

**Board of Curators Meeting
September 7, 2022
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 of Curators Meeting - Public Session

University of Missouri System

University of Missouri - Kansas City, Student Union

Sep 7, 2022 8:30 AM - 1:00 PM CDT

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**XV. ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT
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UNIVERSITY OF MISSOURI
BOARD CHAIR REPORT

There are no materials for this information item.

UNIVERSITY OF MISSOURI
PRESIDENT'S REPORT

There are no materials for this information item.

No. 1

Recommended Action - Approval of Board of Curators Executive Committee and Standing Committees Appointments, 2022

It was recommended by Chair Chatman, moved by Curator _____ and seconded by Curator _____, that the following Board of Curators Executive Committee and Standing Committees appointments be approved for 2022:

Executive Committee

Darryl M. Chatman, Chair
Greg E. Hoberock
Jeff L. Layman

Academic, Student Affairs, Research and Economic Development Committee

Todd P. Graves, Chair
Greg E. Hoberock
Jeff L. Layman
Robin R. Wenneker

Audit, Compliance and Ethics Committee

Keith A. Holloway, Chair
Julia G. Brncic
Jeff L. Layman

Finance Committee

Greg E. Hoberock, Chair
Todd P. Graves
Jeff L. Layman
Michael A. Williams

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Governance, Compensation and Human Resources Committee

Michael A. Williams, Chair

Julia G. Brncic

Keith A. Holloway

Robin R. Wenneker

Health Affairs Committee

Robin R. Wenneker, Chair

Keith A. Holloway

Jeff L. Layman

Michael A. Williams

Ronald G. Ashworth (non-curator)

Dan Devers (non-curator)

Jim Whitaker (non-curator)

Roll call vote:

YES

NO

Curator Brncic

Curator Chatman

Curator Graves

Curator Hoberock

Curator Holloway

Curator Layman

Curator Wenneker

Curator Williams

The motion _____.

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REVIEW CONSENT AGENDA

There are no materials for this information item.

Consent A

Recommended Action - Minutes, June 23, 2022 Board of Curators Meeting
Minutes

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the June 23, 2022 Board of Curators meeting be approved as presented.

Roll call vote: YES NO

- Curator Brncic
- Curator Chatman
- Curator Graves
- Curator Hoberock
- Curator Holloway
- Curator Layman
- Curator Wenneker
- Curator Williams

The motion _____.

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Consent B

Recommended Action - Minutes, June 23, 2022 Board of Curators Committee Meetings

It was moved by Curator _____ and seconded by Curator _____, that the minutes of the June 23, 2022 Board of Curators committee meetings, be approved as presented.

Roll call vote:

YES

NO

Curator Brncic

Curator Chatman

Curator Graves

Curator Hoberock

Curator Holloway

Curator Layman

Curator Wenneker

Curator Williams

The motion _____.

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OPEN – CONSENT – B-1

Consent C

Recommended Action – Approval of Degrees, Fall Semester 2022, for all universities

It was recommended by 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 2022, 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 Brncic

Curator Chatman

Curator Graves

Curator Hoberock

Curator Holloway

Curator Layman

Curator Wenneker

Curator Williams

The motion_____.

Collected Rules and Regulations 320.120 Amendment

Security Personnel

Executive Summary

Administration is proposing updates to the collected rule to better reflect current statutes regarding the University's employment of police officers, Sections 172.350 and 172.355, RSMo. Previous versions of those statutes referred to appointments of watchmen with authority of peace officers and contained certain limits on their numbers and compensation. As a result, CRR 320.120 was framed in terms of employing security personnel and supplementing them with appointments of additional employees with similar authority. Sections 172.350 and 172.355, RSMo, were amended in 1996 to expressly state that the University may appoint and employ as many university police officers as it may deem necessary to protect persons, property and to preserve peace and good order. However, CRR 320.120 has never been updated to reflect the current statutory language.

The proposed action is to adopt changes to CRR 320.120 reflected in the attached redline document. These changes will:

- Refer to appointment and employment of police officers (rather than security personnel), consistent with the current statutory language;
- Track the statutory language in stating that the University may employ as many police officers as it deems necessary;
- Expressly provide that individuals employed as police officers must satisfy all qualifications required by law to serve as peace officers; and
- Track the statutory language in stating that individuals commissioned as University police officers have the authority power authorized to security personnel maintain order, preserve peace and make arrests as is held by peace officers.

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Recommended Action - Amendments to Collected Rule and Regulation 320.120, Security Personnel

It was recommended by Executive Vice President Rapp, endorsed by University of Missouri President Mun Y. Choi, moved by Curator _____, and seconded by Curator _____, that:

Section 320.120 of the University's Collected Rules and Regulations be amended as set forth in the attached document.

Roll call vote of the Board:	YES	NO
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Curator Brncic

Curator Chatman

Curator Graves

Curator Hoberock

Curator Holloway

Curator Layman

Curator Wenneker

Curator Williams

The motion _____.

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320.120 ~~Security Personnel~~ Police Officers

172.350, R.S.Mo. 1959; Bd. Min. 9-5-70; Amended 7-28-20; ~~Amended~~ - -22.

- A. **Appointment** -- The ~~Curators of the~~ University of Missouri may appoint and employ as many ~~security personnel as they~~ police officers as it may deem necessary ~~, not to exceed six in number and who shall be paid not more than seventy five dollars per month~~ to protect persons, property and to preserve peace and good order in the public buildings, properties, grounds and other facilities and locations of which it has ~~and upon the campuses, grounds, and farms, over which they may have charge or control.~~ To be appointed and employed as a university police officer, an individual must satisfy all qualifications required by law to serve as peace officers.
- B. **Oath of Office and Authority** -- The ~~security personnel~~ university police officers, before they enter upon their duties, shall take and subscribe an oath of office before some officer authorized to administer oaths, to faithfully and impartially discharge the duties ~~thereof of their office~~, which oath shall be filed in the office of the Secretary of the University Board of Curators, and the Secretary shall give each ~~individual university police officer~~ so appointed and qualified a certificate of appointment, under the seal of the University, which certificate shall ~~elothe~~ empower the individual with the same ~~power authority~~ to maintain order, preserve peace and make arrests as is now held by peace officers. ~~; the security personnel~~ University police officers may in addition expel from the public buildings, campuses, grounds and farms, persons violating the rules and regulations that may be prescribed by the Board of Curators or others under the authority of the Board. Such officer or employee of the University as may be designated by the Board of Curators shall have immediate charge, control and supervision of ~~security personnel~~ police officers appointed by authority of this section.
- ~~C. **Authority Granted to Security Personnel** -- The Curators, should it be deemed expedient, may grant to any officer, member of the faculty or other employee the same powers as hereby authorized to be granted to security personnel, and in all such cases, the individuals so designated shall qualify as required of security personnel and shall receive a similar certificate of authority. Nothing herein shall be construed as denying the Board of Curators the right to appoint guards or security personnel who shall not be given the authority and powers hereby authorized.~~
- ~~D.~~ C. **Authority to Issue Security Personnel Commissions** -- Until further order of this Board, the Board does hereby delegate to the President of the University the authority vested in The Curators of the University of Missouri under the provisions of Section 172.350 and 172.355 R.S.Mo. ~~1959~~, to grant in the name of The Curators of the University of Missouri to university police officers; the authority power authorized to security personnel maintain order, preserve peace and make arrests as is held by peace officers, ~~to any peace officer of the State of Missouri, or any city or municipality thereof, or to any permanent or temporary employee of the~~

September 7, 2022

University, and that upon certification of the exercise of such authority the Secretary of the Board is authorized to ~~cause to be administered the required oath and to~~ issue certificates of appointment to university police officers authority.

320.120 Police Officers

172.350, R.S.Mo. 1959; Bd. Min. 9-5-70; Amended 7-28-20; Amended 9-7-22.

- A. **Appointment** -- The University may appoint and employ as many police officers as it may deem necessary to protect persons, property and to preserve peace and good order in the public buildings, properties, grounds and other facilities and locations of which it has charge or control. To be appointed and employed as a university police officer, an individual must satisfy all qualifications required by law to serve as peace officers.
- B. **Oath of Office and Authority** -- The university police officers, before they enter upon their duties, shall take and subscribe an oath of office before some officer authorized to administer oaths, to faithfully and impartially discharge the duties of their office, which oath shall be filed in the office of the Secretary of the Board of Curators, and the Secretary shall give each university police officer so appointed and qualified a certificate of appointment, under the seal of the University, which certificate shall empower the individual with the same authority to maintain order, preserve peace and make arrests as is now held by peace officers. University police officers may in addition expel from the public buildings, campuses, grounds and farms, persons violating the rules and regulations that may be prescribed by the Board of Curators or others under the authority of the Board. Such officer or employee of the University as may be designated by the Board of Curators shall have immediate charge, control and supervision of police officers appointed by authority of this section.
- C. **Authority to Issue Commissions** -- Until further order of this Board, the Board does hereby delegate to the President of the University the authority vested in The Curators of the University of Missouri under the provisions of Section 172.350 and 172.355 R.S.Mo., to grant in the name of The Curators of the University of Missouri to university police officers the authority to maintain order, preserve peace and make arrests as is held by peace officers, and that upon certification of the exercise of such authority the Secretary of the Board is authorized to issue certificates of appointment to university police officers.

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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. As has been past practice, 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, 2022 is \$614,543. This represents a fee increase of \$54,207.

Most of the fee increase is tied to a \$50,000 step up in the alternative investment service fee. This is the second half of a two-year plan to increase the alternative investment services fee following the recent asset allocation changes approved by the Board of Curators. The asset allocation changes resulted in a material increase to the private equity and private debt allocations resulting in the need to expand Verus' services in this area. Verus plays a critical role in assisting staff with investment sourcing activities as well as initial and ongoing diligence efforts. In recognition of the changes, a fee increase was accepted and implemented over a two-year period. The remainder of the fee increase is from the annual inflation adjustment tied to CPI and capped at 2%.

Separately, the University's Investment Oversight Committee for Participant Directed Savings Plans recently 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 will be \$70,000, which is consistent with what had been paid to the previous provider of consulting services. The scope of the existing investment consulting agreement with Verus will be expanded to include these services.

An overview of Verus is attached for your review.

September 7, 2022

No. E

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 Graves
Curator Hoberock
Curator Layman
Curator Williams

The motion _____.

Roll call vote of The Board of Curators: YES NO

Curator Brncic
Curator Chatman
Curator Graves
Curator Hoberock
Curator Holloway
Curator Layman
Curator Wenneker
Curator Williams

The motion _____.

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**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

AUGUST 2022

Verus Overview

OPEN - CONSENT - E-3

VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

CHICAGO 312-815-5228

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

PITTSBURGH 412-784-6678

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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 and Pittsburgh, our professionals advise over \$668 billion in client assets for 155 clients. The firm has 35 shareholders and employs 96 people, 86 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.

Since our last reporting, we have added seven new shareholders as part of our effort 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.

Resources

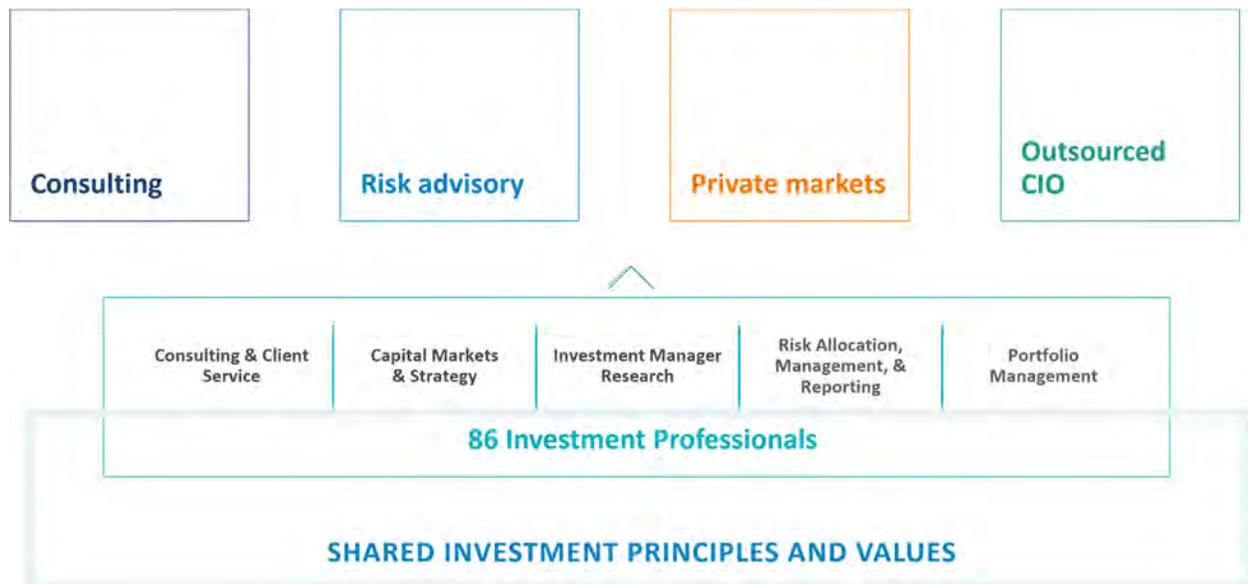
Functional Group	Number	Avg Years Firm	Avg Years Industry
Consultants	30	11	21
Consulting Associates	7	1	7
Manager Research	18	6	13
Strategic Research	4	5	11
Risk Advisory & Portfolio Management	6	4	10
Performance Analytics	14	5	8
Legal and Operations	4	8	22
Administration	7	9	12
Marketing	3	14	18
IT and Systems Development	3	13	19
Total	96	8	14

We currently employ the following software and databases in aid of our consulting practice:

- eVestment
- MPI
- MSCI BarraOne
- Winklevoss ProVal
- Morningstar Direct
- Aksia
- Pitchbook
- Cambridge Associates
- Thomson One VentureXpert
- Private Informant
- Investment Metrics PARis
- Solovis
- MSCI ESG Ratings, MSCI Fund Analyzer
- Public markets database
- Returns-based style analysis, regression analysis
- Risk analysis
- Asset-liability modeling
- Mutual fund information, analytics, index information
- Hedge fund research library and portal
- Private markets database
- Private markets research
- Private equity research
- Private equity research
- Performance measurement
- Private markets performance measurement
- ESG characteristics analysis

Services

We have a centralized investment team that supports service delivery for varied client governance models.



Clients

Verus currently has 155 retainer clients with total of more than \$668 billion* in assets under advisement. \$663 billion in traditional consulting services, and \$5 billion in discretionary services. Below is a representative client list.

NOT-FOR-PROFIT		CORPORATE	PUBLIC	MULTI-EMPLOYER
501(c) Services	Leichtag Foundation	AbbVie, Inc.	Fresno County Employees' Retirement Assn.	112/73 Retirement Trust Fund NECA-IBEW
American University in Cairo	Miller Foundation	Apria Healthcare 401K Savings Plan	Illinois Police Officers' Pension	Alaska Ironworkers
Archdiocese of Seattle	Offutt Family Foundation	Avista Corporation	Imperial County Employees' Retirement System	Alaska Plumbing & Pipefitting
Association for Cultural Interchange	Pacific Lutheran University	Barrick Gold Corporation	Indiana Public Retirement System	Alaska Teamsters
AVID Center	Puget Sound Energy Foundation	Carollo Engineers	Kern County Employees' Retirement Assn.	Arizona Bricklayers'
Barry Foundation	Riverside Community Foundation	Eastside Retirement Association	Long Beach Transit Employees Retirement System	Employer-Industrial Sheet Metal Workers Local No. 16
Bellarmino Preparatory School	The Salvation Army – Western Division	Forever Living Products	Los Angeles Metropolitan Transportation Authority	Gunite Workers
Carroll College	The San Diego Foundation	Group Health Cooperative	Massachusetts PRIM	IATSE Local 720
College Spark	Seattle Country Day School	Hanford Site	Missouri State Employees' Retirement System	IBEW #76
Community Foundation of N. Central WA	Sherwood Trust	Harnish Group	Pasadena Fire and Police Retirement System	IBEW #100
Community Foundation for Monterey County	Sisters of St. Dominic	H.D. Fowler Company	Sacramento County Employees Retirement System	IBEW #684
Community Foundation of Southern Arizona	Skagit Valley Regional Health	Independent Guard Association of Nevada	San Jose Federated City Employees Retirement System	IBEW #1710
Concordia College	St Paul & Minnesota Community Foundation	Jack in the Box, Inc.	San Jose Police & Fire Department Retirement	IBEW Pacific Coast
Confluence Health	University Corporation at Monterey Bay	Karsten Manufacturing	San Luis Obispo County Pension Trust	Idaho Operating Engineers
Congregation of the Sisters of Mercy	University of Colorado Health	Moss-Adams LLP	San Mateo County Employees Retirement Association	Inlandboatmen's Union
Diocese of San Bernardino	UC San Diego Foundation	Mutual of Enumclaw Insurance Company	Stanislaus County Employees' Retirement Association	Inland Empire Electrical Workers
El Rio Health	Virginia Mason Medical Center	NECA Puget Sound Chapter	Tennessee Consolidated Retirement System	Juan de la Cruz Farm Workers
Evergreen Healthcare	Vitalent	Sullivan Family of Companies	Tulare County Employees' Retirement Assn.	Laborers AGC Pension Trust of Montana
Gonzaga University	Whitworth University	The Seattle Times	West Virginia Investment Management Board	Marine Carpenters
Group Health Foundation		Unibail-Rodamco-Westfield	Wisconsin State Investment Board	Montebello Teachers Association
Huntington Hospital				Northern California Pipe Trades
Idaho Community Foundation				Northwest Ironworkers
Inland Empire Community Foundation				Oregon and Southwest Washington Painters
				Oregon Retail Employees
				Oregon Sheet Metal Workers
				Painters & Allied Trades Paint Makers
				Pension Plan for Employees of CA Labor Federation, AFL CIO
				Pipe Trades District Council No. 36
				Plasterers Local No. 82
				Puget Sound Electrical Workers
				San Diego County Cement Masons
				San Diego Teamsters
				San Diego Theatrical Sheet Metal Local 88
				Signatory Employers – Idaho Laborers
				Solano and Napa Counties Electrical Workers
				Sound Retirement Trust
				Southern California Cement Masons
				Southern California Floor Covering
				Southern California Glaziers
				Southern California Painting & Drywall Industries
				Teamsters 206
				Teamsters Local 631
				U.A. Local #290 (Portland Plumbers)
				U.A. Local No 343
				U.A. Local #447
				Washington State Plumbers
				Western Glaziers
				Western Washington Laborers
				Western Washington U.A. Supplemental

*Preliminary assets under advisement as of June 30, 2022.

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. A product that successfully meets our evaluation criteria is deemed to be reliable, of institutional quality, and demonstrates a proven, repeatable approach for producing returns over the long-term.

- 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, 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.

Database

Verus uses a combination of internally developed and third-party databases to screen the broad universe of managers and investment products:

Name of database	Purpose
RMS	Internally developed database that serves as a repository of meeting notes and due diligence materials. Contains data on all actively covered and recommended products and managers and other managers that are not rated but our research

Name of database	Purpose
	and/or consulting teams have been met with or conducted due diligence.
eVestment	Primary database for initial screening universe of public assets.
Morningstar Direct	Primary database for initial screening universe of public assets.
PitchBook	Primary database for initial screening universe of private assets (private equity, private credit, real assets)
Aksia	Initial screening universe and operational due diligence of hedge funds

Neither Verus nor the third-party providers charge fees for inclusion in the databases. A manager simply has to submit and periodically update firm and performance data to be included.

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 universe aggregates data submitted by institutional investment consulting organizations using institutional and custodial statements for separate accounts, and investment managers for privately held or commingled funds. 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 a 14-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. We use a combination of in-house research, due diligence, and third-party databases to support our efforts, including Private i, a robust database and performance measurement application developed by The Burgiss Group, and VentureXpert, published by Thompson Financial. 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 34 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 24 years of investment and consulting experience, with over 11 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.



Paul Kreiselmaier, CFA
Director | Hedge Funds

Mr. Kreiselmaier has over 28 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).



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.

VERUS OVERVIEW

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.*

Approval of Collected Rules & Regulation 140.010 Policy for Management and Oversight
of Selected University Investment Pools
UM

Management is presenting for Board approval changes to streamline / update the Policy for Management and Oversight of Selected University Investment Pools.

The current policy was approved by the Board in June 2012, with the most significant change being the delegation of authority by the Board to hire and terminate investment managers. The policy was amended in September 2017 to extend the same provisions to approval of changes to policy benchmarks. In both cases, the Board delegated approval authority to a unanimous vote of the following three individuals: 1) the Chief Investment Officer; 2) the Executive Vice President for Finance and Operations; and, 3) the University's Investment Consultant. As an added measure at the time of initial delegation, consultation with the President was added as a final step.

In the ten years since this delegation was approved, the University has hired 174 separate investment managers / strategies / funds, with an aggregate amount of capital invested or committed in excess of \$11.5 billion across the Retirement Plan, Endowment Pool and General Pool. Over that same time period, 32 investment managers / strategies / funds have been terminated.

Performance against the policy benchmark is the ultimate measure of success and accountability for such delegated authority:

10 Year Annualized Returns as of June 30, 2022			
	<u>Actual</u>	<u>Policy Benchmark</u>	<u>Excess Return</u>
Retirement Plan	7.9%	7.5%	0.4%
Endowment Pool	8.6%	8.1%	0.5%
General Pool	2.3%	1.9%	0.4%

In consideration of a successful ten-year track record utilizing this delegated authority, our recommendation is to remove the current requirement for consultation with the President as it no longer seems necessary for an established process and may no longer be an effective use of the President's time.

It should be noted that the Office of General Counsel, working in conjunction with specialized external counsel, remains fully involved in the investment manager hiring and termination process with respect to legal and tax matters.

Management is also seeking to streamline policy language related to Board reporting in Section D. We have always reported to the Board on a quarterly basis any actions taken to hire or terminate managers under the delegated authority and will continue to do so. The

September 7, 2022

Board also reviews performance of the investment portfolios on a quarterly basis, which is the ultimate check on delegated authority. We would continue to bring recommendations for changes in delegated authority, if any, to the Board as they arise from time to time.

Finally, there are proposed changes to update a position title from Vice President for Finance to Executive Vice President for Finance and Operations.

No. F

Recommended Action - Approval of Collected Rules and Regulations 140.010
Policy for Management and Oversight of Selected
University Investment Pools, UM

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

Existing investment policy of Collected Rules and Regulations, Section 140.010, be
amended, as noted in the attached documents.

Roll call vote of the Committee: YES NO

Curator Hoberock

Curator Graves

Curator Layman

Curator Williams

The motion _____.

Roll call vote of Board of Curators: YES NO

Curator Brncic

Curator Chatman

Curator Graves

Curator Hoberock

Curator Holloway

Curator Layman

Curator Wenneker

Curator Williams

The motion _____.

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140.010 Policy for Management and Oversight of Selected University Investment Pools

Bd. Min. 5-3-91; Amended Bd. Min. 3-24-95; 1-21-98; Amended Bd. Min. 12-15-06; 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 140.016.); Amended Bd. Min. 9-28-17; Amended Bd. Min. 9-7-22-

A. Introduction -- This policy establishes guidelines for the management and oversight of certain University investment pools. This policy applies to the following investment pools:

1. CRR 140.012 General Pool
2. CRR 140.013 Endowment Pool
3. CRR 140.014 Fixed Income Pool
4. CRR 140.015 Retirement, Disability and Death Benefit Plan
5. CRR 140.016 Other Postemployment Benefits Plan Trust Fund

This policy does not apply to existing debt and commodities derivatives described in CRR Chapter 145, or to program-related funds and assets not held primarily for investment, including interests governed by CRR **70.070** "*Entrepreneurial Activity*."

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

1. The following actions shall require Board of Curators approval after consideration of recommendations from University staff:
 - a. Selection of master custodians for each investment pool. A master custodian provides a variety of services, including, but not limited to: safekeeping of securities, collection of income and other inflows, disbursement for investment management fees, and a monthly accounting of all transactions.

September 7, 2022

- b. Selection of external investment consultant (“**Investment Consultant**”) to assist the Board and University staff in management and oversight duties and to perform such duties as outlined in CRR 140.010 through **CRR 140.016 (“Investment Pool Policies”)**.
 - c. Selection of suitable asset classes with corresponding targets and allowable ranges for each investment pool, after consideration of recommendations in formal asset/liability studies conducted by the Investment Consultant not less than once every three years. Such asset/liability studies shall consider the balance between risk and return, taking into account the specific objectives of each investment pool and such other factors as appropriate in compliance with applicable law.
 - d. Selection of suitable spending policies for endowed funds.
2. The following authorities and responsibilities are hereby delegated by the Board to the [Executive Vice President for Finance and Operations](#), the Chief Investment Officer and the Investment Consultant, with any action hereunder requiring unanimous approval by all three persons, ~~in consultation with the President~~. In the event that either of the two University staff positions is vacant, or the incumbent is otherwise unavailable, the President may, on a temporary basis, authorize actions upon the unanimous approval by the remaining two persons or appoint a replacement for the unavailable person until such time that the position is filled or the incumbent becomes available.
- a. Hiring of external investment managers for any of the investment pools covered by this policy, consistent with the respective asset classes and targets established by the Board and the guidelines outlined in CRR 140.011 *“Policy for Investment Manager Selection, Monitoring and Retention.”*
 - b. Termination of external investment managers for any of the investment pools covered by this policy, consistent with the guidelines outlined in **CRR 140.011** *“Policy for Investment Manager Selection, Monitoring and Retention.”*
 - c. Establishment and/or modification of policy benchmarks, consistent with the respective asset classes and targets established by the Board, for any of the investment pools

covered by this policy.

