as derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts, and reverse repurchase agreements may be utilized. Exposures may include long/short positions.

Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-trade funds and limited partnership agreements.

6.5. **Opportunistic**

It is expected that this category will be utilized when market dislocations present unique opportunities to invest at attractive valuations relative to underlying fundamentals across a variety of risk factors and implementations.

No policy target shall be assigned to this category; any capital allocated to this category will be funded from underweight positions relative to policy targets in other asset classes, with the expectation that such opportunistic investments should outperform and/or strengthen the overall diversification of the total portfolio over a given timeframe. Investments in this category should be shorter-term in nature, with final maturities not to exceed seven years.

Exposures may be obtained through public and private securities in various forms and implementations as well as derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts, and reverse repurchase agreements may be utilized. Implementations may hold a mix of long/short positions.

Legal account structures will be in the form of separately managed accounts, institutional commingled funds, limited partnership agreements or other similar forms.

7.6. **Private Debt**

Credit spreads and liquidity risk will be the primary drivers of returns, while interest rate and equity risk may also be present from time to time. Currency risk may also be present when investing in non-U.S. securities, as well as other idiosyncratic risks.

Specific types of strategies include, but are not limited to, opportunistic debt, distressed debt, distressed for control, whole loans and pools, levered loans and pools, and mortgage servicing rights.

Legal account structures will primarily be in the form of limited partnership or limited liability company agreements with average tenure of 5-12 years.

8.7. **Commodities**

This asset class is driven by changes in expectations for inflation and the supply of and demand for raw materials.

Investments in the asset class are likely to be made through derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, and forward contracts. From time to time, physical securities of raw material companies and/or companies that produce raw materials may be held. Implementations may hold a mix of long/short positions. Commodity exposures may be used to fund a Portable Alpha Program.

Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-traded funds and limited partnership agreements.

9.8. **Risk Balanced**

This asset class is driven by multiple traditional risk factors including equities, interest rates, commodities, credit spreads and inflation. In most instances, some or all of these factors are balanced in a way that attempts to equalize risk exposures within a portfolio. Additionally, non-traditional risk factors including value, momentum, carry, defensive and trend may be included. It is also expected that idiosyncratic (active) risk will be taken in this portfolio from time to time.

Exposure will be obtained through physical securities and/or conventional derivative instruments commonly accepted by other institutional investors such as, futures, swaps, options, forward contracts and reverse repurchase agreements.

Legal account structures will primarily be in the form of separately managed accounts, institutional commingled funds and limited partnership agreements.

10.9. **Real Estate/Infrastructure**

These investments may be driven by multiple risk factors depending on how they are positioned in the capital structure. Equity, credit, inflation and liquidity will generally be the primary risk factors. Non-U.S. investments may also possess currency risk.

Specific types of fund investments may be structured as equity and/or debt and include categories broadly defined as core, value added, and opportunistic. In addition, investments may be made in real estate investment trusts and master limited partnerships from time to time.

Legal account structures will primarily be in the form of limited partnership agreements with average tenure of 10-12 years. Separately managed accounts and institutional commingled funds may also be utilized from time to time.

D. **Portable Alpha Program** – when any combination of market beta exposures are obtained through the use of derivative instruments, a portion of the cash underlying the notional exposures may be used to fund an Alpha Portfolio. At a total portfolio level, the objective of a Portable Alpha Program is to generate excess returns through alpha exposures which, in aggregate, are diversifying to the total portfolio overall.

1. **Definitions**

- a. **Market Beta Exposure** – obtained through owning some broad representation of a given market, usually tracked by a benchmark or index. Within Retirement, Endowment and General Pool, examples of market beta exposures include public equities, sovereign bonds, ~~inflation-linked bonds~~, commodities, and other public debt markets. Common ways to obtain market beta exposures include passive or actively managed mutual funds, ETFs or separate accounts holding individual investment securities.
- b. **Derivative Instruments** – market beta exposures may also be obtained with derivative instruments commonly used by other institutional investors,

such as futures, swaps, options, forward contracts and reverse repurchase agreements.

- c. **Notional Exposure** – when derivative instruments are used to obtain market beta exposures, the market exposure obtained is not directly connected to the amount of cash required to obtain such market exposure. For example, obtaining a \$100 million exposure to the S&P 500 using futures could be done with an initial cash outlay of less than \$5 million. In the context of this Portable Alpha Program, \$100 million of notional exposure would be initially funded with \$100 million in cash. The key takeaway is that with a derivatives implementation of market beta exposures, part of the cash underlying the notional exposure is available to fund other types of investment exposures, such as alpha.
- d. **Alpha Portfolio** - Alpha represents investing skill that generates returns alongside, or independent of, a given market beta exposure. For purposes of the Portable Alpha Program, the Alpha Portfolio represents a collection of highly skilled alpha managers able to source alpha independent from a market beta exposure. Alpha managers utilized within the Alpha Portfolio should be well established and highly institutionalized, have satisfactory liquidity terms, maintain robust risk management systems, and have a demonstrated ability to deliver return streams with generally low volatility and very low correlations (no discernable relationship) to the market beta exposures used to fund the Portable Alpha Program. Common alpha strategies likely contain well-known, empirically tested sources of returns that can be actively or systematically harvested through both long and short implementations including, but not limited to:
 - 1) hedge fund risk premia such as arbitrage, macro, credit, and equity long/short;
 - 2) style risk premia such as value, momentum, carry, defensive and low volatility;
 - 3) other idiosyncratic sources of return.

Legal account structures will be in the form of separate accounts, institutional commingled funds, limited partnerships or other similar forms. The overall mix of investment vehicles and fund structures should allow for at least 20% of the Alpha Portfolio to be redeemed for cash within 90 days, with a minimum of 50% available for cash redemption within six months.

2. **Understanding Liquidity Needs / Cash Margin**

The primary need for liquidity within the Portable Alpha program is the settlement of gains and losses from the mix of market beta exposures implemented through derivatives, which are used to fund the program. To help illustrate this concept: Assume a \$70 million Alpha Portfolio funded by \$100 million in US Treasuries (a market beta exposure). Derivatives would be used to obtain \$100 million notional in US Treasuries market beta exposure. Of the \$100 million in underlying cash, \$70 million is used to fund the Alpha Portfolio with the remaining \$30 million held in cash ("Cash Margin"). The Cash Margin is needed to settle gains or losses on the derivatives used to obtain the \$100 million notional US Treasuries market beta exposure.

As a simplistic example, if US Treasuries gained 10% over a given period, Cash Margin would increase by \$10 million (\$100 million notional x 10% gain). But if US Treasuries lost 10% over a given period, Cash Margin would decrease by \$10 million (\$100 million notional x 10% loss). Overall, Cash Margin should be sufficient to cover potential losses in the market beta exposures implemented through derivatives and used to fund the Alpha Portfolio. More specifically, liquidity needs are driven by the market beta exposures funding the Portable Alpha Program, not the Alpha Portfolio itself.

3. Sources of Cash Margin

The following are sources of Cash Margin for the Portable Alpha Program:

- a. Cash balances underlying the market beta exposures obtained through derivatives implementation (for example, the \$30 million in the illustration noted in the section above).
- b. Any unencumbered cash balances held at the total portfolio level, which have been specifically dedicated to the Portable Alpha Program.
- c. Any balances of passive market beta exposures held in ETFs or mutual funds which could be settled (cash received) within three business days. For sake of clarity, assume that the Alpha Portfolio was funded by notional US Treasury exposure. Further, assume that the portfolio had additional US Treasury market beta exposure through an index mutual fund, which could be traded with cash settlement within three business days. Under this provision, using this example, the amount invested in the US Treasury index mutual fund could be counted fully or partially as available Cash Margin. From a practical perspective, these passive mutual fund or ETF holdings could be quickly converted to notional derivative exposures (without changing the portfolio's overall market beta exposure), making the underlying cash available for the Portable Alpha Program. Having the flexibility to manage market beta exposures in this way can reduce the financing costs associated with derivative notional implementations while maintaining ready access to cash (liquidity).
- d. Cash redemptions from Alpha Portfolio managers.

4. Measuring / Testing Liquidity Needs

With the Portable Alpha Program being funded by a derivatives implementation of some mix of market beta exposures, the measurement and testing of liquidity needs involves assessing how the given mix of these asset classes performs across a representative sample of historical economic and market stress scenarios. In managing liquidity needs, the objective is for the Cash Margin to "survive" these modeled scenarios with some minimum level of Cash Margin remaining after the stressed scenario has occurred. For purposes of this policy, Cash Margin sufficiency shall be determined by taking an average of the five worst modeled scenarios as defined as those scenarios having the greatest depletion of Cash Margin. To be clear, assuming the five worst modeled scenarios consumed 5%, 6%, 8%, 10% and 16% of Cash Margin, the average of these five would be Cash Margin depletion of 9%. The minimum Cash Margin requirement would be 9% plus some additional safety buffer, which would be defined individually in the investment policies for the Retirement, Endowment and General Pool portfolios.

5. **Managing Liquidity Needs**

There are generally six primary ways to manage Cash Margin and liquidity needs during times of market stress. Any of these, or some combination, may be used depending upon the circumstance.

- a. Utilize existing cash balances underlying the market beta exposures obtained through derivatives implementation.
- b. Utilize unencumbered cash balances held at the total portfolio level, if any, which have been specifically dedicated to the Portable Alpha Program.
- c. Convert passive market beta exposures held in ETFs or mutual funds to market beta exposures obtained through derivatives implementation to generate additional cash. As an example, \$50 million in US Treasury index exposure held in a mutual fund could be redeemed and replaced with a derivatives implementation providing the same market beta exposure while making the \$50 million of underlying cash available to the Portable Alpha Program.
- d. If possible, rebalance the mix of market beta exposures funding the Portable Alpha Program from more volatile asset classes to less volatile asset classes. For example, in a period of equity market drawdown, shifting some mix of Alpha Portfolio funding from public equities to sovereign bonds would lower the volatility of the funding mix, reducing the drawdown exposure and resulting demands on the Cash Margin.
- e. Selective redemption requests to Alpha Portfolio managers will generate additional Cash Margin.
- f. Reducing or eliminating notional market beta exposures obtained through derivative instruments will immediately stop further draws on remaining Cash Margin. For example, if the Portable Alpha Program were funded primarily by public equity notional exposure during a period of equity market drawdown, consideration could be given to eliminating the derivatives equity position through cancellation of the swap, liquidating the futures, etc. Careful consideration should be given to this option as it also eliminates strategic market beta exposure for the portfolio overall; still, this de-risking option may be desirable in times of significant market stress.

6. **Operational Requirements**

- a. Minimum required Cash Margin balances for each portfolio shall be determined, maintained, and monitored on a daily basis by investment staff.
- b. Modeling of historical economic and market stress scenarios shall be updated by investment staff on a monthly basis utilizing the then current mix of market exposures funding the Portable Alpha Program (which should also include any passive market beta exposures implemented through mutual funds or ETFs which are being included in the Cash Margin calculation).
- c. Should Cash Margin fall below minimum required levels, investment staff shall enact a plan to restore Cash Margin above minimum required levels as quickly as reasonably possible, but within a period of time not to exceed six months. The plan to restore Cash Margin above minimum required levels should be communicated to the Executive Vice President for Finance and Operations and to the University's Investment Consultant.

- d. The results of modeled economic and market stress scenarios and compliance with Cash Margin and Alpha Portfolio liquidity requirements shall be reported to the Board on a quarterly basis.

140.017 Policy for Allowable Investments

Bd. Min 9-28-17; Amended Bd. Min. 6-29-23; Amended Bd. Min. 9-12-24.

- A. **Introduction** – This policy establishes general guidelines for asset classes and associated implementation matters for the following investment pools:
 140.012 General Pool [Sections D(2) “Core Portfolio” and D(3) “Strategic Portfolio”]
 140.013 Endowment Pool
 140.015 Retirement, Disability and Death Benefit Plan
- B. **Responsibilities and Authorities** – See CRR 140.010 “Policy for Management and Oversight of Selected University Investment Pools.”
- C. **Asset Class Guidelines** – The following asset class descriptions and guidelines may be applicable to investment pools noted above, as specified by targets and ranges within each individual policy. The intent of this section is to provide descriptions and general implementation guidelines for each of the following asset classes:

1. Public Equity

The equity risk factor drives the returns of this class. Currency risk may also be present when investing in non-U.S. securities. Investments in this asset class may include U.S. and non-U.S. equity investments, including both long and long/short strategies with varying characteristics related to market capitalization, style and sector.

Exposure will be obtained through physical securities and/or conventional derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts and reverse repurchase agreements. Public Equity exposures may be used to fund a Portable Alpha Program. Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-traded funds and limited partnership agreements.

2. Private Equity

These investments are primarily driven by the equity and liquidity risk factors yet, because of their diverse nature, some of these investments may include currency risk and other idiosyncratic risks.

Investments in this asset class may include U.S. and non-U.S. private equity strategies including, but not limited to, buyout, venture, and special situations. Legal account structures will primarily be in the form of limited partnership agreements or other similar forms with average tenure of 10-12 years.

3. Sovereign Bonds

Interest rates and inflation are the primary risk factor driving the returns of this sub-class of securities. Currency risk may also be present when investing in non-U.S. Government Securities.

Investments in this asset class may include U.S. and non-U.S. bonds that have been issued, collateralized or guaranteed: (i) by the U.S. Government, its

agencies, or its instrumentalities (collectively known as U.S. Government Securities) or (ii) by investment grade non-U.S. sovereign governments, their agencies or their instrumentalities (collectively known as non-U.S. Government Securities).

Exposure will be obtained through physical securities and/or conventional derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts and reverse repurchase agreements. Sovereign Bond exposures may be used to fund a Portable Alpha Program.

Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-traded funds and limited partnership agreements.

4. **Core Fixed Income**

Specific types of debt exposures include, but are not limited to, sovereign, corporate, inflation-linked, high yield, emerging market, commercial mortgage-backed securities, and residential mortgage-backed securities.

Exposures will be obtained through physical securities as well as derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts, and reverse repurchase agreements may be utilized. Exposures may include long/short positions.

Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-trade funds and limited partnership agreements.

5. **Opportunistic**

It is expected that this category will be utilized when market dislocations present unique opportunities to invest at attractive valuations relative to underlying fundamentals across a variety of risk factors and implementations.

No policy target shall be assigned to this category; any capital allocated to this category will be funded from underweight positions relative to policy targets in other asset classes, with the expectation that such opportunistic investments should outperform and/or strengthen the overall diversification of the total portfolio over a given timeframe. Investments in this category should be shorter-term in nature, with final maturities not to exceed seven years.

Exposures may be obtained through public and private securities in various forms and implementations as well as derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, forward contracts, and reverse repurchase agreements may be utilized. Implementations may hold a mix of long/short positions.

Legal account structures will be in the form of separately managed accounts, institutional commingled funds, limited partnership agreements or other similar forms.

6. **Private Debt**

Credit spreads and liquidity risk will be the primary drivers of returns, while interest rate and equity risk may also be present from time to time. Currency risk may also be present when investing in non-U.S. securities, as well as other idiosyncratic risks.

Specific types of strategies include, but are not limited to, opportunistic debt, distressed debt, distressed for control, whole loans and pools, levered loans and pools, and mortgage servicing rights.

Legal account structures will primarily be in the form of limited partnership or limited liability company agreements with average tenure of 5-12 years.

7. **Commodities**

This asset class is driven by changes in expectations for inflation and the supply of and demand for raw materials.

Investments in the asset class are likely to be made through derivative instruments commonly accepted by other institutional investors such as futures, swaps, options, and forward contracts. From time to time, physical securities of raw material companies and/or companies that produce raw materials may be held. Implementations may hold a mix of long/short positions. Commodity exposures may be used to fund a Portable Alpha Program.

Legal account structures may be in the form of separately managed accounts, institutional commingled funds, exchange-traded funds and limited partnership agreements.

8. **Risk Balanced**

This asset class is driven by multiple traditional risk factors including equities, interest rates, commodities, credit spreads and inflation. In most instances, some or all of these factors are balanced in a way that attempts to equalize risk exposures within a portfolio. Additionally, non-traditional risk factors including value, momentum, carry, defensive and trend may be included. It is also expected that idiosyncratic (active) risk will be taken in this portfolio from time to time.

Exposure will be obtained through physical securities and/or conventional derivative instruments commonly accepted by other institutional investors such as, futures, swaps, options, forward contracts and reverse repurchase agreements.

Legal account structures will primarily be in the form of separately managed accounts, institutional commingled funds and limited partnership agreements.

9. **Real Estate/Infrastructure**

These investments may be driven by multiple risk factors depending on how they are positioned in the capital structure. Equity, credit, inflation and liquidity will generally be the primary risk factors. Non-U.S. investments may also possess currency risk.

Specific types of fund investments may be structured as equity and/or debt and include categories broadly defined as core, value added, and opportunistic. In addition, investments may be made in real estate investment trusts and master limited partnerships from time to time.

Legal account structures will primarily be in the form of limited partnership agreements with average tenure of 10-12 years. Separately managed accounts and institutional commingled funds may also be utilized from time to time.

- D. **Portable Alpha Program** – when any combination of market beta exposures are obtained through the use of derivative instruments, a portion of the cash underlying the notional exposures may be used to fund an Alpha Portfolio. At a total portfolio level, the objective of a Portable Alpha Program is to generate excess returns through alpha exposures which, in aggregate, are diversifying to the total portfolio overall.

1. **Definitions**

- a. **Market Beta Exposure** – obtained through owning some broad representation of a given market, usually tracked by a benchmark or index. Within Retirement, Endowment and General Pool, examples of market beta exposures include public equities, sovereign bonds, commodities, and other public debt markets. Common ways to obtain market beta exposures include passive or actively managed mutual funds, ETFs or separate accounts holding individual investment securities.
- b. **Derivative Instruments** – market beta exposures may also be obtained with derivative instruments commonly used by other institutional investors, such as futures, swaps, options, forward contracts and reverse repurchase agreements.
- c. **Notional Exposure** – when derivative instruments are used to obtain market beta exposures, the market exposure obtained is not directly connected to the amount of cash required to obtain such market exposure. For example, obtaining a \$100 million exposure to the S&P 500 using futures could be done with an initial cash outlay of less than \$5 million. In the context of this Portable Alpha Program, \$100 million of notional exposure would be initially funded with \$100 million in cash. The key takeaway is that with a derivatives implementation of market beta exposures, part of the cash underlying the notional exposure is available to fund other types of investment exposures, such as alpha.
- d. **Alpha Portfolio** - Alpha represents investing skill that generates returns alongside, or independent of, a given market beta exposure. For purposes of the Portable Alpha Program, the Alpha Portfolio represents a collection of highly skilled alpha managers able to source alpha independent from a market beta exposure. Alpha managers utilized within the Alpha Portfolio

should be well established and highly institutionalized, have satisfactory liquidity terms, maintain robust risk management systems, and have a demonstrated ability to deliver return streams with generally low volatility and very low correlations (no discernable relationship) to the market beta exposures used to fund the Portable Alpha Program. Common alpha strategies likely contain well-known, empirically tested sources of returns that can be actively or systematically harvested through both long and short implementations including, but not limited to:

- 1) hedge fund risk premia such as arbitrage, macro, credit, and equity long/short;
- 2) style risk premia such as value, momentum, carry, defensive and low volatility;
- 3) other idiosyncratic sources of return.

Legal account structures will be in the form of separate accounts, institutional commingled funds, limited partnerships or other similar forms. The overall mix of investment vehicles and fund structures should allow for at least 20% of the Alpha Portfolio to be redeemed for cash within 90 days, with a minimum of 50% available for cash redemption within six months.

2. **Understanding Liquidity Needs / Cash Margin**

The primary need for liquidity within the Portable Alpha program is the settlement of gains and losses from the mix of market beta exposures implemented through derivatives, which are used to fund the program. To help illustrate this concept: Assume a \$70 million Alpha Portfolio funded by \$100 million in US Treasuries (a market beta exposure). Derivatives would be used to obtain \$100 million notional in US Treasuries market beta exposure. Of the \$100 million in underlying cash, \$70 million is used to fund the Alpha Portfolio with the remaining \$30 million held in cash ("Cash Margin"). The Cash Margin is needed to settle gains or losses on the derivatives used to obtain the \$100 million notional US Treasuries market beta exposure.

As a simplistic example, if US Treasuries gained 10% over a given period, Cash Margin would increase by \$10 million (\$100 million notional x 10% gain). But if US Treasuries lost 10% over a given period, Cash Margin would decrease by \$10 million (\$100 million notional x 10% loss). Overall, Cash Margin should be sufficient to cover potential losses in the market beta exposures implemented through derivatives and used to fund the Alpha Portfolio. More specifically, liquidity needs are driven by the market beta exposures funding the Portable Alpha Program, not the Alpha Portfolio itself.

3. **Sources of Cash Margin**

The following are sources of Cash Margin for the Portable Alpha Program:

- a. Cash balances underlying the market beta exposures obtained through derivatives implementation (for example, the \$30 million in the illustration noted in the section above).
- b. Any unencumbered cash balances held at the total portfolio level, which have been specifically dedicated to the Portable Alpha Program.
- c. Any balances of passive market beta exposures held in ETFs or mutual funds which could be settled (cash received) within three business days. For sake of

- clarity, assume that the Alpha Portfolio was funded by notional US Treasury exposure. Further, assume that the portfolio had additional US Treasury market beta exposure through an index mutual fund, which could be traded with cash settlement within three business days. Under this provision, using this example, the amount invested in the US Treasury index mutual fund could be counted fully or partially as available Cash Margin. From a practical perspective, these passive mutual fund or ETF holdings could be quickly converted to notional derivative exposures (without changing the portfolio's overall market beta exposure), making the underlying cash available for the Portable Alpha Program. Having the flexibility to manage market beta exposures in this way can reduce the financing costs associated with derivative notional implementations while maintaining ready access to cash (liquidity).
- d. Cash redemptions from Alpha Portfolio managers.

4. **Measuring / Testing Liquidity Needs**

With the Portable Alpha Program being funded by a derivatives implementation of some mix of market beta exposures, the measurement and testing of liquidity needs involves assessing how the given mix of these asset classes performs across a representative sample of historical economic and market stress scenarios. In managing liquidity needs, the objective is for the Cash Margin to "survive" these modeled scenarios with some minimum level of Cash Margin remaining after the stressed scenario has occurred. For purposes of this policy, Cash Margin sufficiency shall be determined by taking an average of the five worst modeled scenarios as defined as those scenarios having the greatest depletion of Cash Margin. To be clear, assuming the five worst modeled scenarios consumed 5%, 6%, 8%, 10% and 16% of Cash Margin, the average of these five would be Cash Margin depletion of 9%. The minimum Cash Margin requirement would be 9% plus some additional safety buffer, which would be defined individually in the investment policies for the Retirement, Endowment and General Pool portfolios.

5. **Managing Liquidity Needs**

There are generally six primary ways to manage Cash Margin and liquidity needs during times of market stress. Any of these, or some combination, may be used depending upon the circumstance.

- a. Utilize existing cash balances underlying the market beta exposures obtained through derivatives implementation.
- b. Utilize unencumbered cash balances held at the total portfolio level, if any, which have been specifically dedicated to the Portable Alpha Program.
- c. Convert passive market beta exposures held in ETFs or mutual funds to market beta exposures obtained through derivatives implementation to generate additional cash. As an example, \$50 million in US Treasury index exposure held in a mutual fund could be redeemed and replaced with a derivatives implementation providing the same market beta exposure while making the \$50 million of underlying cash available to the Portable Alpha Program.
- d. If possible, rebalance the mix of market beta exposures funding the Portable Alpha Program from more volatile asset classes to less volatile asset classes.

For example, in a period of equity market drawdown, shifting some mix of Alpha Portfolio funding from public equities to sovereign bonds would lower the volatility of the funding mix, reducing the drawdown exposure and resulting demands on the Cash Margin.

- e. Selective redemption requests to Alpha Portfolio managers will generate additional Cash Margin.
- f. Reducing or eliminating notional market beta exposures obtained through derivative instruments will immediately stop further draws on remaining Cash Margin. For example, if the Portable Alpha Program were funded primarily by public equity notional exposure during a period of equity market drawdown, consideration could be given to eliminating the derivatives equity position through cancellation of the swap, liquidating the futures, etc. Careful consideration should be given to this option as it also eliminates strategic market beta exposure for the portfolio overall; still, this de-risking option may be desirable in times of significant market stress.

6. Operational Requirements

- a. Minimum required Cash Margin balances for each portfolio shall be determined, maintained, and monitored on a daily basis by investment staff.
- b. Modeling of historical economic and market stress scenarios shall be updated by investment staff on a monthly basis utilizing the then current mix of market exposures funding the Portable Alpha Program (which should also include any passive market beta exposures implemented through mutual funds or ETFs which are being included in the Cash Margin calculation).
- c. Should Cash Margin fall below minimum required levels, investment staff shall enact a plan to restore Cash Margin above minimum required levels as quickly as reasonably possible, but within a period of time not to exceed six months. The plan to restore Cash Margin above minimum required levels should be communicated to the Executive Vice President for Finance and Operations and to the University's Investment Consultant.
- d. The results of modeled economic and market stress scenarios and compliance with Cash Margin and Alpha Portfolio liquidity requirements shall be reported to the Board on a quarterly basis.



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

AUGUST 2024

Verus Overview

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September 12, 2024

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Firm Background

Verus was established in 1986 to provide independent consulting services to institutional investors. With offices in Seattle, Los Angeles, San Francisco, Chicago and Pittsburgh, our professionals advise over \$1.1 trillion in client assets for 156 clients. The firm has 36 shareholders and employs 92 people, 74 of whom are investment professionals. Our clients include corporate retirement plans, universities, endowment and foundations, public retirement plans, multi-employer pension and welfare funds, and private wealth trusts.

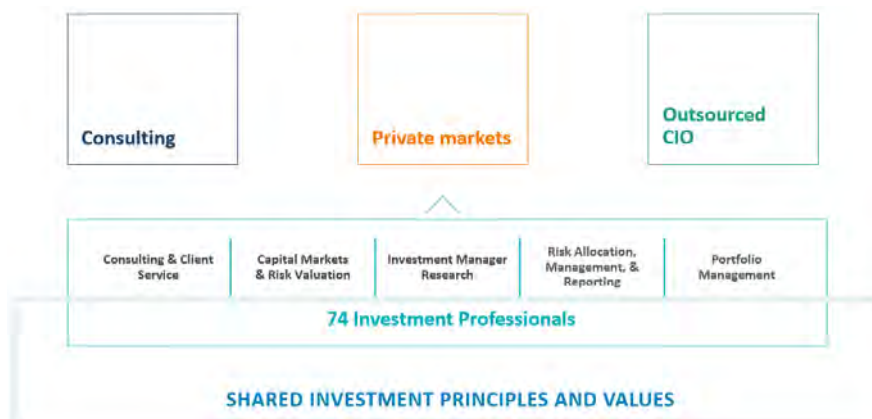
Our core competencies follow a clear and consistent approach, and offer research-driven solutions that enable our clients to prudently discharge their fiduciary responsibilities:

- Thoughtful strategic asset allocation based on your enterprise objectives and risk tolerance, viewed through multi-faceted risk and scenario analytics.
- Effective and efficient implementation, combining best-in-class investment managers, low-cost passive exposures, and appropriate operations.
- Comprehensive asset class research coverage across traditional and alternative investments.
- Ability to identify and capture attractive valuation-based market opportunities.
- Application of risk management best practices across the portfolio to maximize risk-adjusted return.
- Customized reporting that ties investment results to selected milestones in order to better represent true progress.
- Proactive communication and educating clients about the economy, markets, and portfolio construction are key components of our service.

We continue to add new shareholders as part of our commitment to broaden the breadth of ownership among our key employees. We will continue to focus on pursuing a client-centric approach to consulting and strengthening the depth and breadth of the research teams that will be made available to our clients.

Services

Verus provides investment advisory services to achieve clients' enterprise objectives. Our customized solutions are delivered by best-in-class solutions. We have a centralized investment team that supports service delivery for varied client governance models:



Clients

Verus currently has 156 retainer clients with total of more than \$1.1 trillion* in assets under advisement: \$1 trillion in traditional consulting services, and \$8.6 billion in discretionary services. Below is a representative client list.

NOT-FOR-PROFIT		CORPORATE	PUBLIC	MULTI-EMPLOYER		
501(c) Services	Inland Empire Community Foundation	AbbVie, Inc.	Illinois Police Officers' Pension System	112/73 Retirement Trust Fund NECA-IBEW	Juan de la Cruz Farm Workers	Solano and Napa Counties Electrical Workers
American University in Cairo	Leichtag Foundation	Alcoa USA Corp	Imperial County Employees' Retirement System	Alaska Ironworkers	Laborers AGC Pension Trust of Montana	Sound Retirement Trust
Archdiocese of Seattle	Miller Foundation	Apria Healthcare 401K Savings Plan	Indiana Public Retirement System	Alaska Plumbing & Pipefitting	Marine Carpenters	Southern California Cement Masons
Association for Cultural Interchange	MUSC Foundation	Avista Corporation	Kern County Employees' Retirement Assn.	Arizona Bricklayers'	Montebello Teachers Association	Southern California Floor Covering
AVID Center	Offutt Family Foundation	Barrick Gold Corporation	Long Beach Transit Employees Retirement System	Employer-Industrial Sheet Metal Workers Local No. 16	Northern California Pipe Trades	Southern California Glaziers
Barry Foundation	Pacific Lutheran University	Carollo Engineers	Los Angeles Metropolitan Transportation Authority	Gunite Workers	Northwest Ironworkers	Southern California Painting & Drywall Industries
Bellarmino Preparatory School	Puget Sound Energy Foundation	Eastside Retirement Association	Massachusetts PRIM	IATSE Local 16	Oregon and Southwest Washington Painters	Teamsters 206
Carroll College	The Salvation Army – Western Division	Forever Living Products	Missouri State Employees' Retirement System	IATSE Local 720	Oregon Retail Employees	U.A. Local #290 (Portland Plumbers)
Chugach Alaska Corporation	The San Diego Foundation	Hanford Site	Pasadena Fire and Police Retirement System	IBEW #76	Oregon Sheet Metal Workers	U.A. Local #447
Community Foundation of N. Central WA	Scripps Health	Harnish Group	Sacramento County Employees Retirement System	IBEW #100	Painters & Allied Trades Paint Makers	Washington State Plumbers
Community Foundation for Monterey County	Sealaska Corp.	H.D. Fowler Company	San Jose Federated City Employees Retirement System	IBEW #684	Pipe Trades District Council No. 36	Western Glaziers
Community Foundation of Southern Arizona	Seattle Country Day School	Jack in the Box, Inc.	San Luis Obispo County Pension Trust	IBEW #1710	Plasterers Local No. 82	Western States OPEIU Trusts
Concordia College	Sherwood Trust	Karsten Manufacturing	San Mateo County Employees Retirement Association	IBEW Pacific Coast	Puget Sound Electrical Workers	Western Washington Laborers
Confluence Health	Skagit Regional Health	Moss-Adams LLP	South Carolina Retirement System	Idaho Operating Engineers	San Diego County Cement Masons	Western Washington Laborers
Congregation of the Sisters of Mercy	St Paul & Minnesota Community Foundation	Mutual of Enumclaw Insurance Company	Stanislaus County Employees' Retirement Association	Idaho Operating Engineers	San Diego Teamsters	Western Washington U.A. Supplemental
Diocese of San Bernardino	University Corporation at Monterey Bay	NECA Puget Sound Chapter	Tennessee Consolidated Retirement System	Inlandboatmen's Union	San Diego Theatrical Sheet Metal Local 88	
El Rio Health	University of Colorado Health	NNSA Independent Guard Association of Nevada	Tulare County Employees' Retirement Assn.	Inland Empire Electrical Workers		
Evergreen Healthcare	University of Colorado Medicine	Sullivan Family of Companies	Wisconsin State Investment Board	International Painters and Allied Trades		
Gonzaga University	University of Missouri System	The Seattle Times		Industry Pension and Annuity Funds (IUPAT)		
Hospice Giving Foundation	UC San Diego Foundation	Unibail-Rodamco-Westfield				
Idaho Community Foundation	Whitworth University					

*Preliminary assets under advisement as of April 30, 2024

Our Philosophy

Our consulting capabilities follow a consistent and research-driven approach that is governed by the following principles:

1. Return objectives, tolerance for risk, and the strategic mission of the enterprise should drive strategic asset allocation.
2. Risk-free rates and risk premia drive most market returns and are themselves influenced by market and economic fundamentals.
3. Investment skill exists, and the deployment of active management where inefficiencies can be exploited is often essential to achieving investment success in both public and private markets.
4. Fees and costs must be managed and minimized where appropriate.
5. Good results can best be achieved by managing uncertainty using varied risk management tools, complemented by discipline, skepticism, and humility.
6. A portfolio should be as simple as possible for the goals it is designed to achieve. Investment complexity requires strong governance and appropriate investment oversight.

Manager Search and Research

Verus assists our clients with sourcing, evaluation, selection, and monitoring of managers and investment products for both public and private assets in the following ways: (1) Identifying new investment opportunities. (2) Providing comparative data from a comprehensive investment manager database of global public and private market asset managers as well as Verus' recommended manager list and manager evaluation protocols. (3) Providing investment manager research reports and information related to public and private investments, managers, economic and/or general market conditions. (4) Assisting with the preparation of Requests for Proposals, development of evaluation factors and methods, evaluating proposals, interviewing managers, and making recommendations concerning the selection and termination of managers. (5) Reviewing benchmarks, performance objectives, risk tolerances and investment guidelines for the selected external public and private market managers. (6) Reviewing the investment philosophy, decision-making process, strategies, and competitive advantages of public and private market managers.

The overarching goal of our manager evaluation and selection process is to find reliable, institutional-quality investment products that have a proven repeatable approach for producing returns over the long-term. What we look for are differentiating characteristics around five key principles that guide due diligence and will most likely drive investment outcomes:

- Alignment: The investment product is supported by a robust and stable organizational and team structure.
- Edge: The manager has articulated an inefficiency or market-based belief that informs its process.
- Implementation: The manager has described an investment approach which is sensible and repeatable.
- Optimal Use of Risk: The manager has an effective framework to assess and manage risk inherent in its process.
- Understandable Performance: Historical and future performance sensitivities are consistent with the manager's process.

Performance Measurement

Verus' main tool for performance analytics and source of peer universe data is Investment Metrics' Portfolio Analytics Reporting platform (PARis). PARis enables institutional investors and advisors to aggregate, analyze, optimize, and report on investment portfolios across plan types, plan sizes, asset classes, styles, and universes. PARis is built on a single, integrated platform, aggregating data from custodians, market indexes, managers, and clients and covering over \$14 trillion in assets under advisement for over 20,000 institutional plans and 900,000 portfolios. The solution provides over 200 standard reports with built-in analytics and the flexibility to create branded, customized reports for institutional investment portfolios with confidence, differentiation, and efficiency. The databases contain at least twenty-five years of performance data on each of the major asset classes and are updated monthly.

Performance is calculated internally and verified by an 18-person Performance Analytics team. Our standard performance measurement reporting package includes the following sections: Executive Summary, Capital Markets Review, Asset Allocation Review, Performance Detail and Total Fund, Asset Class and Manager Levels, and Performance Attribution and Analytics.

Private Markets Consulting

Many of our clients allocate 3-30% of their assets to the private markets (buyouts, venture capital, debt-related and international investments). As in public markets investments, we apply the “three legs” of managing an investment program to the private markets arena: strategic planning, policy implementation, and monitoring. Specifically, we assist our clients in the following areas:

- Review of current alternative investments program
- Private markets education
- Restructuring of current program
- Private markets asset class allocation program
- Development of private markets investment policy and guidelines
- Partnership reviews and recommendations
- Due diligence reviews of current and prospective partnerships
- Ongoing oversight and performance measurement of private markets investments

We have a dedicated consulting team who specialize in private markets consulting and use a combination of in-house research, due diligence, and third-party databases to support our efforts. We believe that success in this asset class is not a random occurrence, but a discipline that can be monitored and replicated—both by the general partners and the plan sponsor—and we help provide that discipline through our services.

Trustee Education

Verus develops educational programs for our clients’ trustees, typically as an integral part of the strategic planning/asset allocation process. We have conducted various types of on-site training and education workshops for institutional investors covering topics, such as:

- Fiduciary Responsibility
- Performance Measurement
- Securities Lending
- Mortgage-Backed Securities
- Asset Allocation
- Investment Industry Evolution
- New Trustee Education
- Option Strategies
- International Investing
- 401(k) Participation
- Capital Market Theory
- Venture Capital Investing
- Overlay Implementation
- Alternative Investments
- Manager Search
- Emerging Markets
- Hedge Funds

Biographies

Mr. Jeffrey MacLean

Chief Executive Officer

Mr. MacLean joined Verus in 1992 and is primarily responsible for managing the firm and providing investment advice to several clients. He has over 36 years of investment and consulting experience, working with all asset classes for a range of clients including corporate defined benefit plans, public institutions, multi-employer trusts, endowments, and foundations. He chairs the firm's management committee, as well as the investment committee, which provides strategic guidance on research initiatives and vets investment manager recommendations. He also is a member of the OCIO investment committee and a majority shareholder of the firm.

Mr. MacLean often speaks at investment forums regarding the macro-economic environment, asset allocation, risk management, alternative investments, and industry trends. Prior to joining Verus, Mr. MacLean was Vice President of Shurgard Realty Group, a real estate advisory firm, and a consultant for Arthur Andersen & Company.

Mr. MacLean currently volunteers for Children's Hospital of Los Angeles and he serves on the advisory board for the University of Washington Foster School of Business. He holds a master's degree in business administration (MBA) from the Darden School of Business and a bachelor's degree in business administration (BBA) from the University of Washington, where he served as student body president in his senior year.

Mr. Faraz Shooshani

Managing Director | Senior Private Markets Consultant

Mr. Shooshani has more than 26 years of investment and consulting experience, with over 13 years focused on private equity. He joined Verus in 2016 from Strategic Investment Solutions. Mr. Shooshani is a shareholder, sits on the management committee, and he oversees private markets research and consulting at Verus. Additionally, he is the lead consultant on a number client relationships, helping the firm's endowment & foundations, healthcare, and public clients build and manage their private markets and alternatives investments. Mr. Shooshani is a frequent speaker at investment industry conferences globally.

Prior to becoming an investment consultant, Mr. Shooshani was part of the investment management team at the California Institute of Technology (Caltech), where he helped restructure and diversify the university's endowment, charitable income trust, operating cash, and technology transfer stock portfolios. Previously he founded Catapult Ventures, a venture catalyst practice that launched seed- and early-stage startups as venture backed concerns in Silicon Valley.

Mr. Shooshani started his professional career with Booz Allen, a global management consulting firm focused on business strategy, operations efficiency, and information systems across sectors.

VERUS OVERVIEW

Additionally, he held finance and sales and marketing roles at a number of operating companies in real estate, textiles, and semiconductor industries.

Mr. Shooshani is an active member and a volunteer at Congregation Emanu-El in San Francisco. He earned his master's in business administration (MBA) from the Yale School of Management, and a bachelor of arts (BA) degree in Economics from the University of California, Berkeley.



Mr. Timothy McEnery, CFA

Managing Director | Senior Consultant

Mr. McEnery is primarily responsible for providing a broad range of investment consulting services to clients to help them in reaching their long-term investment objectives. He has extensive experience partnering with a wide range of institutional investors on every aspect of the investment process, from policy-level decisions to exploring new and innovative investment strategies. He has been a key contributor to special projects that cross multiple asset classes related to portfolio design and investment strategy. In addition, he is a shareholder of the firm and a member of the Verus Investment Committee.

Prior to joining Verus in 2022, Mr. McEnery spent 15 years with Aon (formally EnnisKnupp & Associates), where he served as the primary consultant to several of the firm's discretionary (OCIO) and non-discretionary client relationships. He worked with institutional investors of varying size and complexity whose assets ranged from \$100 million to \$95 billion and included public retirement systems, corporate pension funds and non-profit institutions including endowments, foundations and faith-based organizations. In addition to his work with clients, Mr. McEnery served as a member of Aon's Non-Profit Leadership Team, Public Fund Interest Group, and led a team of senior consultants in Chicago and Philadelphia.

Mr. McEnery is a CFA charterholder (Chartered Financial Analyst) and a member of the CFA Institute and the CFA Society of Chicago. He has a Bachelor of Science degree (BS) in Finance from Eastern Illinois University. Mr. McEnery recently served as a member of the Emerging Leaders Board at Misericordia, a residential facility in Chicago that serves over 600 adults and children with developmental disabilities.



Mr. Paul Kreiselmaier, CFA

Director | Hedge Funds

Mr. Kreiselmaier has over 30 years of investment experience in various roles in both manager due diligence and quantitative research and portfolio management. At Verus, he is primarily responsible for investment strategy, due diligence, portfolio construction recommendations and relationship building across the hedge fund universe, and oversight of the firm's hedge fund program.

Prior to joining Verus, he was a senior research analyst at Russell Investments where he was responsible for evaluating, recommending, and monitoring hedge fund managers for inclusion in client portfolios. He began his career at Russell evaluating US large cap equity and Global Tactical Asset Allocation (GTAA)

managers. He also worked at Mellon Capital Management where he held both research and portfolio management related roles focused on both equity and GTAA mandates.

Mr. Kreiselmaier graduated from Trinity University with a bachelor of arts (BA) degree in economics. He also holds a master's degree in business administration (MBA) from the University of Texas at Austin. He is a CFA charterholder (Chartered Financial Analyst) and a member of both the CFA Institute and the CFA Society of Seattle. Mr. Kreiselmaier is also a member of the Chicago Quantitative Alliance (CQA).

Mr. Marcel Gesell, CFA

Consultant

Mr. Gesell originally joined Verus in 2016 with the merger of Strategic Investment Solutions, rejoining in 2019. Working out of the San Francisco office, he provides general consulting services to a select group of institutional clients. He was also previously responsible for risk-related client support, thought leadership, and contributions to the firm's risk consulting practice. He has more than fifteen years of experience helping large institutional investors design and maintain risk-efficient asset mixes appropriate to their liabilities and their particular level of risk tolerance.

Mr. Gesell joined Strategic Investment Solutions in 2000. Before that, he served as a portfolio manager at First Interstate Bank (now Wells Fargo), where he managed \$200 million in private client accounts. He was responsible for establishing his clients' strategic plans, investment objectives, asset allocation mixes, and portfolio structure.

Mr. Gesell is a CFA charterholder (Chartered Financial Analyst) and a member of the CFA Society of San Francisco. He has a bachelor of science degree (BS) in computational mathematics from Arizona State University and holds a master's degree in business administration (MBA) in finance from San Francisco State University. Prior to his investment management career, he served as a commissioned officer in the United States Army.

Past performance is no guarantee of future results. This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other "forward-looking statements." No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Verus Advisory Inc. also known as Verus.



Office of the Chancellor

August 23, 2024

Mun Y. Choi, Ph.D.
President
University of Missouri System
321 University Hall
Columbia, MO 65211

Dear Dr. Choi,

This letter serves as a brief summary of the 2023-24 data provided in the annual athletics report required by CCR 270.060 (E). More specifically, this letter summarizes data provided per subparts (a) through (E) of CCR 270.060 (E).

- a. Rates of admissions exceptions for Athletics as compared to campus admissions exceptions.

There were 1168 student admissions exceptions made, 16 of which were made for student-athletes.

- b. Academic Progress Rates (APR) by sport, as defined by the NCAA, if applicable.

The NCAA's APR is a measurement of eligibility and retention. As determined by the NCAA all varsity teams are evaluated and need to meet the minimum multi-year threshold score of 930. The maximum score a team can achieve is 1000. The APR score is a four year average.

The majority of Kansas City Athletics teams scored above 960. Men's basketball scored 958, while women's basketball scored 972 and volleyball scored 985. Women's soccer scored 995 and men's soccer scored 980. Women's tennis scored 991, and women's soccer 995. Complete APR details can be found in the attached annual athletics report (spreadsheet).

- c. Graduation Success Rate (GSR) by sport, as defined by the NCAA if applicable.

There are two main metrics used to track student-athlete graduation rates, the Federal Graduation Rate (FGR) and the Graduation Success Rate (GSR). Both methods analyze the percentage of students who complete a BA/BS within a six year time frame. The FGR counts all transfers as academic failures, however the GSR calculation allows for transfers in and out. In the GSR calculation, student-athletes who depart a school while in good academic standing (meeting the NCAA's Progress Towards Degree standards) are passed from one school's cohort to another school's cohort.

For 2022-23 Kansas City's GSR was 91%. The federal rate was 67% for student-athletes and 55% for UMKC students. The GSR for men's basketball was 92%, while women's basketball scored 100%.



Office of the Chancellor

- d. Financial performances of all operations of the Department of Intercollegiate Athletics.

The department had a total expense sum of \$17,404,162 for Fiscal Year 2024. The department was impacted in the reduction of revenue from the NCAA/Summit League, and adjustments are being made moving forward. Overall, the department ran a deficit in its change in net asset goals at \$1,465,134. The increased cost of business also impacted the department, in particular, in the area of team travel by \$504,740. The department reached several revenue goals, including gift revenue totaling \$655,074. More detailed information regarding the budget and financial picture can be found in the attached annual athletics report.

- e. Those items as the President may from time to time direct be added to the annual reports.

Academic Highlights:

Kansas City Athletics continues to produce strong results in the classroom. The cumulative GPA for student-athletes rose to 3.40 after the spring semester, with 9 of 10 teams achieving a GPA above 3.0. Leading the way in GPA was men's soccer at 3.60, followed closely by women's soccer at 3.56, and volleyball at 3.53. The Graduation Success Rate reached 91%. 154 student-athletes were named to the 2023-24 Summit League Academic Honor Roll, an increase of 21 from 2022-23.

Inclusion Highlights:

Kansas City Athletics continues to engage the urban core. Our Department and Teams continue to engage with the Boys and Girls Club, Turn the Page KC, Children's Mercy Hospital, and several local elementary schools. The department also participated Title IX training from KC Atchinson, Director of Affirmative Action. We also provided mental health training to all 10 of our sports teams and engaged all new student-athletes in Step UP! bystander intervention training.

Leadership Highlights:

Dr. Brandon Martin continued his impressive elevation of Kansas City Athletics throughout 2023-24. He continued to prioritize the external unit and focus on securing revenue while enhancing the Athletic Department's relevance within the region. Dr. Martin ushered in a leadership transition within the external unit to ensure the department works toward enhancing its gift revenue – an important piece of sustainable growth within the new landscape of college athletics. Dr. Martin also secured several new partnerships, including, University Health, and Illicit Sports. He worked to secure NIL deals for KC Athletics' student-athletes forging partnerships with companies such as Shot Tracker. The NIL opportunities secured have assisted in retention rates on select team. Additionally, Dr. Martin engaged with MRJ Advisors to assist his department in building an Impact Plan of Excellence (strategic plan) which will assist with the department's forward elevation over the next 1-3 years.

Athletic Highlights:

KC Athletics had another successful competitive season. Men's Golf won its second consecutive conference championship, while volleyball captured a share of the regular season Summit League title. Men's soccer qualified for the second year in a row for the conference championship game. Men's basketball placed second in the regular season, tied for the best finish ever in program history. They also ended the season on a six-game winning streak, and will return all of their starters for 2024-25. As our teams strive for competitive excellence, four head coaches won conference Coach of the Year – women's soccer, Jessica Smith, volleyball, Christi Posey, men's basketball, Marvin Menzies, and men's golf, JW Vandeborn.



Office of the Chancellor

We are hopeful that this information is helpful to you and to the Board of Curators. Please feel free to contact me for any additional questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Agrawal", is positioned below the word "Sincerely,". The signature is fluid and cursive, with a horizontal line underneath the name.

C. Mauli Agrawal, Ph.D.
Chancellor

Enclosures:
Annual Athletic Department Report 2023-24 – Kansas City

2023-2024 ANNUAL REPORT
Department of Intercollegiate Athletics

UMKC

Men's Sports

- Baseball
- X Basketball
- X Cross Country
- Football
- X Golf
- X Indoor Track & Field
- X Outdoor Track & Field
- Rifle
- X Soccer
- Tennis
- Swimming & Diving
- Wrestling

Women's Sports

- X Basketball
- X Cross Country
- Golf
- Gymnastics
- X Indoor Track & Field
- X Outdoor Track & Field
- Rifle
- X Soccer
- X Softball
- Swimming & Diving
- X Tennis
- X Volleyball

**UNIVERSITY OF MISSOURI - KANSAS CITY
INTERCOLLEGIATE ATHLETIC DEPARTMENT**

SCHEDULE OF REVENUES AND EXPENDITURES
FOR THE YEAR ENDED JUNE 30, 2024

	<u>Men's Basketball</u>	<u>Woman's Basketball</u>	<u>Other Sports</u>	<u>Non-Program Specific</u>	<u>2024 Total</u>
OPERATING REVENUES:					
Ticket Sales	81,460	21,814	17,630	176	121,080
Student Fees	—			3,575,885	3,575,885
Guarantees	182,000	28,000	19,000	—	229,000
Contributions (Gifts)	105,165	1,417	14,715	533,777	655,074
Direct Institutional Support	241,807	202,350	2,055,844	7,162,806	9,662,806
Indirect Facilities and Administrative Support	—			465,260	465,260
NCAA/Conference Distributions Including All Tournament Revenue	—	—	—	549,407	549,407
Royalties, Advertisements and Sponsorships	—	—	—	455,438	455,438
Program Sales, Concessions, Novelty Sales and Parking	—			14,273	14,273
Sports Camp Revenue	21,930	8,516	92,452	—	122,898
Endowment and Investment Income	—	—	—	35,416	35,416
Other Operating Revenues	1,553	571	2,428	47,940	52,492
Total operating revenues	633,914	262,668	2,202,069	12,840,377	15,939,028
OPERATING EXPENDITURES:					
Athletics Student Aid	789,817	680,465	3,115,612	979,074	5,564,968
Guarantees	7,000	4,000	—	—	11,000
Coaching Salaries and Benefits Paid by the University	929,499	874,294	1,550,283	—	3,354,075
Support Staff/Administrative Salaries, Benefits, and Bonuses Paid by the University	93,239	73,318	—	1,779,108	1,945,665
Severance	—				-
Recruiting	77,603	47,411	71,364	—	196,377
Team Travel	579,230	277,832	956,293	56,810	1,870,165
Equipment Uniforms and Supplies	83,618	72,059	273,624	349,335	778,636
Game Expense	90,919	85,581	64,736	98,606	339,842
Fundraising, Marketing and Promotion	11,339	9,608	1,673	350,945	373,564
Sports Camp Expenses	16,362	432	30,949	—	47,742
Direct Facilities, Maintenance and Rental	11,057	5,977	54,681	137,391	209,106
Spirit Groups	-	-	-	61,649	61,649
Indirect Facilities and Administrative Support	—	—	—	465,260	465,260
Medical Expense and Medical Insurance	—	—	—	571,833	571,833
Membership and Dues	2,822	—	1,463	53,521	57,805
Student Athlete Meals Non Travel	87,542	39,999	30,536	—	158,078
Other Departmental Operating Expenses	135,932	69,977	178,288	1,014,199	1,398,396
Total operating expenses	2,915,978	2,240,954	6,329,500	5,917,730	17,404,162
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(2,282,064)	(1,978,286)	(4,127,431)	6,922,647	(1,465,134)
TRANSFERS OUT:					
Net Transfers	-	-	-	-	-
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES AND TRANSFERS	(2,282,064)	(1,978,286)	(4,127,431)	6,922,647	(1,465,134)

2023-2024 ANNUAL REPORT
Department of Intercollegiate Athletics

UMKC

Athletic Participation by Student Athletes

Men's Sports	Scholarship	Walk-On	Total
Basketball	13	4	17
Golf	8	1	9
Soccer	33	3	36
Track & Field/Cross Country	31	9	40
Tennis			
Subtotal	85	17	102

Women's Sports	Scholarship	Walk-On	Total
Basketball	15	0	15
Golf			0
Soccer	31	0	31
Softball	25	1	26
Tennis	8	2	10
Track & Field/Cross Country	38	1	39
Volleyball	13	5	18
Subtotal	130	9	139

Grand Total	215	26	241
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NOTE: Scholarship student-athletes include all students receiving athletic aid awards, including post-eligible and medical awards.

2023-2024 ANNUAL REPORT
Department of Intercollegiate Athletics

UMKC

Academic Progress Rate by Sport

Men's Sports (indicate if not applicable--n/a)	APR Score
Basketball	958
Cross Country	925
Golf	964
Track & Field	958
Soccer	980

Women's Sports (indicate if not applicable--n/a)	
Basketball	972
Cross Country	985
Track & Field	940
Soccer	995
Softball	975
Tennis	991
Volleyball	985

Department of Intercollegiate Athletics

UMKC

Grade Point Averages by Semester

	2020-21		2021-22		2022-23		2023-24		4-Year
Men's Sports	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Average
Basketball	3.200	3.120	3.05	3.04	3.01	2.69	2.70	2.94	2.969
Golf	3.590	3.650	3.54	3.66	3.58	3.62	3.42	3.55	3.576
Soccer	3.360	3.340	3.09	3.10	3.45	3.44	3.48	3.60	3.358
Cross Country	3.530	3.480	2.71	3.14	3.27	3.25	3.43	3.28	3.261
Indoor Track	3.190	3.060	2.82	3.23	3.17	3.13	3.26	3.17	3.129
Outdoor Track	3.190	3.060	2.82	3.23	3.17	3.13	3.26	3.17	3.129
Average	3.343	3.285	3.005	3.233	3.275	3.210	3.258	3.285	3.237

	2020-21		2021-22		2022-23		2023-24		4-Year
Women's Sports	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Average
Basketball	3.210	3.290	3.240	3.280	3.220	2.450	3.18	3.15	3.128
Soccer	3.640	3.650	3.490	3.640	3.620	3.680	3.49	3.56	3.596
Softball	3.370	3.300	3.190	3.090	3.330	3.440	3.36	3.43	3.314
Tennis	3.590	3.680	3.560	3.770	3.790	3.620	3.43	3.58	3.628
Cross Country	3.880	3.470	3.160	3.390	3.440	3.510	3.25	3.22	3.415
Indoor Track	3.420	3.170	3.190	3.390	3.250	3.340	3.12	3.26	3.268
Outdoor Track	3.240	3.170	3.190	3.390	3.250	3.340	3.12	3.26	3.245
Volleyball	3.410	3.470	3.410	3.690	3.620	3.600	3.36	3.51	3.509
Average	3.470	3.400	3.470	3.400	3.304	3.455	3.440	3.373	3.388

Overall Average	3.457	3.389	3.291	3.427	3.410	3.365	3.301	3.363	3.373
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NOTE: Scholarship student-athletes include all students receiving athletic aid awards, including post-eligible and medical awards.

2023-2024 ANNUAL REPORT
Department of Intercollegiate Athletics

UMKC

STUDENT-ATHLETE GRADUATION RATES (Freshman cohort)

Six-year average (federal IPEDS rate)	All Students	Student Athletes
2016-2017 cohort	55%	67%
2015-2016 cohort	55%	69%
2014-15 cohort	50%	66%
2013-14 cohort	51%	69%
2012-13 cohort	47%	66%
2011-12 cohort	48%	62%

Six-year average (graduation success rate)	All Students	Student Athletes
2016-2017 cohort		91%
2015-2016 cohort		95%
2014-15 cohort		94%
2013-14 cohort		95%
2012-13 cohort		95%
2011-12 cohort		92%

**2023-2024 ANNUAL REPORT
Department of Intercollegiate Athletics**

UMKC

Admission Exceptions

	Summer 2023	Fall 2023	Spring 2024	Total
Student-Athlete Admission Exceptions (<i># of individual exceptions</i>)	6	10	0	16
All Student Admission Exceptions (<i># of individual exceptions</i>)	30	997	141	1168
Percent of Admissions Exceptions who are Student-Athletes	20.00%	1.00%	0.00%	1.37%

Achieving Excellence Together

University of Missouri 2024-2030 Strategic Plan

Introduction

This is a pivotal moment for our state and the world. Many see the challenges our society faces. But at the University of Missouri, we see opportunities. Opportunities for energy innovations for a sustainable future. Opportunities for tailor-made precision health treatments that can eradicate cancer and cure other illnesses. Opportunities for agricultural breakthroughs to feed the world. Opportunities to enhance the understanding of our world both past and present through the humanities and the arts. Opportunities to embrace civil discourse, leadership and intellectual pluralism for the exchange of ideals central to a democratic society. And opportunities to educate well-rounded leaders through a unique learning experience.

The University of Missouri is our state's flagship, land-grant, SEC university and one of America's leading research institutions as a member of the prestigious Association of American Universities. Our university includes 13 schools and colleges and is made up of exceptional faculty, staff, and students - all driven by Mizzou's core values of respect, responsibility, discovery and excellence. Our work is focused on improving the lives of others and building a better future for the next generation. Each day, our students, faculty, and staff advance this goal through a shared commitment to student success, research and scholarship, and meaningful engagement.

Through this strategic plan, we will pursue meaningful progress that has a positive impact on all of us. And that's the inspiration for the strategic plan. We're pursuing a vision that's focused on tangible, high-impact changes. It's a plan that fuels our most promising research and creative works to change our world for the better. We're looking beyond the moment and toward a horizon that we can reach — a horizon that's focused on our state, our country and our world.

In September 2018, the University of Missouri created a strategic plan, The Flagship of the Future, in line with the UM System's Missouri Compacts for Achieving Excellence. The plan embodied the university's commitment to excellence for students, faculty, staff, alumni, and the larger community using unifying strategies systemwide to inform and guide university strategic plans.

Those five compacts were:

1. Student Success
2. Research and Creative Works
3. Engagement and Outreach
4. Inclusive Excellence
5. Planning, Operations and Stewardship

Mizzou's new strategic plan maintains specific goals and strategies consistent with the core missions of a public, land-grant research university across three themes:

- Promote Student Success
- Elevate High Impact Research, Scholarship and Creative Works
- Foster Meaningful Outreach and Engagement

Promoting inclusive excellence and engaging in efficient and effective planning, operations and stewardship continue to be fundamental to the success of our strategic plan. In this plan we conceptualize these original compacts as overarching principles that will help us achieve our goals and implement strategies designed to promote student success, elevate high impact research and scholarship, and foster meaningful outreach and engagement.

Our students, faculty and staff encompass a wide array of backgrounds, experiences and perspectives, including first-generation, rural, and international students; individuals from under-represented groups; veterans; people with different abilities; and many others. An inclusive environment promotes respectful debate that explores differing perspectives about complex topics – intellectual pluralism – and enables all of us to achieve the excellence we seek in teaching and learning, research and engagement. And clearly, in striving for an inclusive university, we must not exclude (or give impressions that we are excluding) individuals with different backgrounds, experiences and perspectives. We believe that fostering an environment that embraces diverse perspectives and intellectual pluralism leads to better curricular and co-curricular experiences for our students, innovative scholarship from our researchers, and a more welcoming work environment for our employees. We also recognize that to be successful after graduation our students will need to be comfortable working with many individuals who come from different backgrounds and have different perspectives. By aligning these efforts in service of our core campus values of respect, responsibility, discovery and excellence, we stand firmly convinced that we can make Mizzou a better place for all to learn, work, serve, and innovate.

Mizzou is committed to being transparent and efficient with our use of resources, including student tuition and taxpayer dollars. We must ensure that strategy drives our budget and that we invest wisely and effectively in our teaching, research, and engagement efforts through comprehensive data-driven decision-making. Mizzou relies on people to operate, and we must continually improve the quality of our services within human resources, finance and information technology, eliminate unnecessary administrative costs, and remain mindful of deficient facilities and needed improvements to make facilities accessible to all.

Current Key Initiatives

Mizzou relies on its tradition of interdisciplinary collaboration and excellence that brings experts together to address global challenges. Through thoughtful planning, these initiatives are aligned with the MU Master Plan and coordinated with the comprehensive campaign (see below):

- MizzouForward is a 10-year, \$1.5 billion investment focused on student success, research productivity, infrastructure improvements and service to the state of Missouri.
- NextGen Precision Health highlights the promise of personalized health care and promotes innovative research to deliver on that promise.
- The University of Missouri Research Reactor (MURR) improves and saves lives through critical cancer-fighting research and medical isotope production.
- NextGen MURR will expand MURR’s success by creating an innovation hub for nuclear medicine that will expand both clinical and research capabilities.
- The Center for Energy Innovation is committed to tackling local and global challenges presented by rising concerns over energy and sustainability and rapid growth in artificial intelligence.

- The Cyber Education, Research and Infrastructure Center serves as a multi-university, multi-disciplinary center in areas relating to Cyber, Artificial Intelligence and Big Data Analytics to foster information technology innovations.
- The Center for the Humanities nurtures the work of humanists by supporting novel interdisciplinary research and teaching and undertaking public outreach at the local and state level.
- The Kinder Institute for Constitutional Democracy is dedicated to excellence in research, teaching, and community engagement on the subjects of political thought, history, and institutions, with a particular emphasis on the ideas and events of the American Founding and their continued global impact and relevance today.
- The Novak Leadership Institute is the world's first center dedicated to strategic communication-based leadership education. Their mission is to prepare lifelong leaders to make a positive and meaningful impact in their organizations and communities.

In 2025, Mizzou plans to launch a \$2 billion [comprehensive campaign](#) to deliver even more for Missourians and expand its land-grant mission of teaching, research and engagement to a new generation. The campaign themes are aligned to the strategic plan and include:

- Educate Future Leaders,
- Save and Improve Lives,
- Build a Sustainable World,
- Strengthen Communities
- Develop Champions.

Each theme provides donors with a variety of opportunities and projects to philanthropically support ranging from agriculture to medicine, the sciences, student success and athletics. The comprehensive campaign will fuel the growth of Mizzou and create real change for Missouri and beyond.

Strategic Plan Theme 1: Promote Student Success

The world around us is rapidly transforming, and effective leaders are the pillars to advance our society. The University of Missouri's key mission is – and always will be – to educate the next generation of leaders with principles of civil discourse, leadership, resilience, intellectual pluralism, respect, and creativity.

We already have a track record of success in educating future leaders across the university. Time Magazine recently named Mizzou #13 among all public universities in educating leaders for the future. Mizzou was also ranked as the #7 Best Value among all flagship universities by the US News & World Report.

We want to continue this legacy of success and become the university of choice for top students in Missouri, the Midwest, and across the country. But the task won't be easy: demographic shifts and changing perceptions of higher education mean we'll have to be bolder and even more creative in our student recruitment efforts.

It's no secret that the campus visit is a key factor in the college search. At Mizzou, we work to distinguish ourselves from our competitors at every step of the enrollment journey, including

prospective students' first moments on campus. Modern approaches using artificial intelligence and analytics will enable Mizzou to match our programs with students from Missouri and beyond.

Throughout the recruitment process, we'll further attract the nation's top students by highlighting educational programs that showcase the Missouri Method for hands-on, experiential approaches. Students at Mizzou work alongside professors in research labs and on field sites, assist professors treating patients at one of the top hospitals in the state, and provide on-air reports for KOMU, our NBC-affiliated, student-staffed newsroom.

Mizzou faculty and staff seek to create systems, processes, and environments where all students can pursue the successful completion of their education. As a university, we track student success by using measurable outcomes - enrollment, engagement in academic, co-curricular and extra-curricular activities, academic persistence, degree and certificate attainment, reduction in achievement, access and opportunity gaps, high-impact practice participation, belonging and wellness, post-graduate education, and career attainment.