3. The following authorities are hereby delegated by the Board to the [Executive Vice President for Finance and Operations](#) or her/his designees:
 - a. Specific to the General Pool, the authority to manage funds internally, consistent with the guidelines outlined in CRR 140.012 *"Investment Policy for General Pool."*
 - b. As appropriate, implementation of securities lending programs, provided that securities included in any program shall be fully collateralized and marked to market daily.
 - c. Execution of instruments in accordance with CRR 70.020 *"Execution of Financial Instruments."*
4. In making the foregoing delegations, the Board has considered the purposes and circumstances of the investment pools, the qualifications and expertise of the persons to whom it has delegated such authorities, and the scope and terms of the delegated authorities. The Board shall continue to evaluate these and other relevant factors, including the overall performance of the investment pools, in conjunction with its ongoing reviews and monitoring as described herein.

C. Responsibilities – Persons responsible for managing funds in the investment pools shall, in rendering advice for a fee, exercising discretionary authority or control over investments, or taking other actions under the Investment Pool Policies: (i) act in accordance with the **"prudent investor rule" and invest assets as would a prudent investor** similarly situated, considering the circumstances of the investment pool and exercising reasonable care, skill, and caution, and (ii) fulfill fiduciary duties as required by contract and in accordance with the Investment Pool Policies and applicable law but at a minimum consistent with Sections 105.688 and 402.132 of the Revised Statutes of Missouri as amended from time to time or successor statutes, as appropriate. Each such person shall, by accepting his or her appointment or taking any action pursuant to the Investment Pool Policies, be deemed to have agreed to undertake such duties and otherwise perform in accordance with this policy and applicable law.

1. The [Executive Vice President for Finance and Operations](#) or her/his designees are responsible for the following:
 - a. Implement and monitor Investment Pool Policies.
 - b. Review Investment Pool Policies on an annual basis, with policy amendments

September 7, 2022

- submitted to the Board of Curators as necessary.
- c. Evaluate and monitor master custodians and Investment Consultant; report to the Board as necessary.
 - d. Periodic reporting to the Board as outlined in Section D of this policy.
 - e. Monitor the effects of the spending policy with respect to endowment funds and recommend modifications to the Board as appropriate.
 - f. Management of endowed funds in accordance with any restrictions that may apply at the time of receipt, provided such restrictions do not conflict with applicable state statutes and University policies.
 - g. Maintain accurate records for the investment pools.
2. Generally, the University is and shall be deemed to be the corporate trustee for all funds held by the University in an express trust, such as funds in the Retirement, Disability and Death Benefit Plan and Other Postemployment Benefits Plan Trust Fund, as well as any other funds held by the University that are deemed to be trust funds under applicable law.
- D. Reporting – At minimum, the following reporting to the Board shall be required:
1. Quarterly: Summary of performance for each investment pool as well as reporting of any actions taken to hire or terminate investment managers or modify investment pool benchmarks under the authority delegated within Section B(2) of this policy.
 2. Annually: Performance review, including all underlying investment managers, for each respective investment pool, relative to established benchmarks and other relevant metrics, and including information relating to the authority delegated under Sections B(2) and B(3) of this policy, including recommendations for change, if any.
 3. ~~Biannually: The Board recognizes the significance of the delegation, authorities, and responsibilities set forth in paragraph B.2 hereof and intends to review and consider the continuation thereof from time to time; therefore, at least once every two years there will be a report to the Board concerning such delegation in paragraph B.2 and its continued advisability in light of all relevant factors. In the absence of any action by the Board, such delegation will be deemed continued. However, nothing will limit the~~

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~~authority of the Board to review, qualify, or revoke such delegation at any time and for any reason.~~

- E. Proxy Voting -- Proxy voting power is an asset of the respective investment pool and is subject to the same management as all other investment pool assets. Accordingly, the investment manager has the responsibility and liability for voting proxies appurtenant to the securities under its management, owned by the respective investment pool. The voting of proxies must be done in a prudent manner and consistent with the investment objectives of the respective investment pool.

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140.010 Policy for Management and Oversight of Selected University Investment Pools

Bd. Min. 5-3-91; Amended Bd. Min. 3-24-95; 1-21-98; Amended Bd. Min. 12-15-06; 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 140.016.); Amended Bd. Min. 9-28-17; Amended Bd. Min. 9-7-22

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This policy does not apply to existing debt and commodities derivatives described in CRR Chapter 145, or to program-related funds and assets not held primarily for investment, including interests governed by CRR 70.070 "*Entrepreneurial Activity*."

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

1. The following actions shall require Board of Curators approval after consideration of recommendations from University staff:
 - a. Selection of master custodians for each investment pool. A master custodian provides a variety of services, including, but not limited to: safekeeping of securities, collection of income and other inflows, disbursement for investment management fees, and a monthly accounting of all transactions.
 - b. Selection of external investment consultant ("Investment Consultant") to assist the Board and University staff in management and oversight duties and to perform such duties as outlined in CRR 140.010 through CRR 140.016 ("Investment Pool Policies").

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- c. Selection of suitable asset classes with corresponding targets and allowable ranges for each investment pool, after consideration of recommendations in formal asset/liability studies conducted by the Investment Consultant not less than once every three years. Such asset/liability studies shall consider the balance between risk and return, taking into account the specific objectives of each investment pool and such other factors as appropriate in compliance with applicable law.
 - d. Selection of suitable spending policies for endowed funds.
2. The following authorities and responsibilities are hereby delegated by the Board to the Executive Vice President for Finance and Operations, the Chief Investment Officer and the Investment Consultant, with any action hereunder requiring unanimous approval by all three persons. In the event that either of the two University staff positions is vacant, or the incumbent is otherwise unavailable, the President may, on a temporary basis, authorize actions upon the unanimous approval by the remaining two persons or appoint a replacement for the unavailable person until such time that the position is filled or the incumbent becomes available.
 - a. Hiring of external investment managers for any of the investment pools covered by this policy, consistent with the respective asset classes and targets established by the Board and the guidelines outlined in CRR 140.011 "*Policy for Investment Manager Selection, Monitoring and Retention.*"
 - b. Termination of external investment managers for any of the investment pools covered by this policy, consistent with the guidelines outlined in CRR 140.011 "*Policy for Investment Manager Selection, Monitoring and Retention.*"
 - c. Establishment and/or modification of policy benchmarks, consistent with the respective asset classes and targets established by the Board, for any of the investment pools covered by this policy.
3. The following authorities are hereby delegated by the Board to the Executive Vice President for Finance and Operations or her/his designees:
 - a. Specific to the General Pool, the authority to manage funds internally, consistent with the guidelines outlined in CRR 140.012 "*Investment Policy for General Pool.*"
 - b. As appropriate, implementation of securities lending programs, provided that securities included in any program shall be fully collateralized and marked to market daily.
 - c. Execution of instruments in accordance with CRR 70.020 "*Execution of Financial Instruments.*"
4. In making the foregoing delegations, the Board has considered the purposes and circumstances of the investment pools, the qualifications and expertise of the persons to whom it has delegated

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such authorities, and the scope and terms of the delegated authorities. The Board shall continue to evaluate these and other relevant factors, including the overall performance of the investment pools, in conjunction with its ongoing reviews and monitoring as described herein.

- C. Responsibilities – Persons responsible for managing funds in the investment pools shall, in rendering advice for a fee, exercising discretionary authority or control over investments, or taking other actions under the Investment Pool Policies: (i) act in accordance with the “prudent investor rule” and invest assets as would a prudent investor similarly situated, considering the circumstances of the investment pool and exercising reasonable care, skill, and caution, and (ii) fulfill fiduciary duties as required by contract and in accordance with the Investment Pool Policies and applicable law but at a minimum consistent with Sections 105.688 and 402.132 of the Revised Statutes of Missouri as amended from time to time or successor statutes, as appropriate. Each such person shall, by accepting his or her appointment or taking any action pursuant to the Investment Pool Policies, be deemed to have agreed to undertake such duties and otherwise perform in accordance with this policy and applicable law.
1. The Executive Vice President for Finance and Operations or her/his designees are responsible for the following:
 - a. Implement and monitor Investment Pool Policies.
 - b. Review Investment Pool Policies on an annual basis, with policy amendments submitted to the Board of Curators as necessary.
 - c. Evaluate and monitor master custodians and Investment Consultant; report to the Board as necessary.
 - d. Periodic reporting to the Board as outlined in Section D of this policy.
 - e. Monitor the effects of the spending policy with respect to endowment funds and recommend modifications to the Board as appropriate.
 - f. Management of endowed funds in accordance with any restrictions that may apply at the time of receipt, provided such restrictions do not conflict with applicable state statutes and University policies.
 - g. Maintain accurate records for the investment pools.
 2. Generally, the University is and shall be deemed to be the corporate trustee for all funds held by the University in an express trust, such as funds in the Retirement, Disability and Death Benefit Plan and Other Postemployment Benefits Plan Trust Fund, as well as any other funds held by the University that are deemed to be trust funds under applicable law.

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- D. Reporting – At minimum, the following reporting to the Board shall be required:
1. Quarterly: Summary of performance for each investment pool as well as reporting of any actions taken to hire or terminate investment managers or modify investment pool benchmarks under the authority delegated within Section B(2) of this policy.
 2. Annually: Performance review, including all underlying investment managers, for each respective investment pool, relative to established benchmarks and other relevant metrics, and including information relating to the authority delegated under Sections B(2) and B(3) of this policy, including recommendations for change, if any.
- D. Proxy Voting -- Proxy voting power is an asset of the respective investment pool and is subject to the same management as all other investment pool assets. Accordingly, the investment manager has the responsibility and liability for voting proxies appurtenant to the securities under its management, owned by the respective investment pool. The voting of proxies must be done in a prudent manner and consistent with the investment objectives of the respective investment pool.

FINANCE COMMITTEE

Greg E. Hoberock (Chair)

Todd P. Graves

Jeff L. Layman

Michael A. Williams

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

I. Scope

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

II. Executive Liaison

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

III. Responsibilities

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

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

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

Fiscal Year 2022 Investment Performance Review
UM

Highlights of the enclosed Fiscal Year 2022 Investment Review will be presented at the September meeting of the Finance Committee of the Board of Curators. Also enclosed is an annual investments review letter from Verus, the University's General Investment Consultant.

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

Retirement Plan	Represents the invested assets of the University's defined benefit plan, which serves more than 32,000 members.
Endowment Pool	Holds more than 6,400 endowment accounts from across the UM System.
General Pool	Contains the cash, reserves and invested assets of more than 25,000 unique operating units within the UM System.

September 7, 2022



August 12, 2022

To the Honorable Greg E. Hoberock, Chair, Finance Committee
The Honorable Todd P. Graves
The Honorable Jeff L. Layman
The Honorable Michael A. Williams

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, 2022, and our summary of the Market Environment.

Plan Performance¹

While the total return over the fiscal year was slightly negative for Retirement at -1.1% (net of fees), its relative performance was exceptional. It outperformed the policy benchmark by 2.0% and ranked in the 1st percentile relative to other public defined benefit plans (1st is best 99th is worst). Endowment also earned exceptional relative results with a -0.8% net return. Endowment outperformed the policy benchmark by 1.6% and ranked in the 2nd percentile relative to other endowment plans.

This year, public equity performance was a major headwind for both funds. Public equity has a 34% target allocation in Retirement and 35% target in Endowment. Public equity performance was -20.2% for the year for Retirement and -20.5% for Endowment. Given rising interest rates, the funds’ allocations to Treasuries did not serve as a counterbalance to public equity this year, returning -3.8% in Retirement and -3.7% in Endowment. While both private equity and private debt returns did serve to offset the negative public equity returns, it was the spectacular performance of inflation-sensitive assets that provided the most noticeable benefit of diversification. Real Estate returns in Retirement were 29.5% and 28.2% in Endowment. Furthermore, the return on the commodities allocation in Retirement was 29.3% and 28.5% in Endowment.

The intermediate (5-year) and long-term (10-year) results of both portfolios remain ahead of the University of Missouri objectives, with Retirement returning 8.0% (net) over 5 years (4th percentile) and 7.9% (net) over 10 years (29th percentile). Endowment returned 8.5% (net) over 5 years (4th percentile) and 8.6% (net) over 10 years (5th percentile).

Plan Activity

Verus collaborated with System staff on several projects during the fiscal year. Among these were adjustments to the Retirement Plan asset allocation targets, which were brought to the Investment Advisory Committee for final approval in February. These included marginal increases to the private equity and real estate targets, funded from the bond allocations. These changes were designed to both preserve the Plan's level of expected return and to slightly enhance the Plan's high level of risk-efficiency.

Throughout the fiscal year, Verus and University staff continued to collaborate on improvements to the funds' Portable Alpha programs, paring low-conviction strategies and adding high-conviction strategies. We also added a global equity market neutral strategy, intended to offset the growth factor exposure in both fund's public equity book.

Miscellaneous work during the year included an ongoing examination of strategies intended to evaluate and reduce downside risk in the General Pool.

Market Environment

The first half of 2022 proved to be an incredibly different environment from what was experienced during 2021. The persistence of inflation was a driving narrative, as the supply shocks coming from Russia's invasion of Ukraine and supply chain issues from China's continued zero-covid policy accelerated already high prices. Central banks, already keen to lower inflation, reacted more aggressively as a result. The quick, but relatively small, tightening cycle hurt both equities and bonds alike. Nearly all asset classes have produced losses year-to-date—a somewhat rare occurrence which left most diversified portfolios in the red. The spur of tightening also increased fears of recession and possibly stagflation, as inflation ceased to moderate (U.S. headline CPI hit 9.1% in June, a four-decade high).

U.S. Equity

While the S&P 500 delivered a fantastic 28.7% return in 2021, this year has proven to be nearly the inverse for U.S. equities. In an effort to curb four-decade high inflation within the U.S., the Federal Reserve was quick to raise their policy rate, implementing rate hikes of 25 bps, 50 bps, and 75 bps at their respective March, May, and June meetings. It's important to note that although the pace of rate hikes has been rapid compared to most previous tightening cycles, the magnitude of tightening is relatively small in respect to history.

Higher interest rates have diminished the present value of cash flows further out in the future, hitting growth-orientated sectors the hardest (Consumer Discretionary -32.8%, Communication Services -30.2%, Information Technology -27.0% YTD).

Investors began recognizing the potential for recession in the second quarter of 2022, as economic data indicated a slowdown alongside Federal Reserve tightening. Persistent inflation in the face of multiple rate hikes impacted company revenues and profits. On the sales front, declines in real purchasing power slashed consumer sentiment and impacted discretionary spending. In regard to corporate profits, higher expenses, particularly for companies unable to

pass through prices, have resulted in earnings compression (MSCI U.S. Profit Margins down from 12.9% in December 2021 to 12.2% in June 2022). Ultimately, U.S. equities have faced a tough environment in the first half of 2022, with the S&P 500 falling 20.0% as of June 30th.

Briefly looking at size and style, the Value factor outperformed the Growth factor. The Russell 1000 Value Index declined -12.9% versus -28.1% for the Russell 1000 Growth Index year-to-date. As expected, rising rates inflicted more pain on duration-sensitive equities. From a size perspective, small-cap equities recovered some of their one-year underperformance (Russell 2000 -25.2%, Russell 1000 -13.0%) compared to returns over the year-to-date, but still fell short of large caps. The Russell 2000 fell -23.4% versus a -20.9% decline for the Russell 1000 in 2022.

International Equity

International equities have faced a similarly difficult environment so far in 2022. Inflation continues to be a challenge in many regions, as the Eurozone has also experienced four-decade high inflation. Russia's invasion of Ukraine in late February added to Europe's inflation problem, especially within the energy sector, as many countries rely heavily on Russian natural gas and oil. When the Eurozone and most of the West took steps to sanction Russian petroleum imports, prices for natural gas and oil spiked. Grain prices were also heavily impacted by the war, as Russia and Ukraine make up an outsized share of global wheat and corn exports. Some of these supply shocks were mitigated by lower demand from the world's largest consumer, China. China continued with the implementation of its "zero-COVID" policy, shutting down some of the country's largest cities, including Beijing and Shanghai (although signs of reopening in the second quarter helped lift Chinese equities). Furthermore, the upward march of the U.S. dollar resulted in notable losses for U.S. investors with unhedged currency exposure.

Emerging market equities outperformed both U.S. and International Developed equities year-to-date, as the MSCI Emerging Market Index declined -17.6% on an unhedged basis. This outperformance was primarily due to a resurgence in Chinese equities during the second quarter (MSCI China up 3.4% in Q2 2022), as news of potential easing of government restrictions and the reopening of several large cities boosted the returns of the largest country in the MSCI Emerging Market Index (35.4%). Despite underperforming emerging equities on an unhedged basis, International Developed equities outperformed U.S. equities over the year-to-date, with the MSCI EAFE declining -19.6%. Currency impacts were large, as the dollar appreciated against the Japanese Yen and the Euro. A dollar hedged investor in the MSCI EAFE would have seen a much more moderate -10.5% decline over the year-to-date, as currency impacts subtracted 9.1% in total return.

Fixed Income

All eyes have been on inflation in 2022, forcing central bankers to tighten conditions while attempting to avoid pushing their economies into recession. The magnitude of expected hikes has jumped materially since late 2021. During December of 2021, Fed funds futures contracts suggested the Fed Funds Rate would end 2022 at 0.82% (only three 25 bps rate hikes expected). By the end of March 2022, markets were pricing in a total of nine 25 bps rate hikes. This placed the implied Fed Funds Rate at 2.39% by the end of 2022. The trend continued in Q2, as inflation

remained persistent. The Federal Reserve pushed through an additional 50 bps hike in May and a 75 bps hike in June (the largest single meeting hike since 1994). Going forward, markets are pricing in an additional seven rate hikes (not including the six previously implemented) by the end of 2022, bringing the year-end implied rate in line with the Fed's expectation of 3.4%. Many countries currently face similar problems, as inflation remains a challenge.

The impact of policy tightening on duration-sensitive assets has been significant. Performance was negative across all fixed income asset classes over the year-to-date, as rates jumped from historically low levels. The Bloomberg Global Treasury Index returned -14.8% in dollar terms over the year-to-date. In the U.S., the Bloomberg Universal Index suffered its worst quarterly loss in Q1 2022, down -6.1%, while the Bloomberg Aggregate Index fell -5.9% (its third worst quarterly loss, dating back to 1976). Performance during Q2 was also negative, with the Universal and Aggregate Indices down -5.1% and -4.7%, respectively. Longer duration assets underperformed. The Bloomberg U.S. Long Treasury Index fell -21.3% year-to-date, compared to the Bloomberg U.S. Treasury 1-3 Year index's -3.0% decline.

Looking at credit, spreads significantly widened over the course of 2022. Investment grade spreads widened by 63 bps, moving from 0.92% to 1.55% at the end of June. High yield spreads also jumped, starting the year at 283 bps before moving to 569 bps over the same period. Spread movements widely reflected the risk off tone and growing concerns over a slowing economy. Despite the spread expansion, default rates for par weighted U.S. high yield and bank loans ended Q2 at 0.76% and 0.74%—far below the longer-term historical averages of 3.2% and 3.1%. The variable rate characteristic of bank loans helped as rates rose, resulting in bank loan outperformance over high yield bonds, declining -4.4% versus -14.2% over the year-to-date. Outside of the U.S., emerging market debt struggled in both hard and local currency terms. Hard currency underperformed, with the JPM EMBI GD Index falling -20.3%, relative to the -14.5% decline of the JPM GBI-EM GD Index.

Commodities

Commodities were one of the few performing asset classes in 2022 as the Bloomberg Commodity Index returned 18.4% in the first half. Commodity prices across the board soared in the first quarter, as Russia's invasion of Ukraine stressed energy (Natural gas +58.4%, WTI Crude Oil +38.3%) and grain prices (Wheat +29.6%, Corn +26.3%). The war added to price rises that had already occurred in 2021 due to pandemic related supply chain disruptions. Commodities reversed course in the back half of the second quarter, with the broader index declining -5.7% alongside recession fears which cut global commodity demand forecasts. Shipping cost normalization and supply chain easing also helped prices move lower. Many expect the moderation of commodity prices to bring inflation lower, especially if prices decline further within the energy complex.

Outlook

A key question going forward is whether global central banks will be able to bring inflation under control without dragging their respective economies into recession. This task is perhaps more difficult than past inflationary regimes, given the war in Ukraine, lockdowns in China, and acute pandemic-related supply shortages which have led to high prices that perhaps cannot be brought down via traditional central bank policy. Within the U.S, the possibility of a "soft

landing” for the economy seems to be off the table, as the economy appears to be in recession, or at least very close to one. Uncertainty remains high, although the recent drawdown of most major asset classes has reversed the “low return environment” dynamic that has been common for nearly a decade. Many asset classes now appear to offer robust yields and prospective returns relative to past years—perhaps a silver lining in an environment which has proved challenging for investors with diversified portfolios.

Conclusion

We at Verus value our relationship with the University of Missouri and we appreciate the privilege of working with the Board 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,



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.

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Investment Performance Review

FISCAL YEAR
2022



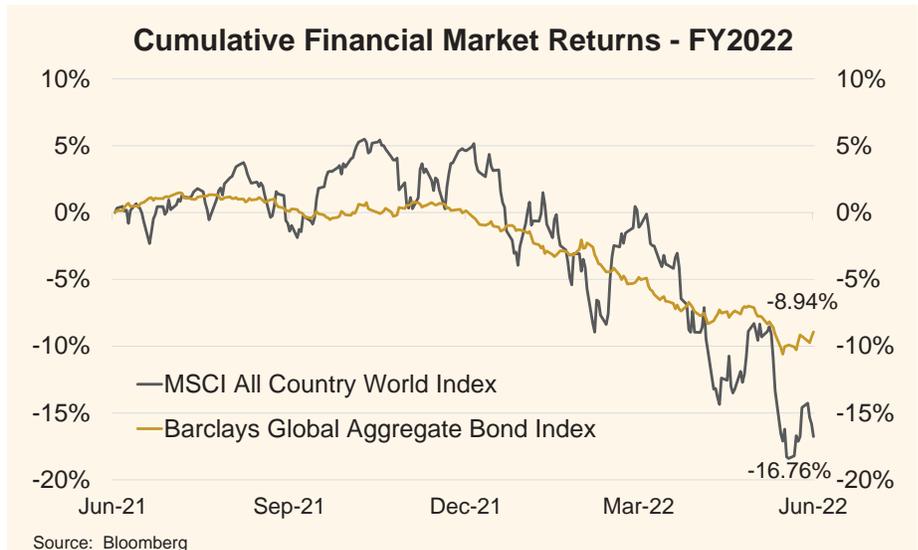
University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

September 7, 2022

Update from the CIO

During the first six months of 2022, global bond markets experienced their worst decline in over thirty years; a simplistic portfolio of 60% public equities and 40% bonds delivered one of its worst returns in the past one hundred years as both asset classes had significant drawdowns simultaneously, which is very rare. Clearly, something significant is underway (and likely not over). Earlier this year, markets finally absorbed the idea that inflation was not “transitory,” and the Federal Reserve got serious about dealing with it. Through its July 2022 meeting, the Fed has increased the Fed Funds rate by 2.25% and has also begun to unwind its massive balance sheet (“quantitative tightening”). In the US, inflation peaked above 9% with consumer confidence plunging. Earlier this year, Russia invaded Ukraine causing disruptions to global food and energy markets which have hit European economies especially hard. Geopolitical tensions with China have recently escalated to historic levels, while China’s economy continues to muddle through COVID lockdowns and the hangover from excessive real estate development. Uncertainty in financial markets remains high with frequent, almost violent swings in both equity and fixed income markets.



Setting aside geopolitical issues, the latest market consensus seems to be that the Fed can engineer a “soft landing” which will bring inflation back down to the Fed’s 2% target without causing a painful recession. Just as we never believed that inflation was “transitory,” we also disagree with current market thinking. Simply based on market mechanics, we believe in two possible outcomes: 1) to return to its 2% inflation target, the Fed will need to cause / accept a recession more severe than what is currently expected by markets; or, 2) the Fed will accept a level of inflation higher than its current 2% target. In either scenario, there is likely more market pain ahead for risk assets.