Student Success Goals

- **Goal 1 (Strategies 1, 5-6):** Increase the annual size of our new incoming undergraduate student class, including both first-time college and transfer, from 7,200 to 7,500 by 2030.
- **Goal 2 (Strategies 1, 5-6):** Increase the number of graduate and professional students from 7,200 to 9,000 by 2030.
- **Goal 3 (Strategies 1, 5-6):** Increase the number of online students enrolled in a degree program from 5,500 to 7,000 by 2030.
- **Goal 4 (Strategies 1-3, 6):** Increase undergraduate first-year retention rate from 93% to 95% by 2030.
- **Goal 5 (Strategies 1-3, 6):** Increase four-year undergraduate graduation rate from 58% to 66% by 2030.
- **Goal 6 (Strategies 1-3, 6):** Increase six-year undergraduate graduation rate from 76% to 82% by 2030.
- **Goal 7 (Strategies 1, 3-4):** Achieve 100% participation rate of graduating seniors in 3+ high impact educational practices (e.g., undergraduate research; study abroad; practicum/experiential learning experiences; internships; leadership development).
- **Goal 8 (Strategy 1, 4):** Improve career success rate from 95% to 98% by 2030.
- **Goal 9 (Strategy 4):** Increase the number of undergraduate and graduate students applying for prestigious external awards, grants, and fellowships from 30 to 100 by 2030.

For goals 4-6, we will have a particular focus on implementing strategies that have the potential to improve outcomes for demographic groups whose outcomes are significantly below the campus average, while still focusing on improving outcomes for all students.

Strategies and Tactics to achieve Student Success Goals

- **Strategy 1: Enhance Student Experience & Success**
 - Establish Mizzou 101 as a required first-year course that addresses the key aspects of first-year student success that embeds civil discourse, intellectual pluralism, leadership, and professionalism among other important topics.
 - Introduce the concept of academic interest pathways during recruitment and onboarding and organize lectures and discussion sections around themed academic pathways.
 - Establish enhanced summer course schedule for students to complete their degrees on time.
 - Continue to offer new online courses for students to supplement in-person curriculum to explore new disciplines as well as increase completion rates.
 - Create close-to-degree completion initiatives, focusing on students within one year of completing their degree.
 - Continually evaluate and revise policies regarding dismissals based on financial reasons to enable students to re-enroll and complete their degrees.
 - Develop grant-funded research experience programs for undergraduate students.
 - Develop grant-funded training programs for graduate, professional and post-doctoral students.
 - Develop industry-sponsored internship programs for all students.
 - Improve accessibility, including digital accessibility, course design, and transportation.
 - Increase mental health resources.
 - Create new and enhance existing summer bridge programs.
 - Offer more courses of different length than the traditional semester-long format.
 - Provide resources and support to address achievement, access, and opportunity gaps.
- **Strategy 2: Enhance Programs to Support Financial Wellness**
 - Develop strategies and priorities for awarding endowed scholarships.
 - Establish a basic needs financial wellness initiative for Pell and near-Pell students and their families.
 - Develop strategies to address food and housing security.
 - Expand work related to on campus employment as a student success strategy.
 - Establish a campus-wide policy for awarding emergency aid to students.
 - Continue to utilize Ruffalo Noel-Levitz for financial aid optimization.
- **Strategy 3: Enhance Proactive Advising**
 - Increase number of academic advisors to maintain smaller advising loads that allow for regular interactions with advisees.
 - Support onboarding, academic advisor training and professional development that utilizes a more dynamic career ladder for academic advisors and student support staff.

- Establish transition advisor for every competitive major to enhance academic pathways planning and to create a more seamless process for transfer of divisions and changing majors.
 - Use Stellar student academic pathways mapping to assure course capacity and to track student degree progress.
 - Encourage students to develop academic maps for more than one academic degree program as part of the Mizzou 101 course or other onboarding experiences.
 - Develop comprehensive academic support initiatives for students subject to academic actions.
 - Enhance use of the academic recovery course, SSC 1151, as well as Starfish Early Alert System for students in danger of being removed from Mizzou for academic reasons.
- **Strategy 4: Increase Post-Graduate Outcomes**
 - Enhance central and unit-based employer relationships and provide additional opportunities for students to meet with employers from different industries.
 - Establish new experiential educational opportunities that allow students to establish relationships with potential employers.
 - Conduct professional development for students interested in pursuing an academic career.
 - Conduct professional development for faculty mentors to support student fellowship applications for graduate school as well as post-doctoral fellowships.
 - Conduct regular information sessions and online modules dedicated to educating graduate students about prestigious awards, fellowships, and grants.
 - Establish mentor program pairing experienced award recipients with interested graduate students and post-doctoral fellows.
 - Expand ROTC and Veterans Center programs to inform students about careers in the military.
- **Strategy 5: Expand Student Recruitment Efforts**
 - Introduce exciting new majors, minors and certificates to attract students.
 - Develop strong partnerships with high schools in Missouri and surrounding states for undergraduate student recruitment.
 - Develop strong partnerships with state and private universities in Missouri and surrounding states for graduate and professional student recruitment.
 - Add regional admissions representatives in areas that have additional demand.
 - Increase out of state digital marketing and recruitment travel to new and emerging markets.
 - Enhance recruitment in central Missouri.
 - Host professional development opportunities for K-12 educators and community college advisors on campus and virtually.
 - Develop a comprehensive recruitment and communications plan for transfer students.
 - Conduct market analysis to identify new degree programs that could attract new students to Mizzou.

- **Strategy 6: Enhance Marketing Material and Campus Visit Experience**
 - Launch a chatbot that uses AI to develop personalized responses for student inquiries, per recommendations of an audit of our programs by the National Institute for Student Success.
 - Create an internal communications plan to disseminate marketing messages that support relationship-building at the faculty and staff level with potential students and families.
 - Expand on-campus brand training for faculty and staff to enhance interactions with visitors to the university.
 - Increase digital personalization across media in key markets for institutional level campaigns.
 - Improve infrastructure along visitor tour route (sidewalks, stairs, streets, curbs, railings).
 - Improve landscaping along tour route and install wayfinding signage for all types of visitors across campus.
 - Improve campus visitor spaces to create a welcoming atmosphere for prospective students.
 - Enhance Mizzou Welcome to provide intentional onboarding processes.
 - Develop comprehensive communication plan for Mizzou families.

Strategic Plan Theme II: Elevate High-Impact Research, Scholarship and Creative Works

Mizzou is a powerhouse for innovations in research and creative works. Our faculty, students and staff lead breakthrough programs in fields ranging from personalized health to artificial intelligence to the humanities. Mizzou empowers its faculty, staff, and students to develop initiatives that push the boundaries of discovery and scholarly pursuit, launch breakthrough innovations and technologies, and deliver research that offers beneficial impacts to Missouri, the nation, and the world. Examples of successes in these programs that were enabled by key investments are provided below.

Precision Health

Personalized health care is helping Americans live longer and healthier lives. Despite these advancements, Missouri’s health outcomes are among the lowest in the nation. It’s our responsibility to help improve the lives of our community members — and we’re already making strides for our state and the nation. With a steadfast focus on research and teaching, we are bringing together the best of patient care while creating new solutions to complex health problems. We’re also training a new generation of physicians to provide the best quality of care possible for generations to come.

Researchers at the Roy Blunt NextGen Precision Health building are harnessing precision health to develop individualized interventions for patients diagnosed with cancer, heart disease and other illnesses. Mizzou’s Thompson Center for Autism and Neurodevelopment has become a national leader in confronting the challenges of autism spectrum disorders and other developmental conditions through its collaborative research, training and service programs.

In October 2021, surgeons successfully transplanted a pig kidney into a human recipient. The historic procedure offered hope that one day there could be a reliable source of donations for thousands of patients awaiting lifesaving transplants. Since then, more accomplishments in xenotransplantation (using animal organs and tissue in humans) continue to grab global headlines, including pig-to-human heart transplants. Behind each of these advances is Curators' Distinguished Professor Randall Prather and decades of foundational research at the University of Missouri. Dr. Prather's research into swine genomics contributed to breakthrough technology used to develop pigs without a molecule that usually causes organ rejection. His lab also helped pioneer the creation of swine models to study a range of ailments, including cystic fibrosis and cancer, as well as pigs that are immune to porcine reproductive and respiratory syndrome — a devastating infection that worldwide costs producers millions of dollars per day.

As a leader in his field, Prather continues to break new ground as director of the National Swine Resource and Research Center, a facility funded by the National Institutes of Health and located on Mizzou's campus. For his lifetime of scientific contributions, Prather was recently inducted into the National Academy of Inventors.

The University of Missouri Research Reactor (MURR) is the only U.S. producer of four medical isotopes used in lifesaving treatments for liver, thyroid, pancreatic and prostate cancer. MURR is also the most reliable supplier of medical isotopes, safely operating for more than 50 years, 365 days a year, and filling production gaps when other research reactors need to go offline. Missouri's central location ensures the medical isotopes produced at MURR can be deployed quickly around the country, which is critical because of their short half-lives. As part of the long-term capital plan, the University of Missouri plans to build a new, state-of-the-art reactor — NextGen MURR — that will benefit Missourians and patients across the country and around the world.

Excellence in precision health extends to our animal patients as well. The College of Veterinary Medicine is leading research into the diagnostics and care of large and small animals. And each year, the Veterinary Medical Diagnostic Laboratory helps safeguard public health by performing more than 167,000 diagnostic tests that support the work of veterinary practitioners, livestock and poultry interests, wildlife conservationists, researchers, government officials and industry partners. Veterinary Education and Training through Extension for Community Healthcare Outcomes (VET ECHO) is a collaboration with Show-Me ECHO and the Missouri Telehealth Network to provide sustainable, virtual continuing education with case-based learning for veterinarians and veterinary students working with livestock producers.

Artificial Intelligence

Dr. Prasad Calyam is the Greg L. Gilliom Professor of CyberSecurity in the Department of Electrical Engineering and Computer Science and a core faculty member in the MU Institute for Data Science and Informatics. As the director of the Cyber Education, Research and Infrastructure Center, Calyam stands at the forefront of innovative AI research — integrating automation and artificial intelligence into everyday life. He and his team are already working with the Associated Press to assist local news organizations by automating time-consuming tasks and freeing up staff for more in-depth projects. Additional applications of the work of Dr. Calyam and others on our campus include cyber defense, bioinformatics and advanced manufacturing, and health care — and that's just scratching the surface of what's possible.

Energy and the Environment

A five-year, \$3 million grant from the National Science Foundation (NSF) established a doctoral training program at the University of Missouri to help prepare the next generation of scientists and engineers to work in the emerging fields of materials science and data science and analytics. The aim of the program is to empower future workers to be proficient in both subjects — a skillset that is highly desirable in today’s global marketplace. This project is led by Dr. Matt Maschmann, a faculty member in the Department of Mechanical & Aerospace Engineering and the Director of the Materials Science & Engineering Institute. He and his colleagues will train a new generation of materials scientists and engineers to be proficient with data science techniques, including machine learning and artificial intelligence, whether it’s to discover better materials for building batteries and computer chips, reconstructing technology from ancient civilizations, or harnessing the untapped potential of carbon nanotubes. The data science components of the program will help guide students in conducting and analyzing experiments associated with this research.

Effective policies are key to enable adoption of energy and environmental breakthroughs. Dr. Robin Rotman is an Associate Professor in the College of Agriculture, Food and Natural Resources. Dr. Rotman earned a J.D., was a Rhodes Scholar, and she combines her expertise in issues related to energy, the environment and natural resources with her dedication to student success. Her undergraduate courses on environmental law are helping to spark a passion in her students to understand the policy process in areas like natural resource rights and public lands management. She believes strongly that an important role of a faculty is to prepare our students for the workforce and the jobs for the future.

Innovations in the Humanities

Humanists engage in a diverse array of practices that help us better understand our world, whether through historical study, analysis of art and literature, or creation of new artistic products. Using interdisciplinary methods of inquiry and diverse objects of study, humanities researchers examine shared aspects of humanity - how language, cultural production, technologies, and institutions shape and reflect cultural identities, collective belonging, and societies in a global world. In doing so, the humanities have always foregrounded vital questions: What is the nature and meaning of human life? Why did life unfold this way? And what if things were otherwise? At the University of Missouri, the Center for the Humanities nurtures the work of humanists by supporting novel interdisciplinary research and teaching and undertaking public outreach at the local and state level.

We will continue to invest in professorships, state-of-the-art facilities, centers & institutes, and research and training programs to attract and retain the best faculty, staff and students across all disciplines. Inspired by the future, we’re collaborating like never before to create breakthroughs at an incredible pace.

Research, Scholarship and Creative Works Goals

- **Goal 1 (Strategies 1-4):** Increase overall research expenditures from \$485 million to \$700 million by 2030.
- **Goal 2 (Strategy 2):** Increase the average number of scholarly books published by faculty from 40/year to 60/year by 2030.
- **Goal 3 (Strategy 2):** Increase the number of faculty with highly prestigious external awards from 52 to 100 by 2030.
- **Goal 4 (Strategies 2-4):** Increase the number of MU past 5-year citations in Web of Science from 164,000 to 200,000 by 2030.
- **Goal 5 (Strategies 2-3):** Secure five new federally-funded research centers by 2030.
- **Goal 6 (Strategy 4):** Increase the percentage of externally-funded graduate research assistantships from 60% to 85% by 2030.
- **Goal 7 (Strategy 2):** Increase the number of annual patents filed from 67 to 100 by 2030.

Strategies and Tactics to achieve Research, Scholarship and Creative Works Goals

- **Strategy 1:** Complete signature research infrastructure projects and address additional research infrastructure needs.
 - Develop a dashboard to maximize research space utilization through shared equipment and multi-PI/shared laboratories.
 - Inventory existing equipment and infrastructure and perform a needs assessment to support faculty work across campus.
- **Strategy 2:** Leverage MizzouForward as a strategic initiative through 2030.
 - Identify priority hiring areas on an annual basis.
 - Maintain centralized support for MizzouForward hires, augmented by college/departmental resources.
 - Maintain central support to encourage faculty to apply for prestigious and highly prestigious external awards and enhance support for tech-transfer activities (e.g., invention disclosures; patent applications).
 - Maintain central support for efforts to promote scholarly book production.
- **Strategy 3:** Develop and diversify research and scholarly initiatives across campus.
 - Coordinate resources to target large-scale, interdisciplinary research proposals.
 - Identify new and novel opportunities for engagement and collaboration on priority research areas with government agencies, private industry, and community organizations, including translational research opportunities.

- Provide monthly high-quality data analytics reports to support evidence-based decision making and research growth.
- Enhance research, professional development, and mentoring initiatives to improve the recruitment, retention, success, and expertise of both new and existing Mizzou researchers.
- **Strategy 4:** Increase funding and support for graduate students and postdoctoral scholars.
 - Secure additional federal and external funding to develop and support programs and pathways for graduate students and postdoctoral scholars.
 - Establish a central network of successful applicants and mentors for these programs to share insights with new applicants.
 - Hold regular trainings/workshops on strategies for faculty, graduate students and post-doctoral fellows for proposal development.

Theme III: Foster Meaningful Outreach and Engagement

It's our land-grant mission to support Missouri's most important industry: agriculture. We know we can deliver even more for families in each of our 114 counties. That's why we've launched ambitious initiatives to double the state's ag economy by 2030 while sustaining our natural resources. These activities include hiring faculty specialists in digital agriculture, livestock toxicology, agronomy, soils and nutrients.

But there is so much more that we can do to support our biggest benefactors, Missourians. Each day, we leverage our unique position to contribute to rural agriculture, rural and urban education, economic development throughout the state, environmental sustainability and so much more! Through discovery and translation of research into technologies, information programs and services, Mizzou improves lives, communities, and economies.

Advanced Agriculture

Floods, droughts and other severe weather events have significantly impacted farmers throughout the country. Supported by a \$25 million grant from the U.S. Department of Agriculture (USDA) — the largest federal research, education and extension grant ever awarded to MU — Professor Rob Myers, director of MU's Center for Regenerative Agriculture, is striving to equip farmers with the climate-smart practices and tools they will need to successfully adapt to a warming climate. Professor Myers is also working to double the acreage of cover crops across the country by 2030 using a \$10 million grant from the USDA Institute of Food and Agriculture. Cover crops, which reduce soil erosion and improve soil health, control pests and improve biodiversity, are a key step in helping farmers continue to feed a growing population. Both projects will support the growth of new markets for climate-smart practices, including the bioenergy sector and Missouri grass-fed beef.

Sustainable Environment

When the University of Missouri School of Journalism's Mississippi River Basin Ag and Water Desk launched, led by Professor Sara Shipley Hiles and Associate Dean Earnest Perry in the

School of Journalism, the mission was to do more than report on important water, agricultural and environmental stories unfolding in this more than a million-square-mile area. The goal was to explore why issues were arising and what could be done about them.

So far, the team of journalists stationed in 10 core partner newsrooms across the region has produced more than 700 stories on local and regional issues that have been published, for free, by news outlets around the country. The reporting fills a critical gap in news coverage left by deep cuts to newsrooms across the country, and it's poised to expand thanks to continuing contributions from the Walton Family Foundation.

Other examples of our work in sustainability include The Johnny Morris Institute of Fisheries, Wetlands, and Aquatic Systems, which will be a national center of research supporting the mission to enhance the conservation of Missouri's forest, fish and wildlife resources. Through the cross-disciplinary Missouri Water Center, CAFNR and College of Engineering researchers are examining infrastructure that improves water quality for everyone in the Mississippi River basin.

These partnerships build trust and lead to incredible results, like our collaboration on a \$1.7 billion plan to expand broadband access to rural Missourians and usher in a new era of connectivity to underserved areas.

Rural Medicine

A student from a rural background goes to college. Then on to medical school. Then returns to their community to practice medicine, providing quality care and helping address the state's shortage of rural physicians. Creating that pipeline is the goal of the Lester R. Bryant Scholars Program at the MU School of Medicine, and it's the path Meredith Norfleet, B.S. '14, M.D. '18, was inspired to follow, seeing the impact rural family care physicians had on her family while growing up in Houstonia in Missouri's Pettis County. After graduating from Mizzou, Dr. Norfleet returned to Pettis County to join Bothwell Family Medicine Associates in Sedalia as a practicing physician. The Bryant Scholars Program encourages young people from rural backgrounds to pursue a medical education, and the Rural Scholars Program offers medical students interested in rural practice a variety of experiences including lectures, mentoring and clinical programs centered around rural care. There are so many stories like Meredith's.

Rural and Urban Education

The College of Education and Human Development (CEHD) is using resources such as the Missouri Prevention Science Institute to reach teachers and students who live in underserved rural and urban communities. The institute's range of centers and programs address the needs of teachers around the state, enhance student success and improve the mental health of young people. CEHD is also committed to addressing Missouri's teacher shortage, particularly in rural areas, by offering online options for education courses. These asynchronous classes will create pathways for those who have considered teaching but are unable to leave home or work to attend an out-of-town university.

The Missouri Prevention Science Institute (MPSI) was founded in 2007 by Dr. Wendy Reinke, and Dr. Keith Herman, both of whom are Curators' Distinguished Professors. MPSI is a multidisciplinary institute dedicated to preventing and treating social, behavioral and emotional

problems. The institute brings community members and researchers together to help schools and families apply techniques that promote social and academic success. Through community outreach, the institute's staff provides parent training and teacher consultation services as well as conducting groundbreaking research in the field of prevention science.

MU Extension delivers our world-class research capabilities and knowledge to each of Missouri's 114 counties and the city of St. Louis. Extension outreach includes Missouri 4-H and Future Farmers of American youth development program. Extension's network of specialists and volunteers help train our next state and community leaders, as well as business and community development specialists — a critical resource for small businesses as they strengthen local economies.

We will continue to extend our groundbreaking research and education from campus to every corner of the state. MU faculty, students and staff are uniting advanced technology with community-level collaboration to serve citizens and improve the economy for all Missourians.

Outreach and Engagement Goals

- **Goal 1 (Strategies 1-4):** Expand engagement with Extension programs from 1,200,000 contacts/year to 1,500,000 contacts/year by 2030.
- **Goal 2 (Strategy 1):** Increase engagement among farmers, ranchers, and agri-entrepreneurs at extension events from 21,000 to 27,000 by 2030.
- **Goal 3 (Strategy 2):** Establish 2 new Extension sites per year in rural Missouri to deliver primary health care and telehealth clinic to improve access to health services.
- **Goal 4 (Strategy 3):** Establish 24 new K-12 partnerships for in- and after-school initiatives, including partners that provide access to innovative pathways to higher and continuing education by 2030.
- **Goal 5 (Strategy 3-4):** Continue to create high-impact and transformational opportunities to prepare for employment, upskill current workers, and pipeline non-traditional students into degree programs with an increase in reach from 12,000 to 15,000 participants by 2030.
- **Goal 6 (Strategy 4):** Increase the number of startup businesses served by our entrepreneurial program from 300 to 350 by 2030.
- **Goal 7: (Strategy 4):** Increase the number of counties implementing [Digitally Connected Communities](#), a broadband planning program, from 8 to 20 by 2030.
- **Goal 8 (Strategy 5):** Increase the number of faculty engaged in communicating the outcomes of their research with Missourians from 250 to 350 by 2030.

Strategies and Tactics to achieve Outreach and Engagement Goals

- **Strategy 1:** Support Agricultural Partners in the State of Missouri through Education, Research and Outreach.
 - Increase programs through University of Missouri Agricultural Research, Extension and Education Centers (REEC) to support commodity-groups, individual farmers, agricultural businesses and agricultural entrepreneurs.
 - Increase programs through the University of Missouri Digital Agriculture Research and Extension Center to support agri-technology testing programs.
 - Increase programs through the University of Missouri Meat Science Laboratory to support cattle, swine and poultry operators as they seek to incorporate value-added production.
 - Increase programs through the University of Missouri Veterinary Medical Diagnostics Laboratory to ensure the health and safety of livestock and other animals in Missouri.

- **Strategy 2:** Improve Community Health for Missourians
 - Conduct mobile as well as county-based health screenings and partner with state and local agencies to identify and overcome barriers to health care access.
 - Develop and expand programs to provide medical, nursing and health science education and training to serve rural and under-served populations in Missouri.
 - Increase ShowMe Echo educational programs to train primary care providers in rural and under-served populations in Missouri.

- **Strategy 3:** Expand Educational Programs for Missourians
 - Convene a campus-wide committee to work on decreasing barriers for non-traditional students and increasing pipeline options.
 - Develop and deploy content-rich youth educational programs targeted to out-of-school, afterschool, and school enrichment environments.
 - Increase 4-H and Future Farmers of American youth program participation, including college preparedness mentoring.
 - Develop research-based adult continuing education opportunities to address local challenges.
 - Develop Missouri's civic engagement and use programs to prepare people to lead 21st century communities.

- **Strategy 4:** Support Economic Development for Missourians
 - Provide educational opportunities to support entrepreneurs and create entrepreneurial ecosystems.
 - Create, implement, and evaluate research-based educational programs focused on rural and urban economic development.
 - Develop and implement relevant certifications, credentialing, and licensure programs that address business and industry needs.
 - Implement the Digital Ambassador program for residents to have access to broadband in all 114 counties.

- **Strategy 5:** Leverage The Connector to provide opportunities for researchers to share their work with campus and community partners to increase knowledge sharing and impact.

- Increase faculty and community participation in ongoing engagement programs such as the Young Scientists Expo and Extra Credit.
- Deliver new professional development opportunities for researchers on engaged scholarship and broader impacts.

2024 CAMPUS MASTER PLAN



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Message from the President

I am very excited to present this comprehensive Master Plan for the University of Missouri Columbia campus. At its core, the Master Plan is a long-term construct for the type of land and space uses which can meet the objectives of the university. The plan is built around four main drivers:

MizzouForward: This plan incorporates the objectives of the MizzouForward strategic plan which is our largest investment in the history of the university. The plan identifies opportunities for infrastructure which will support student success, research excellence, and meaningful engagement.

Honoring Our Iconic Campus: Established in 1839, our iconic campus features brick and limestone buildings along with a network of open spaces. This heritage is of great importance and must be preserved.

More Than Buildings: This plan encompasses more than just buildings; it also addresses how people and vehicles can use the campus safely and efficiently in a variety of travel modes. Ensuring smooth and secure movement throughout the campus is a key focus.

Prepared for the Future: This framework will allow Mizzou to adapt as the nature of higher education evolves. It ensures that the university remains prepared for future developments.

This framework balances the visionary with implementable, long-term opportunities to maintain flexibility and capacity of our land assets, leverage momentum now and in the future, and will enable Mizzou to evolve as the nature of higher education changes.

President Mun Choi





ALIGNMENT WITH MIZZOUFORWARD

The 2024 Campus Master Plan aligns campus development with the university's mission and programs. The Master Plan does not set the strategic direction, rather it identifies where opportunities exist on the physical campus to support those goals and feeds into the capital planning process. Together, the plan provides a framework of opportunities that guides development, decision-making, and sustained implementation.

The Master Plan focuses on alignment with the three key areas of MizzouForward— Student Success, Faculty Excellence, and Infrastructure Growth. The process and recommendations look closely at:

- Facility opportunities to support research
- The ability of aging facilities to meet current needs
- The physical environments required to support student success
- Campus exterior identity and wayfinding opportunities
- Campus mobility and connectivity
- Overall integration of recent planning including MU Health Care and Mizzou Athletics

PROCESS AND ENGAGEMENT

4,000+ TOUCHPOINTS

20+ Stakeholder Meetings

100+ Stakeholder Participants

175+ Pop-up Session Participants

3,842 Digital Campus Survey Responses

The year-long planning process engaged a cross section of the university community, resulting in over 4,000 individual touchpoints. Virtual listening sessions, in-person pop-up sessions, and a campus-wide survey identified how people use campus today and opportunities for the future. Campus tours and previous studies added to this comprehensive understanding and analysis of the university's needs, aspirations, and opportunities. Presentations and open houses provided opportunities for stakeholders to provide feedback as the plan evolved.



Pop-up sessions in the Student Recreation Center, Memorial Student Union, and Student Center

KEY CHALLENGES AND OPPORTUNITIES

A campus assessment was completed early in the campus master planning process to better understand Mizzou's strengths, challenges, and opportunities. The Master Plan builds on existing strengths and identifies challenges and opportunities on which to improve the physical campus. These elements were determined through feedback from the campus community, observational analysis, and current and historical assessments of the physical campus.

Campus Strengths to Maintain and Leverage

- Building architecture provides a defining character on the Mizzou campus.
- New buildings provide modern and flexible teaching, research, and workplace space.
- Campus is relatively compact for a land-grant university and organized with clear land uses and programmatic hubs.
- Iconic open spaces, including Francis Quad, Lowry Mall, Speaker's Circle, and the MU Botanic Garden offer beauty and an educational resource across the campus environment.
- Infill sites and development capacity exist within the campus core to support future needs.

Campus Challenges to Address

- Aging facilities have an inconsistent functional quality and experience for users.
- The quality, amount, and distribution of spaces to support student success, the student experience, and research is challenged in some areas.
- Student-focused functions for large-scale active learning classrooms and exterior collaboration spaces are key areas for consideration.
- Food availability across campus and at peak times is a challenge.
- Research functionality is strong in newly constructed buildings, while some older and historic buildings have limitations for flexibility in the current condition.
- Pedestrian, bike, and vehicular conflicts exist along roads and crossings in the academic core and at major perimeter intersections causing safety and accessibility concerns.
- Bus routes don't equally cover the full campus, especially the academic core.
- Beyond the historic core, the quality, programming, and activation of secondary open spaces is inconsistent.
- The campus arrival experience lacks clarity, consistency, and hierarchy, particularly at the perimeter and to key campus destinations.

PLANNING PRINCIPLES

From the campus engagement and analysis, three distinct planning principles emerged. These principles serve as overarching goals and guideposts for campus development and align with the university's commitment to student success, faculty excellence, and infrastructure growth.





1

Increase **clarity, consistency, and connectivity** across campus

2

Promote **community** through programming and campus organization

3

Build upon the **campus legacy** while meeting **modern needs**



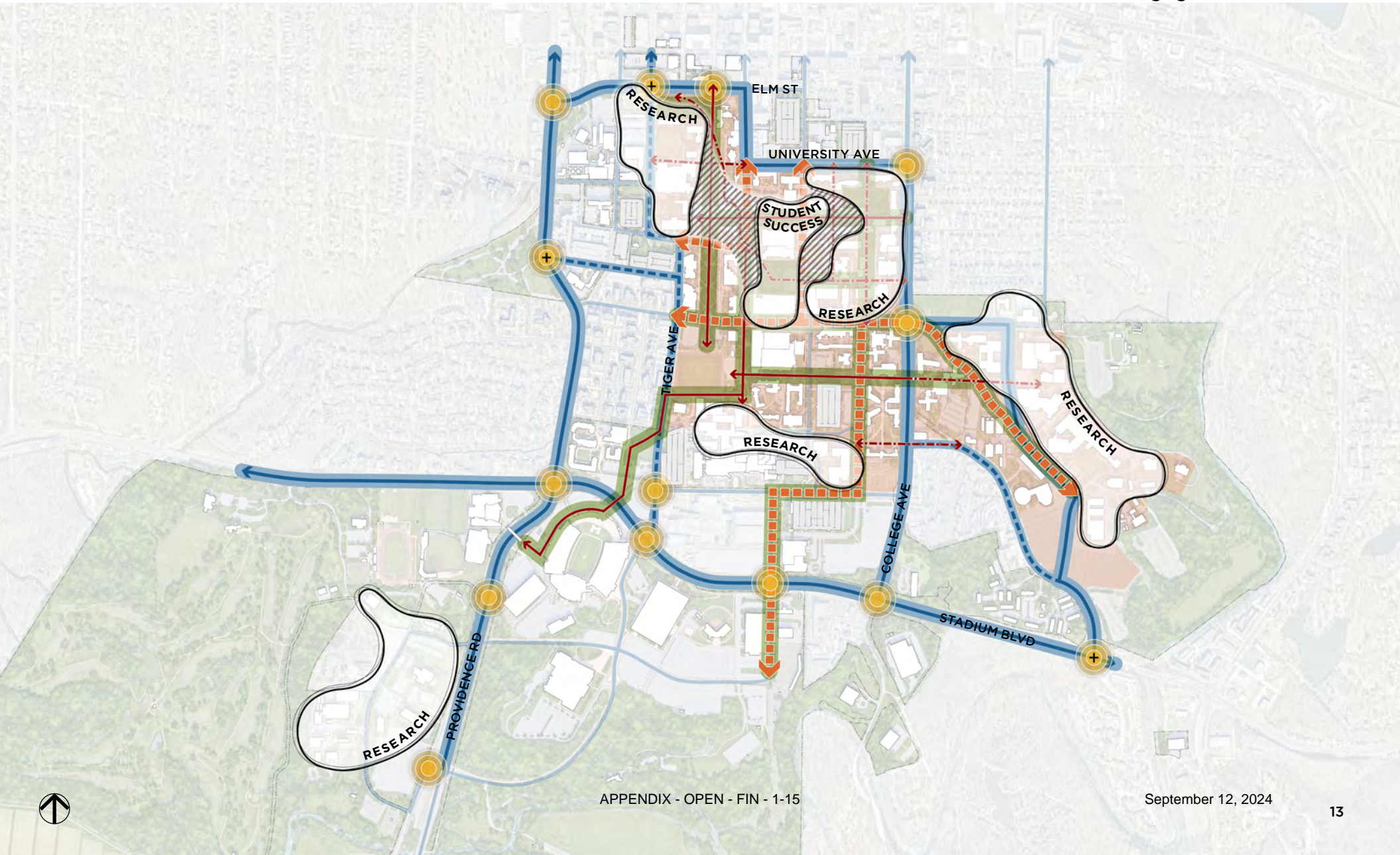
CONCEPT FRAMEWORK

The planning principles translate into an overall conceptual framework for the campus that illustrate the key goals for the plan:

- Improve campus clarity and safety through improved accessibility, mobility, and wayfinding.
- Create a more connected campus through high quality outdoor spaces and placemaking.
- Reinforce research zone synergy around the MizzouForward themes.
- Incorporate hubs to foster collaboration and promote wellness and community building.
- Make strategic, mission-driven, and resilient investments in facilities and infrastructure which address stormwater, utilities, and safety.