The investment objectives for both the Retirement Plan and Endowment Pool state the following: investments shall be managed in a manner that maximizes returns while attempting to minimize losses during adverse economic and market events. Put another way, we are willing to forgo some occasional upside return for more protection in down markets. Fortunately, our strategy worked well in fiscal year (“FY”) 22. While absolute returns were certainly disappointing, our results show success in execution relative to our policy benchmarks.

Specific to execution and policy implementation, achieved through strategy selection and tactical portfolio positioning, investment staff were able to generate excess returns over policy benchmarks of 2.1%, 1.6% and 1.3% for Retirement, Endowment and General Pool, respectively. Translated into dollars, this equates to approximately \$174 million in aggregate value add. In Retirement and Endowment, nearly all of this came from our portable alpha portfolios and tactical positioning within commodities. In the General Pool, benchmark outperformance was

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driven by defensive duration positioning relative to the benchmark.

Performance against policy benchmarks is our primary measure for accountability, as it reflects the implementation of the investment policies approved by the Board of Curators. While peer performance or comparisons to things like a generic “60/40” portfolio are not directly relevant to measuring our own success, they do help us to understand if our asset allocation strategies are working as intended. As noted above, our investment objectives prioritize downside protection over time. Based on what happened in FY22, our asset allocation strategies delivered as intended, with both Retirement and Endowment delivering significant outperformance against respective peer universes and a global passive 60/40 portfolio, resulting in approximate aggregate value of \$723 million and \$904 million, respectively.

Going forward into FY23, we expect the challenges to continue – if not accelerate. While July 2022 started the year off with strong performance, there remains a large disconnect between what economic data suggests and what “markets” are hoping happens. Further, due to less frequent valuations and performance reporting lags inherent with private market investing, it is quite certain that private markets will be a performance drag in FY23 as recent changes in economic conditions get slowly priced into underlying private market holdings.

Despite the roller coaster ride of the past two years, it is worth remembering that we are long term investors and that our asset allocation strategies have been designed to maximize diversification. To that end, annualized ten year returns through June 30, 2022 were 7.9% and 8.6% for Retirement and Endowment, respectively, illustrating the ability of the portfolios to successfully navigate many different environments over time.

Retirement	1 Year
Actual Return	-1.1%
Policy Benchmark	-3.2%
% Excess Return	2.1%
\$ Excess Value	\$93 million
Public Pension Peer Median*	-11.0%
% Excess Return	9.9%
\$ Excess Value	\$449 million
Global Passive Portfolio (60/40)	-13.5%
% Excess Return	12.4%
\$ Excess Value	\$593 million
Endowment	1 Year
Actual Return	-0.8%
Policy Benchmark	-2.4%
% Excess Return	1.6%
\$ Excess Value	\$37 million
Endowment Peer Universe Median*	-12.2%
% Excess Return	11.5%
\$ Excess Value	\$264 million
Global Passive Portfolio (60/40)	-13.5%
% Excess Return	12.7%
\$ Excess Value	\$311 million
General Pool	1 Year
Actual Return	-2.8%
Policy Benchmark	-4.1%
% Excess Return	1.3%
\$ Excess Value	\$44 million
*Investment Metrics Peer Data (Public Pensions: n=585, Endowments: n=382)	

Office Of Investments: Assets Under Management



Contribution to Return

One Year Ending 6/30/2022

	Retirement	Endowment
Commodities	2.7%	2.6%
Real Estate	1.9%	1.8%
Private Equity	1.7%	2.5%
Portable Alpha	1.5%	1.4%
Private Debt	0.7%	0.8%
Inflation-Linked Bonds	-0.1%	0.0%
US Treasuries	-0.3%	-0.2%
Risk Balanced	-1.8%	-1.6%
Public Equity	-7.5%	-8.0%
Total Portfolio Return	-1.1%	-0.8%

Contribution to Total Return is a function of asset class return and weighting within the investment portfolio. As an example, in the Retirement Plan, Commodities returned 29% for the year at an average portfolio weight of 9.3% ($29\% \times 9.3\% = 2.7\%$).

Based on this analysis, we can see that commodities were the largest return driver in each portfolio, while public equities was the biggest detractor.

Retirement Plan

Asset Class	Mix	FY 2022 Return	Benchmark	Excess Return
Public Equity	32.8%	(20.2%)	(15.8%)	(4.4%)
US Treasuries	9.5%	(3.8%)	(6.4%)	2.6%
Inflation-Linked Bonds	10.5%	(0.4%)	(2.0%)	1.6%
Commodities	6.8%	29.3%	24.3%	5.0%
Risk Balanced	13.3%	(12.2%)	(12.2%)	0.0%
Private Equity	11.9%	16.8%	21.8%	(5.0%)
Real Estate	8.8%	29.5%	27.3%	2.2%
Private Debt	5.2%	15.2%	2.2%	13.0%
Cash/Other	1.4%	0.1%	--	--
Total Beta Portfolio	100.0%	(2.6%)	(3.2%)	0.6%
Alpha Portfolio	--	7.5%	--	1.5%
Total Portfolio	100.0%	(1.1%)	(3.2%)	2.1%
Total Portfolio Returns	3 Years	5 Years	7 Years	10 Years
Actual	8.6%	8.0%	7.4%	7.9%
Benchmark	7.4%	7.3%	6.6%	7.5%
Excess Return	1.2%	0.7%	0.8%	0.4%

Rollforward Activity	Beginning Balance	Contributions	Benefits	Investment Income	Ending Balance
	\$4,493,000,000	\$129,000,000	\$(292,000,000)	\$(45,000,000)	\$4,285,000,000

Public Equity	
Market Value	\$1,404,000,000
Portfolio Weight	32.8%
One Year Return	(20.2%)
Benchmark Return	(15.8%)

The Public Equity allocation underperformed the policy benchmark by (4.4%) due primarily to a longstanding growth tilt during a period in which growth companies significantly underperformed. As just one example, our highest conviction public equity manager – with a strong growth tilt - underperformed its benchmark by (16.7%). Prior to this fiscal year, this same manager generated an annualized excess return over benchmark of 4.4% for the past ten-year period. In broader terms, the MSCI ACWI Growth index underperformed the overall MSCI ACWI index by (6.7%). In early 2022, the Federal Reserve laid out a plan to begin quantitative tightening and aggressively increase rates in an effort to combat inflation. Historically, when interest rate expectations rise sharply, investors tend to pull money out from the riskier parts of the economy, particularly things like growth company equities. With an overallocation to growth companies across the board, our global equity managers collectively lagged the benchmark by 8.3%. As long-term investors, we maintain conviction in our active managers, believing that companies with strong balance sheets, robust

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growth potential and distinctive competitive advantages within their respective industries remain key predictors of strong performance over the long term.

At the portfolio level, we hold a relatively bearish stance regarding public equities for the foreseeable future. The Fed is committed to tighten aggressively, which will ultimately lead to economic pain in the US. Globally, the ongoing conflict between Russia and Ukraine (and Russia and the West) threatens to bring even more economic instability in Europe, with European governments bracing for severe shortages of natural gas heading into winter. Finally, within Asia, China continues to be a drag on global growth with its continued Zero-Covid policy and a weakening property market.



to bring even more economic instability in Europe, with European governments bracing for severe shortages of natural gas heading into winter. Finally, within Asia, China continues to be a drag on global growth with its continued Zero-Covid policy and a weakening property market.

US Treasuries	
Market Value	\$409,000,000
Portfolio Weight	9.5%
One Year Return	(3.8%)
Benchmark Return	(6.4%)

US Treasuries outperformed the policy benchmark by 2.6%. Since the fourth quarter of 2021, we took a defensive stance by reducing the sensitivity of the portfolio to increases in rates, holding a shorter duration than the policy benchmark. This tactical decision preserved \$8.7 million of capital in the Retirement Plan.

Inflation-Linked Bonds	
Market Value	\$449,000,000
Portfolio Weight	10.5%
One Year Return	(0.4%)
Benchmark Return	(2.0%)

Inflation-Linked Bonds outperformed the policy benchmark by 1.6%. Similar to US Treasuries, we held a lower duration compared to that of the benchmark, thereby reducing the sensitivity of the portfolio to increases in real yields.

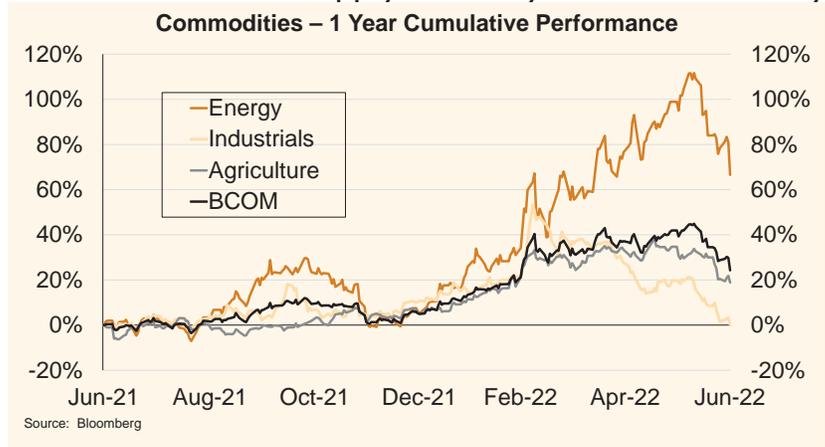
Commodities	
Market Value	\$290,000,000
Portfolio Weight	6.8%
One Year Return	29.3%
Benchmark Return	24.3%

The broadening of inflation pressures over the past year alongside rapidly tightening labor markets has become a rallying cry for rapid action, with the Federal Reserve acknowledging that highly accommodative monetary policy is no longer appropriate. As we anticipate rates to further rise by the end of this year, we continue to maintain a shorter duration in both US Treasuries and Inflation-Linked Bonds, as compared to each respective benchmark.

Commodities outperformed its benchmark by 5.0% (\$22.1 million). Throughout the fiscal year, we intentionally maintained a higher allocation to active management compared to the passive implementation. Our confidence in the active manager delivered 7.9% in excess return over the Commodity benchmark.

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In commodity markets more broadly, a lack of inventory buffer is leaving many commodity sectors vulnerable to unplanned supply shocks. Years of underinvestment in commodity supply due to climate-related concerns and the prioritization of return on investment over production growth has contributed to much lower supply elasticity across commodity markets. Although conditions of acute supply scarcity persist, we have less confidence that the rally experienced in the asset class since May 2020 will continue during the second half of 2022. The prospect of a global slowdown in demand is increasing as inflation is sustained, real incomes decline and global central banks continue to tighten financial conditions. Accordingly, we are exploring defensive positioning through active management.



Risk Balanced	
Market Value	\$570,000,000
Portfolio Weight	13.3%
One Year Return	(12.2%)
Benchmark Return	(12.2%)

Risk Balanced returned (12.2%), as three of four underlying asset class exposures saw declines. Risk Balanced contains diversified exposures to public equities, nominal bonds, inflation-linked bonds, and commodities. Over the past year, public equities, nominal bonds, and inflation-linked bonds were all detractors to performance, with commodities the only positive contributor. While Risk Balanced was down this year overall, our mix of strategies outperformed a common industry benchmark, the HFRI Risk Parity 12 Vol index, by 4.8%.

To further enhance the risk balanced allocation and provide downside protection, the mix of managers was adjusted during the fiscal year, preserving approximately \$4.7 million. Additional downside protection is planned as we are working with multiple investment managers to implement strategies that systematically adjust investment exposures. It is anticipated that these enhancements will come online during the first half of fiscal year 2023.

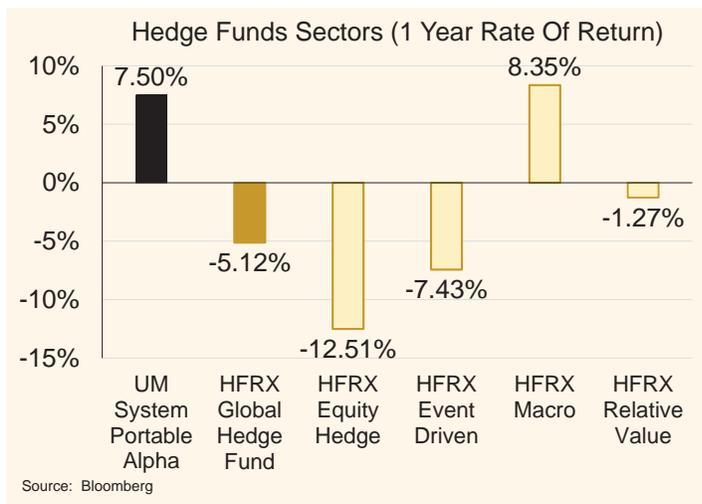
Risk Balanced seeks to balance the contribution to risk from each asset class that composes a diversified portfolio. A traditional portfolio, comprised of 60% equity / 40% fixed income, is not diversified from a perspective of investment risk, as approximately 90% of the change in portfolio value is driven by the 60% capital allocation to equities. Risk Balanced seeks to avoid this concentration of equity risk through the construction of a truly diversified portfolio, spreading risk exposures equally across each sector of the portfolio. For the fiscal year, the Risk Balanced allocation outperformed a global passive 60/40 portfolio by 1.3%.

Portable Alpha	
Market Value	\$975,000,000
Portfolio Weight	22.8%
One Year Return	7.5%
Expected Return	3.2%

The Portable Alpha portfolio had continued exceptional performance in fiscal year 2022, returning 7.5%. This provided approximately \$71 million in net investment income to the Retirement Plan. The portfolio outperformed the modeled expected return of 3.2% in an environment whereby both beta and alpha managers in general suffered losses. Representing the broader alpha universe, the HFR1 Global Hedge Fund index was down 5.1% during the fiscal year, with only one positive sector out of five, which illustrates the scarcity of alpha in the last twelve months.

Cash margins within the portable alpha program have remained comfortably above our 30% targeted level, despite the decline in nearly all of the portfolio's public beta assets.

We continue our search for new alpha managers, as we strive to diversify our sources of alpha and limit our exposure to any single manager to levels consistent with our risk appetite. Our confidence remains strong that the portable alpha program will continue to be additive to the total portfolio over the long term.



Note: Private market asset classes report changes in valuation (i.e. performance) once per quarter on a one quarter lag. This means that the performance reported for private markets through June 30, 2022 is based on March 31, 2022 valuations. This one-quarter lag in reporting is common among institutional investors.

Private Equity	
Market Value	\$510,000,000
Portfolio Weight	11.9%
One Year Return	16.8%
Benchmark Return	21.8%

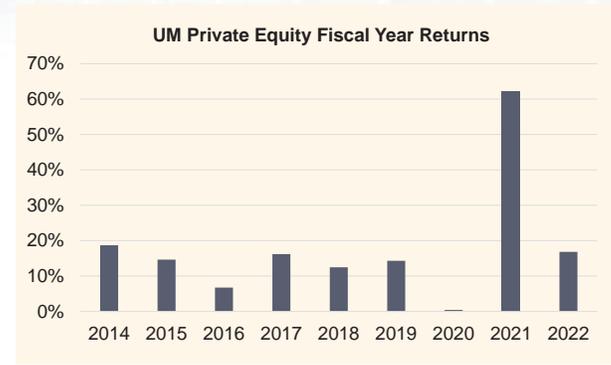
The Private Equity portfolio returned 16.8% for the fiscal year. The first three quarters saw strong appreciation across our portfolio. Our managers took advantage of the open IPO market taking more companies public than we have seen in recent years. This caused a jump in unrealized gains that have retrenched as public markets have come back down over the last few months. While the equity in some of the underlying company IPOs has been sold (realized), there are still meaningful holdings of these public equities within our venture capital funds due to mandatory lock-up periods, etc. These remaining public

equity holdings have magnified the volatility of our venture fund valuations, based on changes in the public equity markets.

As we exit a period of historic performance in private equity, we believe that there will be downward pressure on valuations. Inflation, market uncertainty and rising financing costs all have the potential to adversely impact performance. Looking forward it is as important as

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ever to continue to choose the right investment partners who have the skills to invest through market cycles.



It is noteworthy to point out that Retirement trailed its benchmark while the Endowment outperformed its benchmark. The Endowment and Retirement portfolios have different venture capital investments that make up their respective venture capital portfolios. Because this investment mix is not the same, there will be divergences in performance from time to time. For example, there were two underlying company IPOs in 2020 and 2021 that were only in the Retirement plan. Both companies started with a huge jump in the stock price and then traded down over the course of this fiscal year. If we look over a two-year period, to capture both the run up in valuation and the pull back, Retirement is still above benchmark for the two-year period. Although these companies have been hammered in the public markets, they are still strong contributors to return since inception given their low cost basis.

	<u>FY 2022</u>	<u>FY 2021</u>	<u>Two Year</u>
Retirement	16.8%	62.1%	37.6%
Benchmark	21.8%	54.9%	37.4%

Over a longer-term horizon, Retirement’s Private Equity portfolio continues to outperform its Public Equity portfolio. For the 10-year period ending June 30, 2022, Private Equity returned 15.9% and Public Equity returned 8.9%, delivering 7.0% of outperformance.

Real Estate	
Market Value	\$375,000,000
Portfolio Weight	8.8%
One Year Return	29.5%
Benchmark Return	27.3%

Real Estate delivered historic performance of 29.5% for the fiscal year. Investments in industrial and multi-family properties have driven the increase in appreciation. Both sectors experienced strong demand throughout the year allowing for increased rents and attractive exits. In addition, exposure to niche real estate sectors (manufactured housing, storage, life sciences and convenience and gas) have also been beneficial to returns.

Fiscal year 2023 is facing a variety of headwinds, including higher interest rates and slowing economic growth. Offsetting these headwinds are segments of real estate that continue to see demand outpace supply. The expectation is that real estate returns will normalize going forward, but still remain an attractive place to invest compared to other portfolio asset classes.



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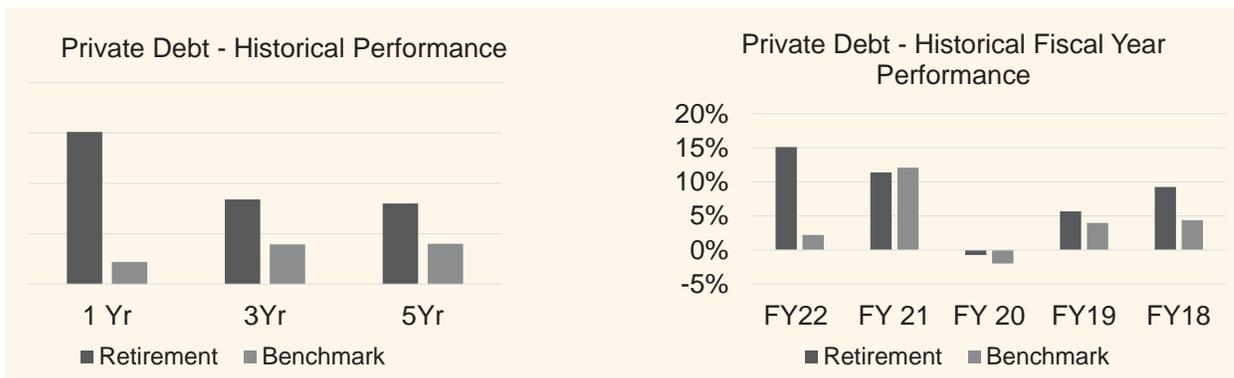
Private Debt	
Market Value	\$221,000,000
Portfolio Weight	5.2%
One Year Return	15.2%
Benchmark Return	2.2%

In fiscal year 2022, Private Debt delivered a strong return of 15.2% beating its benchmark of 2.2%.

During this fiscal year, many of the portfolio managers continued to show strong recovery following the market turmoil of 2020. The largest driver of absolute performance over the past year is attributed to allocations in opportunistic strategies as well as a direct lending fund specifically focused on the shipping industry.

Some of the outperformance versus benchmark can also be attributed to a mismatch caused by using a public markets benchmark for private market assets. During periods of market volatility, this mismatch typically stands out in short term reporting, as seen in prior fiscal years. The market volatility experienced in Q2 2022 caused a significant drop in benchmark performance. In May and June 2022, the secondary loan market traded sharply lower, falling 4.6%, the second largest two-month contraction in the past 10 years, the worst being February/March 2020 at (13.5%).

Rising interest rates and continued market uncertainty will present additional investment opportunities in the distressed/opportunistic sectors. We will continue to build a diversified portfolio of managers with strong credit experience and underwriting standards across high conviction sectors.



Endowment Pool

Asset Class	Mix	FY 2022 Return	Benchmark	Excess Return
Public Equity	34.3%	(20.5%)	(15.8%)	(4.7%)
US Treasuries	10.3%	(3.7%)	(6.4%)	2.7%
Inflation-Linked Bonds	10.0%	(0.2%)	(2.0%)	1.8%
Commodities	4.9%	28.5%	24.3%	4.2%
Risk Balanced	12.3%	(12.0%)	(12.0%)	0.0%
Private Equity	13.4%	23.9%	22.1%	1.8%
Real Estate	8.5%	28.2%	27.3%	0.9%
Private Debt	5.7%	22.5%	2.9%	19.6%
Cash/Other	0.6%	0.1%	--	--
Total Beta Portfolio	100.0%	(2.1%)	(2.4%)	0.3%
Alpha Portfolio	--	7.0%	--	1.3%
Total Portfolio	100.0%	(0.8%)	(2.4%)	1.6%
Total Portfolio Returns	3 Years	5 Years	7 Years	10 Years
Actual	9.2%	8.5%	7.9%	8.6%
Benchmark	8.0%	7.8%	7.1%	8.1%
Excess Return	1.2%	0.7%	0.8%	0.5%

Rollforward Activity	Beginning Balance	Contributions	Distributions	Investment Income	Ending Balance
	\$2,238,000,000	\$118,000,000	\$(174,000,000)	\$(38,000,000)	\$2,144,000,000

Public Equity	
Market Value	\$736,000,000
Portfolio Weight	34.3%
One Year Return	(20.5%)
Benchmark Return	(15.8%)

The Public Equity allocation underperformed the policy benchmark by (4.7%) due primarily to a longstanding growth tilt during a period in which growth companies significantly underperformed. As just one example, our highest conviction public equity manager – with a strong growth tilt - underperformed its benchmark by (16.7%). Prior to this fiscal year, this same manager generated an annualized excess return over benchmark of 4.4% for the past ten-year period. In broader terms, the MSCI ACWI Growth index underperformed the overall MSCI ACWI index by (6.7%). In early 2022, the Federal Reserve laid out a plan to begin quantitative tightening and aggressively increase rates in an effort to combat inflation. Historically, when interest rate expectations rise sharply, investors tend to pull money out from the riskier parts of the economy, particularly things like growth company equities. With an overallocation to

The Public Equity allocation underperformed the policy benchmark by (4.7%) due primarily to a longstanding growth tilt during a period in which growth companies significantly underperformed. As just one example, our highest conviction public equity manager – with a strong growth tilt - underperformed its benchmark by (16.7%). Prior to this fiscal year, this same manager generated an annualized excess return over benchmark of 4.4% for the past ten-year period. In broader terms, the MSCI ACWI Growth



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growth companies across the board, our global equity managers collectively lagged the benchmark by 8.3%. As long-term investors, we maintain conviction in our active managers, believing that companies with strong balance sheets, robust growth potential and distinctive competitive advantages within their respective industries remain key predictors of strong performance over the long term.

At the portfolio level, we hold a relatively bearish stance regarding public equities for the foreseeable future. The Fed is committed to tighten aggressively, which will ultimately lead to economic pain in the US. Globally, the ongoing conflict between Russia and Ukraine (and Russian and the West) threatens to bring even more economic instability in Europe, with European governments bracing for severe shortages of natural gas heading into winter. Finally, within Asia, China continues to be a drag on global growth with its continued Zero-Covid policy and a weakening property market.

US Treasuries	
Market Value	\$221,000,000
Portfolio Weight	10.3%
One Year Return	(3.7%)
Benchmark Return	(6.4%)

US Treasuries outperformed the policy benchmark by 2.8%. Since the fourth quarter of 2021, we took a defensive stance by reducing the sensitivity of the portfolio to increases in rates, holding a shorter duration than the policy benchmark. This tactical decision preserved \$3.8 million of capital in the Endowment.

Inflation-Linked Bonds outperformed the policy benchmark by 1.8%. Similar to US Treasuries, we held a lower duration compared to that of the benchmark, thereby reducing the sensitivity of the portfolio to increases in real yields.

Inflation-Linked Bonds	
Market Value	\$214,000,000
Portfolio Weight	10.0%
One Year Return	(0.2%)
Benchmark Return	(2.0%)

The broadening of inflation pressures over the past year alongside rapidly tightening labor markets has become a rallying cry for rapid action. The Federal Reserve has now broadly recognized that highly accommodative stances are inappropriate with persistent elevated inflation and tight labor markets. As we anticipate rates to further rise by the end of this year, we continue to maintain a shorter duration in both the US Treasuries and Inflation-Linked Bonds allocation, compared to their respective benchmark.

Commodities	
Market Value	\$105,000,000
Portfolio Weight	4.9%
One Year Return	28.5%
Benchmark Return	24.3%

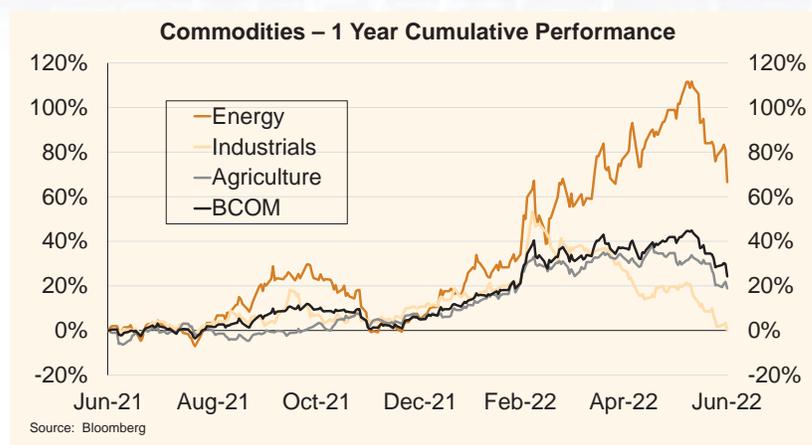
Commodities outperformed its benchmark by 4.2% (\$9.2 million). Throughout the fiscal year, we intentionally maintained a higher allocation to active management compared to the passive implementation. Our confidence in the active manager delivered 8.8% in excess return over the Commodity benchmark.

In commodity markets more broadly, a lack of inventory buffer is leaving many commodity sectors vulnerable to unplanned supply shocks. Years of underinvestment in commodity supply due to climate-related concerns and

the prioritization of return on investment over production growth has contributed to much

lower supply elasticity across commodity markets. Although conditions of acute supply scarcity persist, we have less confidence that the rally experienced in the asset class since May 2020 will continue during the second half of 2022. The prospect of a global slowdown in demand is increasing as inflation is sustained, real incomes decline and global central banks continue to tighten financial conditions.

Accordingly, we are exploring defensive positioning through active management.



Risk Balanced	
Market Value	\$264,000,000
Portfolio Weight	12.3%
One Year Return	(12.0%)
Benchmark Return	(12.0%)

Risk Balanced returned (12.0%), as three of four underlying asset class exposures saw declines. Risk Balanced contains diversified exposures to public equities, nominal bonds, inflation-linked bonds, and commodities. Over the past year, public equities, nominal bonds, and inflation-linked bonds were all detractors to performance, with commodities the only positive contributor. While Risk Balanced was down this year overall, our mix of strategies outperformed a common industry benchmark, the HFRI Risk Parity 12 Vol index, by 4.8%.

To further enhance the risk balanced allocation and provide downside protection, the mix of managers was adjusted during the fiscal year, preserving approximately \$4.7 million. Additional downside protection is planned as we are working with multiple investment managers to implement strategies that systematically adjust investment exposures. It is anticipated that these enhancements will come online during the first half of fiscal year 2023.

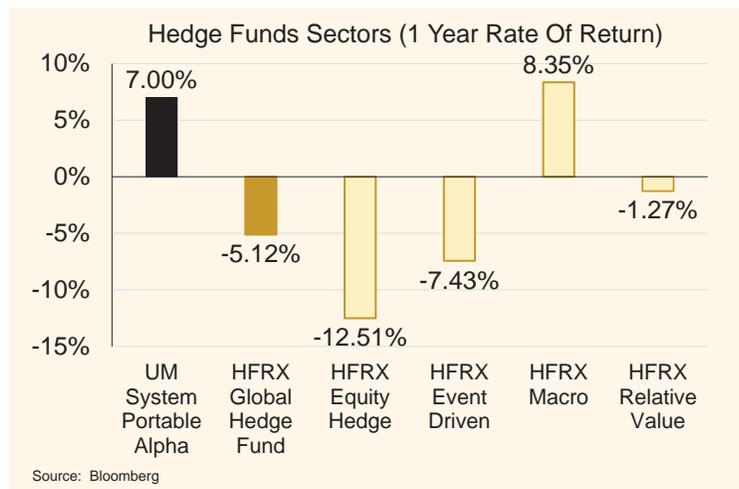
Risk Balanced seeks to balance the contribution to risk from each asset class that composes a diversified portfolio. A traditional portfolio, comprised of 60% equity / 40% fixed income, is not diversified from a perspective of investment risk, as approximately 90% of the change in portfolio value is driven by the 60% capital allocation to equities. Risk Balanced seeks to avoid this concentration of equity risk through the construction of a truly diversified portfolio, spreading risk exposures equally across each sector of the portfolio. For the fiscal year, the Risk Balanced allocation outperformed a global passive 60/40 portfolio by 1.5%.

Portable Alpha	
Market Value	\$460,000,000
Portfolio Weight	21.4%
One Year Return	7.0%
Expected Return	3.2%

The Portable Alpha portfolio had continued exceptional performance in fiscal year 2022, returning 7.0%. This provided approximately \$32 million in net investment income to the Endowment. The portfolio outperformed the modeled expected return of 3.2% in an environment whereby both beta and alpha managers in general suffered losses. Representing the broader alpha universe, the HFRI Global Hedge Fund index was down 5.1% during the fiscal year, with only one positive sector out of five, which illustrates the scarcity of alpha in the last twelve months. Cash margins within the portable alpha program have

remained comfortably above our 30% targeted level, despite the decline in nearly all of the portfolio's public beta assets.

We continue our search for new alpha managers, as we strive to diversify our sources of alpha and limit our exposure to any single manager to levels consistent with our risk appetite. Our confidence remains strong that the portable alpha program will continue to be additive to the total portfolio over the long term.



Note: Private market asset classes report changes in valuation (i.e. performance) once per quarter on a one quarter lag. This means that the performance reported for private markets through June 30, 2022 is based on March 31, 2022 valuations. This one-quarter lag in reporting is common among institutional investors.

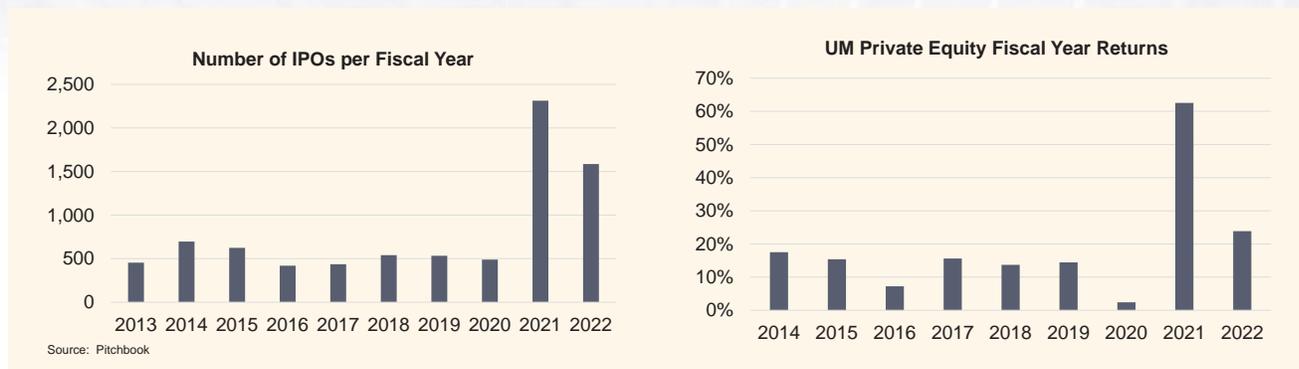
Private Equity	
Market Value	\$288,000,000
Portfolio Weight	13.4%
One Year Return	23.9%
Benchmark Return	22.1%

The portfolio returned 23.9% for the fiscal year. The first three quarters saw strong appreciation across our portfolio. Our managers took advantage of the open IPO market taking more companies public than we have seen in recent years. This caused a jump in unrealized gains that have retrenched as public markets have come back down over the last few months. While the equity in some of the underlying company IPOs has been sold (realized), there are still meaningful holdings of these public equities within our venture capital funds due to mandatory lock-up periods, etc. These remaining public equity holdings have

magnified the volatility of our venture fund valuations, based on changes in the public equity markets.

As we exit a period of historic performance in private equity, we believe that there will be downward pressure on valuations. Inflation, market uncertainty and rising financing costs all have the potential to adversely impact performance. Looking forward it is as important as ever to continue to choose the right investment partners who have the skills to invest through market cycles.

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Over a longer-term horizon, Endowment’s Private Equity portfolio continues to outperform its Public Equity portfolio. For the 10-year period ending June 30, 2022, Private Equity returned 16.9% and Public Equity returned 8.8%, delivering 8.1% of outperformance.

Real Estate	
Market Value	\$182,000,000
Portfolio Weight	8.5%
One Year Return	28.2%
Benchmark Return	27.3%

Real Estate delivered historic performance of 29.5% in this fiscal year. Investments in industrial and multi-family properties have driven the increase in appreciation. Both sectors experienced strong demand throughout the year allowing for increased rents and attractive exits. In addition, exposure to niche real estate sectors (manufactured housing, storage, life sciences and convenience and gas) have also been beneficial to returns.

Fiscal year 2023 is facing a variety of headwinds, including higher interest rates and slowing economic growth. Offsetting these headwinds are segments of real estate that continue to see demand outpace supply. The expectation is that real estate returns will normalize going forward, but still remain an attractive place to invest compared to other portfolio asset classes.



Private Debt	
Market Value	\$122,000,000
Portfolio Weight	5.7%
One Year Return	22.5%
Benchmark Return	2.9%

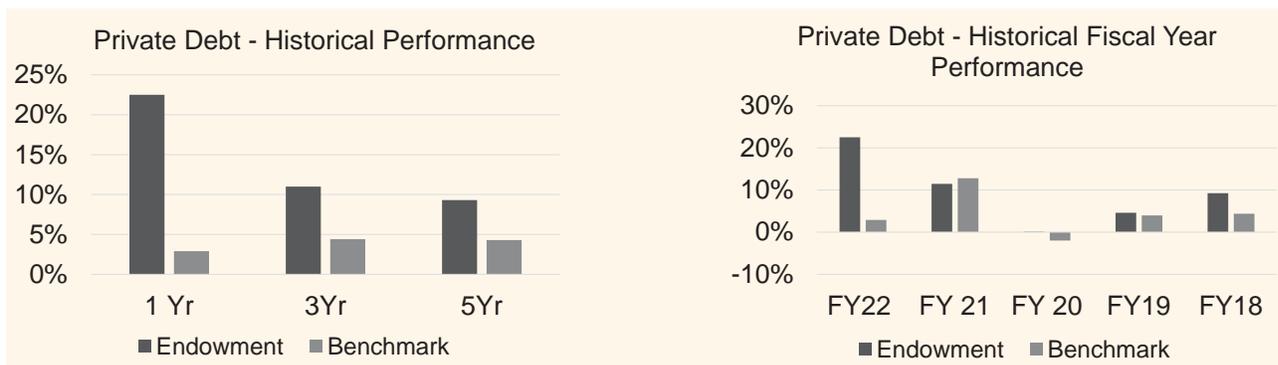
In fiscal year 2022, Private Debt delivered an exceptionally strong one-year return of 22.5% easily beating its benchmark of 2.9%.

During this fiscal year many of the portfolio managers continued to show strong recovery following the market turmoil of 2020. The largest driver of absolute performance over the past year is attributed to allocations in opportunistic strategies as well as a direct lending fund specifically focused on the shipping industry. As compared to the Private Debt portfolios in Retirement and General

Pool, the Endowment's portfolio benefited from a higher concentrated allocation to these strategies, leading to a higher overall return for the year.

Some of the outperformance versus benchmark can be attributed to a mismatch caused by using a public markets benchmark for private market assets. During periods of market volatility, this mismatch typically stands out in short term reporting, as seen in prior fiscal years. The market volatility experienced in Q2 2022 caused a significant drop in benchmark performance. In May and June 2022, the secondary loan market traded sharply lower, falling 4.6%, the second largest two-month contraction in the past 10 years, the worst being February/March 2020 at (13.5%).

Rising interest rates and continued market uncertainty will present additional investment opportunities in the distressed/opportunistic sectors. We will continue to build a diversified portfolio of managers with strong credit experience and underwriting standards across high conviction sectors.

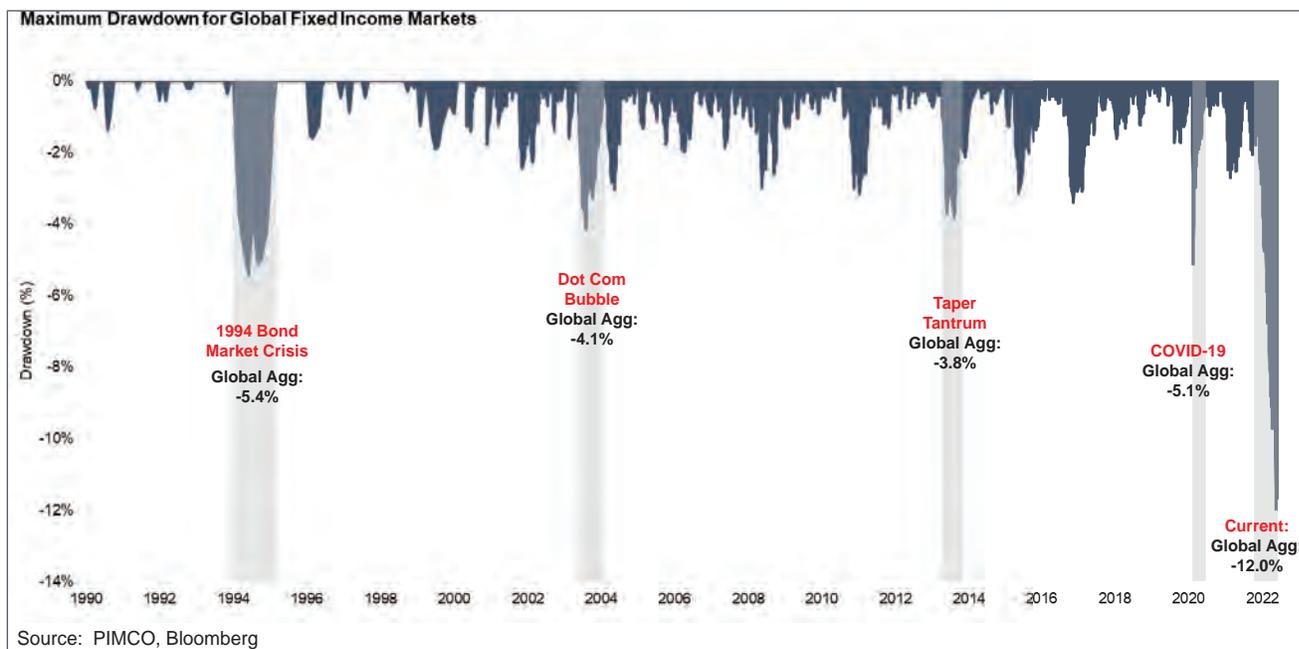


General Pool

Asset Class	Mix	FY 2022 Return	Benchmark	Excess Return
Liquidity Portfolio	36.3%	(0.3%)	0.2%	(0.5%)
Core Portfolio	37.1%	(8.0%)	(7.9%)	(0.1%)
Strategic Portfolio	26.6%	0.9%	(3.4%)	4.3%
<i>Risk Balanced</i>	14.2%	(6.6%)	(6.6%)	0.0%
<i>Private Credit</i>	12.4%	11.9%	1.8%	10.1%
Total Portfolio	100.0%	(2.8%)	(4.1%)	1.3%

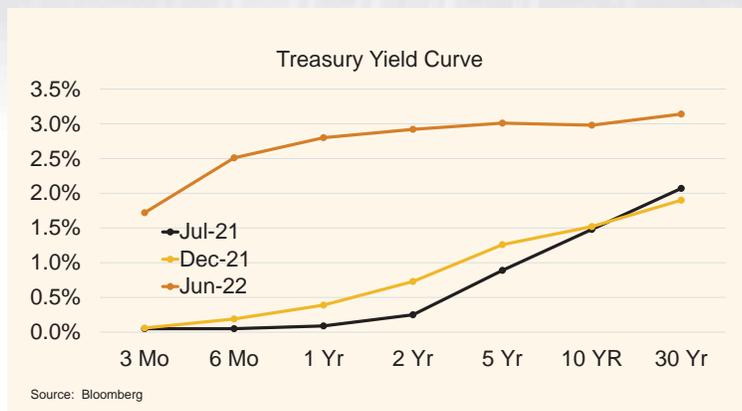
Total Portfolio Returns	3 Years	5 Years	7 Years	10 Years
Actual	1.6%	2.1%	2.3%	2.3%
Benchmark	1.5%	2.2%	2.1%	1.9%
Excess Return	0.1%	(0.1%)	0.2%	0.4%

In first six months of 2022 global bond markets suffered the largest drawdown in more than thirty years. The Bloomberg Barclays Global Aggregate index was down as much as 12.0%, eclipsing the previous record drawdown of 5.4% set during the 1994 Bond Market crisis. During the COVID-19 pandemic, the Aggregate Index's largest decline was only 5.1%. This historic decline was broad based across high quality and riskier assets, significantly impacting the overall performance of the General Pool, which is largely invested in fixed income investments. Despite this historic drawdown in bond markets, the General Pool was only down (2.8%), outperforming the benchmark drawdown of (4.1%).



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Core Portfolio fixed income allocation returned (8.0%), in line with the benchmark of (7.9%). Rising interest rates, combined with widening bond credit spreads across most bond sectors, negatively impacted the overall performance of the portfolio. The rise in interest rates was especially noticeable in the first six months of 2022 with the 2-year Treasury increasing 2.2% and the 10-year increasing 1.4%. While bond credit spreads have widened considerably, they are only back to their historical average levels.



To combat inflation and maintain longer-term price stability in the US, the Federal Reserve has aggressively raised the Fed Funds rate, already bringing it back to pre-COVID levels; additional rate increases have been signaled by the Fed into 2023. Tighter monetary policy has the potential to slow down the growth of the economy and potentially induce a recession, both of which tend to bring widening credit spreads. Therefore, in anticipation of further widening of bond credit spreads, we have started to rebalance the mix of managers within Core fixed income to maintain a more defensive position for the near term.

Risk Balanced returned (6.6%) as three of four underlying asset classes saw declines. As compared to the Risk Balanced portfolios in Retirement and Endowment, the General Pool's portfolio benefited from an allocation to a risk premia component, which limited losses overall. Risk Balanced, contains diversified exposures to public equities, nominal bonds, inflation-linked bonds, and commodities. Over the past year, public equities, nominal bonds, and inflation-linked bonds were all detractors to performance, with commodities the only positive contributor. While Risk Balanced was down this year overall, our mix of underlying strategies significantly outperformed a common industry benchmark, the HFRI Risk Parity 10 Vol index, by 6.9%.

To further enhance the risk balanced allocation and provide downside protection, the mix of managers was adjusted during the fiscal year, preserving approximately \$3.4 million. Additional downside protection is planned as we are working with multiple investment managers to implement strategies that systematically adjust investment exposures. It is anticipated that these enhancements will come online during the first half of fiscal year 2023.

Private Debt delivered a strong one-year return of 11.9% beating its benchmark of 1.8%. During the year portfolio managers continued to show strong recovery following the market turmoil of 2020. The largest driver of absolute performance over the past year is attributed to allocations in opportunistic strategies as well as a direct lending fund specifically focused on the shipping industry.

Some of the outperformance versus benchmark can also be attributed to a mismatch caused by using a public markets benchmark for private market assets. During periods of market volatility, this mismatch typically stands out in short term reporting, as seen in prior fiscal

years. The market volatility experienced in Q2 2022 caused a significant drop in benchmark performance. In May and June 2022, the secondary loan market traded sharply lower, falling 4.6%, the second largest two-month contraction in the past 10 years, the worst being Feb/March 2020 at (13.5%).

Rising interest rates and continued market dislocation will present additional investment opportunities in the distressed/opportunistic sectors. We will continue to build a diversified portfolio of managers with strong credit experience and underwriting standards across high conviction sectors.

Real Estate was recently approved by the Board as an authorized asset class for the General Pool. Investment Office staff have begun the process to implement this allocation, with the expectation that it will be a multi-year process to work toward its target weight. Based on the latest Verus capital market assumptions, Real Estate has a higher expected return relative to our existing Risk Balanced allocation. Further, Real Estate is diversifying and risk-reducing to the General Pool due to low correlations with other existing asset classes.

Note: Private market asset classes report changes in valuation (i.e. performance) once per quarter on a one quarter lag. This means that the performance reported for private markets through June 30, 2022 is based on March 31, 2022 valuations. This one-quarter lag in reporting is common among institutional investors.

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Appendix

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Management Fees: Retirement

Retirement Plan Management Fees - Calendar Year 2021					
	Average Balance	% Total Portfolio	Mgt Fee (\$)	Mgt Fee (%)	Portfolio Attribution
Public Markets					
Public Equity	1,672,322,885	37.75%	4,537,629	0.27%	0.10%
US Treasuries	352,847,494	7.97%	98,610	0.03%	0.00%
Inflation-Linked Bonds	432,817,723	9.77%	136,315	0.03%	0.00%
Commodities	311,855,641	7.04%	243,157	0.08%	0.01%
Risk Balanced	651,425,935	14.71%	2,836,704	0.44%	0.06%
Total Public Markets	<u>3,421,269,679</u>	<u>77.23%</u>	<u>7,852,414</u>	<u>0.23%</u>	<u>0.18%</u>
Private Markets					0.00%
Private Equity	481,179,738	10.86%	6,310,288	1.31%	0.14%
Private Debt	213,354,152	4.82%	3,248,826	1.52%	0.07%
Real Estate	313,924,795	7.09%	4,754,082	1.51%	0.11%
Total Private Markets	<u>1,008,458,685</u>	<u>22.77%</u>	<u>14,313,197</u>	<u>1.42%</u>	<u>0.32%</u>
Total Retirement Plan - Beta Portfolio	4,429,728,364	100.00%	22,165,611	0.50%	0.50%
Portable Alpha Portfolio	952,978,298	21.51%	13,562,792	1.42%	0.31%
Other Investment Management Expenses					
Custodial Services			1,240,054	0.03%	0.03%
Investment Consulting			253,957	0.01%	0.01%
Professional Services (Legal, Tax and Data)			143,048	0.00%	0.00%
Investment Office			497,496	0.01%	0.01%
Total Other Investment Management Expenses			<u>2,134,556</u>	<u>0.05%</u>	<u>0.05%</u>
Total Retirement Plan Management Expense			<u><u>37,862,958</u></u>	<u><u>0.85%</u></u>	<u><u>0.85%</u></u>

- Consistent with the objectives defined in our investment policies, investments are managed in a manner that maximizes returns, net of fees, while attempting to minimize losses during adverse economic events. While we strive to minimize fees when possible, fee considerations are always secondary to return and risk considerations.
- Performance and projection data are always presented net of fees.
- Our most recent fee benchmarking analysis found peer median costs to be 0.64% for a traditional portfolio. Excluding portable alpha, our most recent “traditional portfolio” costs were 0.55% (0.50% Beta Portfolio + 0.05% Other Investment Management Expenses).
- Portable Alpha drives roughly one-third of overall management fees. Meeting our return and risk objectives requires highly skilled investment firms with limited capacity and often higher fee structures. In fiscal year 2022, the Portable Alpha Portfolio contributed investment income of \$71 million, net of fees, to the Retirement Plan.

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Management Fees: Endowment

Endowment Pool Management Fees - Calendar Year 2021					
	Average Balance	% Total Portfolio	Mgt Fee (\$)	Mgt Fee (%)	Portfolio Attribution
Public Markets					
Public Equity	873,411,586	39.35%	2,304,772	0.26%	0.10%
US Treasuries	157,184,964	7.08%	46,202	0.03%	0.00%
Inflation-Linked Bonds	224,812,393	10.13%	71,678	0.03%	0.00%
Commodities	157,416,249	7.09%	121,150	0.08%	0.01%
Risk Balanced	311,131,508	14.02%	1,206,289	0.39%	0.05%
Total Public Markets	1,723,956,700	77.68%	3,750,092	0.22%	0.17%
Private Markets					
Private Equity	247,824,844	11.17%	3,195,078	1.29%	0.14%
Private Debt	88,041,122	3.97%	1,202,504	1.37%	0.05%
Real Estate	159,616,633	7.19%	2,352,055	1.47%	0.11%
Total Private Markets	495,482,599	22.32%	6,749,638	1.36%	0.30%
Total Endowment Pool - Beta Portfolio	2,219,439,299	100.00%	10,499,730	0.47%	0.47%
Portable Alpha Portfolio	457,344,293	20.61%	6,493,748	1.42%	0.29%
Other Investment Management Expenses					
Custodial Services			1,240,054	0.06%	0.06%
Investment Consulting			253,957	0.01%	0.01%
Professional Services (Legal, Tax and Data)			133,360	0.01%	0.01%
Investment Office			497,496	0.02%	0.02%
Total Other Investment Management Expenses			2,124,867	0.10%	0.10%
Total Endowment Pool Management Expense			19,118,344	0.86%	0.86%

- Consistent with the objectives defined in our investment policies, investments are managed in a manner that maximizes returns, net of fees, while attempting to minimize losses during adverse economic events. While we strive to minimize fees when possible, fee considerations are always secondary to return and risk considerations.
- Performance and projection data are always presented net of fees.
- Our most recent fee benchmarking analysis found peer median costs to be 0.64% for a traditional portfolio. Excluding portable alpha, our most recent “traditional portfolio” costs were 0.57% (0.47% Beta Portfolio + 0.10% Other Investment Management Expenses).
- Portable Alpha drives roughly one-third of overall management fees. Meeting our return and risk objectives requires highly skilled investment firms with limited capacity and often higher fee structures. In fiscal year 2022, the Portable Alpha Portfolio contributed investment income of \$32 million, net of fees, to the Endowment Pool.