Concept Framework

- Existing Monument Signage
- Proposed Monument Signage
- Vehicular Edge
- Pedestrian Edge
- Enhanced Internal Street
- Strong Corridor
- Proposed Corridor
- Extended Open Space
- Existing Hubs
- Bridging



NEAR-TERM PLAN

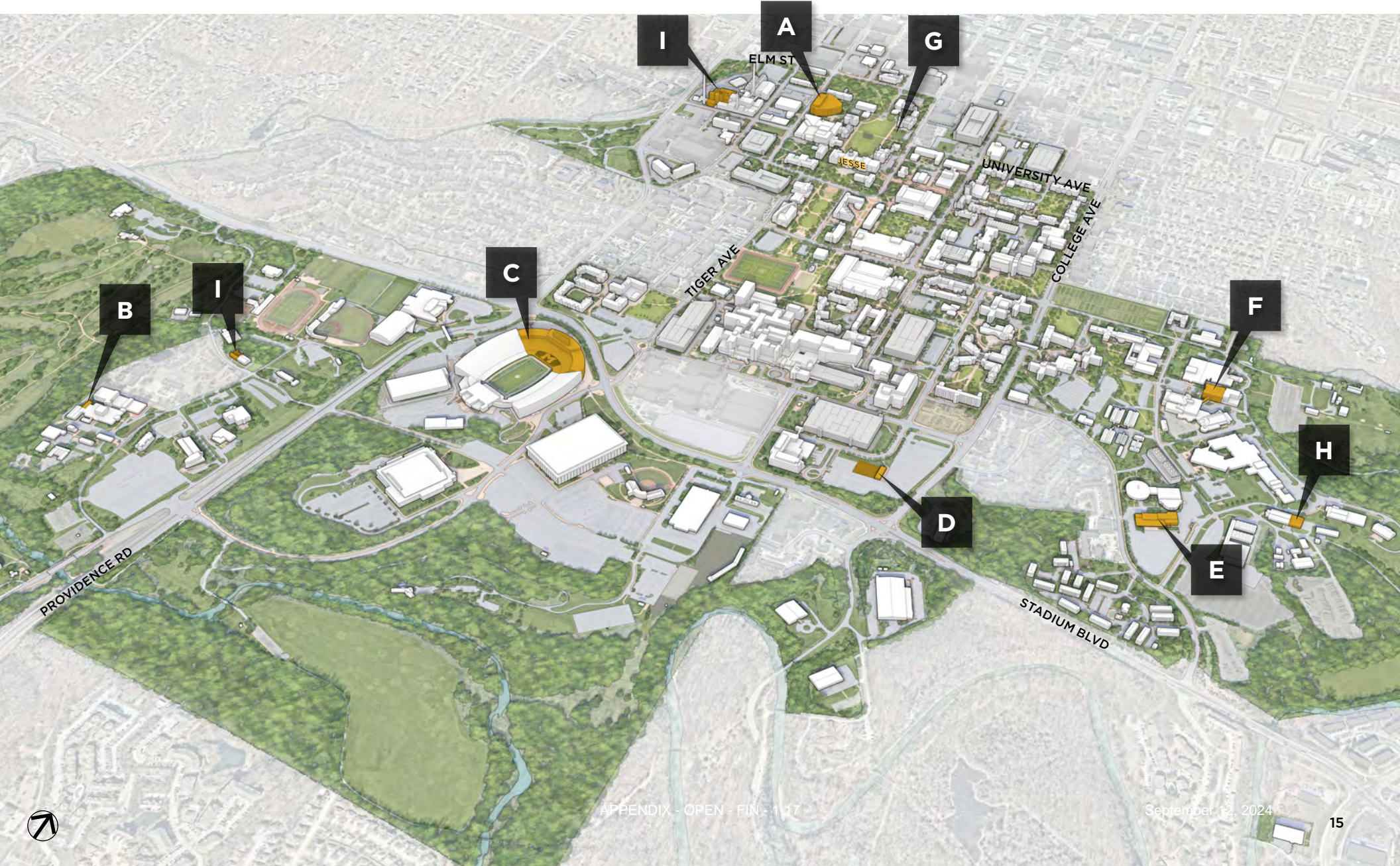
The Master Plan identifies near-term projects with a long-term vision for future opportunities. The near-term projects respond to immediate needs and priorities. The near-term projects are anticipated to complete within five years and are located throughout the campus supporting teaching, research, community engagement, and infrastructure. These near-term projects create momentum for future opportunities in each geographic area of campus.

- A** Center for Energy Innovation
- B** MU Research Reactor Lab Expansion
- C** Memorial Stadium Improvements

- D** Electrical Interconnection and Substation
- E** Meat Science Education and Training Laboratory
- F** Veterinary Medical Expansion

- G** Pickard Hall Decommissioning and Mitigation
- H** Animal Resource Center Vivarium Facility Expansion
- I** Infrastructure Improvement Projects

Near-term Plan and Projects



LONG-TERM VISION

In addition to identifying near-term projects, the Master Plan provides a flexible framework of opportunities to support student success, faculty excellence, and infrastructure growth well into the future.

The master plan process assessed how future development could occur to:

- Reinforce the programmatic organization of the campus,
- Address facility condition and functional adequacy challenges,
- Celebrate iconic campus history and architectural character, and
- Maintain the appropriate scale and density.

Building recommendations identify site capacity opportunities with strategic investments in renovations, additions, replacements, and new construction. The framework identifies opportunities for infill, renewal, greater connectivity, and enhanced open spaces to align with Mizzou's land-grant mission and stewardship of the physical campus environment.

Long-term Master Plan Framework

- Near-term Projects
- Long-term Opportunities: New Construction
- Long-term Opportunities: Renovations



Supporting Student Success and Faculty Excellence

The Mizzou campus has a strong organization of programmatic hubs for both student success and research activities. A great deal of student success services and facilities are located in a 10-minute walking radius in the heart of the campus. The instructional zone is proximate to student life hubs that reinforce living-learning communities and promote health and wellness.

The Master Plan identifies development opportunities that support interdisciplinary learning and research through a mix of building renovations and additions. Renovations are prioritized to address aging facilities and new construction is recommended to meet needs that cannot be supported by existing facilities. Investments reinforce existing hubs and programmatic adjacencies to strengthen the overall campus community and promote greater equity of experience for all.

Future investments include the following opportunities:

- Modernize classrooms and STEM teaching labs
- Provide greater distribution of study and collaboration spaces
- Accommodate active learning at scale, hands on learning, and advising and academic support functions

Demand for food options at peak class periods can be met through a mix of strategies including strategic retail locations in new or renovated facilities as well as a food truck court outside of the Student Center to meet high demand in the middle of the day.

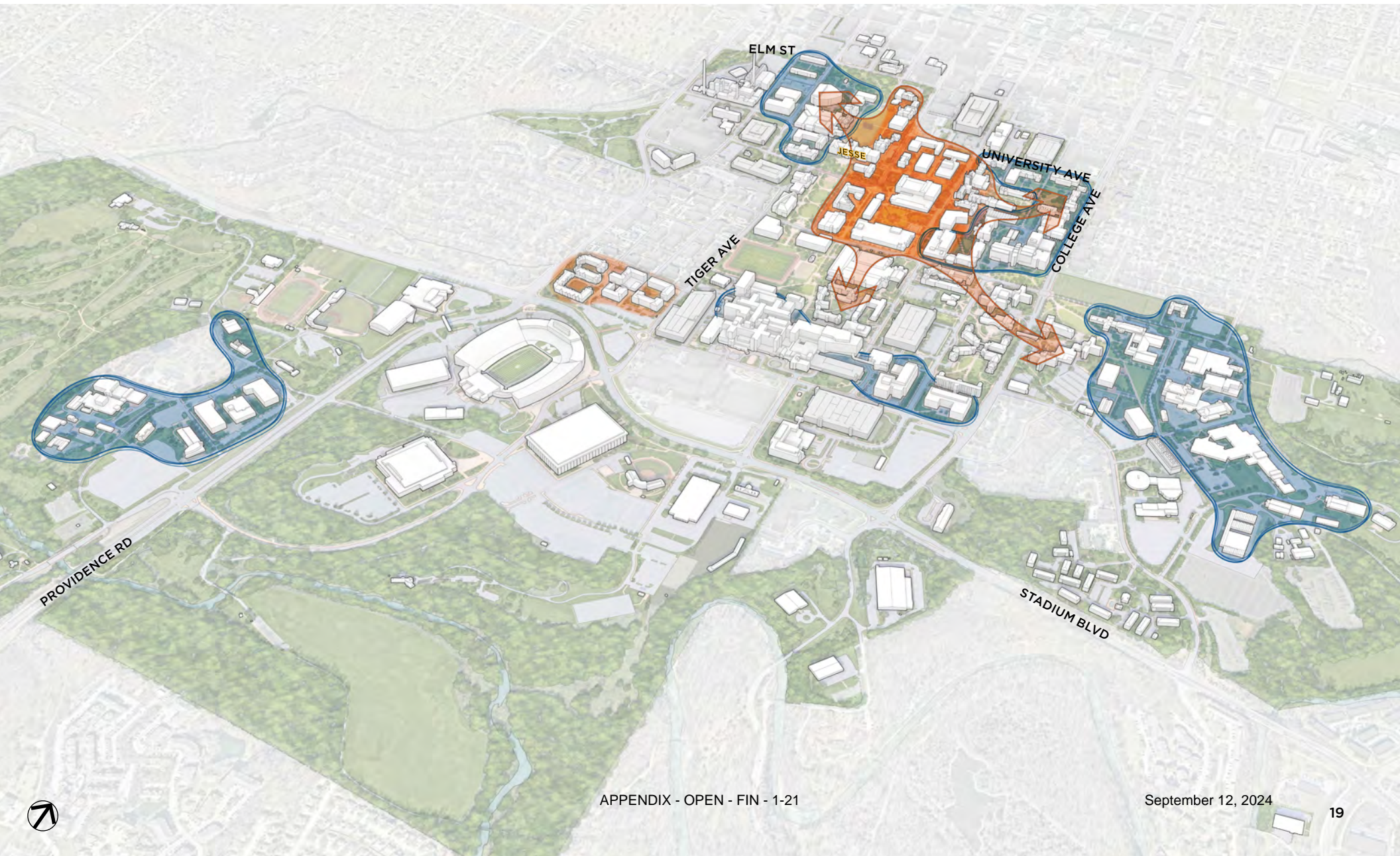
Research activities and infrastructure are primarily concentrated on the edge of the student success core along the 6th Street corridor, University Avenue and

College Avenue, on East Campus, and at the Research Commons. Each research hub has unique characteristics which can be leveraged for research themes or research cores as facility investments are made. Modern facilities can be created with renovation and additions of existing buildings along with new construction opportunities to maintain and grow the research enterprise as strategic initiatives evolve.

Research and instructional space will continue to overlap. This plan identifies a core area to locate instructional spaces that are used by a larger percentage of the student population, such as centrally scheduled classrooms and introductory labs, in the center of campus. Similarly clustering research allows for redundancy and greater infrastructure support.

Campus Student Success and Research Zones

- Research Zone
- Student Success Zone



Connecting the Campus Community

Mizzou has grown over time within the structure of the City of Columbia. The campus assessment identified areas where existing roads and intersections experience higher volumes of accidents and conflicts while existing methods to limit vehicular access through heavily-pedestrian areas of campus during the day lack consistent enforcement. Additionally, more convenient bus routes and stop locations could support a more holistic campus mobility system.

The Master Plan provides opportunities to clarify circulation among cars, buses, bikes, scooters, and pedestrians to provide a safer and more enjoyable campus experience. These opportunities also leverage parking resources at the edges of campus and better connect the campus to existing mobility infrastructure in the City of Columbia. Specific opportunities include:

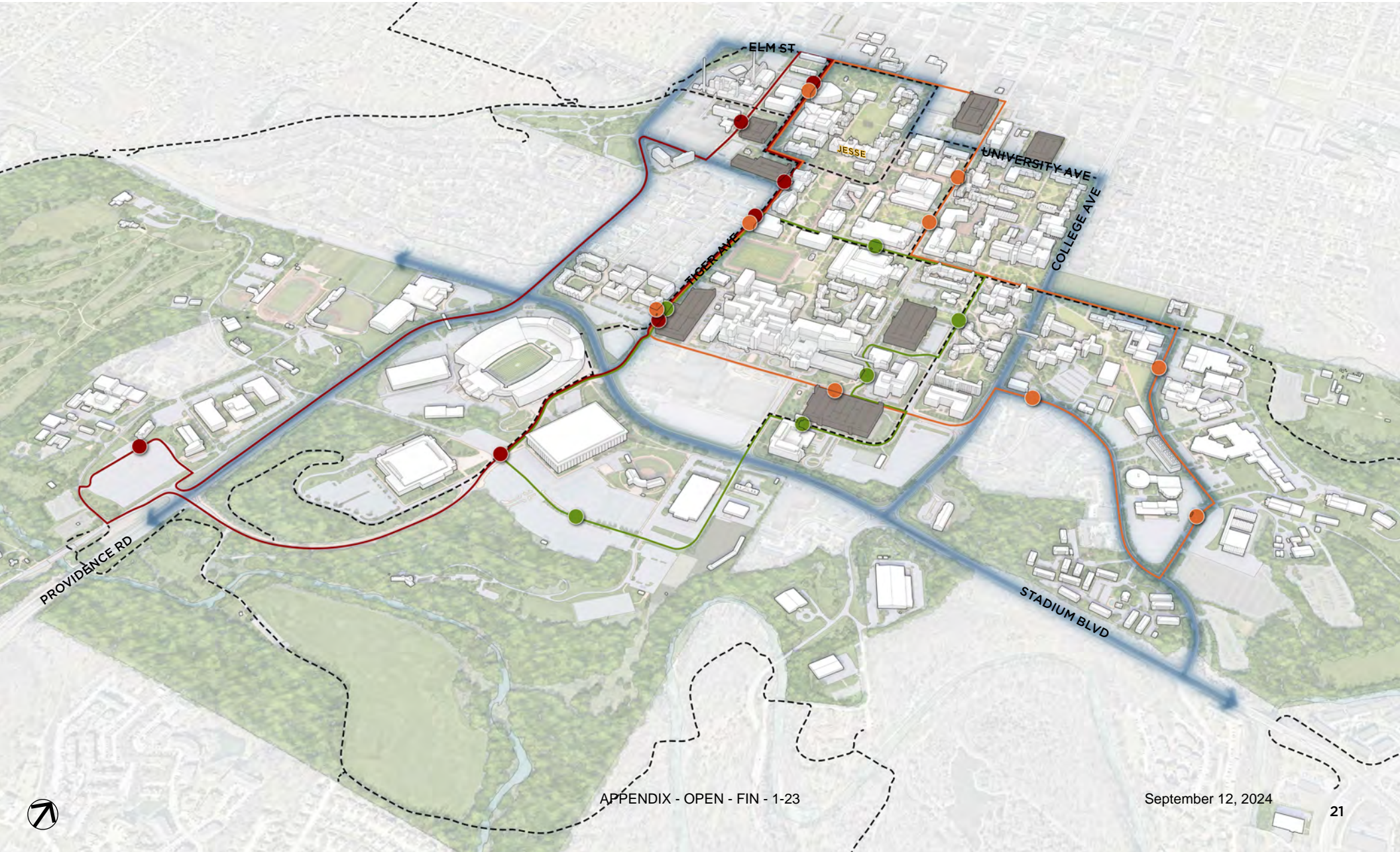
- Utilize a perimeter loop for primary vehicular circulation with access to parking garages
- Monitor timed street closures to only allow shuttles and emergency vehicles through with transponder-gate access
- Adjust the three current campus shuttle routes and their respective stops to create greater campus coverage
- Incrementally increase the number of dedicated bike / scooter lanes and connect to the city trail system



*Above: Concept for University Avenue Improvements
Below: Concept for 6th Street Improvements*

Circulation Framework

- Academic Bus Loop & Stops
- Athletics Bus Loop & Stops
- Research Commons Bus Loop & Stops
- Vehicular Access
- Multimodal Access
- Parking Garage



Celebrating Mizzou's Legacy and Extending Iconic Places

The design and utilization of the exterior campus environment plays an important role in first impressions, health and wellness, instruction and research, sustainability, and connectivity. The Master Plan strives to create greater clarity and consistency between all areas of campus and to the City through a cohesive network of landscapes.

Mizzou has a rich network of established and beloved open spaces in which the Mizzou Botanic Garden flourishes. The Master Plan identifies opportunities to leverage infrastructure projects and building renewal to enhance and diversify the open spaces on campus. Some of these opportunities include:

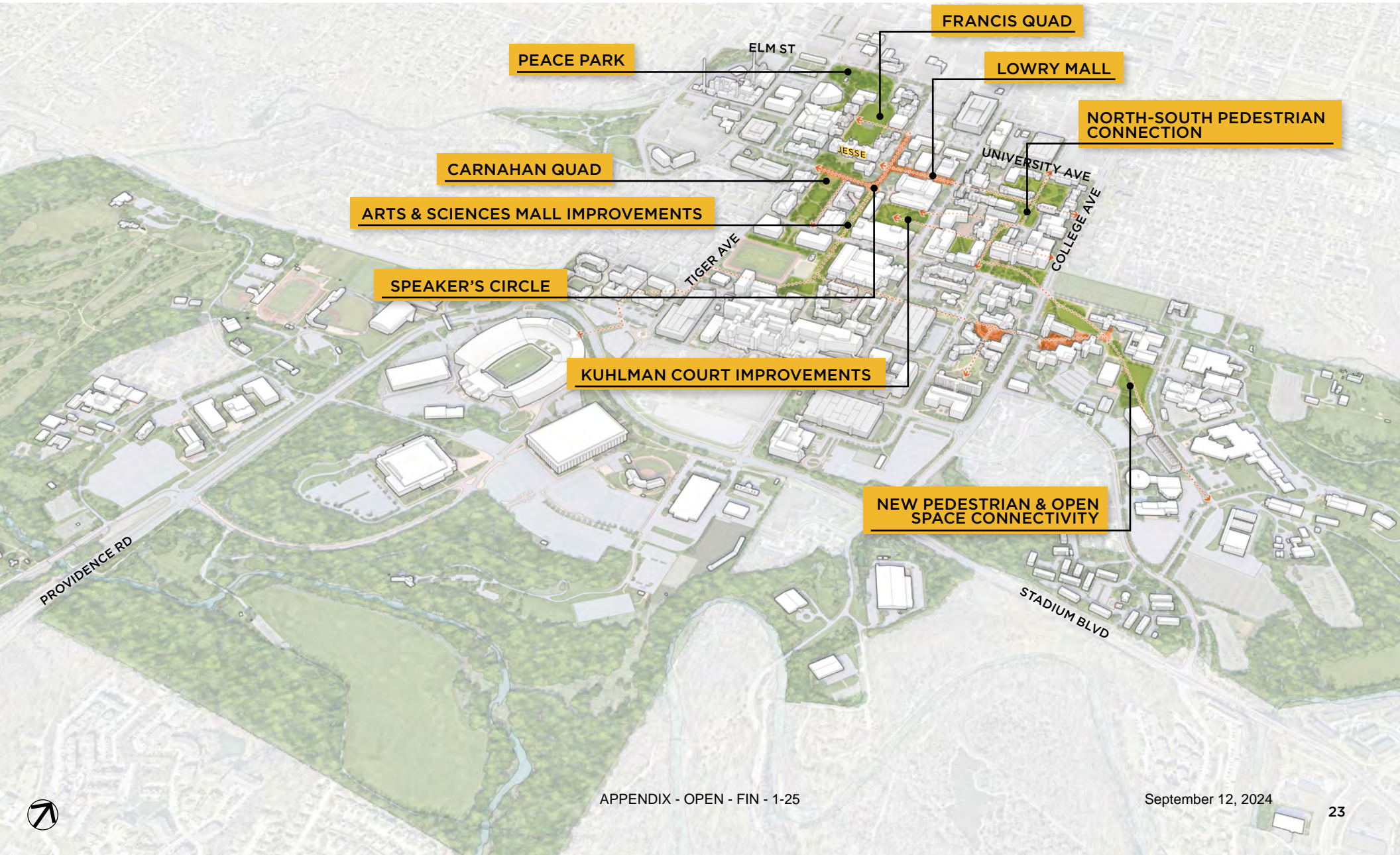
- Kuhlman Court: provide additional space for passive recreation and access to food options at peak times adjacent to the MU Student Center
- Arts and Sciences Mall: consider landscape and hardscape improvements, providing a more accessible experience with new seating and collaboration spaces
- White Limestone Campus: establish a connected north-south pedestrian circulation spine
- East Campus: create a stronger pedestrian connection and aesthetic consistency with hardscape, furniture, plantings, programming, and branding



*Above: Concept for Arts & Sciences Mall Improvements
Below: Concept for Kuhlman Court Improvements*

Open Space Framework

- Open Spaces
- Plazas
- Strong Corridors



Reinforcing the Campus Identity

Opportunities to celebrate and showcase the Mizzou brand are identified through gateway locations, streetscape enhancements, and a new signage kit of parts. New gateway locations are proposed at 6th Street and Elm Street, Stadium Boulevard and Ashland Road, and Providence Road and Turner Avenue. Enhancements at these locations provide clarity to the edges of campus for first-time visitors and people going to the Veterinary Health Center and College of Agriculture facilities. There are also opportunities for several existing gateways to be enhanced to reflect the scale of their location and visibility from the road. These include Stadium Boulevard and College Avenue, Stadium Boulevard and Providence Road, and Providence Road and Elm Street.

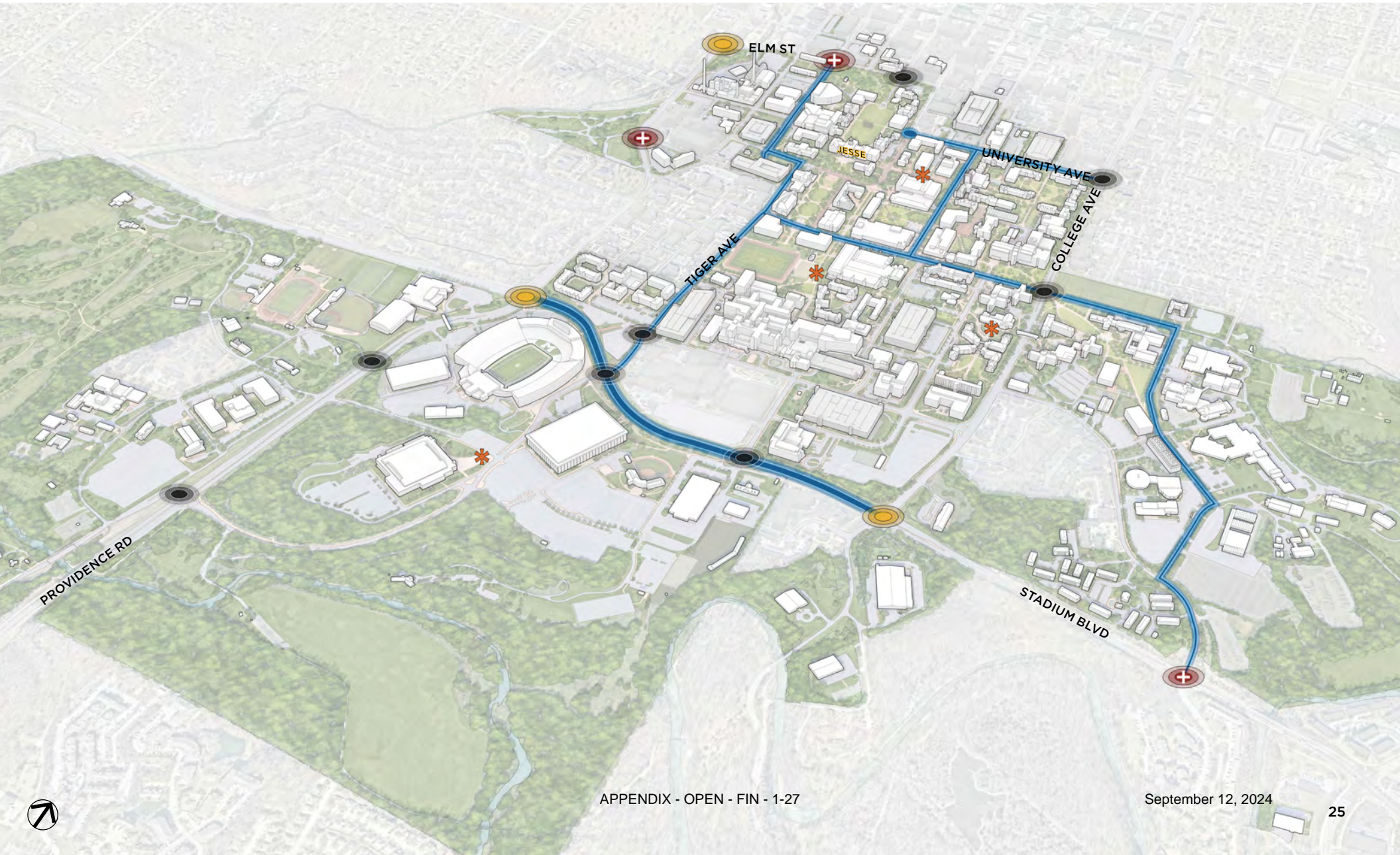
To improve the identity and connectivity on campus, a complete kit of parts wayfinding system has been proposed. The sign designs reflect Mizzou's brand in a distinctive manner and includes wayfinding from "highway to hallway." The City of Columbia is concurrently developing a new wayfinding program, which provides the opportunity for coordination prior to implementation. Locations for capturing the Mizzou spirit are also identified for branding and photo elements coordinated with the landscape.



*Above: Concept for Signage and Wayfinding Kit of Parts
Below: Concept for Gateway Improvement*

Enhanced Branding and Wayfinding Framework

- ⦿ Existing Monument Signage
- ⦿ Existing Monument Signage for Improvement
- ⊕ Proposed Monument Signage
- ▬ Improved Streetscape, Signage, & Branding
- * Photo Engagement Opportunity



SUSTAINABILITY



FACILITY AND INFRASTRUCTURE RENEWAL

Site reuse, renovations, greenhouse gas reduction, combined heat and power plant, material selection, LEED



RENEWABLE ENERGY

40% of energy from a renewable portfolio of biomass, wind, and solar



CONNECTIVITY AND MULTI-MODAL TRANSPORTATION

Compact campus footprint, bike and scooter infrastructure, enhanced bus network, connected pathways and trails



STORMWATER MANAGEMENT

Reducing runoff and improving the quality of unavoidable runoff

The Master Plan provides a framework for campus that is rooted in sustainable practices and integrated campus stewardship. Emphasis on facility and infrastructure renewal can reduce greenhouse gas emissions. The methodology developed for assessing buildings based on their functional adequacy and condition can aid in the decision-making process for the stewardship of existing facilities. Renewable energy sources remain a priority for the university, including biomass, wind, and solar. Focusing on infill opportunities and expanding the bike infrastructure, the bus network, pedestrian pathways, and trails provides greater connectivity and incentives to utilize alternative forms of transportation. Open space and infrastructure improvements also focus on reducing runoff and incorporating stormwater practices.

FRAMEWORK FOR THE FUTURE

The 2024 Campus Master Plan provides a framework of opportunities addressing the MizzouForward themes of Student Success, Faculty Excellence, and Infrastructure Growth. It serves as a roadmap to provide flexibility in considering a variety of campus changes over the next several decades. By increasing clarity, consistency, and connectivity across campus, promoting community through programming and campus organization, and building upon the campus legacy while meeting modern needs, the Master Plan aims to enable Mizzou to evolve the physical campus as the nature of higher education continues to change.





University of Missouri

University of Missouri – Columbia
Fiscal Year 2025 Mid-Year Capital Plan Modifications

University of Missouri - Columbia: Fiscal Years 2025 - 2029 Capital Plan included in Finance Plan

MU	2025	2026	2027	2028	2029
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$499,800,000	\$0	\$0	\$0	\$0
Center for Energy Innovation	\$160,000,000				
NextGen MURR Phase One	\$36,000,000				
Radioisotope Facility at Discovery Ridge	\$40,000,000				
Memorial Stadium Improvements	\$250,000,000				
MURR Production Support Facility	\$13,800,000				
Renovation/Infrastructure	\$52,000,000	\$20,000,000	\$0	\$0	\$0
Electrical Interconnection and Substation	\$42,000,000				
Pickard Hall – Decommissioning and Mitigation	\$10,000,000				
Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement		\$20,000,000			
Total Project Cost	\$551,800,000	\$20,000,000	\$0	\$0	\$0

University of Missouri – Columbia: Fiscal Years 2025 – 2029 Capital Plan included in Finance Plan Funding

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Center for Energy Innovation	NC	\$0	0.00	\$160,000,000	\$0	\$50,000,000	\$80,000,000	\$0	\$30,000,000
2	NextGen MURR Phase One	NC	\$0	0.00	\$36,000,000	\$0	\$0	\$6,000,000	\$20,000,000	\$10,000,000
3	Radioisotope Facility at Discovery Ridge	NC	\$0	0.00	\$40,000,000	\$0	\$0	\$0	\$20,000,000	\$20,000,000
4	Memorial Stadium Improvements	NC	N/A	N/A	\$250,000,000	\$100m*	\$125,000,000	\$25,000,000	\$0	\$0
5	MURR Production Support Facility	NC	N/A	N/A	\$13,800,000	\$0	\$0	\$13,800,000	\$0	\$0
6	Electrical Interconnection and Substation	INFR	N/A	N/A	\$42,000,000	\$0	\$0	\$22,000,000	\$0	\$20,000,000
7	Pickard Hall – Decommissioning and Mitigation	Demo	\$6.5M	0.47	\$10,000,000	\$0	\$0	\$10,000,000	\$0	\$0
8	Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement	RE	\$15.2M	0.27	\$20,000,000	\$0	\$0	\$0	\$0	\$20,000,000
Total			\$21.70M		\$571,800,000	\$100	\$175,000,000	\$156,800,000	\$40,000,000	\$100,000,000

FY25 MU Capital Plan Modifications

- NextGen MURR Phase One (*modified*)
 - Project was moved from FY2024 back to FY2025.
 - Phase One is clarified to include specification development, programming and conceptual design.
- Radioisotope Facility at Discovery Ridge (*modified*)
 - Project budget changed to correspond with funding sources, \$39,000,000 to \$40,000,000.
 - State Appropriation increased from \$19,000,000 to \$20,000,000.
- Memorial Stadium Improvements (*shifted*)
 - Project shifted from the Strategic Project Plan to Capital Plan scheduled FY 2025.
 - Project Budget is \$250,000,000.
 - The Memorial Stadium improvements project initiates an effort to create a new multi-level North End Zone Addition to enclose the north end of Memorial Stadium. A variety of improvements to the existing stadium are also planned.

*\$100m in long-term financing/state support

- MURR Production Support Facility (*new*)
 - Project Budget is \$13,800,000.
 - Project expands MURR Lab Building approximately 7,854 square feet for future production.
- Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement (*shifted*)
 - Project shifted from the Strategic Project Plan to Capital plan.
 - Project Budget increased to from \$15,000,000 to \$20,000,000 with escalating costs. Will continue to explore availability of state and gift funding for project.
 - Project scope expanded to include north and east elevations for masonry work.

University of Missouri – Columbia: FY 2025 Strategic Development Projects Plan

Project					
#	Title	Type	Facility Needs	FCNI	Total Cost
	Memorial Stadium Improvements	NC	NA	NA	\$250,000,000
1	Animal Resource Center - Vivarium Facility Expansion	NC	NA	NA	\$8,000,000
2	Roy Blunt NextGen Precision Health Building - 4th Floor Innovation Tower Fit-out	NC	NA	NA	\$8,400,000
3	New Swine Research Facility	RE	N/A	N/A	\$13,100,000
5	Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement	RE	\$15.2M	0.27	\$15,000,000
4	Energy Management - Campus Cooling Capacity	INFR	N/A	N/A	\$40,000,000
Total					\$69,500,000

FY25 MU Strategic Projects Plan Modifications

- Memorial Stadium Improvements (*shifted*)
 - Project shifted from the Strategic Project Plan to Capital plan scheduled for 2025.
- Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement (*shifted*)
 - Project shifted from the Strategic Project Plan to Capital plan scheduled for 2026.
- New Swine Research Facility (*modified*)
 - Project Budget increased from \$10,000,000 to \$13,100,000.
 - The concept plan developed a stand-alone facility accommodating program space to house swine, imaging, surgery, and procedure rooms as well as a common lab and office space.
- Energy Management – Campus Cooling Capacity (*new*)
 - Project Budget is \$40,000,000.
 - Study phase underway reviewing the options of a single large plant expansion or multiple distributed plants to increase the capacity and reliability of the CW system.