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Management Fees: General Pool

General Pool Management Fees - Calendar Year 2021					
	Average Balance	% Total Portfolio	Mgt Fee (\$)	Mgt Fee (%)	Portfolio Attribution
Liquidity Portfolio	1,086,835,440	35.31%	633,498	0.06%	0.02%
Core Portfolio	1,104,927,135	35.90%	5,745,606	0.52%	0.19%
Strategic Portfolio	886,451,923	28.80%	6,619,130	0.75%	0.22%
Total General Pool	3,078,214,498	100.00%	12,998,234	0.42%	0.42%
Other Investment Management Expenses					
Custodial Services			620,027	0.02%	0.02%
Investment Consulting			97,166	0.00%	0.00%
Professional Services (Legal, Tax and Data)			32,075	0.00%	0.00%
Investment Office			248,748	0.01%	0.01%
Total Other Investment Management Expenses			998,016	0.03%	0.03%
Total General Pool Management Expense			13,996,251	0.45%	0.45%

- Consistent with investment policy, the General Pool is 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 cyclicality, satisfaction of various ongoing liquidity needs, maximization of risk-adjusted investment returns, diversification and preservation of capital. While we strive to minimize fees when possible, fee considerations are always secondary to these investment objectives.
- Performance and projection data are always presented net of fees.

Investment Manager Activity Fiscal Year 2022

Manager	Asset Class	Action	Investment (\$millions)	Portfolio
DCVC Bio Opportunity Fund	Private Equity	Hire	\$20	Ret/End
Stockbridge Niche Logistics Fund	Real Estate	Hire	\$75	Ret/End
PIMCO Carbon Access Fund	Commodities	Hire	\$5	End
Brook Global Emerging Markets	Public Equity	Hire	\$90	Ret/End
Newton Emerging Market Equity Fund	Public Equity	Termination	\$118	Ret/End
Abry Senior Equity VI	Private Debt	Hire	\$30	Ret/End
Summit Partners Growth Equity XI	Private Equity	Hire	\$25	Ret/End
Great Hill Equity Partners VIII	Private Equity	Hire	\$48	Ret/End
RREEF Core Plus Industrial Fund	Real Estate	Hire	\$75	Ret/End
Two Sigma Ventures IV	Private Equity	Hire	\$25	Ret/End
Two Sigma Ventures Opportunity Fund II	Private Equity	Hire	\$10	Ret/End
TPG Real Estate Partners IV	Real Estate	Hire	\$40	Ret/End
AQR Equity Market Neutral Global Value Strategy	Public Equity	Hire	\$115	Ret/End
Crow Holdings Multi-Family Build-To-Hold Fund	Real Estate	Hire	\$35	Ret/GP
Angeles Equity Partners II	Private Equity	Hire	\$30	Ret/End
Crow Holdings Realty Partners X	Real Estate	Hire	\$46	Ret/End
Brook Global Emerging Markets	Public Equity	Termination	\$72	Ret/End
Sixth Street Tao Partners	Private Debt	Hire	\$30	Ret/End
Panagora Risk Managed Global Opportunities Fund	Risk Balanced	Hire	\$225	Ret/End/GP
Pinnacle Natural Resources	Commodities	Hire	\$25	Ret/End
Entrust Global BlueOcean 4Impact	Private Equity	Hire	\$10	Ret/End
Maniyar Macro Fund	Portable Alpha	Termination	\$79	Ret/End

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Understanding a Portable Alpha Program

Portable Alpha is a general concept that has existed within institutional portfolios in various forms for more than 20 years. It is rooted in the acknowledgement that investment portfolio total returns are driven by two distinct components – beta and alpha. Simplistically, beta results from owning some broad representation of a given market, usually as tracked by a benchmark or index. Alpha represents investing skill that generates returns independent of a given market benchmark or index. Using a public equity manager as an example, one might invest with an active equity manager based on a belief that the manager’s stock picking skill (alpha) will enable the manager to outperform the benchmark (beta). In this case, as with most traditional investment vehicles, the beta and alpha are packaged together in the same product.

The fundamental core belief of a Portable Alpha program is that beta and alpha can be separately sourced and more efficiently managed.

The Mechanics of a Portable Alpha Program

Let’s start with a foundational example which illustrates three different options to obtain market exposure (beta), in this case a \$100 million investment in the S&P 500.



The first two options should be very familiar. We can invest \$100 million in cash with an active manager with an expectation to achieve both a beta and alpha return or we can invest \$100 million in cash with an index fund, content to receive just a beta return. The third option is available primarily to institutional investors with access to derivative markets. With this option, we can keep control of our \$100 million in cash while using futures, a

common derivative instrument, to obtain \$100 million in notional exposure¹ to the S&P 500 index. If we stopped here, the choice of the index fund or futures implementation would both deliver the same S&P 500 beta return.

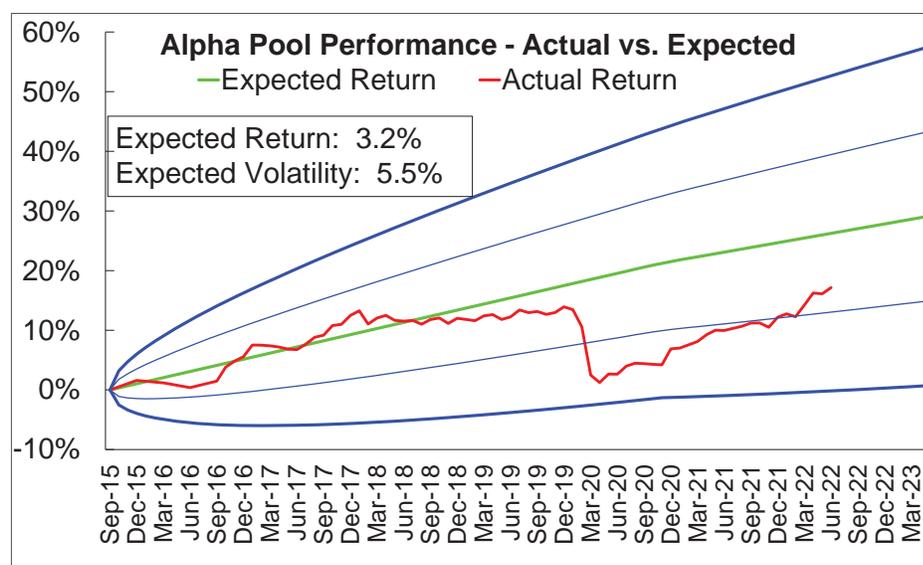
With the futures implementation, we maintain control of our \$100 million in cash while still getting the \$100 million notional return of the S&P 500. Retaining the cash is what allows us to source alpha, through another manager, separately from the market beta. Within the implementation of our own portable alpha program, we would use up to 70% (\$70 million in this example) of the cash to fund separate investments in carefully selected alpha managers (generally in the form of hedge fund vehicles). The remaining 30% (\$30 million in this example) would continue to be held in cash for purposes of covering the daily mark-to-market settlements on the futures implementation.

¹The notional amount of a derivatives instrument represents the market exposure upon which returns are exchanged. As an example, holding S&P 500 futures contracts with a notional amount of \$100 million means we gain exposure to the S&P 500 index without having to expend \$100 million in capital to purchase the underlying stocks. With a futures implementation, we simply exchange cash based on the S&P 500 index returns. As an example, if the S&P 500 dropped 1% we would have to pay the counterparty \$1 million on \$100 million in notional exposure; conversely, if the S&P 500 gained 1%, we would receive \$1 million from the counterparty.

Alpha Manager Selection

To properly manage risk in a portable alpha program, alpha managers must meet very specific criteria. The primary focus and challenge is to identify alpha managers that deliver return streams with very low correlations (no discernible relationship) to market betas. We look for managers with market beta correlations of 0.2 or less². Further, we will only partner with alpha managers that are well established and highly institutionalized, have satisfactory liquidity terms, and robust risk management systems. Many alpha managers meeting our criteria are closed to new investors, so identifying new managers requires patience and skill in manager selection.

Successful alpha managers are, by definition, highly skilled. From a risk management perspective, highly skilled alpha managers are essential to the operation of a portable alpha program. With respect to pricing power, the demand in the marketplace currently exceeds the supply of highly skilled alpha manager capacity. For this reason, alpha managers charge higher fees than traditional managers. The magnitude of the higher alpha manager fees is somewhat mitigated by the very low, index-like fees of the market beta exposures obtained using the derivatives. All modeling, reporting and analysis of the alpha program and underlying alpha managers is always presented on a net of fee basis.



Generating alpha is difficult and even the most seasoned, successful managers will go through periods of under performance, sometimes incurring losses. It's important to remember that whenever we talk about an expected return, we're referring to the midpoint of a fairly wide range of possible outcomes over a longer time horizon. The cone chart to the left presents the alpha portfolio's cumulative actual return

(red line) relative to the modeled expected return (green line). The thin blue lines represent one standard deviation of the expected return, meaning that 68% of all possible outcomes should fall within the thin blue lines. By definition, this means that 32% of possible outcomes

²Correlations are very important with respect to both risk management and value for fees. An alpha portfolio with higher correlations to market betas (closer to 1.0) will add risk to the total portfolio as the alpha exposures would simply magnify the risk that already existed in the total portfolio. An alpha portfolio with low correlations to market betas (closer to 0.0) is diversifying to existing exposures in the total portfolio, actually helping to reduce overall portfolio risk through benefits of diversification. With respect to value for fees, if we're paying higher fees for alpha, we need to be confident that we're actually getting alpha. In very general terms, if an alpha manager were highly correlated public equities (closer to 1.0), it would suggest that the alpha manager's returns could be explained largely by the returns of public equities. If that were the case, it would suggest that the alpha manager was charging high fees while delivering low cost beta returns.

could fall outside the bounds of the thin blue lines. 5% of possible outcomes could fall outside the thick blue lines, which represent two standard deviations. This all suggests that, as investors, we must be prepared to endure periods of uncomfortable performance. Our alpha managers, whom we believe to be highly skilled, have navigated successfully through drawdowns in the past, and we maintain confidence that they will do so going forward as well. Q1 2020 was a very challenging period for the alpha portfolio, with the impact to cumulative returns shown transparently in the cone chart. At the same time, it is also clear that the portfolio's performance recovery is well underway through FY22, headed back toward the expected return.

Risk Management

A common concern with portable alpha programs, beyond their complexity, is the concept of "leverage" and a potential magnification of portfolio risk if not well managed. To be clear, there is no explicit "borrowing" involved in the funding of the alpha portfolio – we are using our own cash, made available to us because of the capital efficiency of futures or other derivative instruments used to obtain our market beta. We maintain complete control over these derivative exposures, with the ability to reduce or eliminate the exposures in 24 hours or less. To be clear, a portable alpha program allows an investor the ability to obtain total exposures greater than amount of capital invested, which can also result in additional risk. However, a well-designed portable alpha program with prudent risk management practices can often reduce overall portfolio risk through greater portfolio diversification.

From a practical perspective, one key component to successfully managing the day-to-day risk of a portable alpha program is the amount of cash set aside to fund the mark-to-market settlement demands of the derivative instruments used to implement the market betas. In our own case, based on extensive modeling and analysis, as noted above, we currently keep approximately 30% of the cash set aside for this purpose. In a recent real-world test, we are pleased to report that we maintained our 30% cash margin throughout the COVID-19 market crisis in March 2020, with absolutely no liquidity issues.

Reasons to Maintain a Portable Alpha Program

Alpha within a portfolio is extraordinarily valuable, no matter how it is sourced. This is because of the additional return potential and lower overall risk resulting from the benefits of diversification. A thoughtfully designed portable alpha program significantly increases the odds of obtaining alpha as compared to the alternative of expecting excess returns from active managers in traditional market beta implementations as described above. In the modeling performed as part of the recent asset allocation studies for the Retirement Plan and Endowment Pool, the portable alpha program was modeled to deliver a 3.2% annualized return, net of fees. Sized at 22% of capital, that equates to an additional 0.70% return, net of fees for each portfolio in total. Based on current portfolio balances, averaged out over a market cycle, that equates to annual investment income, net of fees, of approximately \$16 million and \$31 million in Endowment and Retirement, respectively. In FY22, actual returns delivered by the portable alpha portfolios were 7.5% and 7.0% in Retirement and Endowment, respectively, contributing incremental investment income of \$71 million and \$32 million to each portfolio.

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Policy Benchmarks

	Retirement	Endowment
	Policy Target	Policy Target
Public Equity	34%	35%
Private Equity	13%	15%
U.S. Treasuries	8%	8%
Inflation-Linked Bonds	9%	10%
Private Debt	6%	7%
Risk Balanced	12%	12%
Commodities	5%	3%
Real Estate	13%	10%
	100%	100%
	General Pool	
	Minimum Allocation	Maximum Allocation
Liquidity Portfolio	20%	100%
Core Portfolio	0%	60%
Strategic Portfolio <i>Risk Balanced, Private Debt and Real Estate</i>	0%	45%

Policy Target Transition Plan

Retirement Plan

	<u>Jul-22</u>	<u>Oct-22</u>	<u>Jan-23</u>	<u>Apr-23</u>	<u>Jul-23</u>	<u>Oct-23</u>	<u>Jan-24</u>	<u>Apr-24</u>	<u>Jul-24</u>	<u>Oct-24</u>
Private Equity	11%	12%	12%	12%	12%	13%	13%	13%	13%	13%
Public Equity	36%	35%	35%	35%	35%	34%	34%	34%	34%	34%
Real Estate	9%	10%	10%	11%	11%	12%	12%	12%	12%	13%
Risk Balanced	15%	15%	15%	14%	14%	13%	13%	13%	13%	12%
ILB's	10%	9%	9%	9%	9%	9%	9%	9%	9%	9%

Endowment Pool

	<u>Jul-22</u>	<u>Oct-22</u>	<u>Jan-23</u>	<u>Apr-23</u>	<u>Jul-23</u>	<u>Oct-23</u>	<u>Jan-24</u>	<u>Apr-24</u>	<u>Jul-24</u>	<u>Oct-24</u>
Private Equity	13%	13%	13%	14%	14%	15%	15%	15%	15%	15%
Public Equity	37%	37%	37%	36%	36%	35%	35%	35%	35%	35%
Private Debt	5%	6%	6%	6%	6%	7%	7%	7%	7%	7%
US Treasuries	10%	9%	9%	9%	9%	8%	8%	8%	8%	8%
Real Estate	8%	9%	9%	9%	9%	10%	10%	10%	10%	10%
Risk Balanced	14%	13%	13%	13%	13%	12%	12%	12%	12%	12%

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Summary of Policy Benchmarks

Public Equity

Benchmark MSCI ACWI Net Total Return USD Index
Bloomberg Ticker NDUEACWF Index

The MSCI ACWI index captures large and mid-cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries. With nearly 2,800 constituents, the index covers approximately 85% of the global investable equity opportunity set.

Private Equity

Benchmark - Retirement 70% Burgiss US Buyout & Other Private Equity
30% Burgiss US Venture Capital
Benchmark - Endowment 60% Burgiss US Buyout & Other Private Equity
40% Burgiss US Venture Capital
Bloomberg Ticker not applicable

The Burgiss private equity database contains the historical and ongoing performance records of private equity funds around the world. The University will focus on the US private equity buyout and other private equity database and the US venture capital database that includes over 2,700 funds with \$2.1 trillion total capitalization. Data is sourced exclusively from its member Limited Partners (i.e., primarily the institutional investors in private markets.) The database contains only institutional quality funds, providing investors with performance data consistent with their investable opportunity set. The Burgiss database is believed to be the most comprehensive, accurate representation of the aggregate US private equity market. Index returns are reported on a one-quarter lag.

U.S. Treasuries

Benchmark Bloomberg Barclays US Intermediate Treasury Total Return Index
Unhedged USD
Bloomberg Ticker LT08TRUU Index

The Bloomberg Barclays US Intermediate Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury with maturities of 1 to 9.999 years to maturity.

Inflation-Linked Bonds (U.S. TIPS)

Benchmark Bloomberg Barclays US Treasury Inflation-Linked 1-10 Years (Series L)
Total Return Index
Bloomberg Ticker LT11TRUU Index

The Bloomberg Barclays US Treasury Inflation-Linked Bond 1-10 Years Index measures the performance of the US TIPS market for all bonds with a remaining final maturity from 1.0 to 9.9 years.

Private Debt

Benchmark S&P/LSTA Leveraged Loan Total Return Index
Bloomberg Ticker SPBDAL Index

The S&P/LSTA Index is a market value weighted index designed to measure the performance of the US leveraged loan market based upon market weightings, spreads and interest payments. Index returns are reported on a lag corresponding with manager reporting cycles.

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Risk Balanced

Benchmark Benchmark equal to actual performance
Bloomberg Ticker not applicable

Within Risk Balanced there is no set industry accepted benchmark. Managers implement what they believe is their best “version” of risk parity, which can lead to a wide range of investments. These variations lead to short term tracking error and noise that is not meaningful to the overall performance review of risk parity as an asset class. As such, the best course of action for short-term performance reporting is to neutralize these issues by setting the policy benchmark equal to actual performance.

Commodities

Benchmark Bloomberg Commodity Index Total Return
Bloomberg Ticker BCOMTR Index

The Bloomberg Commodity Index Total Return is composed of futures contracts and reflects the returns on a fully collateralized investment in the Bloomberg Commodity Index (BCOM), which combines the returns of the BCOM with the returns on cash collateral invested in 13-week US Treasury Bills. The BCOM rebalances annually weighted 2/3 by trading volume and 1/3 by world production with weight-caps applied at the commodity, sector and group level for diversification. As compared to the S&P GSCI Commodity Index, the BCOM has much less energy exposure (~59% vs. ~30%).

Real Estate

Benchmark NCREIF-ODCE Index (National Council of Real Estate Investment
Fiduciaries – Open End Diversified Core Equity Index)
Bloomberg Ticker not applicable

NCREIF-ODCE is a capitalization-weighted return index made up of 36 open-ended core real estate funds. Open-ended funds are generally defined as infinite-life vehicles consisting of multiple investors who have the ability to enter or exit on a periodic basis, subject to contribution and/or redemption requests, thereby providing a degree of potential investment liquidity. The benchmark is reported on a one-quarter lag.

General Pool

Liquidity Portfolio

Benchmark Bloomberg Short Treasury: 1 – 3 Months Total Return Index Unhedged
Bloomberg Ticker I00225US Index

The Bloomberg Short Treasury Index measures US dollar-denominated US Treasury Bills with maturities of 1 to 3 months to maturity.

Core Portfolio

Benchmark Bloomberg US Aggregate Intermediate
Bloomberg Ticker I00002US Index

The Bloomberg Intermediate US Aggregate Bond Index is a broad-based flagship benchmark that measures the investemnt grade, US dollar-denominated, fixed-rate taxable bond market with less than 10 years to maturity. The securitized sector is wholly included. The index includes Treasuries, government-related and corporate securities, MBS, ABS and CMBS.

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Strategic Portfolio

Risk Balanced

Benchmark	Benchmark equal to actual performance
Bloomberg Ticker	not applicable

Within Risk Balanced there is no set industry accepted benchmark. Managers implement what they believe is their best “version” of risk parity, which can lead to a wide range of investments. These variations lead to short term tracking error and noise that is not meaningful to the overall performance review of risk parity as an asset class. As such, the best course of action for short-term performance reporting is to neutralize these issues by setting the policy benchmark equal to actual performance.

Private Debt

Benchmark	S&P/LSTA Leveraged Loan Total Return Index
Bloomberg Ticker	SPBDAL Index

The S&P/LSTA Index is a market value weighted index designed to measure the performance of the US leveraged loan market based upon market weightings, spreads and interest payments. Index returns are reported on a lag corresponding with manager reporting cycles.

Real Estate

Benchmark	NCREIF-ODCE Index (National Council of Real Estate Investment Fiduciaries – Open End Diversified Core Equity Index)
Bloomberg Ticker	not applicable

NCREIF-ODCE is a capitalization-weighted return index made up of 36 open-ended core real estate funds. Open-ended funds are generally defined as infinite-life vehicles consisting of multiple investors who have the ability to enter or exit on a periodic basis, subject to contribution and/or redemption requests, thereby providing a degree of potential investment liquidity. The benchmark is reported on a one-quarter lag.

OFFICE OF INVESTMENTS

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University of Missouri System

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September 7, 2022

University of Missouri System
Board of Curators
Finance Committee

September 7, 2022

FY2022 Investment Performance Review
UM

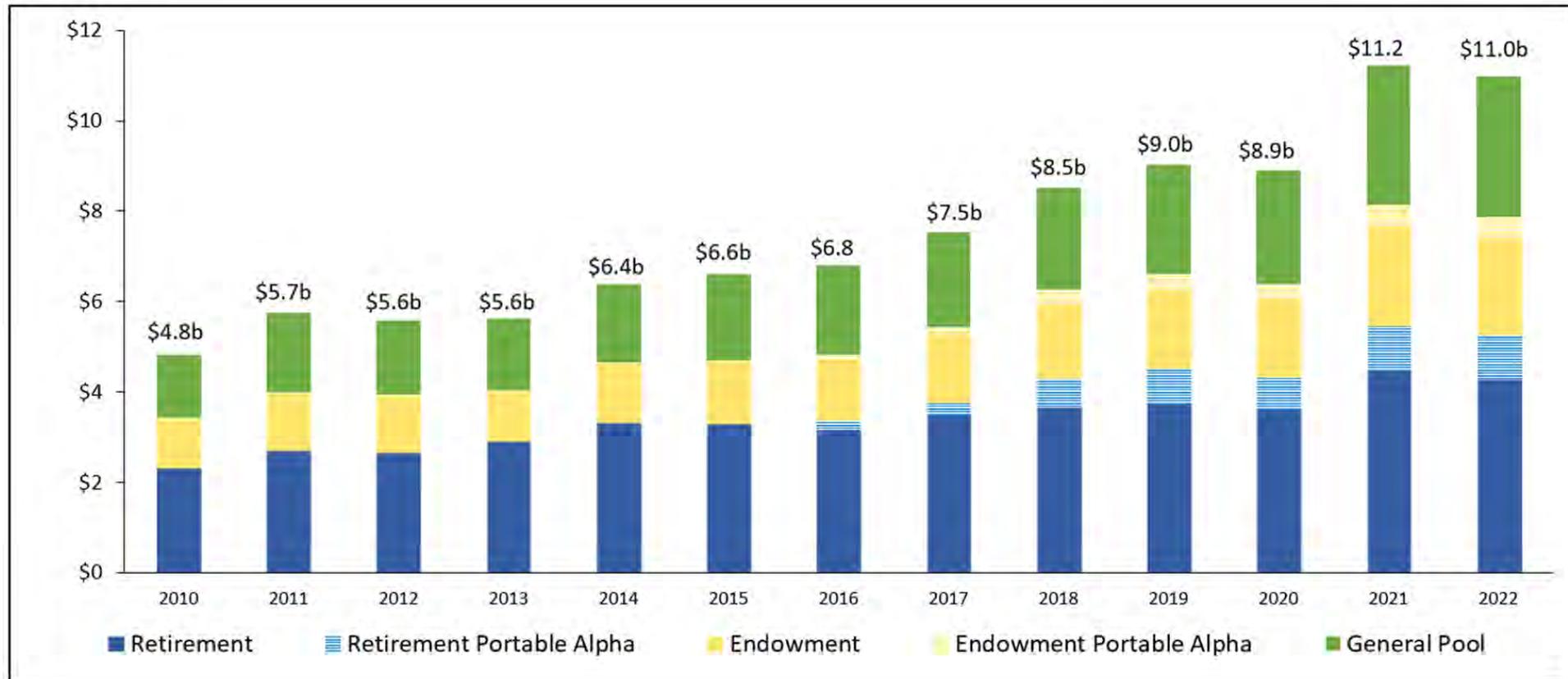


General Investment Consultant

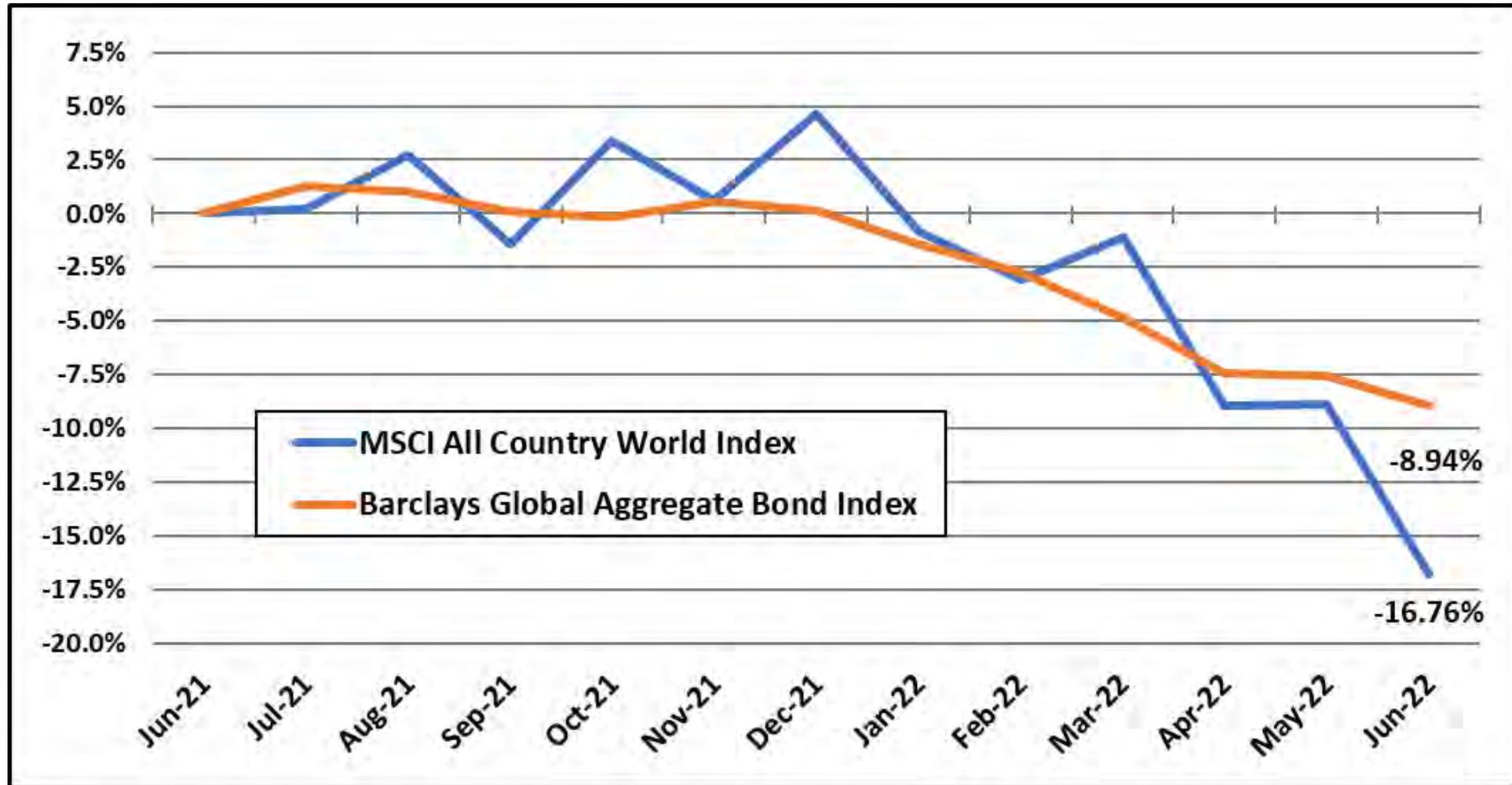
- Verus: Founded in 1986; 96 employees; 35 shareholders; 155 clients with \$668 billion in assets under advisement; offices in Seattle, San Francisco, Los Angeles and Pittsburgh.
- The University's consulting team continues under the leadership of Verus Chief Executive Officer Jeffrey MacLean.

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.



FY22 Market Returns



FY22 Performance

	Retirement	Endowment	General Pool
Actual Return	(1.1%)	(0.8%)	(2.8%)
Policy Return	(3.2%)	(2.4%)	(4.1%)
Excess Return	2.1%	1.6%	1.3%
% Excess Return – Beta Portfolio	0.6%	0.2%	1.3%
% Excess Return – Alpha Portfolio	1.5%	1.4%	-
% Excess Return – Total	2.1%	1.6%	1.3%
\$ Excess Return – Beta Portfolio	\$22 million	\$5 million	\$44 million
\$ Excess Return – Alpha Portfolio	\$71 million	\$32 million	-
\$ Excess Return - Total	\$93 million	\$37 million	\$44 million

- Returns were challenged across the board in FY22 as markets reacted to inflationary pressures and the end of central bank stimulus.
- Value created through performance in excess of policy benchmarks totaled nearly \$175 million across portfolios.
- More than 75% of excess returns in Retirement and Endowment were generated by our portable alpha program.

FY22 Performance

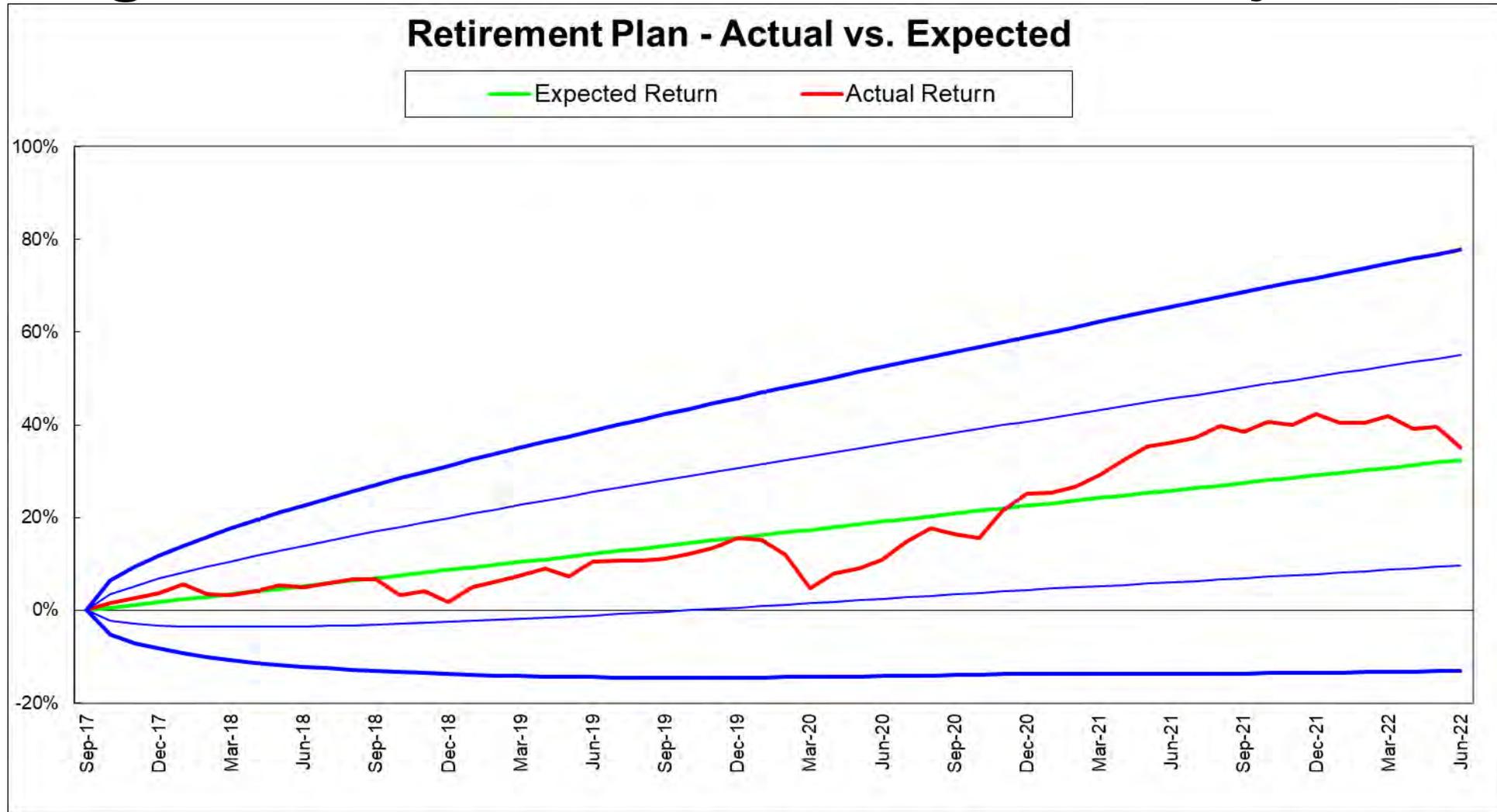
	Retirement	Endowment
Actual Return	(1.1%)	(0.8%)
Global Passive Portfolio*	(13.4%)	(13.4%)
% Excess Return	12.4%	12.7%
\$ Excess Return	\$593 million	\$311 million
Peer Universe Median**	(11.0%)	(12.2%)
% Excess Return	9.9%	11.5%
\$ Excess Return	\$449 million	\$264 million

* 60% MSCI ACWI / 40% Barclays Global Aggregate

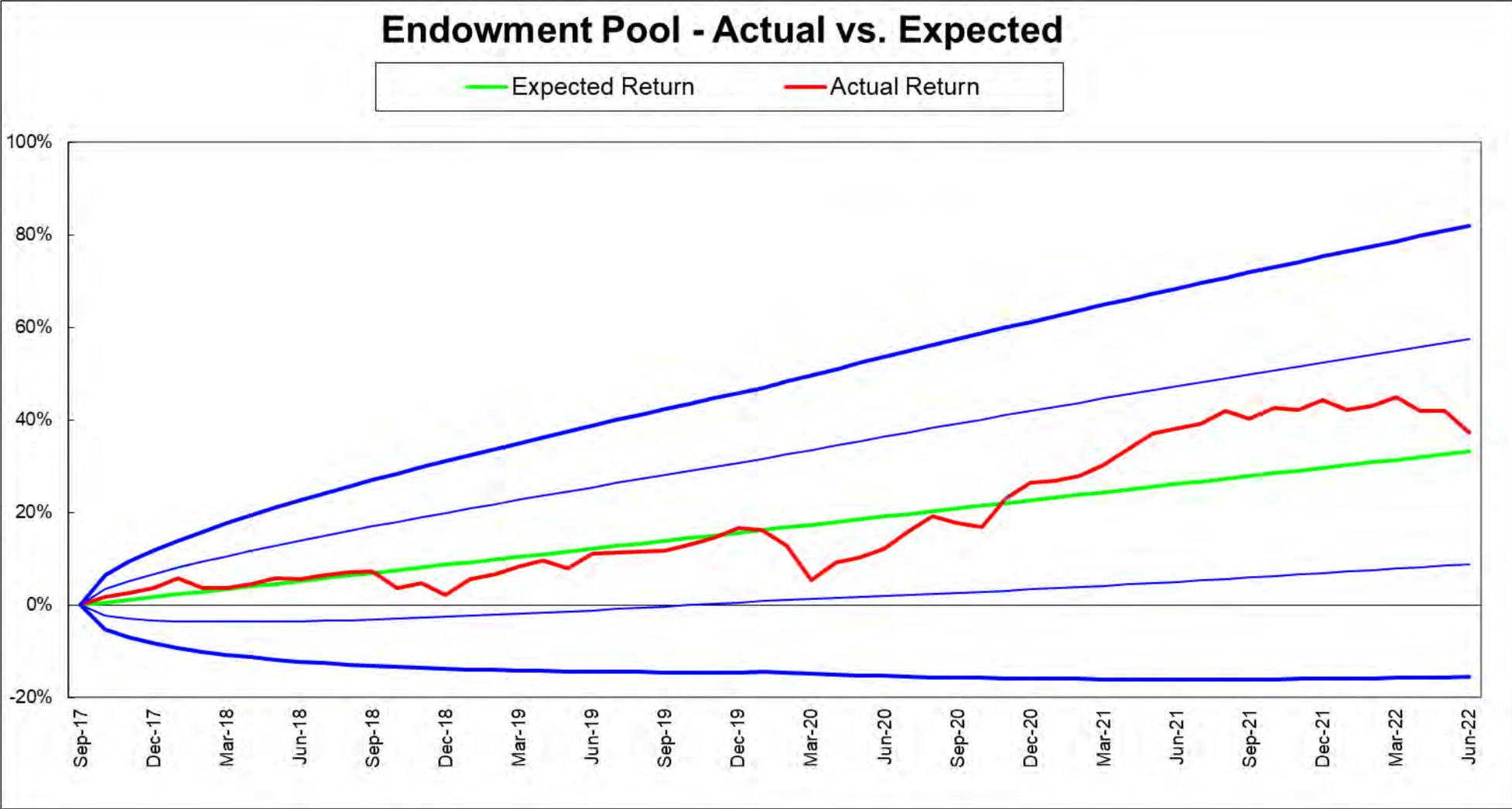
** Investment Metrics Peer Data (Public Pensions: n=585, Endowments: n=382)

- Retirement and Endowment significantly outperformed both a global passive portfolio as well as respective peer universe medians.
- In aggregate the value of outperformance relative to a global passive portfolio was approximately \$900 million.
- In aggregate, the value of outperformance relative to respective peer universe medians was approximately \$710 million.

Progress Toward Investment Objectives



Progress Toward Investment Objectives



Summary of FY22 Activity

(As of June 30, 2022 – in \$ thousands)

	Beginning Balance	Contributions or Gifts	Benefits or Distributions	Investment Income	Ending Balance
Retirement Plan	\$4,493,000	\$129,000	(\$292,000)	(\$45,000)	\$4,285,000
Endowment Pool	\$2,238,000	\$118,000	(\$174,000)	(\$38,000)	\$2,144,000

The spending policy for the Endowment Pool is based on a 28-quarter market value average, which provides stability in distributions even in times of market volatility.

One Year Returns by Asset Sector

(as of June 30, 2022)

Asset Sector	Retirement Plan			Endowment Pool		
	Actual	Benchmark	Variance	Actual	Benchmark	Variance
Public Equity	-20.2%	-15.8%	-4.4%	-20.5%	-15.8%	-4.7%
US Treasuries	-3.8%	-6.4%	2.6%	-3.7%	-6.4%	2.7%
Inflation-Linked Bonds	-0.4%	-2.0%	1.6%	-0.2%	-2.0%	1.8%
Commodities	29.3%	24.3%	5.0%	28.5%	24.3%	4.2%
Risk Balanced	-12.2%	-12.2%	0.0%	-12.0%	-12.0%	0.0%
Private Equity	16.8%	21.8%	-5.0%	23.9%	22.1%	1.8%
Real Estate	29.5%	27.3%	2.2%	28.2%	27.3%	0.9%
Private Debt	15.2%	2.2%	13.0%	22.5%	2.9%	19.6%
Total Beta Portfolio	-2.6%	-3.2%	0.6%	-2.1%	-2.4%	0.3%
Alpha Portfolio	7.5%	-	1.5%	7.0%	-	1.3%
Total Portfolio	-1.1%	-3.2%	2.1%	-0.8%	-2.4%	1.6%

One Year Contribution to Total Return

	Retirement Plan	Endowment Pool
Commodities	2.7%	2.6%
Private Equity	1.7%	2.5%
Real Estate	1.9%	1.8%
Alpha Portfolio	1.5%	1.4%
Private Debt	0.7%	0.8%
Inflation-Linked Bonds	-0.1%	0.0%
US Treasuries	-0.3%	-0.2%
Risk Balanced	-1.8%	-1.6%
Public Equities	-7.5%	-8.0%
Total Portfolio	-1.1%	-0.8%

Contribution to Total Return is a function of asset class return and weighting within the investment portfolio. As an example, in the Retirement Plan, Commodities returned 29% for the year at an average portfolio weight of 9.3% (29% x 9.3% = 2.7%).

Longer-Term Returns

(as of June 30, 2022)

	Retirement Plan		Endowment Pool	
	Actual	Benchmark	Actual	Benchmark
3 Year	8.6%	7.4%	9.2%	8.0%
5 Year	8.0%	7.3%	8.5%	7.8%
7 Year	7.4%	6.6%	7.9%	7.1%
10 Year	7.9%	7.5%	8.6%	8.1%

Longer-term returns are all comfortably above policy benchmarks.

General Pool - Portfolio Returns

(Year Ended June 30, 2022)

	Mix 6/30/22	FY22	Benchmark	Excess
Liquidity Portfolio	36%	-0.3%	0.2%	-0.5%
Core Portfolio	37%	-8.0%	-7.9%	-0.1%
Strategic Portfolio	27%	0.9%	-3.4%	4.3%
Total General Pool	100%	-2.8%	-4.1%	1.3%

FY22 was a challenging year for the General Pool as well as fixed income markets generally as the Barclays Global Aggregate bond index experienced its worst loss in more than 30 years, driven by global central banks actions in response to inflationary pressures. Due to the dominance of fixed income within the General Pool, FY22 was the first year in memory when the General Pool underperformed both Retirement and Endowment. On a positive note, the General Pool still outperformed its benchmark by 1.3%, which equates to approximately \$44 million in value creation.

Retirement Plan Guidance – Plan Year End

Actuarial calculations utilize an investment return assumption of 7.0%, measured each year at September 30th

Quarterly Performance for the Year Ended June 30, 2022		Estimated Performance for the 10 Months Ended July 31, 2022	
September 30, 2021	2.3%		
December 31, 2021	4.0%	December 31, 2021	4.0%
March 31, 2022	-0.5%	March 31, 2022	-0.5%
June 30, 2022	-6.6%	June 30, 2022	-6.6%
Annualized Return	-1.1%	July 31, 2022	3.3%
		10 Months through July 31, 2022*	-0.2%

**For context, given the magnitude of FY21 investment performance, the two-year annualized return as of July 31, 2022 was approximately 12.5%.*

Questions?

Fiscal Year 2023 Strategic Dividend Distribution
UM

Each University requests Board approval of plans for use of dividends generated from investment earnings of the University’s General Pool. As outlined in the resource allocation principles established with the creation of the Council of Chancellors in November 2020, investment earnings are allocated based upon each University’s relative share of general pool assets that generated the income. Universities need to meet financial performance targets to utilize dividend funds.

At the time of this mailing, the University’s close process is not yet complete. Each University is expected to meet financial performance targets for FY22 and will be able to utilize the dividend for FY23. The Board will receive an update on FY22 financial performance at the November 17 Board of Curators meeting.

The general pool return was -2.83% in FY22. The \$15 million annual minimum dividend distribution will be disbursed as follows based on operating cash balance.

	MU	UMKC	Missouri S&T	UMSL
Dividend	\$10,155,000	\$1,770,000	\$1,740,000	\$1,335,000
% of General Pool	67.7%	11.8%	11.6%	8.9%

The 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. Accompanying proposals outline plans for each University’s dividend amount listed above. Each University’s plans for use address a strategic priority for the campus:

- MU Mizzou Forward Research Capital Investments: investment in building and equipment for capital plan.
- Missouri S&T Student Experience Center: pairs dividend with giving to create a new student experience center.
- UMKC Student Success Renovations: investment in campus infrastructure to recruit and retain students consistent with the campus master plan.
- UMSL Space Consolidation: funds space consolidation to reduce operating costs and deferred maintenance.

No. 1

Recommended Action - Fiscal Year 2023 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 Graves
Curator Hoberock
Curator Layman
Curator Williams

The motion _____.

Roll call vote of The Board of Curators: YES NO

Curator Brncic
Curator Chatman
Curator Graves
Curator Hoberock
Curator Holloway
Curator Layman
Curator Wenneker
Curator Williams

The motion _____.

Fiscal Year 2023 Strategic Dividend Use
MU

Timeframe

FY2023 – FY2024

Dividend Request Amount

\$10,155,000

Capital Sources

State: \$104,500,000

Institution (incl. dividend):
\$253,500,000

Capital Investment:

\$358,000,000

Measures of Success:

- Research Awards
- Research Expenditures
- Faculty Citations

Project Description

The dividend funding will be invested in MizzouForward. The key goal of the initiative is to become a stronger research university with research performance that is nationally competitive amongst flagship institutions. Investments seek to impact research rankings through higher citations, national recognition of our faculty, and improve MU's economic impact on the state through licensing and industry partnerships.

As MU recruits new faculty and assists current faculty to support research growth, it will be essential MU is able to provide the caliber of space and equipment necessary to conduct their research.

MU seeks to invest the dividend as follows:

- \$10.155M as a portion of the internal funding required to carry out research focused items on the capital plan as part of the capital improvement funding provided by the state.

Project Justification

Investment in MU's research focused capital plan will ensure MU equips current and future faculty with the infrastructure it takes to successfully grow the University's research portfolio.

Funding Strategy

The dividend will support investments already made, including the \$221M NextGen Precision Health Center Building. The FY23 dividend will be stacked with future dividends and other sources of investment to continue making progress towards improving MU's research rankings over the coming years.

Fiscal Year 2023 Strategic Dividend Use
UMKC

Timeframe

FY2023

Dividend Request Amount

\$1,770,000

Capital Sources

Institution (incl. Dividend):

\$1,775,000

Capital Gifts: \$70,000 (received)

Capital Investment:

\$1,845,000

Measures of Success:

- Improvement in campus environment to increase student activity
- Increase enrollment & retention
- Higher student housing occupancy
- Lower FCNI by \$500,000.

Project Description

UMKC has identified key campus improvement projects that need capital renovation to improve campus spaces, meet safety standards, and meet student demand for support services.

1) The capital renovation projects will activate new student space as 51st street is closed between Rockhill and Cherry, will provide for renovation of the historic Quad and will allow for completion of a recognition memorial for the Divine 9 historically Black Greek Letter organizations and will repair the pedestrian bridge at Spencer Hall / Biological Sciences building. The aims of the project are:

- a. Repurpose 51st street to become a new pedestrian boulevard in the heart of campus, improving student safety by reducing vehicular traffic and providing additional area and activities for student, faculty and staff engagement. For an urban campus, Volker has a series of open spaces that help define the campus. Those spaces, however, lack activation and are interrupted by streets. Closing 51st Street between Cherry and Rock Hill Roads will transform this major east-west connection into a pedestrian corridor lined with active building uses, banners and sculptures, outdoor furniture and a central plaza for events and gatherings. It will provide a campus heart for students, faculty, staff, and the community that inspires pride and brings people together while still reflecting the urban nature of the campus.
- b. Provide much needed renovation of the historic Quad that will allow students to use the space as it is intended and designate a tribute area for the Divine 9 historical Black Greek Letter organizations within the historic quad with stone monuments. Surrounded by many of the University's academic facilities, the Historic Quad has the potential to be an extension of the collaborative and institutional environment. In its current state, minimal opportunities exist for formal and informal congregation, or relaxation and refecation. Strategies such as the addition of

September 7, 2022

lawn seating, hammocks, outdoor learning / teaching coves, campus lighting, and branded signage are recommended to transform this space.

- c. Provide repairs to a primary access point to the entry bridge at Spencer Hall & Biological Sciences buildings. The deterioration on the bridge is unsightly and creates a safety issue for students, faculty and staff.
- 2) Collectively, the impact of these projects is to improve student recruitment and retention across all academic programs. Renovating these campus areas will activate spaces currently underutilized providing students with areas for increased recreation, areas to interact, and improve enjoyment of the campus. These renovations will positively impact campus culture and climate demonstrating our investment in their health safety, and wellness as well as their academic success.
- 3) We have received \$70,000 in gift funds, and \$5,000 in institutional funds for the Divine 9 project.
- 4) The projects are consistent with our Master Plan and UMKC Forward.

Project Justification

Recruiting and retaining students, high quality faculty, and staff requires investment into physical infrastructure to demonstrate our commitment to health, safety, wellness and student success.

- 1) Proposed projects align with strategic pillars by focusing on increasing the size of student body (recruiting and retaining), as well as a commitment to diversity. These improvements are aligned with the master plan.
- 2) These projects are public facing and high profile for the university. Presenting the university as a vibrant and exciting environment for students, faculty, and staff.
- 3) These projects will address deteriorating spaces that present are both unsightly and create safety issues.

Funding Strategy

Gift funds of \$70,000 and \$5,000 in institution funds have been identified for the project and with the \$1,770,000 in Strategic Dividend will reduce facility needs by \$500,000.

Timeframe FY2023 – FY2024
Dividend Request Amount \$1,740,000
Capital Sources Capital Gifts: \$12,875,000 Institution (incl. Dividend): \$12,875,000
Capital Investment: \$25,750,000
Measures of Success: <ul style="list-style-type: none">• Increase in enrollment

Project Description

This previously approved project will construct a new three story, 30,499 gross square feet (gsf) Welcome Center that will be used for creating an excellent and memorable experience for prospective students and families. Visible from US Highway 63, the building will be located in S&T’s new arrival district, and it will have convenient parking and simplified wayfinding for visitors.