MU Health Care
Fiscal Year 2025 Mid-Year Capital Plan Modifications

MU Health Care: Fiscal Years 2025 - 2029 Capital Plan included in Finance Plan

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

MU Health Care: Fiscal Years 2025 – 2029 Capital Plan included in Finance Plan Funding

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

FY25 MU Health Care Capital Plan Modifications (no changes)

MU Health Care: FY 2025 Strategic Development Projects Plan

Project					
#	Title	Type	Facility Needs	FCNI	Total Cost
1	MUHC Campus Consolidation & Inpatient Services Expansion	NC	N/A	N/A	\$93,000,000
2	Callaway County Rural Health Expansion	NC	N/A	N/A	\$23,800,000
Total					\$116,800,000

FY25 MU Health Care Strategic Projects Plan Modifications

- Callaway County Rural Health Expansion (*new*)
 - Project Budget is \$23,800,000.
 - Establish a consolidated facility for urgent and primary care services to meet the growing healthcare needs of the Callaway County community.

University of Missouri – Kansas City
Fiscal Year 2025 Mid-Year Capital Plan Modifications

University of Missouri - Kansas City: Fiscal Years 2025 - 2029 Capital Plan included in Finance Plan

Projects	2025	2026	2027	2028	2029
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$25,000,000	\$0	\$0	\$0	\$0
KCUR Building	\$25,000,000				
Renovation/Infrastructure	\$0	\$70,000,000	\$0	\$0	\$0
Olson Performing Arts Center Addition & Renovations	\$0	\$70,000,000	\$0	\$0	\$0
Total Project Cost	\$25,000,000	\$70,000,000	\$0	\$0	\$0

University of Missouri - Kansas City: Fiscal Years 2025 – 2029 Capital Plan included in Finance Plan Funding

Projects					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	KCUR Building	NC	NA	NA	\$25,000,000	\$0	\$25,000,000	\$0	\$0	\$0
2	Olson Performing Arts Center Addition & Renovations	RE/NC	\$10.3M	0.41	\$70,000,000	\$0	\$60,000,000	\$10,000,000	\$0	\$0
Total			\$10.3M		\$95,000,000	\$0	\$85,000,000	\$10,000,000	\$0	\$0

FY25 UMKC Capital Plan Modifications

- KCUR Building *(modified)*
 - Project was moved from FY2024 to FY2025 in alignment with fundraising.
 - This transformative two-story building with 30,000 SF will be the new center for constituent engagement over the intermediate and long-term future.
- Olson Performing Arts Center Addition & Renovations *(shifted)*
 - Project shifted from the Strategic Project Plan to Capital plan scheduled for 2026 in alignment with fund raising.
 - A new 52,000 square foot addition to address critical educational and community needs.

University of Missouri - Kansas City: FY 2025 Strategic Development Projects Plan

Projects					
#	Title	Type	Facility Needs	FCNI	Total Cost
	New Brookside Arena	NC	NA	NA	\$60,000,000
	Olson Performing Arts Center Addition & Renovations	NC/RE	\$10.3M	0.41	\$70,000,000
	New Science, Engineering, and Research Building	NC	NA	NA	\$125,000,000
Total					\$185,000,000

FY25 UMKC Strategic Projects Plan Modifications

- Olson Performing Arts Center Addition & Renovations (*shifted*)
 - Project shifted from the Strategic Project Plan to Capital plan scheduled for 2026 in alignment with fund raising.

Missouri University of Science and Technology
Fiscal Year 2025 Mid-Year Capital Plan Modifications

Missouri University of Science and Technology: Fiscal Years 2025 - 2029 Capital Plan included in Finance Plan

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

Missouri University of Science and Technology: Fiscal Years 2025 – 2029 Capital Plan included in Finance Plan Funding

Projects										
Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State	
#										
Total				\$0	\$0	\$0	\$0	\$0	\$0	

FY25 Missouri S&T Capital Plan Modifications (no changes)

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

Project					
#	Title	Type	Facility Needs	FCNI	Total Cost
	Bioplex	NC	\$0	0	\$117,568,000
	Physics Building Renovation	RE	\$15.0M	0.41	\$27,105,751
	Innovation Campus Program Expansion	NC	NA	NA	\$95,000,000
	Computer Science Building Renovation	RE	\$11.4 M	0.52	\$20,616,123
	Scaling Facility	NC	NA	NA	\$25,000,000
	Partnership Research Facility	NC	NA	NA	\$21,581,857
	University Center West	NC	\$1.8 M	0.16	\$11,191,515
Total					\$318,063,246

FY25 Missouri S&T Strategic Projects Plan Modifications (no changes)

University of Missouri – St. Louis
Fiscal Year 2025 Mid-Year Capital Plan Modifications

University of Missouri – St. Louis: Fiscal Years 2025 - 2029 Capital Plan included in Finance Plan

Projects	2025	2026	2027	2028	2029
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$0	\$0	\$0	\$0	\$0
N/A					
Renovation/Infrastructure	\$62,000,000	\$0	\$0	\$0	\$0
Central Utility Plant – North Campus	\$47,000,000				
UMSL School of Engineering - Stadler Renovation	\$15,000,000				
Total Project Cost	\$62,000,000	\$0	\$0	\$0	\$0

University of Missouri – St. Louis: Fiscal Years 2025 – 2029 Capital Plan included in Finance Plan Funding

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Central Utility Plant – North Campus	INFR	NA	NA	\$47,000,000	\$40,000,000	\$0	\$7,000,000	\$0	\$0
2	UMSL School of Engineering - Stadler Renovation	RE	\$30.0M	0.57	\$15,000,000	\$0	\$0	\$0	\$0	\$15,000,000
Total			\$30.0M		\$62,000,000	\$40,000,000	\$0	\$7,000,000	\$0	\$15,000,000

FY25 UMSL Capital Plan Modifications

- Central Utility Plant – North Campus (*modified*)
 - Project from FY2024 to FY2025
 - Project Budget increased from \$15,000,000 to \$47,000,000 due to a study completed by the selected engineering firm, who identified a better business case for a \$47,000,000 project.
 - \$30,000,000 for CUP – Interconnected Distributed Heating & Cooling
 - \$17,000,000 for CUP - CUP – Geothermal
 - The project provides a new central utility plant and distribution system to the North campus using geothermal technology similar to the Missouri S&T campus for a more reliable, energy efficient system for the future.
 - The CUP-Geothermal will be eligible for Inflation Reduction Act [IRA] tax credits. The University could recover a portion or all of the "Internal" \$7M via IRA tax credit.
- UMSL School of Engineering - Stadler Renovation (*new*)
 - Project Budget is \$15,000,000.

- Funding will be from State Appropriation.
- This project will renovate underutilized space in Stadler Hall and other spaces to be determined within UMSL's science complex to support the creation of a new on-campus UMSL School of Engineering.
- The project will construct a new welcome area for the "front-door" of the School of Engineering and convert aging lab and classroom space to new engineering labs, classrooms, and support spaces to recruit and retain engineering students in the region.
- The renovation will update mechanical, electrical, and plumbing systems as needed and provide updated technology and lab equipment to the facility.
- New collaborations zones will be created to promote collaboration between researchers, students, and faculty and ADA improvements will be made throughout the renovated spaces.

University of Missouri –St. Louis: FY 2025 Strategic Development Projects Plan

Project					
#	Title	Type	Facility Needs	FCNI	Total Cost
1	Stadler Hall Renovation	RE	\$30.0M	0.57	\$60,000,000
Total			\$30.0M		\$60,000,000

FY25 UMSL Strategic Projects Plan Modifications

- Stadler Hall Renovation (*modified*)
 - Project Budget for both phases increased from \$38,500,000 to \$75,000,000 allowing for a full remodel and refit within the second phase.
 - The \$15,000,000 State Appropriation of UMSL School of Engineering – Stadler Renovation is the first phase.

Board Approved Project Status Report for Fiscal Year 2024

Project Status as of June 30, 2024

(New Construction Project Cost > \$5,000,000, Renovation/Infrastructure Project Cost > \$8,000,000 or Debt Financed)

UNIVERSITY	PROJECT	LAST BOARD SUBMITTAL	PROJECT BUDGET	SCHEDULED PROJECT COMPLETION	STATUS
MUHC	MUHC – Children’s Hospital Facility	Project Design	\$232,000,000	June 2024	Complete
MU	Power Plant – Replace Turbine 6 with Turbine 10	Project Approval	\$8,000,000	October 2024	Construction
MU	Veterinary Medicine Diagnostic Laboratory	Project Design	\$30,000,000	Summer 2024	Complete
MU	Lottes Health Sciences Library – Renovation for Consolidation	Project Approval	\$8,500,000	October 2024	Construction
MU	NextGen Precision Health 4 th Floor Fit-Out	Project Approval	\$16,500,000	Fall 2024	Complete
MU	Pershing Commons – Renovation for Student Health Center and School of Medicine/MUHC Offices	Project Approval	\$10,860,000	April 2024	Complete
MU	MU Research Reactor – West Expansion	Project Design	\$20,000,000	January 2025	Construction
MU	Mizzou North Demolition	Project Approval	\$10,000,000	January 2024	Complete
MU	Electric Interconnection and Substation	A/E Hire	\$42,000,000	TBD	Design
MU	Medical Science Building – Renovations	Project Reapproval	\$51,000,000	September 2025	Construction
MU	Engineering Science, Engineering & Policy Building (Center for Energy Innovation)	A/E Hire	\$160,000,000	TBD	Design
MU	Middlebush Farm – NextGen Center for	Project Approval	\$7,500,000	August 2025	Design

(New Construction Project Cost > \$5,000,000, Renovation/Infrastructure Project Cost > \$8,000,000
or Debt Financed)

UNIVERSITY	PROJECT	LAST BOARD SUBMITTAL	PROJECT BUDGET	SCHEDULED PROJECT COMPLETION	STATUS
	Influenza Research – Phase II Addition				
MU	Research Commons – Thermal Plant	Project Reapproval	\$13,000,000	November 2024	Construction
MU	Missouri Psychiatric Center - Infrastructure Upgrades and Renovation for Emergency Department Expansion	Project Approval	\$12,500,000	December 2024	Construction
MU	National Swine Resource and Research Center – Addition	Project Design	\$8,000,000	January 2026	Construction
MU	South Farm - Swine Research and Education Facility Addition	Project Design	\$5,000,000	March 2026	Construction
MU	Thompson Center	Project Design	\$55,000,000	December 2025	Construction
MU	Veterinary Medicine Diagnostic Laboratory- Addition	Project Approval	\$43,000,000	November 2026	Design
MU	Meat Science Research Lab	Project Approval	\$25,000,000	May 2026	Design
MU	Memorial Stadium Improvements	A/E Hire, Early Release Approval	\$250,000,000	August 2026	Design
MU	MURR Lab Expansion	Project Approval	\$34,000,000	July 2026	Design
MU	Research Commons Thermal Plant-Chilled Water Production Addition	Project Approval	\$12,500,000	June 2026	Design
MU	Radioisotope Processing Facility	A/E Hire	\$39,000,000	TBD	Design
UMKC	Healthcare Innovation and Delivery Building	Project Design	\$151,000,000	May 2026	Design
UMKC	School of Medicine, St. Joseph’s Facility	Project Approval	\$14,500,000	January 2025	Construction
S&T	Student Experience Center	Project Design	\$34,391,750	March 2024	Complete
S&T	Welcome Center	Project Design	\$25,750,000	August 2025	Construction

(New Construction Project Cost > \$5,000,000, Renovation/Infrastructure Project Cost > \$8,000,000 or Debt Financed)

UNIVERSITY	PROJECT	LAST BOARD SUBMITTAL	PROJECT BUDGET	SCHEDULED PROJECT COMPLETION	STATUS
S&T	Arrival Court	Project Design	\$9,600,000	Fall 2025	Construction
S&T	Missouri Protoplex - Phase One	Project Design	\$13,068,182	June 2023	Complete
S&T	Missouri Protoplex – Phase II	Project Design	\$88,346,380	March 2026	Construction
S&T	Substation Relocation	Project Approval	\$8,774,898	October 2024	Construction
S&T	Subsurface Parking Garage	Project Design	\$10,277,630	November 2023	Complete
UMSL	College of Education to Quad Area	Project Approval	\$30,780,000	Fall 2026	Design
UMSL	Music and Fine Arts Relocation to Arts and Administration Building, North Campus	Project Approval	\$12,100,000	Fall 2024	Construction
UMSL	Thomas Jefferson Library Renovation	Project Approval	\$14,330,000	Spring 2026	Construction
UMSL	Richter Family - Welcome and Alumni Center	Project Approval	\$18,200,000	Summer 2026	Construction

Investment Update

FISCAL YEAR
2024



University of Missouri System

Retirement Plan

\$4.5 billion at June 30, 2024

Represents the invested assets of the University's defined benefit plan, which serves approximately 30,000 members. The plan has been closed to new employees since 2019. Plan assets at October 1, 2023 totaled approximately \$4.2 billion against plan liabilities of \$5.6 billion, resulting in an unfunded liability of \$1.4 billion on a market value basis. Current annual benefit payments are approximately \$330 million, which exceed current contributions into the plan by nearly \$170 million. Within 10 years, annual benefit payments will grow to \$445 million resulting in net cash outflows of nearly \$300 million. The plan has a 7.0% assumed actuarial return on investments and is currently projected to reach a fully funded status by 2041.

Endowment Pool

\$2.4 billion at June 30, 2024

Commingled fund invests the assets of more than 6,400 separate endowment accounts restricted by each donor for specific purposes, nearly all of which involve support of scholarships, research, academic programs and faculty positions at each of the four universities. Endowment accounts distribute a 4.0% spending distribution and 1.25% administrative fee each year. All administrative fees are transferred directly to the universities to help fund advancement efforts. With current 10-year projected inflation at 2.5%, the required return objective of the Endowment Pool stands at 7.75% (4.00% + 1.25% + 2.50%).

General Pool

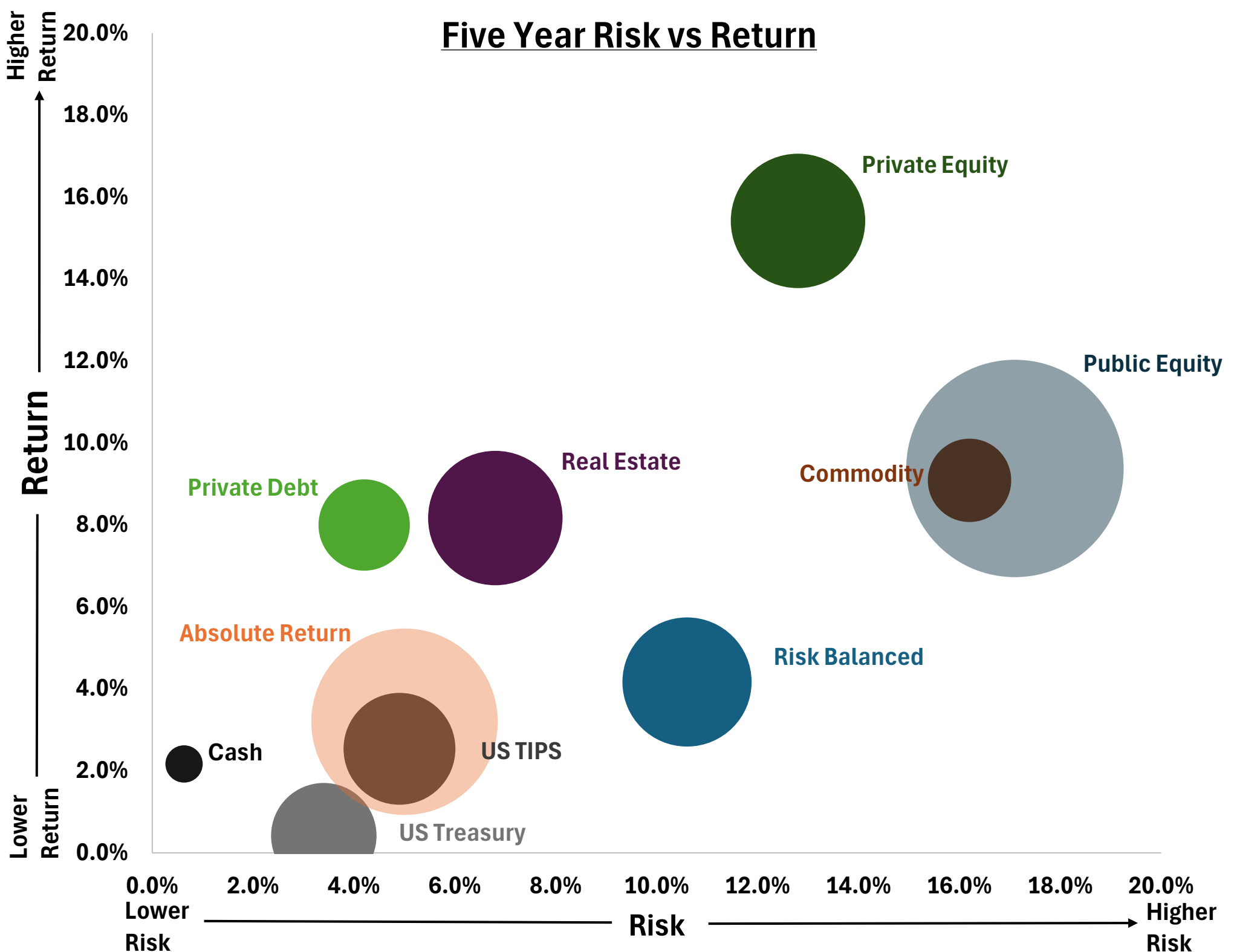
\$3.2 billion at June 30, 2024

Contains the University's cash and reserves, both restricted and unrestricted, including operating funds, auxiliary funds, self-insurance funds, debt service funds and plant funds. Collectively, the General Pool represents the working capital of the University, and a source of financial strength and stability that is foundational to the university's strong credit ratings from Moody's and S&P.

Five Year Perspective - June 30, 2024

	<u>Retirement</u>	<u>Endowment</u>
Annualized 5-Year Return, net of fees	8.1%	8.5%
Policy Benchmark	7.0%	7.5%
Outperformance (%)	1.1%	1.0%
Outperformance (\$)	\$239 million	\$114 million

The following illustrates the intersection of risk and return for each asset class, measured by actual five year performance. The greater the risk, the more volatile the monthly returns were for the asset class. Each circle is sized to the targeted allocation of the asset class. Circles farther to the right (higher risk) experienced greater volatility of returns. Circles closer to the top delivered higher returns. Using Public Equity as an example, it has the largest circle as it has the highest target allocation in the portfolio. Its position furthest to the right indicates it had the greatest volatility of returns. By comparison, Private Equity shows the highest return with less volatility relative to Public Equity.



Fiscal Year Review

Fiscal Year 2024 (“FY24”) was marked by another double-digit performance from public equities, as the global economy continued to grow amidst decreasing inflationary pressures. Most global central banks have begun, or communicated an intent to begin, cutting interest rates given this downward trend in inflation, creating a short-term favorable environment for risk assets in the first half of 2024.

Against this backdrop, the Retirement, Endowment and General Pool portfolios delivered strong absolute returns in FY24; each of these portfolios also outperformed policy benchmarks on both a one- and five-year basis. In Retirement and Endowment, performance was driven by Public Equity which returned 19%, followed by double-digit returns in Commodities and Risk Balanced.

Since the start of FY25, markets have demonstrated the continued need for a diversified portfolio comprised of both risk assets and safe assets. During the first three business days of August, while Global Equities were down 6%, US Treasuries were up 1%. Markets are

adapting to changes in monetary policy noted above and growing concerns over the labor markets. Adding to general concerns, the “Magnificent Seven” US mega-cap tech companies, which represent about 30% of the entire S&P 500 index, have experienced share price declines in light of increased skepticism of Artificial Intelligence monetization opportunities.

Moving to the private market portfolios, FY24 was an overall positive year with Private Equity and Debt driving returns while offsetting a down year for Real Estate. Real Estate valuations continued to adjust to a higher interest rate environment; we expect this repricing could persist throughout 2024. Although the Real Estate portfolios were down, they continue to outperform policy benchmarks by 5.6% and 2.9% in the Retirement and Endowment, respectively, due primarily to significantly less office building exposure as compared to the benchmark.

Private Debt delivered attractive absolute returns of 7.7% and 9.5% in Retirement and Endowment, respectively. These returns underperformed the benchmark, largely due to a timing mismatch between the pricing of private loan holdings in our portfolio vs. a benchmark which reflects publicly traded loans. Over a five-year period, which removes the timing mismatch between public and private, our Private Debt portfolios outperformed the benchmark by 2.5% and 4.6% on an annualized basis in Retirement and Endowment, respectively.

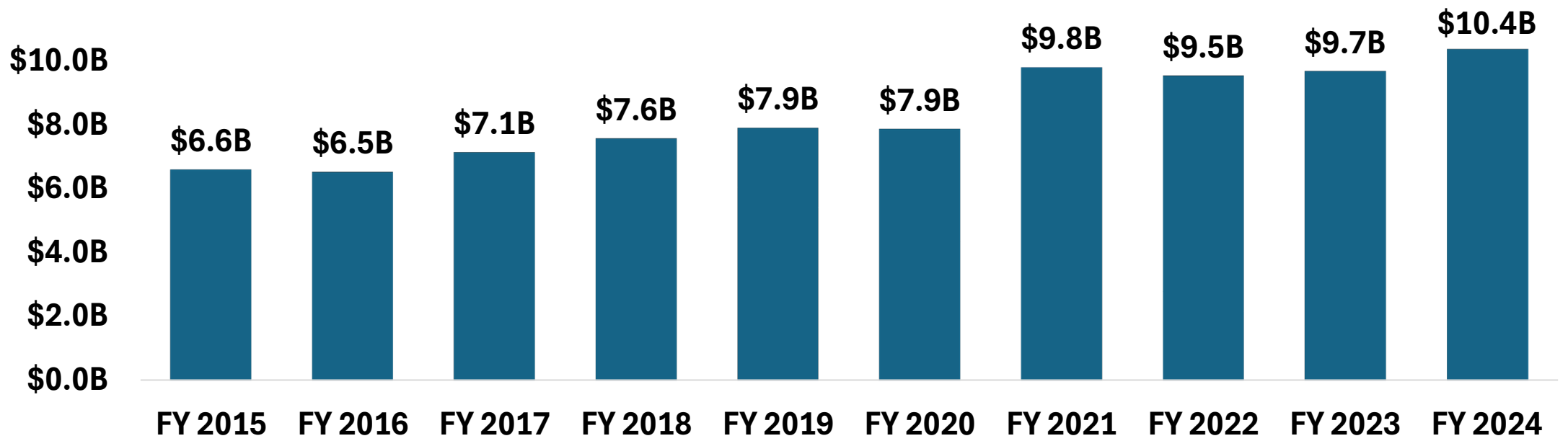
Retirement Plan	1 Year	5 Year
Actual Return (A)	11.1%	8.1%
Policy Benchmark (B)	8.8%	7.0%
% Excess Return (A)-(B)	2.3%	1.1%
\$ Excess Value	\$94 M	\$239 M
60/40 Global Passive Portfolio* (D)	13.2%	6.7%
% Excess Return (A)-(D)	-2.1%	1.4%
\$ Excess Value	-\$88 M	\$340 M
Peer Universe Percentile**	56th	20th
Endowment Pool	1 Year	5 Year
Actual Return (A)	11.3%	8.5%
Policy Benchmark (B)	9.0%	7.5%
% Excess Return (A)-(B)	2.3%	1.0%
\$ Excess Value	\$51 M	\$114 M
60/40 Global Passive Portfolio* (D)	13.2%	6.7%
% Excess Return (A)-(D)	-1.9%	1.8%
\$ Excess Value	-\$41 M	\$211 M
Peer Universe Percentile*	57th	9th
General Pool	1 Year	5 Year
Actual Return (A)	7.5%	3.2%
Policy Benchmark (B)	6.5%	2.4%
% Excess Return (A)-(B)	1.0%	0.8%
\$ Excess Value	\$37 M	\$143 M

* 60% MSCI ACWI / 40% Barclays Global Aggregate

** Investment Metrics Peer Data - 1st percentile is top performance; 99th percentile is bottom peer performance.

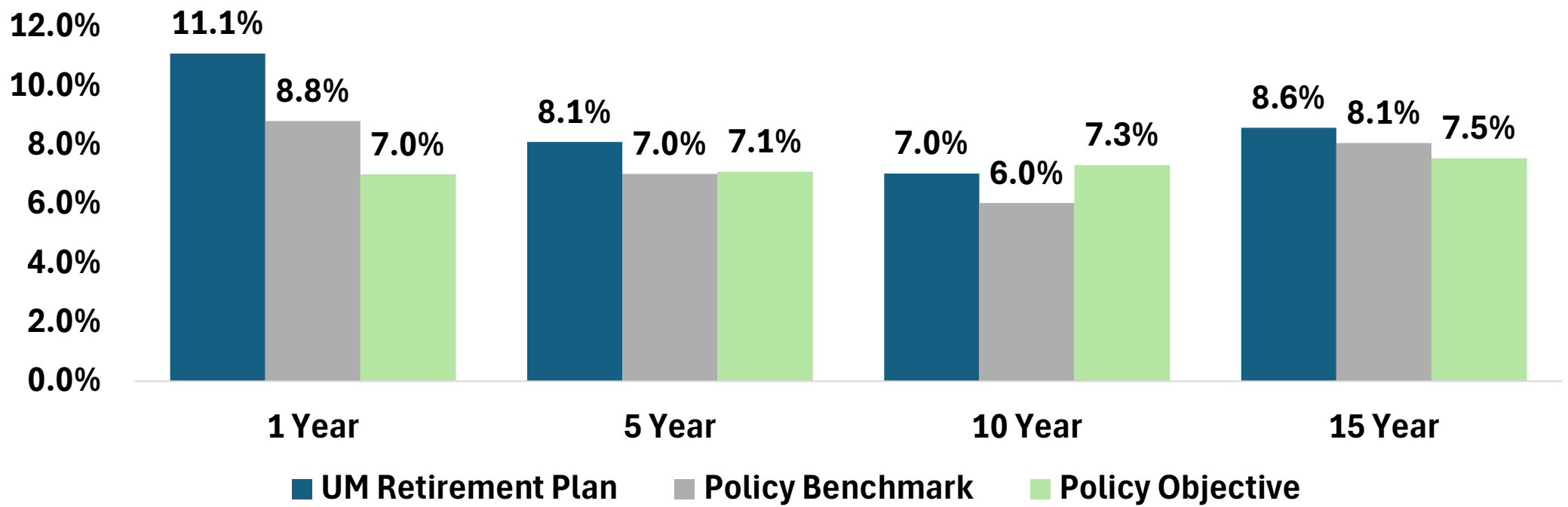
Annual Investment Report

Assets Managed by Office of Investments

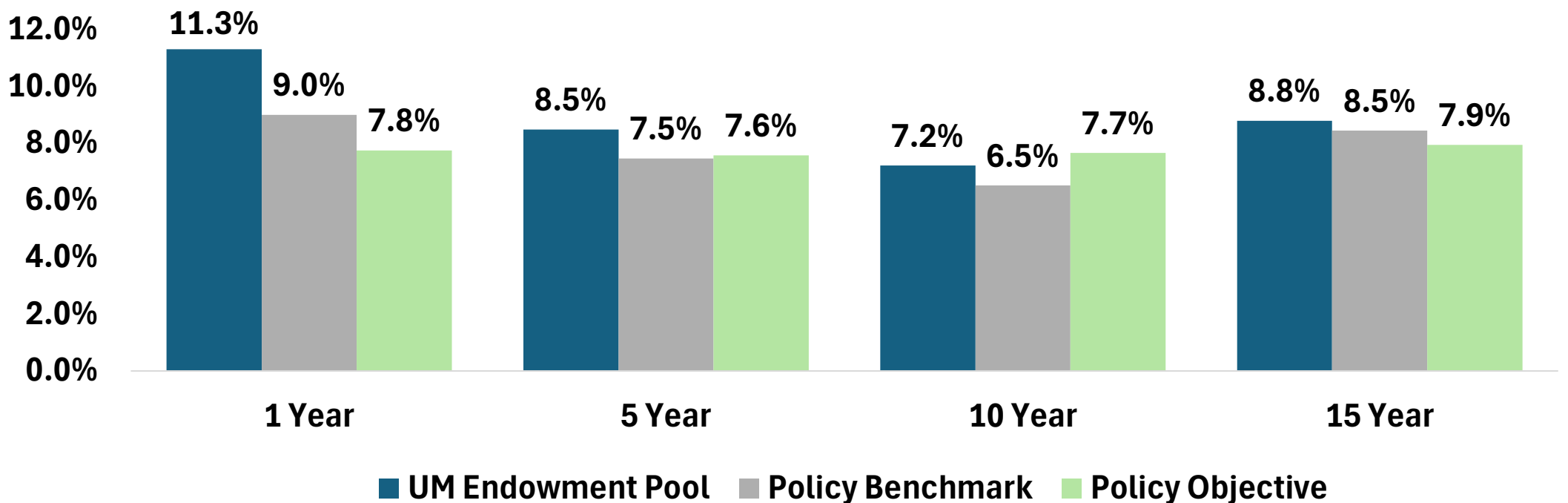


Annualized Performance Net of Fees

Retirement, Disability, and Death Benefit Plan



Endowment Pool



Annual Investment Report

Retirement, Disability and Death Benefit Plan

Assets: \$4.5 billion

Asset Class	Mix	Policy Target	1 Year Return	Policy Benchmark	Excess Return	Contribution to Return
Public Equity	36.2%	34.0%	19.2%	19.3%	-0.1%	5.9%
US Treasury	8.2%	8.0%	3.2%	3.4%	-0.2%	0.3%
US TIPS	9.0%	9.0%	4.5%	4.3%	0.2%	0.4%
Commodity	5.0%	5.0%	11.8%	8.1%	3.7%	0.6%
Risk Balanced	12.3%	12.0%	11.4%	11.4%	0.0%	1.5%
Private Equity	13.2%	13.0%	8.9%	4.9%	4.0%	1.2%
Private Debt	5.8%	6.0%	7.7%	12.4%	-4.7%	0.5%
Real Estate	10.0%	13.0%	-6.4%	-12.0%	5.6%	-0.7%
Cash/Other	0.3%	0.0%	6.7%	5.4%	1.3%	0.1%
Total Beta Portfolio	100.0%	100.0%	9.8%	8.8%	1.0%	9.8%
Absolute Return (net)	20.9%	22.0%	5.5%			1.3%
Total Portfolio	120.9%	122.0%	11.1%	8.8%	2.3%	11.1%

Endowment Pool

Assets: \$2.4 billion

Asset Class	Mix	Policy Target	1 Year Return	Policy Benchmark	Excess Return	Contribution to Return*
Public Equity	39.9%	35.0%	19.1%	19.3%	-0.2%	6.8%
US Treasury	8.0%	8.0%	3.3%	3.4%	-0.1%	0.3%
US TIPS	10.1%	10.0%	4.4%	4.3%	0.1%	0.5%
Commodity	2.9%	3.0%	9.7%	5.0%	4.7%	0.3%
Risk Balanced	12.1%	12.0%	11.4%	11.4%	0.0%	1.3%
Private Equity	13.6%	15.0%	8.5%	4.2%	4.3%	1.1%
Private Debt	5.9%	7.0%	9.4%	12.5%	-3.1%	0.6%
Real Estate	7.3%	10.0%	-9.1%	-12.0%	2.9%	-0.8%
Cash/Other	0.2%	0.0%	5.9%	5.4%	0.5%	0.1%
Total Beta Portfolio	100.0%	100.0%	10.2%	9.0%	1.2%	10.2%
Absolute Return (net)	19.1%	22.0%	5.4%			1.1%
Total Portfolio	119.1%	122.0%	11.3%	9.0%	2.3%	11.3%

All returns are reported Net of Fees.

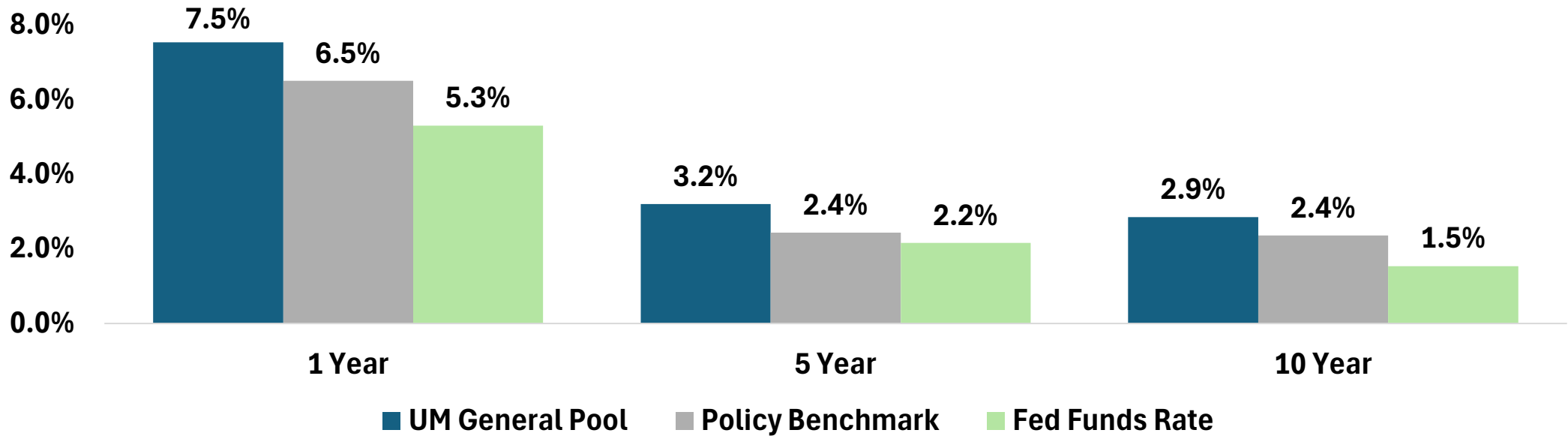
*Contribution to Total Return is a function of asset class return and weighting within the investment portfolio. As an example, Commodities returned 9.7% for the year at an average portfolio weight of 3% (9.7% * 3%=0.3%). Based on this analysis, we can see that Public Equity was the largest return driver, while Real Estate was the biggest detractor.

Annual Investment Report

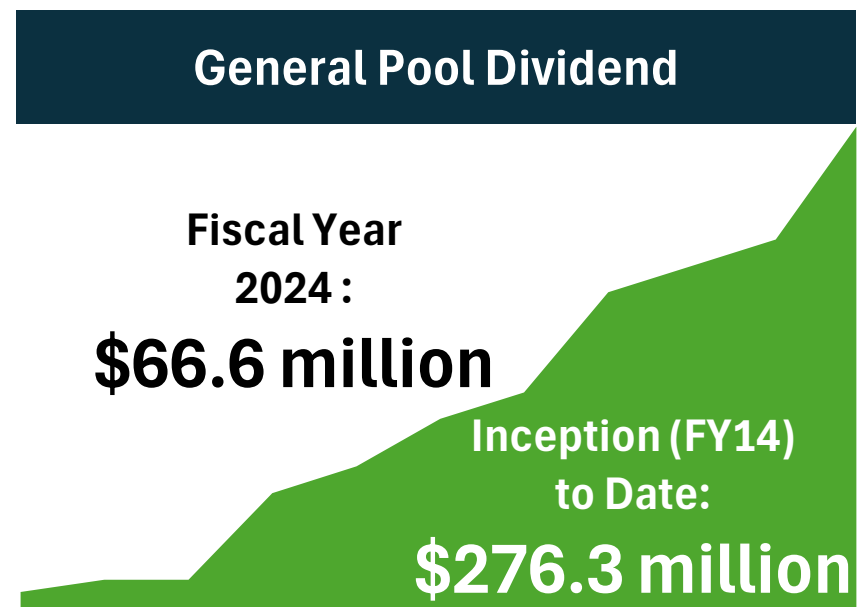
General Pool

Assets: \$3.2 billion

Annualized Performance Net of Fees

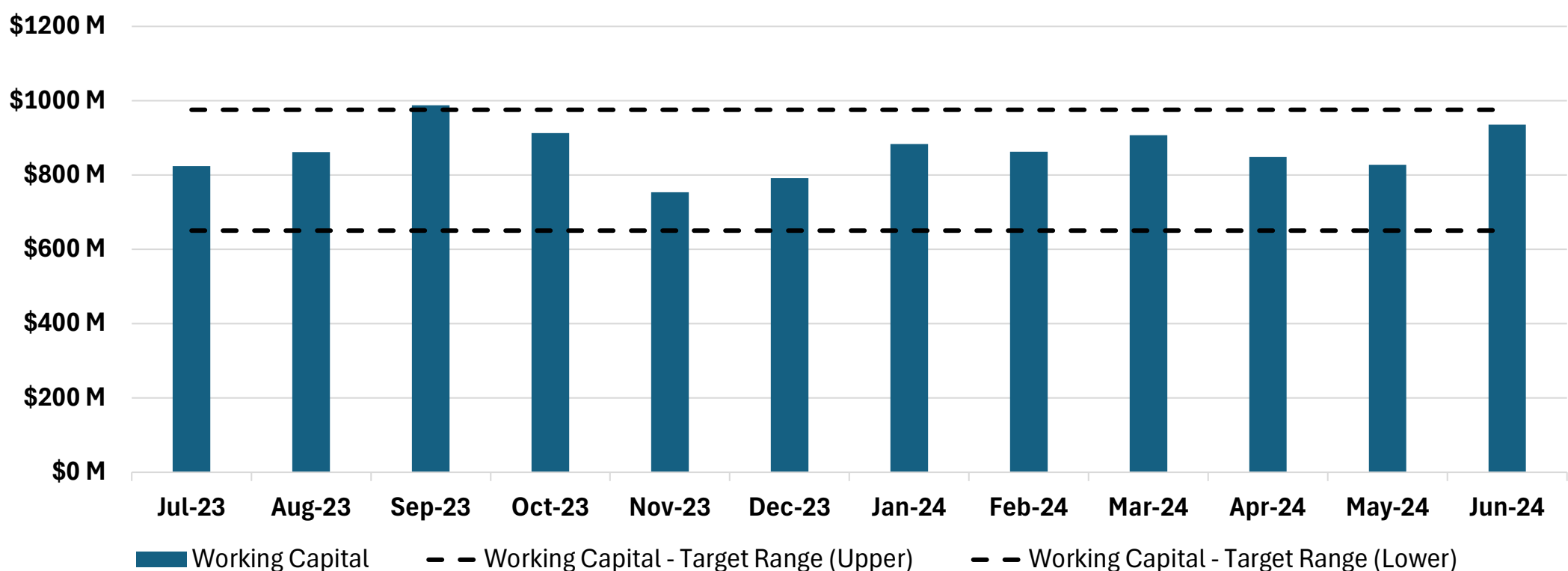


Asset Class	1 Year Return	Policy Benchmark	Excess Return
Total Working Capital	6.2%	4.5%	1.7%
Core Fixed Income	5.7%		
Absolute Return	8.6%		
Private Credit	12.7%		
Risk Balanced	13.0%		
Total Core & Strategic Portfolio	8.1%	7.4%	0.7%
Total General Pool	7.5%	6.5%	1.0%



Working Capital vs. Target

The working capital balance fluctuates monthly, driven largely by cash inflows from tuition related payments each semester. The objective is to manage the working capital within a target range, mindful of historical trends and forecasted cash flows. As established by guidance within CRR 140.012 "Investment Policy for General Pool," the Working Capital target is equal to 30 days of operating cash outflows for the UM System plus adequate self-liquidity reserves for the University's debt portfolio.



Annual Investment Report

Portfolio Asset Allocation as of June 30, 2024

Asset Classes	Retirement Plan		Endowment Pool		General Pool	
	Balance (\$m)	Allocation	Balance (\$m)	Allocation	Balance (\$m)	Allocation
US Equity	1,089	24%	639	27%	-	0%
International Equity	422	9%	247	10%	-	0%
Emerging Markets Equity	129	3%	76	3%	-	0%
US Treasury	371	8%	195	8%	-	0%
US TIPS	406	9%	244	10%	-	0%
Core Fixed Income	-	0%	-	0%	1,486	46%
Risk Balanced	557	12%	291	12%	355	11%
Commodity	225	5%	70	3%	-	0%
Cash Equivalents	12	1%	5	0%	936	29%
Total Public (Liquid) Markets	3,211	71%	1,768	73%	2,777	86%
Private Equity	598	13%	327	14%	2	0%
Private Real Estate	457	10%	175	7%	19	1%
Private Debt	262	6%	142	6%	446	13%
Total Private (Illiquid) Markets	1,316	29%	644	27%	467	14%
Portable Alpha Program	948	21%	461	19%	-	0%
Total Portfolio	4,527	121%	2,411	119%	3,244	100%

Annualized Performance as of June 30, 2024

Portfolios	1 Year	Excess Return	5 Year	Excess Return	10 Year	Excess Return
Retirement Plan						
Actual	11.1%		8.1%		7.0%	
Policy Benchmark	8.8%	2.3%	7.0%	1.1%	6.0%	1.0%
Policy Objective	7.0%	4.1%	7.1%	1.0%	7.3%	-0.3%
60/40 Passive	13.2%	-2.1%	6.7%	1.4%	6.1%	1.0%
80/20 Passive	19.6%	-8.5%	11.6%	-3.5%	10.1%	-3.1%
Endowment Pool						
Actual	11.3%		8.5%		7.2%	
Policy Benchmark	9.0%	2.3%	7.5%	1.0%	6.5%	0.7%
Policy Objective	7.8%	3.5%	7.6%	0.9%	7.7%	-0.5%
60/40 Passive	13.2%	-1.9%	6.7%	1.8%	6.1%	1.1%
80/20 Passive	19.6%	-8.3%	11.6%	-3.1%	10.1%	-2.9%
General Pool						
Actual	7.5%		3.2%		2.9%	
Policy Benchmark	6.1%	1.4%	2.4%	0.8%	2.4%	0.5%
Fed Funds Rate	5.3%	2.2%	2.2%	1.0%	1.5%	1.4%

Notes :

All performance data is presented net of fees

60/40 Passive = 60% MSCI All Country World Index (Equity) / 40% Barclays Global Aggregate (Fixed Income)

80/20 Passive = 80% MSCI USA Net Total Return USD Index (Equity) / 20% Bloomberg US Agg Total Return Value Unhedged USD (Fixed Income)

Benchmark Overview

Policy Benchmark Construction

The total benchmark return is calculated by multiplying each asset class's benchmark return by the asset class's policy target weight.

For Example:

<i>Sample Allocation</i>	<i>Sample Target</i>		<i>Sample Benchmark Return</i>		<i>Weighted Return</i>
Equity	60%	x	8%	=	4.8%
Fixed Income	30%	x	4%	=	1.2%
Real Estate	10%	x	6%	=	+ 0.6%
Total Policy Benchmark Return:					6.6%

Retirement Plan and Endowment Pool

Asset Class	Total Policy Weightings		Policy Benchmark
	Retirement Plan	Endowment Pool	
Public Equity	34%	35%	MSCI ACWI Net Total Return USD Index
Private Equity*	13%	15%	Burgiss US Buyout / Other Private Equity and Burgiss US Venture Capital
Real Estate	13%	10%	NCREIF-ODCE Index
Risk Balanced	12%	12%	Benchmark equal to actual return
Private Debt	6%	7%	S&P/LSTA Leveraged Loan Total Return Index
Commodities	5%	3%	Bloomberg Commodity Index Total Return
US TIPS	9%	10%	Bloomberg Barclays US Treasury Inflation-Linked 1-10 Years (Series L) Total Return Index
US Treasury	8%	8%	Bloomberg Barclays US Intermediate Treasury Total Return Index Unhedged
Total	100%	100%	

* Retirement - 70% Burgiss US Buyout/Other 30% US Venture Capital; Endowment - 60% Burgiss US Buyout/Other 40% US Venture Capital

General Pool

General Pool	Minimum Allocation	Maximum Allocation	Current Target	Policy Benchmark
Working Capital	20%	100%	25%	Weighted Benchmark: 50% Bloomberg US Treasury 1-3 Months Total Return Index and 50% Bloomberg US Treasury 1-5 Years Total Return Index Unhedged
Core Portfolio	0%	60%	46%	Bloomberg US Aggregate Intermediate
Strategic Portfolio	0%	45%	29%	Weighted Benchmark: 62% Equal to Actual Risk Balanced Return and 38% S&P/LSTA Lev Loan Index

Asset Class Summary

A variety of metrics are considered when selecting asset classes for each portfolio. Below are four asset class characteristics that help drive asset allocation decisions. Each characteristic is illustrated as a dial showing how each asset class relates to one another.

Relative Return: Indicates the relative return expected for each asset class from lower to higher.

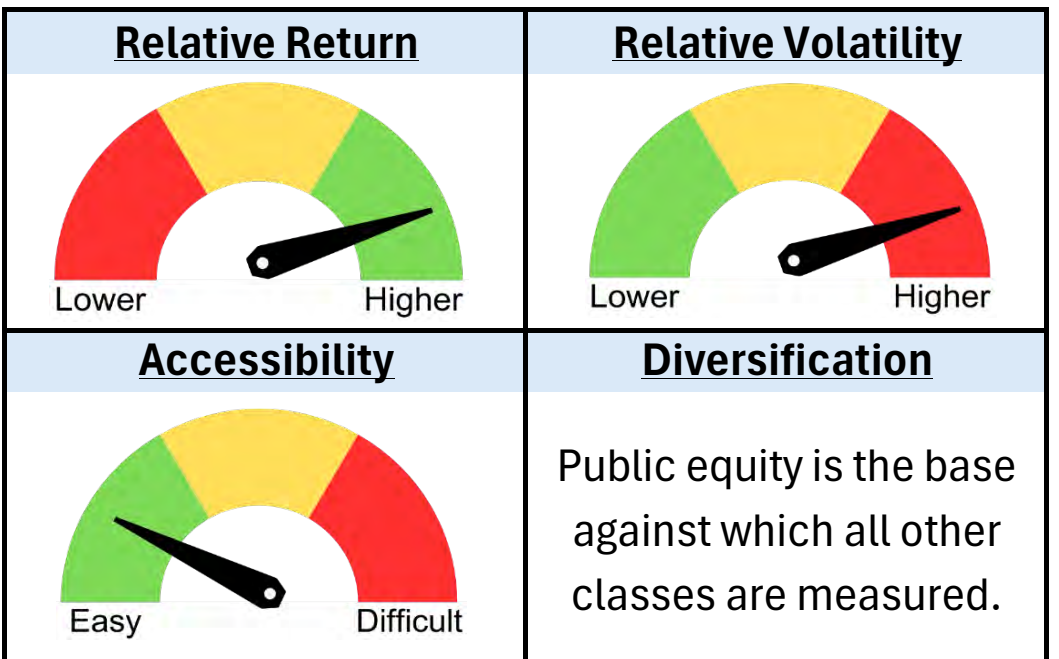
Relative Volatility: Indicates the relative volatility. Low volatility shows more consistency in return outcomes while higher volatility represents larger swings in return outcomes (+/-).

Accessibility: Indicates the ease or difficulty in identifying an investment manager within each asset class with the skillset, proven track record and available capacity.

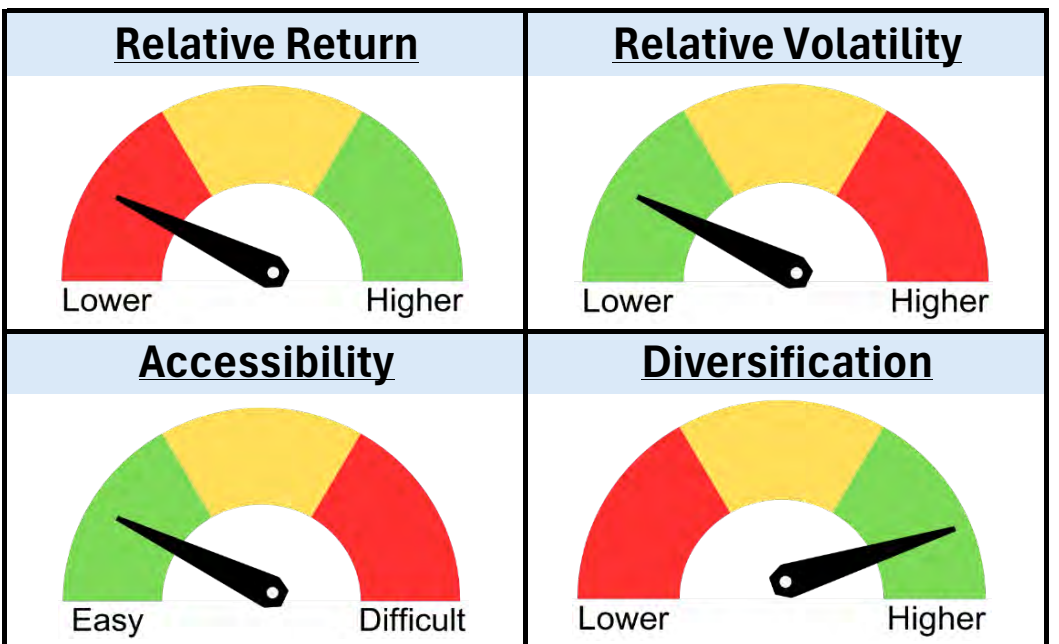
Diversification: Public equity is the primary driver of institutional portfolio returns. The diversification dial shows how effective each asset class is at reducing the risk of public equity.

Asset Class and Benchmark Summary	Asset Class Characteristics
-----------------------------------	-----------------------------

<p>Public Equity</p> <p>One of the highest returning asset classes, it is easy to access and can be implemented at a relatively low cost. Due to these features, it is the main engine driving the growth of a portfolio over time. Nevertheless, it is also the most volatile because of its high sensitivity to economic growth trends.</p> <p style="text-align: center;">MSCI ACWI Net Total Return USD Index</p> <p>The index represents nearly 2,800 large and mid-cap companies across 23 developed markets and 24 emerging markets, covering approximately 85% of the global investable public equity opportunity set.</p>
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<p>US Treasury</p> <p>A US Treasury allocation seeks to preserve capital in recessionary periods and times of global conflict when public equity tends to experience sharp losses. The asset class tends to produce low and stable returns, since it pays a specific rate of income and is backed by the full faith of the US Government.</p> <p style="text-align: center;">Bloomberg Barclays US Intermediate Treasury Total Return Index</p> <p>The index measures fixed-rate, US Treasury with maturities of 1 to 10 years.</p>



Asset Class Summary

Asset Class and Benchmark Summary

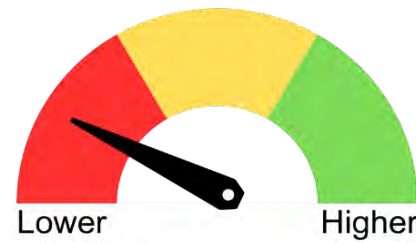
US TIPS

A US TIPS allocation is primarily used to protect a portfolio against public equity and US Treasury negative performance, which tends to happen in a high inflationary environment. It pays an income that is adjusted to reflect realized inflation as measured by the Consumer Price Index.

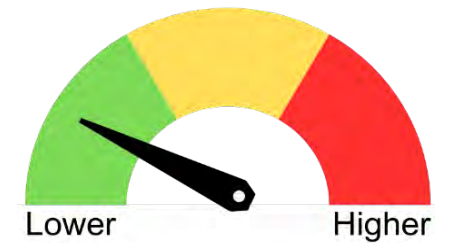
Bloomberg Barclays US Treasury Inflation – Linked 1-10 Year Index

The index measures the performance of the US TIPS market for all bonds with a remaining final maturity from 1 to 10 years.

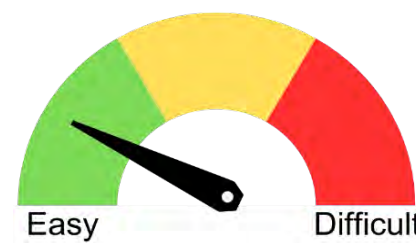
Relative Return



Relative Volatility



Accessibility



Diversification



Commodity

In an inflationary environment, commodities tend to generate positive performance, while public equities and US Treasuries drop in value, thereby providing diversification benefits. As an inflation hedge, the asset class is more volatile than US TIPS, since the former exhibits a higher sensitivity to economic growth trends.

Bloomberg Commodity Index Total Return

The index measures the performance of a diversified basket of commodities made up of 23 commodity futures in 6 sectors.

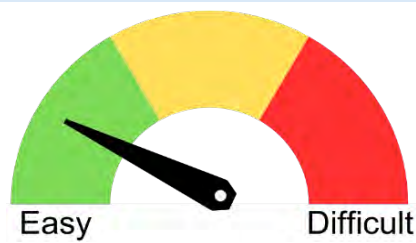
Relative Return



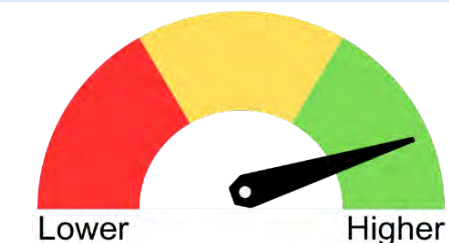
Relative Volatility



Accessibility



Diversification



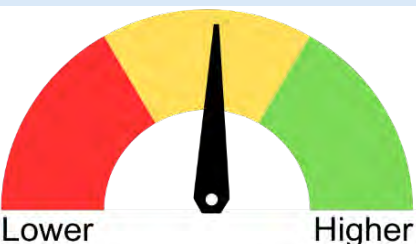
Risk Balanced

Risk Balanced investments are constructed to balance the exposure to risk in public equity, fixed income and commodities across a variety of macroeconomic factors.

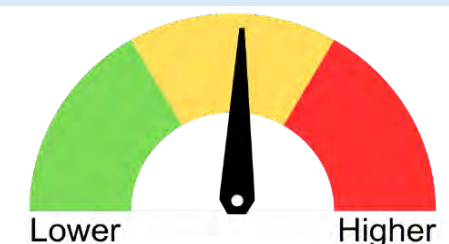
Benchmark

The risk balanced allocation benchmark is set equal to actual performance, as there is no set industry accepted benchmark. Variations in implementation create short term tracking error and noise that is not meaningful to the overall performance review of risk balanced as an asset class.

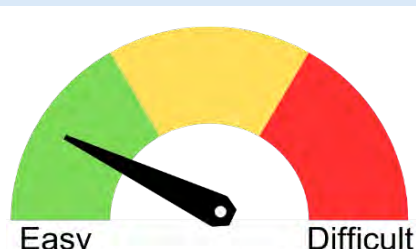
Relative Return



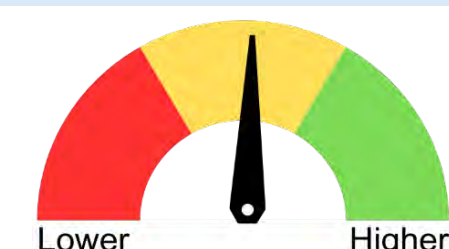
Relative Volatility



Accessibility



Diversification



Asset Class Summary

Asset Class and Benchmark Summary

Asset Class Characteristics

Absolute Return

The absolute return allocation aims to generate positive returns, while mitigating risk of losses. Since the allocation seeks to achieve such goals in all market and economic conditions, it provides diversification benefits compared to well-known asset classes.

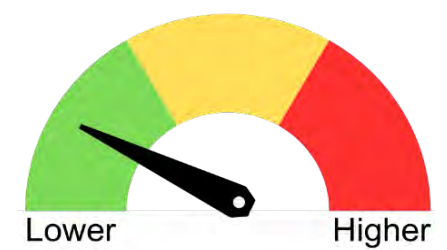
Treasury Bill +3%

The allocation is expected to generate a return of cash plus 3% over a full market cycle.

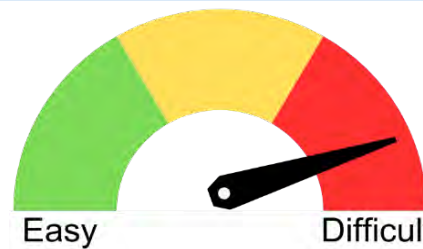
Relative Return



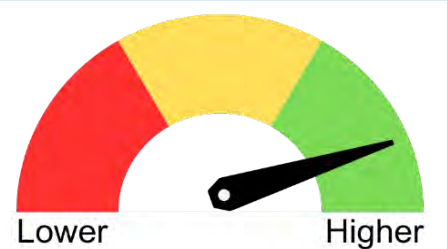
Relative Volatility



Accessibility



Diversification



Private Equity

Private Equity makes investments in private companies that are not listed on a public stock exchange. Investments are made through funds managed by private equity firms for purposes of acquiring, growing, and improving profitability of private companies. Companies are later sold generating a return to investors. Private equity is expected to deliver superior returns to public equities over longer time periods.

Burgiss US Buyout / Other Private Equity and Burgiss US Venture Capital Universe

Burgiss (MSCI) is a leading data provider for private market data, analytics, and benchmarking. The private equity universe represents over 9,000 funds with over \$7.0 trillion total capitalization. Benchmarking to a robust database of funds provides the best measure of performance relative to the broad universe of private equity managers. Manager selection is critical when allocating to private equity, as there is a large degree of variability in returns when compared to the median. This makes it imperative to identify managers who can deliver above median returns.

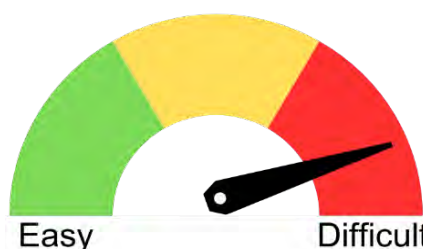
Relative Return



Relative Volatility



Accessibility



Diversification



Asset Class Summary

Asset Class and Benchmark Summary

Private Debt

Private Debt invests in non-bank lenders providing financing to companies, typically small and medium sized enterprises. Lenders cover a broad range of investment strategies (i.e. senior debt, subordinated capital, credit opportunities, distressed credit, and specialty finance). Private debt funds add value through market expertise in credit analysis, underwriting, and restructuring.

S&P/LSTA Leveraged Loan Total Return Index

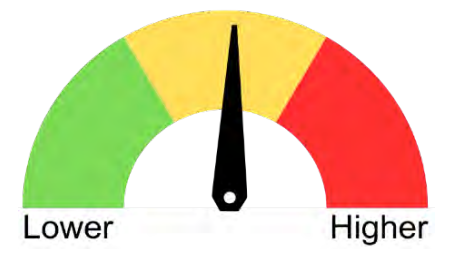
The S&P/LSTA Index is a public market value weighted index designed to measure the performance of the US leveraged loan market. The index is designed to replicate the invested institutional loan market. The use of a public market index as a benchmark for private market assets does cause some mismatch due to timing of market activity. During periods of market volatility this mismatch can stand out in short term reporting. Since private debt is a relatively “young” asset class, a robust database of managers/strategies is not yet developed but will continue to be evaluated as the asset class matures.

Asset Class Characteristics

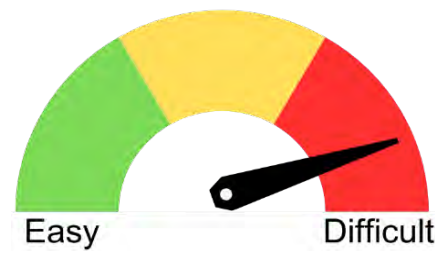
Relative Return



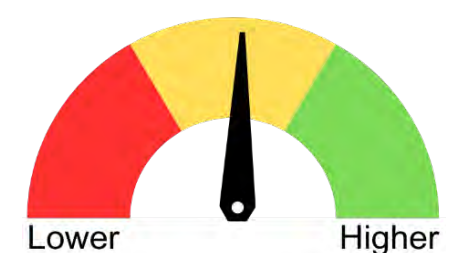
Relative Volatility



Accessibility



Diversification



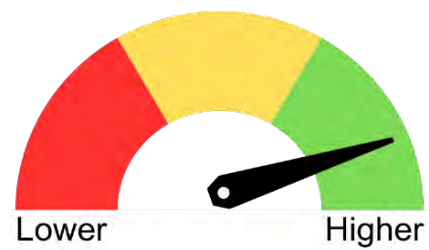
Real Estate

Real Estate makes investments in private properties like multi-family, industrial, retail, and other niche property types. Investments are made through funds managed by real estate firms for the purpose of acquiring, developing, operating, and improving. Properties are later sold generating a return for investors. Real estate provides a consistent return stream with less volatility than public equity.

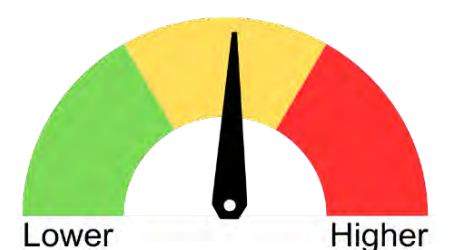
NCREIF ODCE Index

NCREIF ODCE is a capitalization-weighted return index made up of 41 open-ended core real estate funds representing over \$220 billion in assets. The ODCE Index measures how the core real estate market, made up of office, multifamily, retail, and industrial sectors is performing on average. Like private equity, manager selection is a key component in the overall performance of the real estate allocation. Benchmarking to the ODCE Index provides the additional insight necessary to measure manager performance.

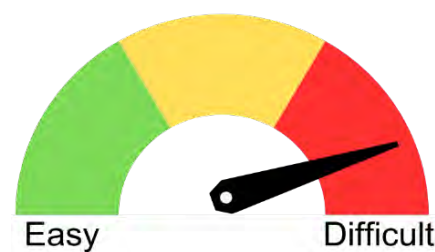
Relative Return



Relative Volatility



Accessibility



Diversification



Summary of Asset Class Characteristics and Fees

Asset Class	Asset Class Characteristics				Retirement		Endowment	
	Return	Volatility	Accessibility	Public Equity Diversification	CY2023 Management Fee	5 Year Return	CY2023 Management Fee	5 Year Return
Public Equity	High	High	Easy	n/a	0.23%	9.4%	0.21%	9.1%
US Treasury	Low	Low	Easy	High	0.03%	0.4%	0.03%	0.7%
US TIPS	Low	Low	Easy	High	0.04%	2.5%	0.04%	2.6%
Commodity	High	High	Easy	High	0.45%	9.1%	0.63%	9.3%
Risk Balanced	Medium	Medium	Easy	Medium	0.56%	4.2%	0.56%	4.2%
Private Equity	High	Medium	Difficult	Medium	1.43%	15.4%	1.42%	16.3%
Private Debt	High	Medium	Difficult	Medium	1.32%	8.0%	1.45%	10.2%
Real Estate	High	Medium	Difficult	High	1.23%	8.2%	1.34%	6.8%
Total Beta					0.55%	7.2%	0.54%	7.7%
Portable Alpha	Medium	Low	Difficult	High	1.31%	3.8%	1.32%	3.8%
Total Portfolio					0.85%	8.1%	0.81%	8.5%
Custodial Services					0.01%		0.03%	
Consulting / Legal					0.01%		0.02%	
Investment Office					0.02%		0.04%	
Total Administrative Fees					0.04%		0.09%	
Calendar Year 2023 Total Management Fee (%)					0.89%		0.90%	

General Pool	CY2023 Management Fee
Working Capital	0.08%
Core + Strategic Portfolio	0.82%
Total	0.47%
Custodial Services	0.01%
Consulting / Legal	0.01%
Investment Office	0.01%
Total Administrative Fees	0.03%
2023 Total Management Fee (%)	0.50%

Case Study - Public Equity vs Private Equity Fees

Within Retirement, management fees of 1.43% for Private Equity were significantly higher than fees of 0.23% for Public Equity. But five-year annualized returns for Private Equity (15.4%) were also significantly higher than Public Equity (9.4%). This 6.0% return difference translates into \$187 million of outperformance over the past five years - net of fees.