The facility will accommodate large groups with a flexible interior for a variety of events with a 400-seat presentation space adjacent to an outdoor plaza. A large lobby and gallery will display information and exhibits related to campus life and the student experience, using static and interactive displays, video, and full-scale projects. . Small conference rooms for meetings with faculty advisors will also be provided. The facility will house offices for the admissions and enrollment management departments.

This project is included in S&T’s capital plan and is funded through private gifts and internal sources.

Project Justification

Analysis of recruitment success rates has resulted in a commitment to improve the student and parent experience during campus visits. This facility will directly support the University’s north star goal of increasing enrollment to 12,000 students. All visitors to campus will be hosted in the new welcome center, provided a campus tour, and meet with all relevant admissions groups in this single, central location.

Construction of the Welcome Center also supports S&T’s first compact: Missouri S&T Compact for Excellence in Student Success. This facility will improve S&T’s efforts to recruit highly talented students from all backgrounds.

Serving as the University’s front door for visitors, this flexible space for multiple events within a branded environment, will enhance the public presence of the University.

Funding Strategy

Funding for the \$25,750,000 project will be \$12,875,000 private gifts and \$12,875,000 internal funds. Utilizing \$1,740,000 in strategic dividend funds will enable S&T to reduce the amount of university reserves needed for the project from \$12,875,000 to \$11,135,000.

Fiscal Year 2023 Strategic Dividend Use
UMSL

Timeframe

FY2023

Dividend Request Amount

\$1,335,000 total

Capital Sources

Institution (incl. Dividend):

\$29,907,240

Gifts: \$10,800,000

State: \$34,652,760

Capital Investment:

\$75,360,000

Measures of Success:

- Reduction of deferred maintenance costs.
- Reduction of annual utilities/maintenance costs.

Project Description

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 ARPA funding and meet campus match obligations. The total project plan is \$100M over five years and includes ARPA funding, donor sponsored funding, grant funding and institutional funding including use of the dividend in FY23 and future years.

UMSL proposes use of the FY23 dividend to assist in funding the institutional match of state funding for FY23. The majority of the total budget is capital renovation and equipment expense.

Specific projects scheduled for FY23 include renovations and relocation related to Colleges of Optometry and Education, Library and Honors College.

Project Justification

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.

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Mid-year Changes to Five-year Capital Plans – Fiscal Year 2023
MU, MU Health Care, Missouri S&T, UMKC, and UMSL

The capital planning process approved at the September 2017 Board of Curators meeting includes development of a five-year capital plan that will be reviewed and approved annually by the Board of Curators. The process approved also provides for a mid-year deviation process for any changes to the capital plan. The capital plan contains two sections, the five-year capital plan included in the five-year finance plan and aspirational strategic projects not currently included in the finance plan. This process allows for execution of the current year plans and will provide additional time for fundraising, working with legislature, and additional due diligence during years two through five. The capital plans will assist in driving any official fundraising campaigns for capital projects. Major capital projects will be approved by the Board of Curators before being incorporated into any approved capital plans, budget plans, or long-range business plans. Major capital projects include any new construction over \$5 million in project cost or any renovation/infrastructure improvements over \$8 million in project cost.

The capital planning process and investment in existing facilities are two key components of Facilities Stewardship. Facilities Stewardship is about taking a long and broad view of an institution's past and future. The University of Missouri System is comprised of over 1,500 buildings, four primary campuses and a health care system. Total valuation is over \$11 billion. Due to continued limited funding, we must be deliberate in setting capital priorities to uphold our stewardship responsibility. The capital planning process is critical in ensuring we uphold that responsibility.

Included herein is the FY 2023 Mid-Year Capital Project Plan Deviation for review and approval. The projects impacted are highlighted in red in the following tables with a description of the deviation below the table.

No. 2

Recommended Action - Mid-year Changes to Five-year Capital Plans - Fiscal Year 2023 - MU, MU Health Care, Missouri S&T, UMKC and UMSL

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

- MU: Capital Plan included in Finance Plan:
- Modified Medical Science Building – Renovations
 - Modified Swine Facility- Middlebush Farm Phase II
 - Added Mizzou North Demolition
 - Added Virginia Avenue Parking Structure Repairs
- Strategic Projects Development Plan:
- Added Thompson Center – New Facility
 - Added Engineering and Applied Sciences Building
 - Deleted Medical Science Building Replace Electrical Distribution System
 - Added Electrical Transmission Interconnection Upgrade
- MUHC: Capital Plan included in Finance Plan
- Add Missouri Psychiatric Center – First Floor Infrastructure and 16 Bed ED Observation Build Out
- UMKC: Capital Plan included in Finance Plan:
- Modified New Health Science Building
 - Modified School of Medicine, St Joseph’s Facility
 - Modified Steam Heating Plant Renewal
- Strategic Projects Development Plan:
- Added New Building for KCUR
- S&T: Capital Plan included in Finance Plan:
- Modified Missouri Protoplex – Phase Two
 - Added Substation Replacement

- UMSL: Capital Plan included in Finance Plan:
- Modified Optometry and Honors College Consolidation
 - Modified Music and Fine Art to GSB Consolidation
 - Modified College of Education Consolidation
 - Modified Thomas Jefferson Library/Computer Laboratory Consolidation
 - Modified Welcome Center

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

Roll call vote of the Committee: YES NO

Curator Graves
 Curator Hoberock
 Curator Layman
 Curator Williams

The motion _____.

Roll call vote: YES NO

Curator Brncic
 Curator Chatman
 Curator Graves
 Curator Hoberock
 Curator Holloway
 Curator Layman
 Curator Wenneker
 Curator Williams

The motion _____.

University of Missouri – Columbia
Fiscal Year 2023 Mid-Year Capital Plan Deviation

University of Missouri - Columbia: Capital Plan included in Finance Plan

MU	2023	2024	2025	2026	2027
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$12,500,000	\$19,976,000	\$0	\$0	\$0
Radioisotope Facility at Discovery Ridge		\$19,976,000			
Swine Facility- South Farm Phase II	\$5,000,000				
Swine Facility- Middlebush Farm Phase II	\$7,500,000				
Renovation/Infrastructure	\$46,000,000	\$0	\$0	\$0	\$0
Medical Sciences Building – Renovations	\$20,000,000				
Mizzou North – Demolition	\$10,000,000				
Virginia Avenue Parking Structure	\$16,000,000				
Total Project Cost	\$58,500,000	\$19,976,000	\$0	\$0	\$0

University of Missouri – Columbia: Capital Plan included in Finance Plan Funding

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Medical Science Building – Renovations	RE	\$46.5M	0.46	\$20,000,000	\$0	\$0	\$0	\$12,000,000	\$8,000,000
2	Radioisotope Facility at Discovery Ridge	NC	NA	NA	\$19,976,000	\$0	\$0	\$0	\$19,976,000	\$0
3	Swine Facility- South Farm Phase II	NC	NA	NA	\$5,000,000	\$0	\$0	\$0	\$0	\$5,000,000
4	Swine Facility- Middlebush Farm Phase II	NC	NA	NA	\$7,500,000	\$0	\$0	\$2,500,000	\$2,500,000	\$2,500,000
5	Mizzou North – Demolition	Demo	\$55.6M	0.65	\$10,000,000	\$0	\$0	\$10,000,000	\$0	\$0
6	Virginia Avenue Parking Structure Repairs	RE	NA	NA	\$16,000,000	\$0	\$0	\$16,000,000	\$0	\$0
Total					\$78,476,000	\$0	\$0	\$28,500,000	\$34,476,000	\$15,500,000

FY23 MU Capital Plan Deviations

The following projects have been modified:

- Medical Science Building – Renovations
 - Funding from State decreased from \$20 million to \$8 million and \$12 million from Federal was added

- Radioisotope Facility at Discovery Ridge
 - Project moved from FY23 to FY24

- Swine Facility- Middlebush Farm Phase II
 - Budget was increased from \$5 million to \$7.5 million
 - Funding from State decreased from \$5 million to \$2.5 million, \$2.5 million from Federal and \$2.5 million from campus was added

The following projects have been added:

- Mizzou North – Demolition

This project will demolish Mizzou North and the adjacent single story block garage. The Strategic Space Reduction Plan identified Mizzou North as a building with extremely high facility needs and low occupancy. The 223,000 GSF building is estimated to need more than \$55M in facility needs and has a FCNI of 0.65. The building is currently unoccupied.

 - Current Project Budget is \$10,000,000
 - Funding will be from campus funds
 - Construction completion is expected January 2024

- Virginia Avenue Parking Structure Repairs

This project will provide structural repairs to the Virginia Avenue Parking Structure. This parking structure was constructed as a design/build project in 2002. The 577,631 gross square feet structure is located between Hitt Street and Virginia Avenue, north of the University Physicians Medical Building and provides over 1850 parking spaces and over 23,000 gross square feet of finished space for MU Police Department and Landscaping.

 - Current Project Budget is \$16,000,000
 - Funding will be \$14 million from internal loan and \$2 million from parking reserves
 - Construction completion is expected August 2023

University of Missouri – Columbia: Strategic Project Plan

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Vivarium Facility Expansion	NC	NA	NA	\$15,000,000	\$0	\$0	\$15,000,000	\$0	\$0
2	National Swine Resource and Research Center – Addition for NIH CO6 Grant Funding	NC	\$0.4M	0.02	\$8,000,000	\$0		\$0	\$8,000,000	\$0
3	Thompson Center – New Facility	NC	NA	NA	\$66,000,000	\$0	\$34,500,000	\$0	\$0	\$31,500,000
4	Engineering and Applied Sciences Building	NC/RE	TBD	TBD	\$150,000,000	\$0	\$28,000,000	\$0	\$44,000,000	\$78,000,000
5	Bond Life Sciences Center - Phase II	NC	NA	0.06	\$80,000,000	\$0	\$0	\$80,000,000	\$0	\$0
6	Facilities Needs Project	RE	\$169M	0.26-0.47	\$56,000,000	\$0	\$0	\$0	\$0	\$56,000,000
7	Jesse Hall Exterior Masonry/Metal Repairs & Window Replacement	RE	\$13.4M	0.26	\$11,000,000	\$0	\$0	\$0	\$0	\$11,000,000
8	Medical Science Building Replace Electrical Distribution System	RE	\$46.5M	0.47	\$8,000,000	\$0	\$0	\$0	\$0	\$8,000,000
9	Electrical Transmission Interconnection Upgrade	INFR	NA	NA	\$43,000,000	\$0	\$0	\$29,300,000	\$0	\$13,700,000
10	Pickard Hall – Decommissioning and Mitigation	Demo	\$5.45M	0.44	\$12,000,000	\$0	\$0	\$12,000,000	\$0	\$0
Total					\$441,000,000	\$0	\$62,500,000	\$136,300,000	\$52,000,000	\$190,200,000

FY23 MU Strategic Project Plan Deviations

The following projects have been added to the plan:

- Thompson Center – New Facility
 This project provides a new 65,000 gross square feet facility for the Thompson Center program. This facility will consolidate the program into one building, provide space for research and expansion. The funding strategy for this \$66 million facility would be \$31.5 million from the state and the remainder in gifts and internal funds.
- Engineering and Applied Sciences Building
 This project provides a new 125,000 gross square feet facility for research, education laboratories, and offices for the College of Engineering and Applied Sciences Departments (Physics, Chemistry, Statics, and Mathematics) to support MizzouForward initiative in New Frontiers in Science, Engineering, and Technology. The funding strategy for this \$150 million facility would be \$78 million from the state, \$44 million from federal funds and \$28 million in gifts.

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FY23 MU Strategic Project Plan Deviations (Cont.)

- Electrical Transmission Interconnection Upgrade

This project will install a new 80 megawatt electric transmission intertie from the City of Columbia to the MU campus. Reliable electricity is essential for the operation of the MU campus, research and medical services. The existing 40 megawatt (MW) intertie was installed 27 years ago when the campus peak electrical demand was 34 MW. The campus peak electrical demand surpassed 40 MW in 2003. The peak demand of the campus is currently 48 MW and is forecasted to exceed 50 MW by 2028.

The following project has been deleted from the plan:

- Medical Science Building Replace Electrical Distribution System

Scope of work will be consolidated within other Medical Science Building projects.

MU Health Care
Fiscal Year 2023 Mid-Year Capital Plan Deviation

MU Health Care: Capital Plan included in Finance Plan

	2023	2024	2025	2026	2027
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$0	\$0	\$0	\$0	\$66,000,000
MU Health Care Campus Consolidation & Inpatient Services Expansion					\$66,000,000
Renovation/Infrastructure	\$11,700,000	\$0	\$0	\$0	\$0
Missouri Psychiatric Center – First Floor Infrastructure and 16 Bed ED Observation Build Out	\$11,700,000				
Total	\$11,700,000	\$0	\$0	\$0	\$66,000,000

MU Health Care: Capital Plan included in Finance Plan Funding

MUHC					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	MU Health Care Campus Consolidation & Inpatient Services Expansion	NC	NA	NA	\$66,000,000	\$66,000,000	\$0	\$0	\$0	\$0
2	Missouri Psychiatric Center – First Floor Infrastructure and 16 Bed ED Observation Build Out	RE	NA	NA	\$11,700,000	\$11,700,000	\$0	\$0	\$0	\$0
Total					\$77,700,000	\$77,700,000	\$0	\$0	\$0	\$0

FY23 MU Health Care Capital Plan Deviations

The following project has been added:

- Missouri Psychiatric Center (MPC) – Infrastructure and 16 Bed ED Observation Build Out

In order to consolidate and meet volume projections by 2024, the University Hospital Emergency Department (ED) must expand into existing MPC-1C space. FY27 volume projections indicate an anticipated total of 99,698 visits annually. Based on this volume, 77 ED rooms will be needed to meet bed demand. The build out of MPC -1C will provide an additional 16 rooms to meet the 77 ED rooms needed. This project will renovate the MPC- 1C area, including new mechanical, plumbing, and electrical systems, and emergency generator to serve this area.

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University of Missouri – Kansas City
Fiscal Year 2023 Mid-Year Capital Plan Deviation

University of Missouri - Kansas City: Capital Plan included in Finance Plan

Projects	2023	2024	2025	2026	2027
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$134,500,000	\$0	\$0	\$0	\$0
Healthcare Innovation and Delivery Building	\$120,000,000				
School of Medicine – New St. Joseph’s Facility	\$14,500,000				
Renovation/Infrastructure	\$12,000,000	\$0	\$0	\$0	\$0
Steam Heating Plant Renewal	\$12,000,000				
Total Project Cost	\$146,500,000	\$0	\$0	\$0	\$0

University of Missouri - Kansas City: Capital Plan included in Finance Plan Funding

Projects					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Healthcare Innovation and Delivery Building	NC	NA	NA	\$120,000,000	\$0	\$80,000,000	\$0	\$0	\$40,000,000
2	School of Medicine - New St. Joseph’s Facility	NC	NA	NA	\$14,500,000	\$0	\$0	\$0	\$13,000,000	\$1,500,000
3	Steam Heating Plant Renewal	RE	\$12	0.42	\$12,000,000	\$12,000,000	\$0	\$0	\$0	\$0
Total					\$146,500,000	\$12,000,000	\$80,000,000	\$0	\$13,000,000	\$41,500,000

FY23 UMKC Capital Plan Deviations

The following projects have been modified:

- Healthcare Innovation and Delivery Building
 - Project title was previously New Health Sciences Building
 - Project Budget has increased from \$100,000,000 to 120,000,000
 - Funding from Gifts has been increased from \$50,000,000 to \$80,000,000 and funding from the State has been reduced from \$50,000,000 to \$40,000,000
- School of Medicine – New St. Joseph’s Facility
 - Budget has been decreased from \$15,000,000 to \$14,500,000
 - Funding from the campus has decreased from \$2,000,000 to \$0 and funding from the State has increased from \$0 to \$1,500,000

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FY23 UMKC Capital Plan Deviations (cont.)

The following projects have been modified:

- Steam Heating Plant Renewal
 - Project moved from FY22 to FY23

University of Missouri - Kansas City: Strategic Development Projects Plan

Projects					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Olson Performing Arts Center Renovations and Additions	RE/NC	\$10.1M	0.41	\$30,000,000	\$0	\$30,000,000	\$0	\$0	\$0
2	UMKC Athletics Performance Center Additions and Renovations	RE/NC	\$5M	0.35	\$55,000,000	\$0	\$55,000,000	\$0	\$0	\$0
3	Spencer Chemistry & Biological Science Renovation Phase II	RE	\$10M	0.36	\$40,000,000	\$0	\$0	\$0	\$0	\$40,000,000
4	New Student Housing*	NC	NA	NA	\$45,000,000	\$45,000,000	\$0	\$0	\$0	\$0
5	4747 Troost Renovation	RE	\$6.4M	0.42	\$8,500,000	\$0	\$0	\$0	\$0	\$8,500,000
6	KCUR Building	NC	NA	NA	\$25,000,000	\$0	\$25,000,000	\$0	\$0	\$0
Total					\$203,500,000	\$45,000,000	\$110,000,000	\$0	\$0	\$48,500,000

*New Student Housing Project to be funded through a Public Private Partnerships (P3's).

FY23 UMKC Strategic Project Plan Deviations

The following project has been added to the plan:

- KCUR Building
 This project provides a new facility for KCUR and Classical KC public media in Kansas City. This two-story, 30,000 gross square feet building will have office space and conference rooms, state-of-the art broadcast and production studio space and physical gathering spaces for the community at large. The current facility located at 4825 Troost is inadequate and is in poor condition with a FCNI of 0.47. The funding strategy for this \$25 million facility would be Gifts.

Missouri University of Science and Technology
Fiscal Year 2023 Mid-Year Capital Plan Deviation

Missouri University of Science and Technology: Capital Plan included in Finance Plan

Missouri S&T	2023	2024	2025	2026	2027
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$79,527,586	\$0	\$52,266,768	\$49,562,000	\$0
Missouri Protoplex – Phase Two	\$79,527,586				
Engineering Research Lab Addition and Renovation			\$52,266,768		
Schrenk Hall Addition and Renovation – Phase III				\$52,040,100	
Renovation/Infrastructure	\$8,774,898	\$0	\$0	\$0	\$0
Substation Relocation	\$8,774,898				
Total Project Cost	\$88,302,484	\$0	\$52,266,768	\$52,040,100	\$0

Missouri University of Science and Technology: Capital Plan included in Finance Plan Funding

Projects					Total Cost	Debt	Gifts	Internal	Federal	State
#	Title	Type	Facility Needs	FCNI						
1	Missouri Protoplex – Phase II	NC	NA	NA	\$79,527,586	\$0	\$33,277,586	\$0	\$0	\$46,250,000
2	Substation Relocation	INFRA	NA	NA	\$8,774,898	\$0	\$0	\$7,863,914	\$0	\$910,984
3	Engineering Research Lab Addition and Renovation	NC/RE	\$13.0 M	0.49	\$52,266,768	\$0	\$26,133,384	\$0	\$26,133,384	\$0
4	Schrenk Hall Addition and Renovation – Phase III	NC/RE	\$19.1 M	0.57	\$52,040,100	\$0	\$0	\$0	\$0	\$52,040,100
Total					\$192,609,352	\$0	\$59,410,970	\$7,863,914	\$26,133,384	\$99,201,084

FY23 Missouri S&T Capital Plan Deviations

The following project has been added:

- Substation Relocation

The existing substation is located in the heart of the new arrival district and has insufficient capacity for the proposed campus expansion. The current electrical infrastructure is a loop system to allow for redundancy during a power failure. However, it is only connected to one Rolla Municipal Utility (RMU) substation. If this RMU substation fails, the campus is without power. This project will increase reliability for the campus power by constructing two separate substations: one north of campus and one east of campus. These two substations will allow the campus to connect to two Rolla Municipal Utility substations, allowing for additional redundancy.

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Project budget was originally at \$7.2 million but with escalation and supply chain issues with electrical equipment the budget has increased requiring Board of Curators approval.

- Current Project Budget is \$8,774,898
- Funding will be \$7,863,914 from campus funds and \$910,984 from Federal Stabilization Budget Funding provided by the State
- Construction completion is expected October 2023

The following project has been modified:

- Missouri Protoplex – Phase II
 - Project moved to FY23 in lieu of FY22
 - Total Project Cost has been reduced from \$88,668,048 to \$79,527,586
 - Funding from Gifts has been reduced from \$33,668,048 to \$33,277,586 and funding from the State has been reduced from \$55,000,000 to \$46,250,000
 - The building square footage has been reduced from 208,000 gross square feet (gsf) to 116,105 gsf and two stories in lieu of 3 stories

Missouri University of Science and Technology: Strategic Development Projects Plan

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Innovation Campus Program Expansion	NC	NA	NA	\$95,000,000	\$0	\$0	\$0	\$95,000,000	\$0
2	University Center West	NC	NA	NA	\$7,267,050	\$0	\$0	\$7,267,050	\$0	\$0
3	McNutt Hall Addition	NC	NA	NA	\$10,956,750	\$0	\$10,956,750	\$0	\$0	\$0
Total					\$113,223,800	\$0	\$10,956,750	\$7,267,050	\$95,000,000	\$0

FY23 Missouri S&T Strategic Project Plan Deviations (no changes)

University of Missouri – St. Louis
Fiscal Year 2023 Mid-Year Capital Plan Deviation

University of Missouri – St. Louis: Capital Plan included in Finance Plan

Projects	2023	2024	2025	2026	2027
	Year 1	Year 2	Year 3	Year 4	Year 5
New Construction	\$0	\$0	\$0	\$0	\$0
N/A					
Renovation/Infrastructure	\$75,360,000	\$0	\$0	\$0	\$0
Optometry and Honors College Consolidation	\$15,950,000				
Music and Fine Arts Relocation to Arts and Administration Building, North Campus	\$12,100,000				
College of Education to Quad Area	\$21,780,000				
Thomas Jefferson Library Renovation	\$11,330,000				
Richter Family Welcome and Alumni Center	\$14,200,000				
Total Project Cost	\$75,360,000	\$0	\$0	\$0	\$0

University of Missouri – St. Louis: Capital Plan included in Finance Plan Funding

Project					Funding Strategy					
#	Title	Type	Facility Needs	FCNI	Total Cost	Debt	Gifts	Internal	Federal	State
1	Optometry and Honors College Consolidation	RE	\$40M	0.22-0.67	\$15,950,000	\$0	\$0	\$7,466,050	\$0	\$8,483,950
2	Music and Fine Art Relocation to Arts and Administration Building, North Campus	RE	\$36.5M	0.30-0.49	\$12,100,000	\$0	\$0	\$5,663,900	\$0	\$6,436,100
3	College of Education to Quad Area	RE	\$63.7M	0.22-0.67	\$21,780,000	\$0	\$0	\$10,195,020	\$0	\$11,584,980
4	Thomas Jefferson Library Renovation	RE	\$22.0M	0.33	\$11,330,000	\$0	\$4,300,000	\$3,153,470	\$0	\$3,876,530
5	Richter Family Welcome and Alumni Center	RE	\$27.0M	0.48	\$14,200,000	\$0	\$6,500,000	\$3,428,800	\$0	\$4,271,200
Total					\$75,360,000	\$0	\$10,800,000	\$29,907,240	\$0	\$34,652,760

FY23 UMSL Capital Plan Deviations

The following projects have been modified:

- Optometry and Honors College Consolidation
 - Project moved from FY22 to FY23
 - Budget has been increased from \$14,500,000 to \$15,950,000 due to price escalation
 - Funding from the campus has increased from \$7,250,000 to \$7,446,050 and state funding has increased from \$7,250,000 to \$8,483,950

- Music and Fine Arts Relocation to Arts and Administration Building, North Campus
 - Project title was previously Music and Fine Art to General Services Building Consolidation
 - Project moved from FY22 to FY23
 - Budget has been increased from \$11,000,000 to \$12,100,000 due to price escalation
 - Funding from the campus has increased from \$5,500,000 to \$5,663,900 and state funding increased from \$5,500,000 to \$6,436,100

- College of Education to Quad Area
 - Project title was previously College of Education Consolidation
 - Project moved from FY22 to FY23
 - Budget has been increased from \$19,800,000 to \$21,780,000 due to price escalation
 - Funding from the campus has increased from \$9,900,000 to \$10,195,020 and state funding increased from \$9,900,000 to \$11,584,980

- Thomas Jefferson Library Renovation
 - Project title was previously Thomas Jefferson Library/Computer Laboratory Consolidation
 - Project moved from FY22 to FY23
 - Budget has been increased from \$8,000,000 to \$11,330,000 due to price escalation
 - Funding from the campus has increased from \$3,000,000 to \$3,153,470, state funding increased from \$3,000,000 to \$3,876,530 and gift funding has increased from \$2,000,000 to \$4,300,000 including \$1 million Grant from The Bellwether Foundation

- Richter Family Welcome and Alumni Center
 - Project title was previously Welcome Center, the current name was approved at the June 2022 Board meeting
 - Project moved from FY22 to FY23
 - Budget has been increased from \$10,500,000 to \$14,200,000 due to price escalation
 - Funding from the campus has increased from \$2,750,000 to \$3,428,800, state funding has increased from \$2,750,000 to \$4,271,200 and gift funding has increased from \$5,000,000 to \$6,500,000

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

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

FY23 UMSL Strategic Project Plan Deviations (no changes)

Board Approved Project Status Report for Fiscal Year 2022
Project Status as of June 30, 2022

Board Approved Project Status Report for Fiscal Year 2022

Project Status as of June 30, 2022

(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
MU	NextGen Precision Health Institute (formerly named Translational Precision Medicine Complex)	Project Design	\$221,000,000	September 2021	Complete
MU	Sinclair School of Nursing	Project Design	\$30,000,000	August 2022	Construction
MU	Gas Turbine Building – Chilled Water Plant Addition	Project Design	\$21,725,000	August 2021	Complete
MU	MUHC – Children’s Hospital Facility	Project Design	\$232,000,000	June 2024	Construction
MU	Indoor Practice Facility	Naming	\$33,140,000	June 2023	Construction
MU	Research Commons – Thermal Plant	Project Approval	\$9,000,000	January 2024	Design
MU	Power Plant – Replace Turbine 6 with Turbine 10	Project Approval	\$8,000,000	October 2023	Design
MU	Veterinary Medicine Diagnostic Laboratory	Project Design	\$30,000,000	Summer 2024	Construction
MU	Middlebush Farm – NextGen Center of Excellence for Influenza Research	Project Design	\$6,552,000	September 2022	Construction
MU	Lottes Health Sciences Library – Renovation for Consolidation	Project Approval	\$8,500,000	Spring 2024	Design
MU	NextGen Precision Health 4 th Floor Fit-Out	Project Approval	\$16,500,000	Fall 2024	Design
MU	Pershing Commons – Renovation for Student Health Center and School of Medicine/MU Health Car Offices	Project Approval	\$10,860,000	April 2024	Design
MU	MU Research Reactor – West Expansion	Project Approval	\$20,000,000	Fall 2024	Design
UMKC	Bloch Heritage Hall Renovation & Addition	Project Design	\$16,000,000	July 2022	Construction

September 7, 2022

Board Approved Project Status Report for Fiscal Year 2022

Project Status as of June 30, 2022

(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	Student Experience Center	Project Design	\$37,720,750	December 2023	Construction
S&T	Missouri Protoplex – Phase One	Project Design	\$13,068,182	December 2023	Construction
S&T	Subsurface Parking Garage	Project Approval	\$9,920,000	March 2023	Design
S&T	Arrival Court	Project Approval	\$9,600,000	Fall 2023	Design
S&T	Welcome Center	Project Approval	\$25,750,000	December 2024	Design

Project Approval
Medical Science Building - Renovations
MU

The University of Missouri – Columbia requests Project Approval for the Medical Science Building - Renovations project. The total project budget of \$20,000,000 is funded by a \$12,000,000 Federal Health Resources and Services Administration (HRSA) Grant and \$8,000,000 from a State Appropriation.