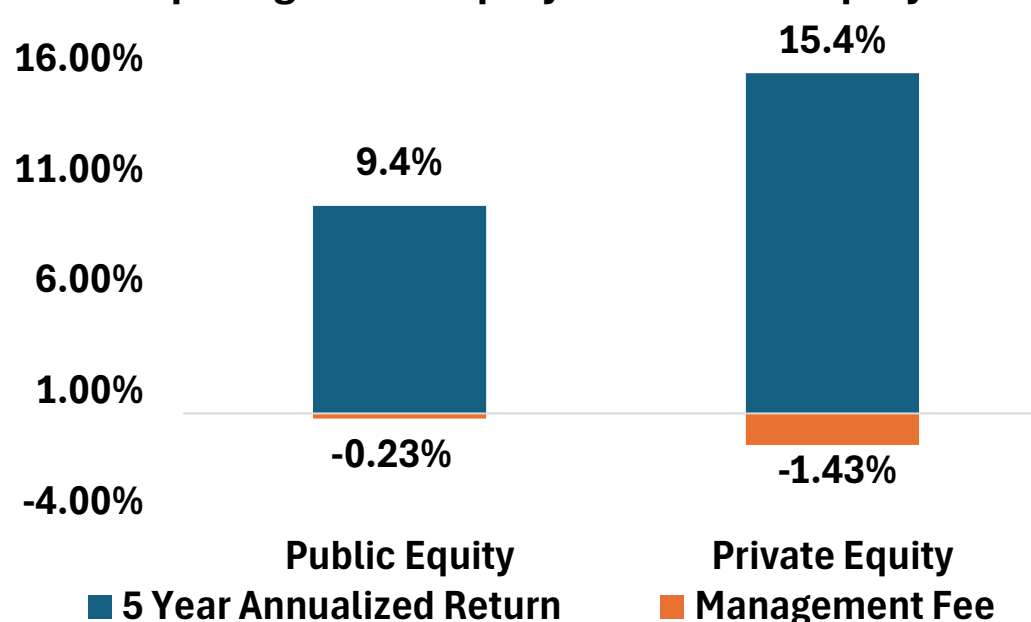
As noted above, each asset class has many characteristics which are evaluated for inclusion into an investment portfolio. While fees are an important consideration, if Private Equity had been excluded solely due to fees over the past five years, with the same capital instead invested in Public Equity, Retirement and Endowment would have significantly less wealth today (\$187 million in Retirement, \$111 million in Endowment).

Context for Management Fees

Estimated annualized management fees were \$38 million (0.89%), \$20 million (0.90%), and \$14 million (0.50%) for Retirement, Endowment and General Pool, respectively. For context, total FY24 investment income – net of fees – for Retirement, Endowment and General Pool was \$458 million, \$241 million and \$230 million, respectively.

Taking a longer term view, over a five year period: If comparing to a “low cost” fee option, estimated fees on an indexed portfolio of 60% global equities / 40% global bonds would have been approximately 0.06%. But despite the potential savings from significantly lower fees on an indexed portfolio, Retirement and Endowment still outperformed a 60/40 global portfolio – net of fees - by 1.4% annualized (\$339 million outperformance) and 1.8% annualized (\$211 million outperformance), respectively, over the past five years. Active management and asset class diversification have added tremendous value.

Comparing Public Equity and Private Equity

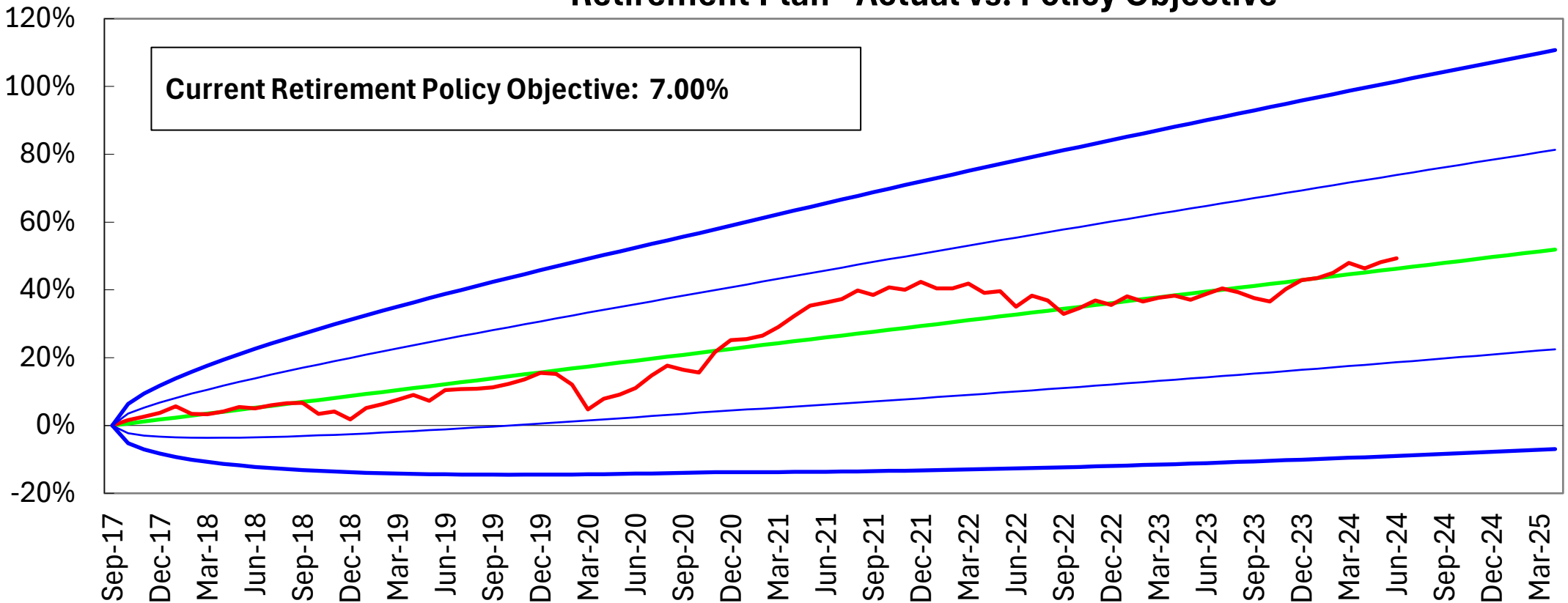


Investment Performance Objective

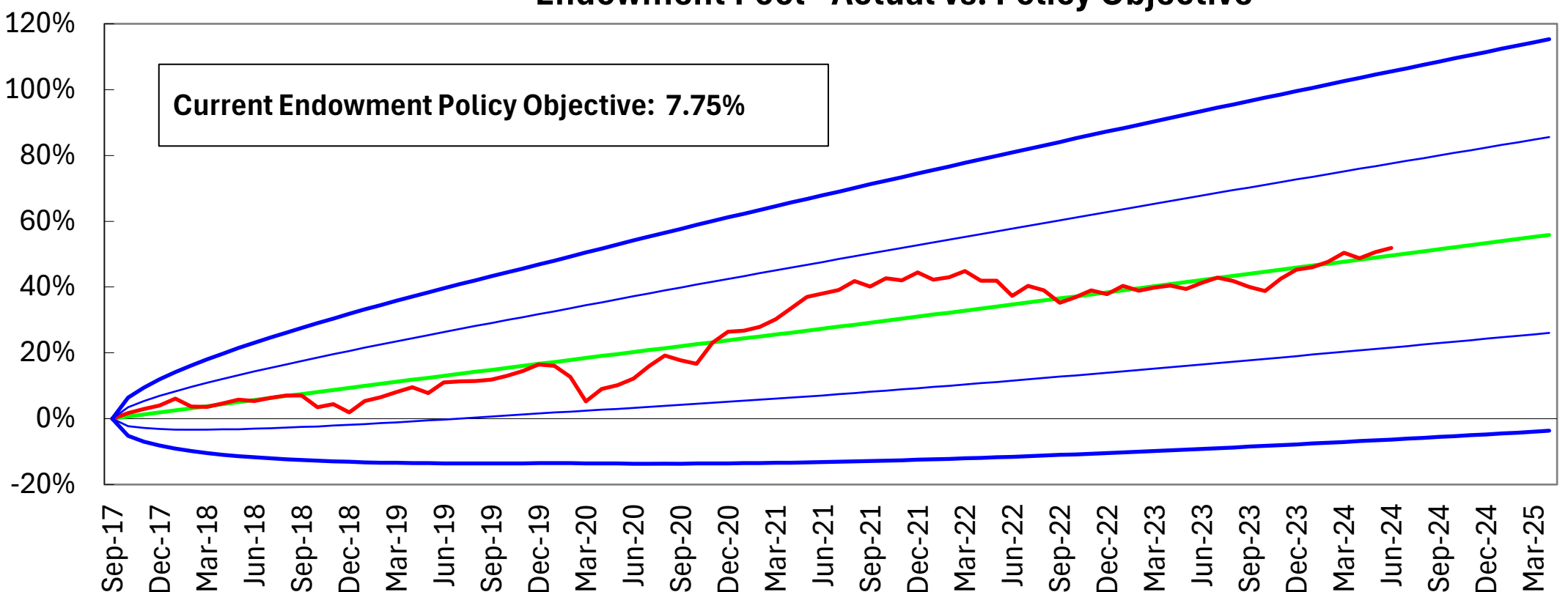
The ultimate accountability for asset allocation decisions is the ability to actually achieve each portfolio's policy objectives over time. For the Retirement Plan, the policy objective is the actuarial assumed investment return (currently 7.00%). For the Endowment Pool, the policy objective is the sum of the annual spending distribution, administrative fee and allowance for inflation (currently 4.00% + 1.25% + 2.50% = 7.75%). The following “cone charts” document each portfolio's cumulative performance since 2017 relative to the policy objective for each. The green line represents the cumulative policy objective over time. The thin blue lines represent one standard deviation from the policy objective; the thick blue lines represent two standard deviations. Given basic statistics, we would expect actual returns to be within the thin blue lines approximately 2/3 of the time.

With nearly seven years of actual results, we can see that the actual cumulative return for each portfolio (red line) tracks well against the policy objectives; we remain on track with what had been expected through several asset allocation modeling exercises that have occurred since 2017.

Retirement Plan - Actual vs. Policy Objective



Endowment Pool - Actual vs. Policy Objective



Investment Manager Hires and Terminations

Managers	Action	Total Investment (\$millions)	Portfolio
New Investments			
Apollo Accord Offshore Fund VI	Hire	\$100	Ret/End/GP
Brigade Dislocation Offshore Fund III, LP	Hire	\$100	Ret/End/GP
CFM Stratus Feeder, LP	Hire	\$18	GP
Charlesbank Technology Opportunities Fund II, LP	Hire	\$38	Ret/End
DCVC Bio III, LP	Hire	\$14	Ret/End
Eclipse SPV XVI GP, LLC	Hire	\$10	Ret/End
Gridiron Capital Fund V, LP	Hire	\$38	Ret/End
Man Numeric Emerging Markets Alpha Strategy	Hire	\$80	Ret/End
Peak Rock Fund IV	Hire	\$38	Ret/End
TigerMax Partners, LP	Hire	\$100	Ret/End/GP
TigerMax Partners Core Fund	Hire	\$75	GP
TPG Angelo Gordon CSF3	Hire	\$55	Ret/End/GP
Total New Investments		\$666	

Terminations			
American Century Global Small Cap	Termination	\$76	Ret/End
AQR Equity Market Neutral Value Fund	Termination	\$139	Ret/End
Baillie Gifford Positive Change	Termination	\$44	Ret/End
Blackrock Emerging Markets Alpha Advantage	Termination	\$32	Ret/End
MFS Global Equity	Termination	\$301	Ret/End
Pharo Macro Fund	Termination	\$60	Ret/End
Two Sigma China Core Equity	Termination	\$4	Ret/End
Total Terminations		\$656	

Liquidity Summary

Portable Alpha

Portfolio Liquidity	Cumulative % of Portfolio Redeemable			
	Retirement		Endowment	
Redemption Period	Actual	Policy	Actual	Policy
30 days	21%		22%	
90 days	56%	20%	57%	20%
180 days	68%	50%	69%	50%

Portfolio Cash Margin	Retirement	Endowment
Average Cash Drawdown of Market stress scenarios (A)	17%	18%
Margin of Safety (B)	10%	10%
Total Required Cash margin (C) = (A) + (B)	27%	28%
Actual Cash Margin as of June 30, 2024	49%	55%

Note: CRR 140.017 "Policy for Allowable Investments" governs the overall management of the Portable Alpha Program, including specific cash margin requirements.

Total Portfolio Liquidity

Redemption Period	Cumulative % of Portfolio Redeemable		
	Retirement	Endowment	General Pool
30 days	34%	37%	68%
90 days	53%	56%	74%
180 days	60%	63%	76%



August 15, 2024

To the Honorable Todd P. Graves, Chair, Finance Committee
The Honorable Robert D. Blitz
The Honorable Robert W. Fry
The Honorable Keith A. Holloway

University of Missouri Board of Curators
316 University Hall
Columbia, Missouri 65211-3020

Verus is pleased to provide the University of Missouri Board of Curators with a brief overview of the performance of the Retirement Plan (“Retirement”) and the Endowment Pool (“Endowment”), highlights of our engagement with the University of Missouri investment staff during the fiscal year ended June 30, 2024, and our summary of the Market Environment.

Plan Performance¹

Total return over the fiscal year was strongly positive for both Retirement and Endowment at 11.1% and 11.3%, respectively (net of fees). These results outpaced their benchmarks by 2.3% and ranked in 56th percentile and 57th percentile against other public defined benefit plans and endowments. (1st is highest returning and 99th is lowest).

For the second consecutive year, public equities contributed the most to the funds’ positive total returns, returning over 19% in both funds. Private equity returns tend to lag those of the public markets, and Retirement’s private equity portfolio posted a return of 8.9% for the fiscal year, while Endowment’s portfolio posted an 8.5% return. Of the other asset classes, only the real estate allocations posted negative returns: -6.4% for Retirement and -9.1% for Endowment. However, both real estate portfolios exhibited significant downside protection relative to their benchmarks.

The intermediate (5-year) and long-term (10-year) results of both portfolios remain in line with the University’s objectives, with Retirement returning 8.1% (net) over 5 years (20th percentile) and 7.0% (net) over 10 years (33rd percentile). Endowment returned 8.5% (net) over 5 years (9th percentile) and 7.2% (net) over 10 years (12th percentile).

Plan Activity

Throughout the fiscal year, Verus worked closely with the Chief Investment Officer and his staff to strengthen the implementation of the long-term strategic investment plans of the University’s major investment pools. We worked to position some fixed income exposures to capitalize on credit dislocations, which typically occur during recessions. The employed manager will reallocate capital from the low-risk positions into dislocated securities that are mispriced due to high volatility and uncertainty as opposed to their underlying economics. We expect this nimbleness will lead to more attractive risk adjusted returns as these dislocations often close quickly.



Verus also spent the year helping to sustain the University's private markets portfolios, recommending a few select additions to a strategic allocation that has been a robust source of long-term investment returns to the University. Verus and staff conducted the regular annual pacing studies for the three major pools: Endowment, Retirement, and General. These studies help define the capital commitments required to maintain target exposures to Private Equity and Private Credit. Verus and University staff have reviewed several opportunities across Private Markets. Notable commitments include three middle market US buyout funds, three Private Credit funds ranging from asset-based lending to corporate focused debt opportunities, and a co-investment opportunity through a venture capital manager.

In the second half of the fiscal year, work was done to validate and refine the strategic asset allocation of the Retirement Plan and the Endowment. Verus worked with staff and one of the University's consulting actuaries to conduct an asset-liability study for the Retirement Plan, which resulted in a more simplified implementation, lower expected volatility, while still maintaining an expected return greater than the 7% discount rate. The revised Endowment allocation is also expected to increase simplicity while making the overall allocation more akin to peer allocations by increasing exposure to risk assets.

Market Environment

Risk assets have delivered strong performance over the past year, with the front half of 2024 acting as a continuation of 2023. Expectations for a recession fell by the wayside, as economic growth proved to be resilient. The "soft landing" narrative was strengthened, as inflation has slowed down, while the economy has continued to grow. In more recent months, some economic data has shown signs of cooling, specifically in the labor market. However, it appears that much of this slowdown may be a return to normalcy that reflects pre-pandemic conditions, instead of a labor market that would precede a coming recession. Expectations for interest rate cuts were far more ambitious a year ago, but markets have now solidified expectations that the Federal Reserve will begin cutting interest rates before the end of the year, providing a tailwind to both equities and fixed income.

Risk assets outside of the United States continued to lag the domestic market. Developed economies largely experienced stagnation, as the Eurozone saw very low GDP growth, the U.K. emerged from recession, and the Japanese economy contracted. Despite poor growth, falling inflation allowed the European Central Bank to cut interest rates in June, which provided a tailwind for risk assets. In emerging economies, China has remained a prominent story, with population decline and a tumbling housing market threatening its future growth prospects. Two main emerging market countries have outperformed most risk assets: Taiwan continues to benefit from its exposure to semiconductors amid growing AI investment, while India has delivered strong economic growth across its economy.

U.S. Equity

Domestic shares expanded upon the previous year's outperformance during the first half of 2024, beating both developed and emerging market equities. The S&P 500 index advanced +24.6% over the past year as U.S. equities prove to be the best performing asset class. Concerns have bubbled up over increasing absolute and relative valuations, leading to some fears of a correction. However, domestic stocks have climbed further as investment in artificial

intelligence (AI) boosted earnings expectations, and lower inflation has led to expectations for a handful of interest rate cuts in the fall.

Index concentration remains an important story in U.S. equity markets, with the S&P 500 Equal Weighted Index significantly lagging the flagship index, returning just +11.8% over the last year. However, there appears to have been a split within the “Magnificent Seven”, with some notable companies outperforming the rest. Nvidia is still the headline story of the AI investment boom, returning +192.1% over the last year, while delivering earnings growth of +629%. While none of the other companies have matched the success of Nvidia, Meta (+76.1%), Google (+52.3%), Amazon (+48.2%) and Microsoft (+32.3%) have all outperformed the index while delivering strong earnings growth. Apple (+9.2%) and Tesla (-24.4%) have both lagged after reporting revenue declines in Q1.

These Magnificent Seven movements have had substantial implications on size and style investing, which have both seen significantly widening gaps from the previous year. Over the last year, Growth has returned +33.5%, significantly outperforming the +13.1% gain from Value. Small cap (Russell 2000 Index) has also failed to deliver excess returns, gaining just +10.1% over the last year, lagging the +23.9% gain posted by the large cap Russell 1000 Index.

Investors will be watching earnings closely, especially those of technology companies that have gained due to rosy expectations around artificial intelligence. With forward valuations hovering around one standard deviation above the 10-year average, markets are pricing in double-digit earnings growth over the next couple years. Markets are hoping for earnings to meet these expectations, and for companies involved in AI investment to start showing strong profitability across those products and services.

International Equity

International equities posted gains in the first half of 2024, although these markets were unable to match the remarkable performance of U.S. equities. Emerging markets barely outperformed international developed shares, which benefitted from higher exposure to semiconductor stocks, and a more growth-oriented set of companies. The MSCI EM Index has returned +12.5% over the last year, just over the +11.6% gain of the MSCI EAFE Index.

International developed shares performed well, despite some very material weaknesses in the macroeconomic picture. Japanese equities, the largest country weight in the MSCI EAFE index, saw the strongest performance, with the TOPIX returning +12.7% in unhedged currency terms, and +32.5% in hedged currency terms. The Japanese Yen has declined -10.2% relative to the dollar over the past six months, which played a part in boosting exports that become cheaper with a weakening currency. High earnings growth, as well as the end of negative interest rate policy and deflation, have provided a tailwind to Japanese equity markets over the last year. In Europe, falling inflation and an interest rate cut in June lifted an equity market that had otherwise been held back by very low growth. In the past year, the Euro Stoxx 50 returned +12.0% in unhedged currency terms, and +16.3% in hedged currency terms.

Emerging market equities narrowly outperformed international developed equities, while lagging the United States, returning +12.5% in unhedged currency terms, and +15.8% in hedged currency terms, over the last year. Technology exposure is responsible for much of the growth in

emerging markets. Taiwan, the second-largest weight in the MSCI EM Index, holds a 70% weight in Information Technology. This provided a substantial tailwind, since the MSCI Taiwan Index returned +41.4% over the past year as TSMC (who alone makes up 50% of the MSCI Taiwan Index) is the world's largest manufacturer of semiconductors, producing chips for companies including Nvidia and Apple. India has also performed well, with the MSCI India Index posting a +34.9% gain. India's GDP has been growing on an average pace of 6-7% per year, with policies supportive of economic growth and strong positioning within global supply chains.

Fixed Income

Fed policy expectations continued to dominate risk asset behavior over the past year. One year ago, markets were expecting four interest rate cuts by the end of 2024. At the end of 2023, the market expected four rate cuts to occur in the first half of 2024, with two more in the second half of the year. Instead, there have been no rate cuts, with just two or three priced in before the end of 2024. Interest rates staying higher for longer has been a headwind for long-duration assets over the past year (Bloomberg U.S. Treasury Long -5.6%), as the two-year yield moved from 4.90% to 4.77%, and the ten-year yield moved from 3.84% to 4.40%.

As of June, it had been 11 months since the Federal Reserve implemented its final interest rate hike. Comments made by FOMC members have suggested that higher interest rates have had a material impact on economic activity and have been effective at slowing inflation. With inflation down to 3.0% for CPI and 2.6% for Core PCE (the Fed's preferred inflation gauge), and cooling labor market numbers, investors are looking to the Fed's July meeting to guide rate cut expectations for September, which markets are fully pricing in a cut for.

Core fixed income (Bloomberg U.S. Aggregate) has risen just +2.6% over the past year, as yield increases have outweighed the benefits of the higher rate environment. The shorter end of the curve fared much better than the long end, returning +4.5% throughout the same period. Investors were compensated by taking credit risk, as emerging market debt in hard currency terms (+9.2%), high yield (+10.4%), and Bank Loans (+11.1%) all provided excess returns to investors as spreads have contracted throughout much of the last year. Emerging market debt in local currency terms gained just +0.7%, the only major credit sub-index to underperform treasuries, which gained +5.5%.

Credit conditions have held up surprisingly well over the past year, with default activity slowing down as fears around weaker economic growth have been fading. Spreads continued to contract, with high-yield and investment grade option adjusted spreads moving from 390 bps to 309 bps and 123 bps to 94 bps, respectively. More recently, default activity has slowed down to \$37B in default/distressed exchanges taking place in the first half of 2024, which was -14% lower than the same period last year. Eighty percent of that default activity has come from bank loans, which is the largest gap between the two asset classes in the last ten years. High yield default rates are down to 1.8%, materially lower than the long-term average of 3.4%.

Commodities

After fiscal year 2022-2023's -9.6% decline in commodity prices, some of those losses were regained, with the Bloomberg Commodity Index rising +5.0% over the last year. A large driver of these gains was an increase in Energy prices, with Brent Crude Oil contracts increasing +21.6%



over the past year. Early in the year, OPEC+ agreed to cut production, and while the group are considering increasing production again later in the year, the market is expecting inventory to decline due to the high demand of summer months. Grains, the second largest weight in the index, declined -19.7% over the first half of the year, as favorable weather has led to an increase in supply, while demand for U.S. crops has declined in favor of cheaper Brazilian crops. Industrial Metals (+13.0%), Precious Metals (+22.5%), Softs (+17.7%), and Livestock (+2.4%) make up the other half of the index, providing a boost in performance to the overall commodity complex.

Conclusion

We at Verus value our relationship with the University of Missouri and we appreciate the privilege of working with the Board of Curators and staff in designing policies and supporting decisions aimed at meeting the University's investment objectives. We remain confident in the direction of the portfolios given the University's unique objectives, its fiscal strength, and its well-designed investment strategies. We look forward to continuing our partnership as we navigate ever-changing capital markets.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeffrey J. MacLean".

Jeffrey J. MacLean
Chief Executive Officer

cc: Members of the University of Missouri Board of Curators

¹ Rates of return are net of fees and based on calculations made by the System's custodian, Northern Trust, and are presented using a time weighted rate of return methodology based upon fair value.

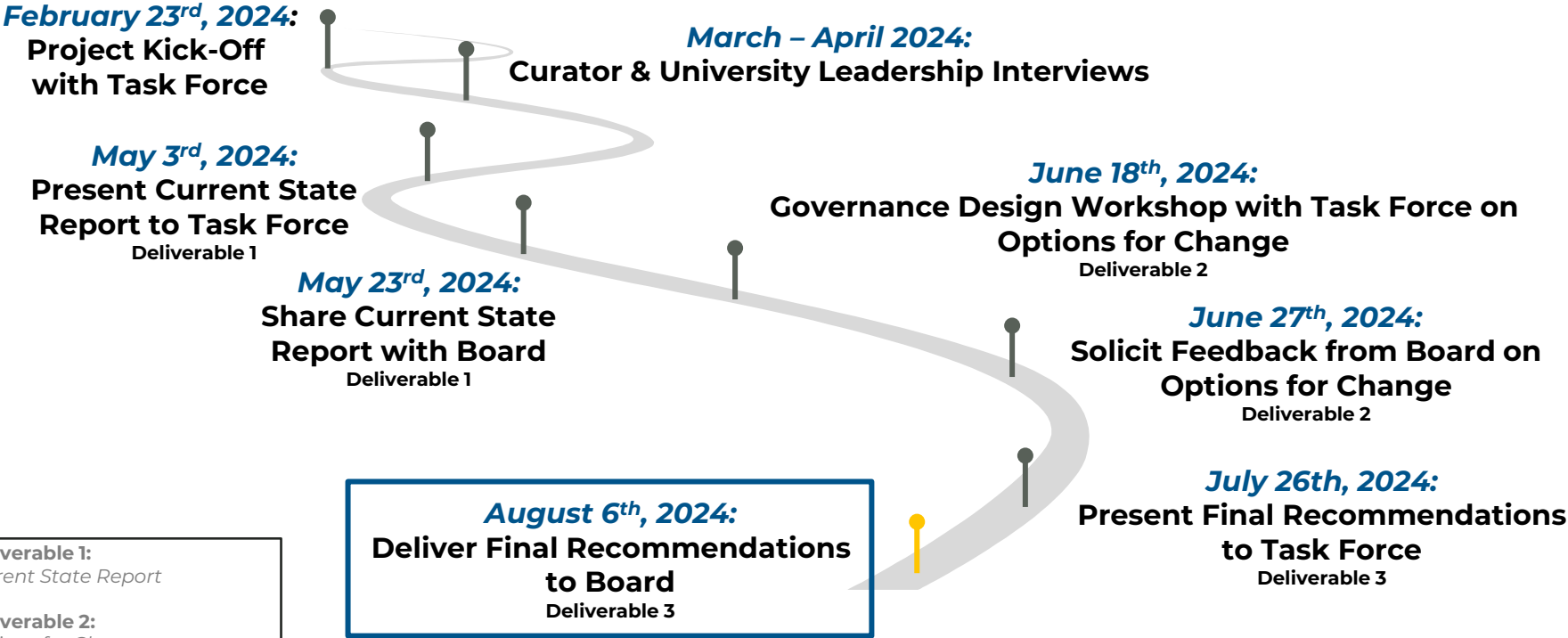
Governance Assessment Final Recommendations Deliverable

Prepared for discussion with the University of Missouri System
Board of Curators

Table of Contents

Section	Slide Numbers
Final Recommendations	4 - 7
Implementation Steps & Considerations	8 - 20
Appendix: Supporting Material and Diagrams	21 - 35

Project Milestones



- Deliverable 1:**
Current State Report
- Deliverable 2:**
Options for Change
- Deliverable 3:**
Final Recommendations

Section 1

Final Recommendations



Short-Term Recommendations (1/2)

Implementation Timeline: 0 – 6 Months

1. Reconceptualize the master calendar for all board events
2. On an annual basis, review and reaffirm board chair responsibilities
3. On a trial basis for six months, encourage Executive Committee (EC) to exercise authority given in bylaws; EC to make decisions on selected topics to reduce the number of special meetings
4. Oversee and implement performance appraisal process for board's direct reports and ensure results are communicated by the board (not by an external party)

Location of Complementary Details

Recommendation #1: Slide 9

Recommendation #2: Slide 10

Recommendation #3: Slide 11

Recommendation #4: Slide 12

Short-Term Recommendations (2/2)

Implementation Timeline: 0 – 6 Months

5. Create new practice for: (1) Board to select priorities for state appropriations from a menu of options proposed by the administration and (2) board to be notified of significant changes to the UM System annual budget
6. Continue appointing board chair and committee chairs for 1-year terms but evaluate second-year reappointments to promote greater continuity and more sustained momentum around priorities
7. Disseminate and reinforce previously created documentation on board values and protocols for board communication with administration
8. Establish protocols to improve efficiencies before and during board meetings

Location of Complementary Details

Recommendation #5: Slide 13

Recommendation #7: Slide 15

Recommendation #6: Slide 14

Recommendation #8: Slide 16

Long-Term Recommendations

Implementation Timeline: 6 – 12 Months

9. Develop the Office of the Secretary into a more effective resource for curator support and continuity
10. Consider supplementing committee membership and deliberations by including outside experts and/or adjusting committee responsibilities
11. Focus annual board retreat on strategic priorities and issues only (not on operational topics)
12. Hold needed committee meetings separate from and in advance of board meetings

Location of Complementary Details

Recommendation #9: Slide 17
Recommendation #10: Slide 18

Recommendation #11: Slide 19
Recommendation #12: Slide 20

Section 2

Recommendation
Complementary
Details:

Implementation
Steps &
Considerations



1. Reconceptualize the Master Calendar for All Board Events

Implementation Steps
<ul style="list-style-type: none"><li>❑ Secretary gathers list of all board events over the past two years and creates inventory of meeting details (date, modality of meeting, meeting length, participants, etc.)<li>❑ Secretary collaborates with board chair to create a new calendar for 2025<li>❑ Board chair and secretary present calendar to full board<li>❑ Full board approves changes<li>❑ Secretary discusses changes with administration<li>❑ Secretary updates upcoming year calendar of events and uploads into Onboard

Considerations
<ul style="list-style-type: none"><li>▪ Content to include dates for board & committee meetings (including the material delivery dates a week prior to meetings), Executive Committee, executive performance review and related compensation setting, annual retreat(s), and board meeting preparation & planning meetings with administration
Responsible Personnel
<p>Board Secretary Board Chair</p>

2. On an Annual Basis, Review and Affirm Board Chair Responsibilities

Implementation Steps
<ul style="list-style-type: none">❑ Review list of responsibilities on slide 22❑ Board chair shares list of responsibilities with vice chair and former board chair for review and validation❑ Board chair, vice chair, and former chair draft an updated list of responsibilities❑ Secretary sends draft of responsibilities to curators to request their input on behalf of board chair❑ Curators provide input and suggestions to board chair❑ Board chair updates list of responsibilities and presents to board for final approval

Considerations
<ul style="list-style-type: none">▪ Include responsibility involving relationship building / providing guidance to president▪ Consider revisiting the list of responsibilities on an annual basis

Responsible Personnel
Board Chair Vice Chair & Former Board Chair Full Board

Refer to details on recommendation on slide 22

3. Encourage Executive Committee (EC) to Exercise Authority Expressed in Bylaws

Implementation Steps
<ul style="list-style-type: none"> ❑ Review special meetings that occurred in 2022/2023 and discuss which meeting topics could have been incorporated into the EC to help reduce the number of special board meetings ❑ During a six-month trial period, EC meets as needed to discuss and approve of selected topics ❑ EC provides timely updates on topics and decisions they have made and gather feedback from board members on topics that may require further curator feedback in the future ❑ Full board decides whether EC should continue some operations in lieu of special meetings ❑ General Counsel has created EC charter that lists primary responsibilities (e.g., Compensation)

Considerations
<ul style="list-style-type: none"> ▪ Bylaws grant EC broad authority while the full board is not in session ▪ All curators are invited to observe EC meetings and be notified of EC decisions ▪ EC should continuously monitor curator feedback on decisions made

Responsible Personnel
<p>Executive Committee</p> <p>Full Board</p> <p>Board Secretary & General Counsel</p>

Examples of special meeting topics on slide 23

4. Oversee and Implement Performance Appraisal Process for Board's Direct Reports

Implementation Steps
<ul style="list-style-type: none"> ❑ In early August, board chair sends an email to curators with a copy of the annual priorities and asks them to provide feedback on how well the board's direct reports are fulfilling his/her priorities ❑ Board members provide feedback or comments to the board chair by end of August ❑ Board chair (or another member) compiles information into a form ❑ Executive Committee discusses performance and makes recommendation on reappointment, salary, and additional terms ❑ Full board discusses and ratifies Executive Committee recommendation ❑ Board provides feedback to direct reporting staff and feedback to performance coach for president

Considerations
<ul style="list-style-type: none"> ▪ While external party can have a support role, ensure results are communicated by the board, specifically the board chair ▪ Performance review process could include detailed interviews with university stakeholders ▪ As part of the performance appraisal process, review the delegation of authority to administration and update as needed

Responsible Personnel
<p>Board Chair</p> <p>Full Board</p> <p>Executive Committee</p>

5. Create New Practice Associated With Appropriation Priorities and Budget Changes

Implementation Steps
<ul style="list-style-type: none"><li>❑ Task Finance Committee to support CRR creation for budget management oversight and establish dollar amount threshold for which changes should come before the board<li>❑ EC tasks administration to create a menu of potential state appropriations for board feedback and approval at the beginning of the fiscal year (retain flexibility to respond to emergent funding opportunities from the legislature)<li>❑ Create/update CRR's according to protocols for (1) state appropriation prioritization management and (2) budget management oversight practices<li>❑ Board chair and secretary discuss with president, CFO, and other key administrative leaders<li>❑ Executive Committee discusses, modifies, and approves CRR's

Considerations
<ul style="list-style-type: none"><li>▪ Have board chair/designee and president jointly attend annual meeting with state leaders<li>▪ Task Executive Committee with holding administration accountable for following new protocols

Responsible Personnel
<p>Board Chair</p> <p>Executive Committee</p> <p>Finance Committee Chair</p>

Refer to details on recommendation on slide 24

6. For Continuity, Intentionally Consider Reappointment of Board & Comm. Chairs

Implementation Steps
<ul style="list-style-type: none">Evaluate second-year reappointments in order to promote greater continuity and more sustained momentum around priorities
For Board Chair:
<ul style="list-style-type: none">Chair provides a summary of milestones reached during the past year and proposed milestones for the upcoming yearCurators assess the board's progress during the past year
For Committee Chairs:
<ul style="list-style-type: none">Begin process by which board chair and committee chairs meet at end of each year to discuss (1) skill alignment and (2) interest alignment in continuing for a second term

Considerations
<ul style="list-style-type: none">Include details as to the benefits of allowing the board/committee chair to hold his/her position for two consecutive terms (continuity of board objectives and culture)Consider curator's term end date in decision to continue as chair

Responsible Personnel
Board Chair Committee Chairs

7. Disseminate and Reinforce Documentation on Board Values and Communication w/ Admin.

Implementation Steps
<ul style="list-style-type: none"><li>❑ Secretary to send curators documents with board values and communication protocols with administration at the start of the board year<li>❑ Annually review documents with board members to reaffirm board values and communication protocols<li>❑ Chair reminds full board of values at the start of each board meeting<li>❑ Chair and secretary review semi-annually whether values and communication protocols are being followed<li>❑ Involve the Governance Committee in curator onboarding and assisting chair in aligning skills with committee assignments

Considerations
<ul style="list-style-type: none"><li>▪ Secretary should continue to gather feedback to make improvements to communication protocols<li>▪ To alleviate potential pressure on the administration, curators should ensure they follow protocols and keep the board chair apprised of requests

Responsible Personnel
<p>Board Chair</p> <p>Chair of Governance Committee</p> <p>Board Secretary & General Counsel</p>

8. Establish Protocols to Improve Efficiencies Before & During Board Meetings

Implementation Steps
<ul style="list-style-type: none">❑ As implemented in the June 2024 board meeting, continue executive session in the mornings❑ Continue communications with president regarding allowing administration team to only attend sections of board meetings that relate to their expertise❑ Create process for secretary to document decisions made in committee meetings and incorporate as a consent agenda in full board meeting*❑ Meet with administration and/or send memo communication outlining guidelines for providing board meeting materials: 1) timeline of expected distribution, 2) components of executive summaries❑ Secretary to direct meeting logistics, including agenda preparation in collaboration with board chair and president

Considerations
<ul style="list-style-type: none">▪ Executive summaries could follow a template including history of topic, category of topic, topic alignment w/ strategic priorities, analysis conducted, & decision to be made**▪ Ensure administration provides all committee and board meeting materials at least 7-10 days in advance

Responsible Personnel
<p style="text-align: center;">Board Chair Board Secretary & General Counsel Committee Chairs</p>

*Dependent on implementation of recommendations on slide 20

**Further details for executive summary template provided on slide 25

9. Develop Office of the Secretary into a Resource for Curator Support and Continuity

Implementation Steps
<ul style="list-style-type: none">❑ Finalize list of responsibilities and support required from board secretary❑ Interview candidates with the skill sets to fill the secretary position❑ While candidates are being interviewed, create an orientation process that helps the new secretary acclimate to culture / reporting structure and understand high-priority responsibilities❑ Hire new board secretary❑ Board chair meets with secretary frequently during the first 30 days to talk about current challenges and areas to focus on in the short-term❑ Board chair conducts regular check-ins with secretary to review progress and provide feedback; board secretary engages with administration

Considerations
<ul style="list-style-type: none">▪ Orientation & onboarding should include meetings with curators, president, general counsel, and other leaders▪ Secretary to provide service delivery needs for curators individually and collectively

Responsible Personnel
Board Chair Board Secretary Full Board

Example list of responsibilities located on slide 26

10. Consider Including Outside Experts on Comm. and/or Adjusting Committee Responsibilities

Implementation Steps
<ul style="list-style-type: none">❑ Secretary to gather and summarize committee charters / responsibilities❑ Board chair and governance chair (with support of secretary) recommend potential changes to committee composition & responsibilities and discuss with committee chairs❑ Secretary gathers feedback and creates an updated set of committees, responsibilities, and committee charters for board approval❑ Board chair and committee chairs (with support of secretary) determine which committees would benefit from outside experts and draft a proposed list of outside experts to contact❑ Full board approves final committee composition, including outside experts to contact

Considerations
<ul style="list-style-type: none">▪ Select non-curators who will have deep subject matter knowledge, as well as diverse perspectives▪ Consider having an investment sub-committee that includes outside experts (e.g., Asset Allocation Committee)

Responsible Personnel
Board Chair Board Secretary Committee chairs, including Chair of Governance Committee

Example of potential committee changes on slide 27; Investment management oversight practices on slide 28

11. Focus Annual Board Retreat on Strategic Priorities & Issues

Implementation Steps
<ul style="list-style-type: none">❑ In preparation for annual retreat, Executive Committee and secretary draft strategic priorities for the upcoming year that aligns to the five Missouri system compacts❑ Executive Committee schedules a meeting with president to discuss annual strategic priorities, to which the president creates a list of strategies for implementation❑ Full board and president discuss priorities and strategies during an annual board retreat❑ Once annual strategic priorities are set, draft agendas of board meetings for upcoming year to ensure deliberations and updates are planned for each of the major priorities❑ Committees to provide quarterly summaries to EC to monitor progress on strategic priorities

Considerations
<ul style="list-style-type: none">▪ Board determines priorities and president proposes strategies to implement▪ Annual retreat should focus on strategic priorities▪ Consider two retreats per year in place of an additional board meeting

Responsible Personnel
Executive Committee Board Secretary Full Board

12. Hold Needed Committee Meetings Separate From and in Advance of Board Meetings

Implementation Steps
<ul style="list-style-type: none"><li>❑ Review meeting topics and decisions made by the full board over the past three years and identify which topics/decisions UM would like to push to committees, Executive Committee, etc.**<li>❑ Executive Committee, committee chairs, and secretary propose topics for committee meetings and gather feedback from committee chairs<li>❑ Committees meet at least once in the beginning of the year to review their charter, forecast any decisions that they may need to make, and align on a committee meeting schedule<li>❑ Committee chairs notify respective administrative committee liaison/team of proposed topics, proposed meeting calendar, and needed materials from administration

Considerations
<ul style="list-style-type: none"><li>▪ Ensure administration has enough time to prepare for committee meetings if held in advance of board meetings<li>▪ Regularly review the type of standing committees to ensure they align with strategic priorities

Responsible Personnel
Executive Committee Board Secretary Committee Chairs

**Refer to Huron decision-making continuum on slide 30

Appendix

Supporting Materials & Diagrams



Sample of Board Chair Responsibilities

- ❖ Presides over all board meetings and works with the president and secretary of the board to ensure that all board meetings are scheduled with appropriate advance notice and all meetings are structured to be maximally productive
- ❖ Ensures all board meetings are conducted in an efficient and effective manner, and ensures all viewpoints are heard and considered
- ❖ Serves as principal spokesperson for board, including all interactions with government bodies and media
- ❖ Acts as main point of contact with president on all issues related to the university, acts in an advisory role to the president, and communicates / discusses board opinions or actions with the president
- ❖ Ensures appropriate and timely board engagement in establishing strategic priorities, evaluation of options, and in approving strategic plans
- ❖ Works with president to ensure compliance with all applicable laws & regulations; ensures established policies receive ongoing attention

Example Special Meeting Topics

Example topics that are unanticipated and time-sensitive:

- Briefing curators on campus crises or campus safety issues
- Leadership personnel decisions (e.g., senior administrator resignations)
- Urgent legal matters

Topics that do not belong in a special meeting and should be addressed in standing meeting:

- Tuition & fees approval
- Budget approval
- Routine consideration of compensation changes

Budget Mgmt. & State Appropriations

Budget Management Oversight Practices

- Review budget to actuals performance **quarterly**
- During the final quarter of fiscal year, the board should **endorse the budget** for the next year
- Task the Finance Committee with creating a process, policy, or CRR (e.g. dollar amount of % change threshold) requiring the administration to inform the board when the budget has significantly changed

State Appropriations Prioritization Mgmt.

- Administration is responsible for **assembling** the annual appropriations request, which includes the comprehensive menu of possible priorities and allocation of funds
- The board is responsible for **choosing priorities** from the menu and **approving** the annual appropriations request
- Maintain awareness of appropriation discussions by having Board Chair and President jointly attend annual meeting with state leaders

Executive Summary Template

History	<i>Why has this topic come before the board?</i>
Category of Meeting Topic	<i>Decision, inform deliberations, notify, resource request, etc.</i>
Strategic Priority	<i>How does this topic align with strategic priorities?</i>
Analysis Conducted	<i>What analysis has been carried out to inform the deliberations and what were the findings?</i>
Decision	<i>If the board is being asked for a decision, what decision is required during this meeting?</i>

Example Board Secretary Responsibilities

- ❖ Serves as principal liaison between the board and the university
- ❖ In partnership with the board chair and president communicates the board's strategies, information requests, and priorities across the university system
- ❖ Is responsible for overseeing board member onboarding, training, and development
- ❖ Collaborates directly with the Executive Committee and committee chairs to help determine the board's priorities and matters for consideration, driving the execution of board recommendations
- ❖ Ensures that the board has the information necessary to carry out its responsibilities, participates in all board meetings, and builds relationships with board members and university leadership to facilitate board activities and responsibilities
- ❖ Directs board meeting logistics, including agenda preparation and timely delivery of meeting materials, capturing and maintenance of minutes and other correspondences of all meetings of the board
- ❖ Develops and maintains corporate documents
- ❖ Supervises all administrative support activities performed by members of internal staff, including board member travel logistics, calendar management, and other activities

Potential Committee Changes

Finance:

Consider having an investment sub-committee (Asset Allocation Committee) that includes outside experts

Governance, HR, & Compensation:

Consider moving compensation under the Executive Committee

Audit, Compliance, & Ethics:

Assign enterprise risk management to this committee

Note: Consider assigning other university functions (e.g., Marketing & Branding) to a standing committee

Investment Management Practices

1

The board should have frequent reporting from UM leadership on endowment and fiduciary stewardship **at least once per quarter**

2

UM's Finance Committee should consider updating its roles & responsibilities to have a more **enhanced oversight role** around investment management

3

The board should maintain **support and dialogue** with the current Investment Advisory Committee (IAC)

4

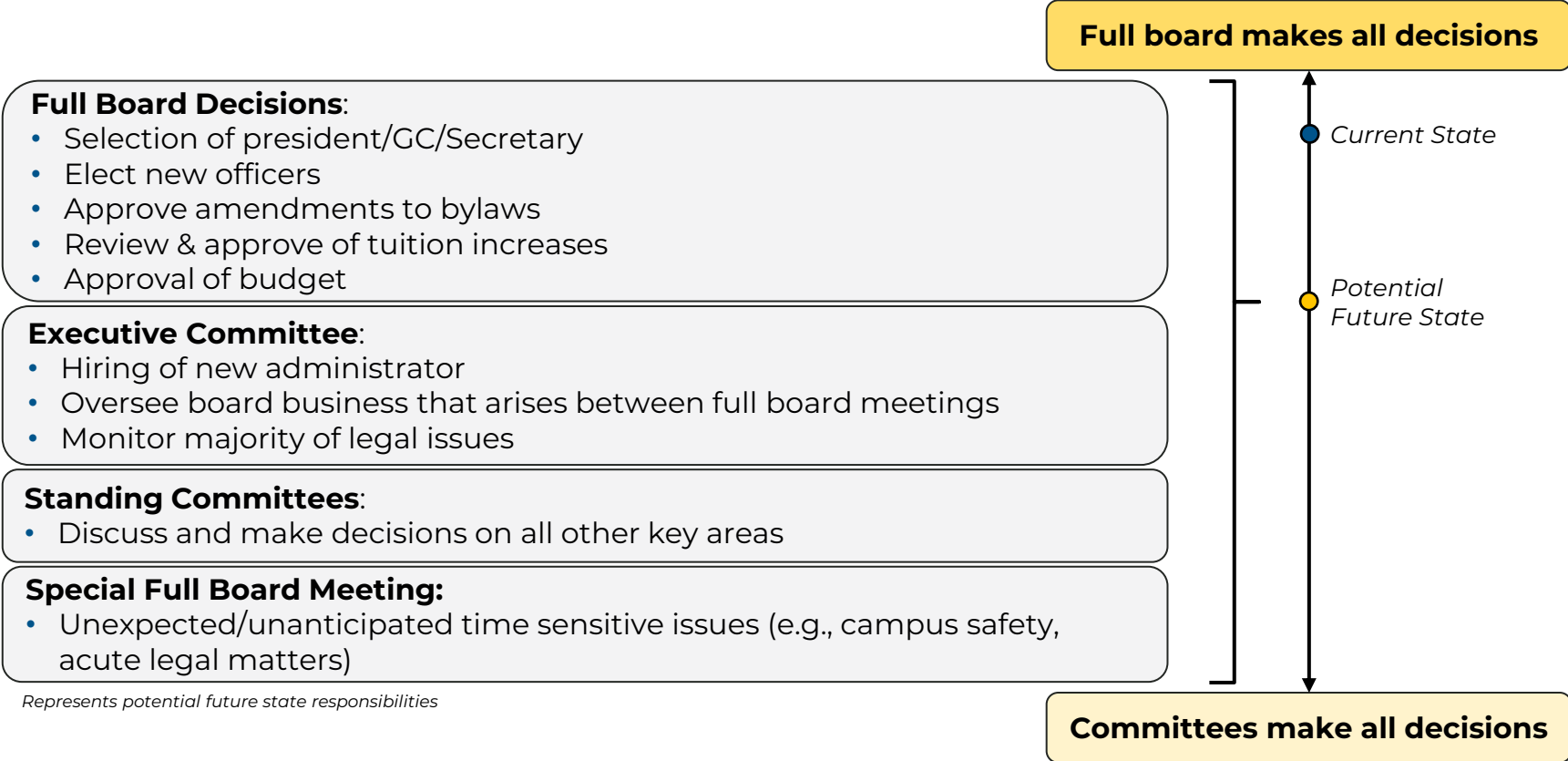
Establish an **Investment Asset Allocation Working Group**, under the auspices of the Finance Committee, with the possibility of the working group becoming a subcommittee of the Finance Committee

Sample Board Retreat Agenda

Retreat to be held in Fall of every year to plan for upcoming year and should include discussions around the following:

- ❖ Curators and president discussion and alignment on strategic priorities for UM system for following year (prior to retreat)
- ❖ President briefing of strategic priorities for following year (to be shared with Curators in advance)
- ❖ Discussion of committee charges and goals for following year, considering overall priorities
- ❖ Review of following year board meetings and key topics to be discussed at each

Decision-Making Continuum



Sample Annual Workplan Creation

Propose Board topics for upcoming year to be included in Workplan

At the **last meeting of the year**, invite board members to propose topics for the upcoming board year



Review and confirm proposed workplan

At **first board meeting of new year**, review the proposed work plan which should align with the strategic plan

Onboarding Practices

Overall, the 2023 New Curator Orientation Plan is **well constructed** and **should be implemented** with new curators moving forward

Additionally, the board chair should consider the following actions:

1. **Send a survey** during the first month of onboarding, in which the new member can list his/her skillsets to match skills with committee needs
2. Since the current board is unable to directly select new members, **schedule a conversation** about skillsets and alignment with committees
3. Due to frequent chair turnover, **document skill sets and conversations notes** so they can be leveraged by future chairs

The board & secretary should also consider making additional improvements:

- ❑ Offer **additional trainings** (e.g., media, higher education topics)
- ❑ Create documentation on key decisions/projects for new board member education and monitoring (including timeliness, funding sources, and any additional expectations)
- ❑ Involve board members more in onboarding so it is not only staff delivered

Example Dashboard

A president’s performance is typically **tied to a set of established metrics**, which usually ranges from 6-12 important metrics

Possible key performance indicators (KPIs) to monitor includes:

- Enrollment by campus
- First year retention rates by university
- 4-year and 6-year graduation rates
- NSF HERD research expenditures
- Endowment performance metrics
- Fundraising metric

Summary of PBF Common Metric Changes *(benchmark changes not included)*

June BOG Meeting	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Allocation Fiscal Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
1 % Enrolled or Employed FT (FL)	•	•									
% Enrolled or Employed FT (US)			•	•							
1 % Enrolled/Employed (\$25,000+)					•	•	•	•	•		
% Enrolled/Employed (\$30,000+)										•	
% Enrolled/Employed (\$40,000+)											•
2 Median FT Wage in Florida	•	•	•	•							
Median FT Wage in U.S.					•	•	•	•	•	•	•
3 Cost of Bachelor’s Degree to the Institution	•	•	•	•							
Cost of Bachelor’s Degree to the Student					•	•	•	•	•	•	•
4 FTIC Grad Rate (6yr)		•	•	•	•						
FTIC Grad Rate (4yr)						•	•	•	•	•	•
5 Academic Progress Rate		•	•	•	•	•	•	•	•	•	•
6 % Bachelor’s PSE Degrees		•	•	•	•	•	•	•	•	•	•
7 Access Rate		•	•	•	•	•	•	•	•	•	•
8 % Graduate PSE Degrees		•	•	•	•	•	•	•	•	•	•
9 % Excess Hours						•	•	•	•	•	•
9a FCS AA Transfer Grad Rate (2yr)									•	•	
FCS AA Transfer Grad Rate (3yr)											•
9b FTIC Pell Grad Rate (6yr)									•	•	•
# OF CHANGES TO COMMON METRICS		5	1	0	3	1	0	0	2	1	2

USF Performance-Based Funding Metrics
 Source: State University System of Florida

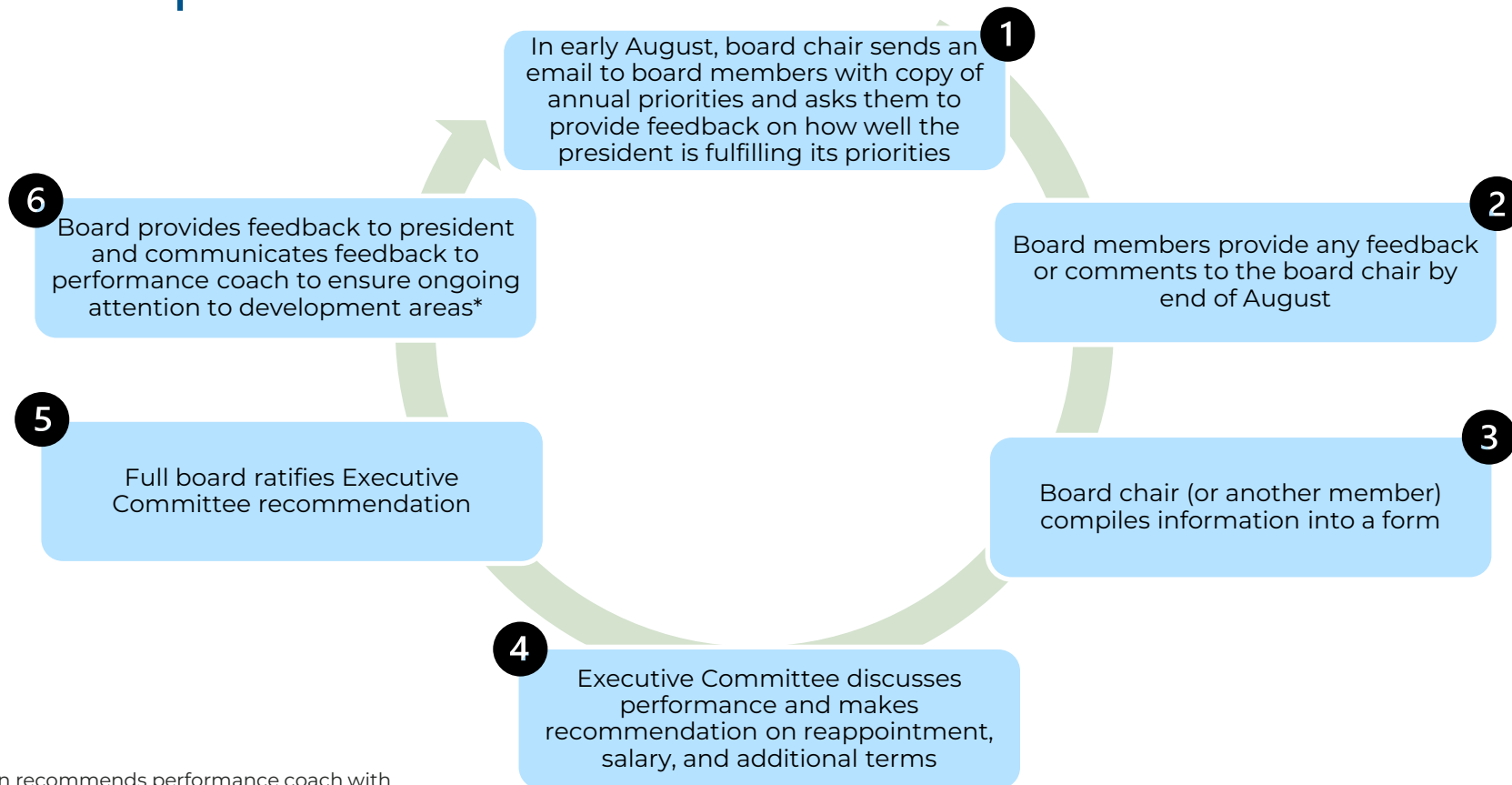
Routine Quarterly Reports

- Data driven quarterly reports can help the board monitor key areas of oversight and quickly digest the state of the university system on a consistent basis
- Regular reporting of the reports would ensure that curators can fulfill their fiduciary duties, as well as be proactive about university needs that are known and unknown
- The board can be deliberate on time spent overseeing the various areas and identify discussions that may happen between curators, administration, and public stakeholders

- Quarterly Reports Topics***
- 1 Enterprise Risk Management
 - 2 Financial Dashboard
 - 3 Heat Map for Marketing, Branding, and Reputations Risks
 - 4 President's Dashboard*

*President's dashboard should be accessible on a mobile device for the board or readily visible

Sample Performance Review Process



*Huron recommends performance coach with experience as university president

Summary Health Affairs Committee report to the UM Board of Curators
Richard J. Barohn, MD
Executive Vice Chancellor
Hugh E. and Sarah D. Stephenson Dean, MU School of Medicine

At the September 6, 2024, Health Affairs Committee meeting, Executive Vice Chancellor and Hugh E. and Sarah D. Stephenson Dean Richard J. Barohn, MD, presented the following report on the MU School of Medicine and MU Health Care.

MU SCHOOL OF MEDICINE

Welcoming the class of 2028

The MU School of Medicine welcomed 128 new medical students for the Fall 2024 semester. These students took part in two signature events held each year for M1s, the annual Stethoscope Breakfast and the White Coat Ceremony.

At the Stethoscope Breakfast, students receive their first medical tool—a stethoscope—generously provided by medical school alumni. The stethoscope (and other medical tools) represents the technical proficiency these students will develop as physicians.

At the White Coat Ceremony, students receive their first white coat as they begin their medical journeys. The white coat represents the contract between a patient and physician—it is a symbol of the empathy and compassion that physicians must extend to every patient they treat.

Like previous incoming classes of medical students, the class of 2028 is comprised of outstanding, academically prepared students, and 86% come from Missouri. Almost 20% come from rural areas.

New changes have been implemented to this year's admissions cycle for the entering class of 2025. Missouri applicants with a GPA of 3.55 or greater and an MCAT score of 505 or greater will automatically be granted an interview. Additionally, the weighting of MCAT and GPA in the interview stage will now account for 40%.



EVCHA / Dean Richard J. Barohn and Dr. Steve Daniels, president of the MU School of Medicine Alumni Association, hand out stethoscopes to incoming medical students.



Incoming medical students at the White Coat Ceremony

Research at the School of Medicine continues to grow

Researchers at the medical school continue to be very productive. Research expenditures for Fiscal Year 2024 ended at \$100.57 million (Figure 1). This is a significant milestone, as it nearly doubles research expenditures from FY20, when the medical school set the goal of exceeding \$100 million in research expenditures. This indicates how important the research enterprise is, particularly as part of an AAU institution.

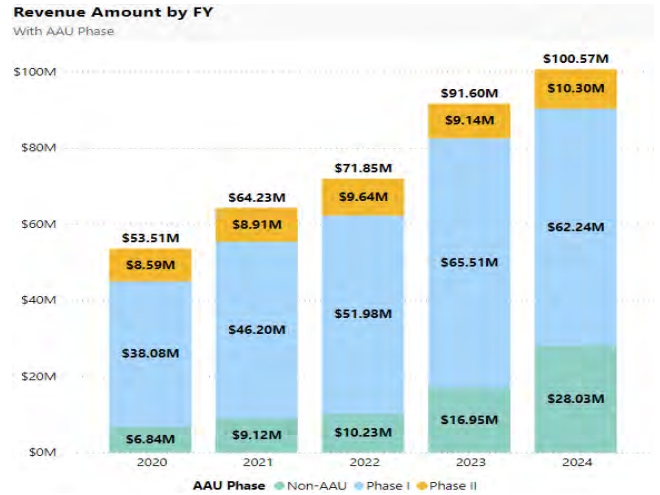


Figure 1

MU HEALTH CARE

Keene Street Medical Center

MU Health Care continues to face capacity challenges, and a planning team has been evaluating innovative solutions to include the continued use of our Keene Street facility. The demand for surgical services continues to rise and at a faster rate than anticipated.

Because of this, MU Health Care is proposing continuing surgical services at the Keene Street facility. This will require maintaining five inpatient beds to accommodate the 23- to 72-hour post-surgical recovery window.

Leaders will continue to evaluate potential future use of the Keene Street Medical facility as patient acuity levels rise, our Columbia-based facilities increasingly go on bed hold, and Capital Region Medical Center beds continue to fill.

With the change in services, a new name is needed for the Keene Street facility, which will now be referred to as Keene Street Medical Center. This name allows flexibility in this dynamic environment and reflects a broader purpose going forward.

The Keene Street Medical Center will be used to meet growth in lower acuity outpatient surgical cases. Funding will come from the approved MU Health Care capital budget over the next three years.

Expanding operating room capacity

The new Children's Hospital & Birthing Center was built with the third floor unfinished to serve as expansion space for surgical services and the home of an Intraoperative MRI Suite.

The unfinished shell space is directly adjacent to existing operating rooms at University Hospital, and the buildout of this space will allow for surgeons to increase the number of surgeries done

for the sickest patients. The buildout will create seven new operating rooms at University Hospital. Two of the seven operating rooms will have Intraoperative MRI capabilities. Adding Intraoperative MRI at MU Health Care will enable us to achieve several important objectives. It will allow us to increase the number of surgeries done for the sickest patients. It will also allow us to improve outcomes for complex neurosurgical cases – and the consolidation of clinical campuses allows use for pediatric neurology patients.

Developing this space is a key element of our continued programmatic growth in neurosurgery.

Level 1 Trauma Center recognition

Recently, MU Health Care’s Mitchell Trauma Center was recertified by the American College of Surgeons as a Level 1 Trauma Center. MU Health Care is one of only six adult Level I trauma centers in Missouri verified by the American College of Surgeons’ Committee on Trauma, and the only one outside of the Kansas City and St. Louis regions.

Congratulations to Dr. Stephen Barnes, Department of Surgery chair, and the entire trauma team at MU Health Care for their dedication and tireless efforts to making sure that Columbia has a center such as this when the citizens of Missouri most need it.

Strategic Plan

As MU Health Care and the School of Medicine evolve to meet the demands of the changing educational, research and healthcare landscapes, we are taking the opportunity to refocus on ways to make a distinct impact and grow our ability to serve through the development of an integrated five-year strategic plan in Fiscal Year 2025.

This integrated five-year strategic plan will serve as the foundation to meet our goal of being a leading academic health center that excels in research, education and clinical care for patients and communities.

Planning sessions are being held with a range of stakeholders to shape our path forward over the next five years, using the strategic framework columns:

- Quality/Excellence
- Service
- Engagement
- Stewardship
- Growth

Planning sessions will be held over the next six to twelve months. The process will include clinical service line, department, education and research focus groups.

MU Health Care consolidated financials

Table 1 shows MU Health Care’s consolidated financial report for the end of FY24. This consolidated table includes both Columbia and Jefferson City.

In Millions	FY24 Actual Full Year	FY24 Budget Full Year	Var	FY23 Actual Full Year	FY24 Projected Full Year (as of April 2024)
Gross Revenue	\$6,211.3	\$5,776.3	\$435.0	\$5,436.5	\$6,124.1
Collection Rate	24.9%	26.7%		26.7%	25.1%
NET REVENUE	\$1,774.1	\$1,717.8	\$56.4	\$1,650.7	\$1,759.8
Salaries & Benefits	\$779.4	\$751.2	(\$28.2)	\$711.6	\$783.2
Supplies (less Hospital Drugs)	\$348.7	\$307.9	(\$40.8)	\$311.4	\$352.7
Hospital Drugs	\$141.4	\$126.4	(\$15.0)	\$126.3	\$132.5
Other Expenses	\$466.3	\$464.6	(\$1.7)	\$464.0	\$470.3
TOTAL EXPENSE	\$1,735.8	\$1,650.1	(\$85.7)	\$1,613.3	\$1,738.7
Operating Gain/(Loss)	\$38.3	\$67.6	(\$29.3)	\$37.4	\$21.1
Financial Metrics:					
Operating Margin	0.9%	2.9%		1.3%	-0.2%
EBIDA Margin	7.7%	9.3%		8.1%	6.8%
Days Cash on Hand	120	133		141	116
Cash to Total Debt	92.8%	115.8%		104.9%	89.9%
Debt Service Ratio	4.3	4.1		3.8	3.3

Table 1 FY24 Consolidated Target Operating Income is \$52.6M, accounting for the additional \$15M of integration expense agreed upon after the FY24 budget was set.

The gross revenue of \$6.2 billion was significantly higher than FY23’s year-end gross revenue.

Salaries, supplies and hospital drugs continue to be a challenge that leaders continue to find ways to address. However, it is important to note that they key driver of these increases in expenses is volume, thanks to busy and productive hospitals.

MU Health Care ended the year with a consolidated operating gain of \$38.3 million with an operating margin of 0.9%. Therefore, we are profitable after integrating a community hospital and opening a new Children’s Hospital and Birthing Center. We continue to work on improving financial performance.

For the last three months of FY24, Capital Region Medical Center has shown a positive operating gain, which is ahead of schedule from budget forecasts last summer. This is in large part due to the tremendous efforts of our operations team and health care providers in our now-integrated MU Health care system. We are very grateful for their dedication and hard work.