The Medical Science Building is a key space resource for research laboratories related to the Health Sciences, particularly the School of Medicine. The building has an FCNI of 0.46 with facility needs of \$47 million. The significant size (258,000 gross square feet) and location, connected to the University Hospital, make it imperative to improve the building condition before it reaches critical state and allow its continued use as a laboratory resource well into the future. Updated laboratories will accommodate new faculty hires through the School of Medicine which is a key component to the implementation of Mizzou Forward.

The project will renovate laboratories for School of Medicine researchers which have not been improved in more than 20 years. Various areas of the building have previously undergone laboratory renovations to successfully create modern, modular laboratory areas and collaborative environments. A visioning, programming, and facility needs whole-building master plan study has been recently completed to determine the scale of the additional renovations and connectivity to other infrastructure improvements needed.

Peckham Guyton Albers and Viets, Inc., Westwood, Kansas (PGAV), is the recommended architect for this project. PGAV presented a well-balanced and experienced team with in-depth knowledge and experience in research laboratory programming and design in new laboratory building projects as well as major renovations for research laboratories. PGAV's team and the committee engaged well during the interview. The design team includes Odimo, LLC, Kansas City, Missouri (WBE) for architecture, Ross & Baruzzini, Inc., St. Louis, Missouri for mechanical, plumbing, and fire protection engineering; Antella Consulting Engineers, Inc., Kansas City, Missouri (WBE/MBE) for electrical engineering; and Bob D. Campbell and Company, Kansas City, Missouri for structural engineering.

The selection committee also interviewed Cannon Design, Inc., St. Louis, Missouri; Trivers Associates, Inc./HOK, Inc., St. Louis, Missouri, and Burns and McDonald Engineering Company, Kansas City, Missouri.

The fee for basic architectural and engineering services has been determined by using the University of Missouri's "Architectural and Engineering Basic Services Fee Estimating Guidelines" at 9.2% of the \$13,000,000 construction cost or \$1,200,000. Additional design services totaling \$450,000 include whole-building Master-planning Study; Detailed Programming and Field Verification, Laboratory Planning; A/V & telecommunications; and Phased Construction/Multiple Bid and Procurement packages, for a total fee of \$1,650,000.

The project is expected to be complete by June 2025. The project will be delivered as a traditional Design-Bid-Build project.

September 7, 2022

No. 3

Recommended Action - Project Approval, Medical Science Building - Renovations, MU

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

the project approval for the Medical Science Building – Renovations, MU

Funding of the project budget is from:

Federal HRSA Grant	\$12,000,000
State Appropriation	<u>\$8,000,000</u>
Total Funding	\$20,000,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

Project Approval
Mizzou North Demolition
MU

The University of Missouri – Columbia requests Project Approval for the Mizzou North Demolition project. The total project budget of \$10,00,000 will be funded by the campus.

The Strategic Space Reduction Plan identified Mizzou North as a building with extremely high facility needs and low occupancy. The 223,000 gross square feet building is estimated to need more than \$55 million in facility needs and has a FCNI of 0.65. The building is currently unoccupied.

This project will demolish Mizzou North and the adjacent single story block garage. The project will abate hazardous materials from the building and disconnect all utilities prior to demolition. The site will be graded, site lighting reconnected, and parking lot restored to pre-demolition condition. The project Construction Waste Management Plan has a target goal of at least 50% of non-hazardous demolition and construction debris generated by the project be diverted through recycling or salvage.

PWArchitects, Inc., Columbia, Missouri is the selected architect for this project. Since this project is off campus and connected to City utilities, a local firm was desired. The project team includes Ross & Baruzzini, Inc., St. Louis, Missouri for mechanical and electrical engineering, and Engineering Surveys & Services, LLC, Columbia, Missouri for civil engineering.

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 I – Renovation (considerably less than average complexity), and the calculated basic services fee is \$98,190 based upon 1.33% of the estimated \$7,400,000 construction cost.

The project is expected to be complete by January 2024. The project will be a traditional Design-Bid-Build project.

September 7, 2022

No. 4

Recommended Action - Project Approval, Mizzou North Demolition, MU

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

the project approval for the Mizzou North Demolition, MU

Funding of the project budget is from:

Campus	<u>\$10,000,000</u>
Total Funding	\$10,000,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

Project Approval
Virginia Avenue Parking Structure Repairs
MU

The University of Missouri – Columbia requests Project Approval for the Virginia Avenue Parking Structure Repairs project. The total project budget of \$16,00,000 will be funded by \$14,000,000 in internal loans and \$2,000,000 in Parking Reserves.

The Virginia Avenue Parking Structure was constructed as a design/build project in 2002. The 577,631 gross square feet structure is located between Hitt Street and Virginia Avenue, north of the University Physicians Medical Building and provides over 1850 parking spaces and over 23,000 gross square feet of finished space for MU Police Department and Landscaping. In the fall of 2021, a joint separation was discovered at the southwest corner of parking structure. Structural Engineers were engaged to evaluate the garage and additional locations were identified. These locations have been stabilized and are monitored regularly. The ongoing evaluation has included destructive testing, movement monitoring and regular structural observations of the parking structure. In July of 2022, additional new connection failures were found. These locations are being stabilized and monitored. Based on the new failures and ongoing movement in the garage, the engineer has indicated that underpinning of the parking structure will likely be necessary to prevent further joint failures and movement. A soils investigation is underway that will confirm the need to underpin the parking structure.

The project will include underpinning ninety-three column foundations using micro-piles. This will require the demolition and excavation of the ground floor slab adjacent to all columns. The micro pile installation will require the temporary relocation of the current finished space on the ground floor of the parking structure. In addition to underpinning, this project will address all outstanding maintenance repairs in the garage. Repairs will include repairs to double tee connections and bearing pads, partial depth concrete repairs, installation of traffic membrane, sealant replacement and expansion joint replacement. The parking structure will be closed throughout the underpinning and maintenance repair project.

Structural Engineering Associates, Kansas City, Missouri is the recommended engineer for this project. SEA has decades of experience in structural investigation, monitoring, and restoration repairs of parking structures. They have led the investigation, monitoring, and stabilization efforts to date.

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 I – Renovation (considerably less than average complexity), and the calculated basic services fee is \$731,600 based upon 6.2% of the estimated \$11,800,000 construction cost.

The project is expected to be complete by Fall 2023. The project will be delivered as a Construction Manager at Risk project so the construction can be expedited to minimize the duration the parking structure will be closed.

September 7, 2022

No. 5

Recommended Action - Project Approval, Virginia Avenue Parking Structure Repairs, MU

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

the project approval for the Virginia Avenue Parking Structure Repairs, MU

Funding of the project budget is from:

Parking Reserves	\$2,000,000
Internal Loan	<u>\$14,000,000</u>
Total Funding	\$16,000,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

September 7, 2022

Project Reapproval
Research Commons – Thermal Plant
MU

The University of Missouri - Columbia requests project reapproval for the Research Commons Thermal Plant project. Total project budget has increased from \$9,000,000 to \$13,000,000 and is funded from MU Energy Management Capital Reserves. The increase in total project budget is attributed to the escalation in materials, equipment, and labor from the cost estimate in the original 2020 study to present.

The Research Commons Thermal Plant project will enhance the campus steam supply resiliency by placing a portion of the steam capacity generation in a location other than the power plant located at the northwest corner of campus. The project will remove up to \$14.6 million of infrastructure cost by eliminating the need to replace a failing north steam main serving the Research Commons area (\$8.3 million) and replacing a boiler in the power plant which is at the end of its useful life (\$6.3 million).

This project will provide a 4,100 gross square feet thermal plant located in the Research Commons area to serve as an additional source of steam capacity for the campus. The boiler in this plant will provide up to 75,000 pounds per hour of reliable steam capacity for current and future growth of the campus, such as NextGen Precision Health Institute and the new Children's Hospital.

Construction is expected to be completed in January 2024. The project will be delivered as a traditional Design-Bid-Build project.

No. 6

Recommended Action - Project Reapproval, Research Commons – Thermal Plant, MU

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

the project reapproval for the Research Commons – Thermal Plant, MU

Funding of the project budget is from:

MU Energy Management Capital Reserves	<u>\$13,000,000</u>
Total Funding	\$13,000,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

Project Approval
School of Medicine, St Joseph's Facility
UMKC

The University of Missouri – Kansas City requests Project Approval for the School of Medicine, St. Joseph's Facility project. The total project budget of \$14,500,000 is funded by a \$13,000,000 Federal Health Resources and Services Administration (HRSA) Grant and \$1,500,000 from a State Appropriation.

UMKC School of Medicine (SOM) has established an additional location in Saint Joseph, Missouri to recruit, prepare, and encourage graduates to become part of the primary health care community in rural Missouri counties. This goal addresses the existing shortage of primary care physicians practicing and is consistent with the mission of the UMKC SOM and the UMKC strategic plan. To achieve this objective, UMKC SOM has launched a collaborative relationship with Mosaic Life Care. This clinical campus will serve as the training site for MD track students in the medical school training program sponsored by UMKC SOM. The UMKC SOM will begin this initiative by admitting twenty (20) additional students per year and locate them at the Saint Joseph campus. Students admitted to the rural curriculum tract at UMKC SOM will complete their four-year training program onsite in Saint Joseph, eventually resulting in eighty (80) students at UMKC SOM, St. Joseph. The new facility will allow the UMKC SOM to provide much-needed health care practitioners who will serve rural Missouri communities.

This project will construct a School of Medicine Building of approximately 22,000 gross square feet on the Mosaic Hospital Campus. Creation of the new UMKC SOM-Saint Joseph facility will provide student support and study space, classrooms, group meeting rooms, a simulation center, and other associated spaces.

Clark and Enersen, Inc., Kansas City, Missouri, is the recommended architect/engineer team for this project. The team presented a well-balanced and experienced team with a significant amount of medical school experience and in-depth knowledge of the School of Medicine shown through their ongoing work with the UMKC School of Medicine, as well as the recent completion of HRSA grant submissions for UMKC and other institutions. Clark and Enersen will provide architectural, mechanical, plumbing, and electrical engineering; Leigh & O'Kane, LLC, Lee's Summit, Missouri (WBE) will provide structural engineering; Taliaferro & Brown, Inc., Kansas City, Missouri (MBE) will provide civil engineering.

The selection committee also interviewed Helix Architecture and Design, Kansas City, Missouri, and Peckham Guyton Albers Viets, Inc., Westwood, Kansas.

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 V – New Construction (considerably more than average complexity), and the calculated basic services fee is \$790,000 based upon 7.5% fee of the estimated \$10,000,000 construction cost. A total of \$40,000 in pre-approved additional services was added to the basic services fee amount to arrive at a total maximum fee of \$790,000.

The project is expected to be completed in January 2025. The project will be delivered as a traditional Design-Bid-Build project.

September 7, 2022

No. 7

Recommended Action - Project Approval, School of Medicine, St Joseph's Facility, UMKC

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

the project approval for the School of Medicine, St Joseph's Facility, UMKC

Funding of the project budget is from:

State Appropriation	\$1,500,000
Federal HRSA Grant	<u>\$13,000,000</u>
Total Funding	\$14,500,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

Project Approval
Missouri Protoplex – Phase II
S&T

Missouri University of Science & Technology requests Project Approval for the Missouri Protoplex – Phase II project. The total project budget of \$79,527,586 is funded by \$33,277,586 in private gifts and \$46,250,000 from a state appropriation.

The Missouri Protoplex is intended to develop advanced manufacturing in Missouri and the highly skilled, future-ready workforce needed to position Missouri as a global leader in advanced manufacturing, manufacturing education, research and development, technical assistance, outreach, and entrepreneurship. As Missouri's STEM-focused research university and the only university in the state that offers a manufacturing engineering degree, Missouri S&T has the expertise, location, and educational programs to lead this initiative and stimulate advanced manufacturing in Missouri and the U.S. The Missouri Protoplex will serve as the anchor facility for the new Manufacturing Technology and Innovation Campus connecting industry, state and federal agencies, and colleges and universities throughout Missouri to develop new processes and products for Missouri manufacturers. The Protoplex will also streamline the process of moving research and innovation from university labs to the marketplace.

The Missouri Protoplex – Phase II project will construct the Missouri Protoplex Facility and related site improvements at the site of the current General Services Building, near Exit 185 to the north of Interstate 44 and east of White Columns Drive. The new building includes high bay laboratories; enclosed lab and shop spaces; storage; offices; meeting and collaboration space; lobby and display space; and general building support. The high bay spaces are along the south side of the building facing Interstate 44. The other program space will be located in two-stories north of the high bay area. The total building area will be approximately 116,000 gross square feet (gsf), with 70,000 gsf built out.

Mackey Mitchell Architects, PC, St. Louis, Missouri is the recommended architect for this project. The Mackey Mitchell team is a highly qualified with knowledge of the S&T campus as well as extensive experience in advanced manufacturing, education, research, and development. The design team includes Perkins and Will, Inc., Chicago, Illinois providing design architecture, laboratory planning, way finding/branding; David Mason & Associates, Inc., St. Louis, Missouri (MBE) for civil engineering; SWT Design, Inc., St Louis, Missouri for landscape architecture; KPFF, Inc., St. Louis, Missouri for structural engineering; The McClure Corporation, St Louis, Missouri for mechanical, plumbing, fire protection and site utilities; and Antella Consulting Engineers, Inc., Kansas City, Missouri (MBE/WBE) for electrical engineering.

The selection committee also interviewed Clark and Enersen, Inc., Kansas City, Missouri, and Hastings and Chivetta Architects, Inc. St. Louis, Missouri.

September 7, 2022

The fee for basic architectural and engineering services has been determined by using the University of Missouri's "Architectural and Engineering Basic Services Fee Estimating Guidelines." The project is considered a Type IV – New Construction (more than average complexity), and the maximum basic services calculated fee for this project is \$3,102,000 based upon 5.8% of new construction cost of \$53,482,758. Additional services for engagement of signature architect design, laboratory planning and design, high bay equipment coordination, AV design, wayfinding graphics, security design, early design packages for construction and renderings is anticipated to be \$1,522,132.00 for a total design fee of \$4,624,132.00.

The construction cost is \$461/GSF and is expected to be complete by May 2025. The project will be delivered using Construction Manager at Risk due to the size, complexity, and schedule requirements of this project.

No. 8

Recommended Action - Project Approval, Missouri Protoplex – Phase II, 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:

the project approval for the Missouri Protoplex – Phase II, Missouri S&T

Funding of the project budget is from:

State Appropriation	\$46,250,000
Gifts	<u>\$33,277,586</u>
Total Funding	\$79,527,586

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

Project Approval
Substation Relocation
Missouri S&T

Missouri University of Science and Technology requests Project Approval for the Substation Relocation project. The project budget of \$8,774,898 and will be funded by \$910,984 from Federal Stabilization Budget Funding authorized by the State in January 2021 and \$7,863,914 from campus reserves.

The existing substation is located in the heart of the new arrival district and has insufficient capacity for the proposed campus expansion. The current electrical infrastructure is a loop system to allow for redundancy during a power failure. However, it is only connected to one Rolla Municipal Utility (RMU) substation. If this RMU substation fails, the campus is without power. This project will increase reliability for the campus power.

This project will construct two separate substations: one north of campus and one east of campus. These two substations will allow the campus to connect to two Rolla Municipal Utility substations, allowing for additional redundancy.

The McClure Corporation, St. Louis, Missouri is the recommended engineer for this project. McClure has completed multiple projects on the existing substation and has extensive knowledge of the electrical infrastructure on the campus. The design team includes Power Engineers, Inc., St. Louis, Missouri for specialty utility design; and Archer-Elgin Surveying and Engineering, LLC, Rolla, Missouri for civil engineering.

The fee for basic architectural engineering services for the Substation Relocation 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, and the basic services fee is \$485,000 based upon 8.0% of the estimated \$6,000,000 construction cost.

The project is expected to be complete by October 2023. The project will be delivered as a traditional Design-Bid-Build project.

September 7, 2022

No. 9

Recommended Action - Project Approval, Substation Relocation, 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:

the project approval for the Substation Relocation, Missouri S&T

Funding of the project budget is from:

State (Federal Stabilization Budget Funding)	\$910,984
Campus Reserves	<u>\$7,863,914</u>
Total Funding	\$8,774,898

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

Project Approval
College of Education to Quad Area
UMSL

The University of Missouri – St. Louis requests Project Approval for the College of Education to Quad Area project. Funding for the \$21,780,000 project consists of \$11,584,980 appropriation from the State and \$10,195,020 from the campus.

The College of Education to Quad Area project is aligned with UMSL’s ten-year Master Plan, Space Survey, and ISES Report by addressing two major findings. First, all studies have identified UMSL as having excessive space compared to campus demands resulting in unsustainable operating costs. Second, the Master Plan has identified that UMSL is lacking common areas where students can study, learn, and collaborate with their peers resulting in lost enrollment to other state schools. This consolidation effort is vital to UMSL’s survival, and will reduce UMSL’s overall footprint, lowering the gross square feet (gsf), thus reducing operational expenses, and addressing deferred maintenance across seven buildings while adding collaboration space to help retain and attract student enrollment. The College of Education is primarily operating in several buildings on South Campus, South Campus Classroom Building, and Marillac Hall where the FCNI exceeds campus standards. Renovating underutilized space at the Social Sciences Building on North Campus will allow UMSL to consolidate the college and reduce UMSL’s facilities needs. This project will contribute to the overall \$45 million estimated savings for all UMSL proposed consolidation projects. This project is necessary to begin steps in the strategic plan to improve space efficiencies across campus and help bring education programs up to modern teaching platforms by adding technology to the classrooms.

This project will renovate the Social Science Building (SSB), demolish the tower, and construct a small addition. The renovation of SSB will include constructing offices, laboratories, classrooms, and common core areas to consolidate space for the College of Education to move from South Campus. The project will also include extensive renovation to common use areas to allow students to study and collaborate. The renovation will replace mechanical, plumbing, and electrical systems, correct building envelope issues, address life safety and ADA issues as well as providing the technology required to teach and learn in today’s modern-day world.

Peckham Guyton Albers & Viets, Inc., Westwood, Kansas (PGAV) is the recommended architect for this project. PGAV proposed an excellent team to manage and design this project. The PGAV team completed the study for this project and has extensive knowledge of the Social Science Building (SSB) that will be beneficial to design discussions and in understanding how proposed solutions fit into the building and managing cost. The design team includes Ross & Baruzzini, Inc., St. Louis, Missouri for mechanical, plumbing, and electrical engineering; and David Mason + Associates, Inc., St. Louis, Missouri (MBE) for civil and structural engineering.

September 7, 2022

The selection committee also interviewed Wm. B. Ittner Incorporated, St. Louis, Missouri; Christner, Inc., St. Louis, Missouri (WBE); JEMA, LLC., St. Louis, Missouri; and Tao + Lee Associates, Inc., St. Louis, Missouri (MBE).

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 III - Renovation (average complexity), and the calculated basic services fee is \$1,211,800 based upon 7.3% of the estimated \$16,600,000 construction cost. Additional services to the basic design fee include: Reliability analysis (mechanical and electrical), renderings/models, Audio/Visual consultant, and measured drawings of existing facilities. A total of \$125,200 in pre-approved additional services was added to the basic services fee amount to arrive at a total maximum fee of \$1,337,000.

The project is expected to be complete by Winter 2025. The project will be delivered as a traditional Design-Bid-Build project.

No. 10

Recommended Action - Project Approval, College of Education to Quad Area, UMSL

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

the project approval for the College of Education to Quad Area, UMSL

Funding of the project budget is from:

State Appropriation	\$11,584,980
Campus	<u>\$10,195,020</u>
Total Funding	\$21,780,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

September 7, 2022

Project Approval
Thomas Jefferson Library Renovation
UMSL

The University of Missouri – St. Louis requests Project Approval for the Thomas Jefferson Library Renovation project. Funding for the \$11,330,000 project consists of \$3,300,000 of gifts, \$3,876,530 appropriation from the State, \$3,153,470 from the campus, and \$1,000,000 grant from The Bellwether Foundation.

The project aligns with UMSL’s ten-year Master Plan by addressing the deficiency of common study areas and collaboration spaces on campus. The Master Plan identified a lack of common areas where students can study, learn, and collaborate with peers resulting in lost enrollment to other state schools. In conjunction with the north campus consolidation efforts, the quad area will become densely populated which creates the need for an additional library entry from the north. This new entrance will allow students to more easily access the Thomas Jefferson Library from the core classroom buildings that surround the quad. This renovation is vital to UMSL’s future, by aiding in attracting new students and will help with student retention.

Renovation of the Thomas Jefferson Library will include a new entrance into the quad, which will support the north campus consolidation growth and extensive renovations of common student areas that will allow students additional new spaces to study and collaborate. This project will also include relocation of the existing cafe area to the north side of the building, closer to the quad area for easier student access. Additionally, the project consolidates the computer labs on north campus, and provides new classrooms with associated modern technology. Exterior improvements include the additional new entrance with improved signage, sidewalks, and improved accessible routes. Infrastructure enhancements include updated HVAC, updated security system, and improvements to the building envelope. The project will also include a new art gallery in the adjacent Mercantile Library space.

eddy Design Group, LLC (WBE), Wildwood, Missouri, is the recommended architect for this project. eddy presented a well-balanced team of experts with in-depth knowledge of interior renovations and provided concepts for ways to reimagine the current library spaces. The design team includes SSC Engineering, Inc., Chesterfield, Missouri, for structural engineering, and G&W Engineering Corporation, Maryland Heights, Missouri, for mechanical, electrical, and plumbing engineering.

The selection committee also interviewed Peckham Guyton Albers & Viets, Inc., Westwood, Kansas, and Lamar Johnson Collaborative, Inc., St. Louis, Missouri.

The fee for basic architectural and engineering services has been determined by referencing the University of Missouri’s “Architectural and Engineering Basic Services Fee Estimating Guidelines.” The project is considered a Type IV (more than average complexity), and the calculated basic services fee is \$642,400 based upon 8.8% of the estimated \$7,300,000 construction cost. Additional services to the basic design fee include: Reliability analysis

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(mechanical and electrical), renderings/models/videos, assistance with grant and funding applications, and measured drawings of existing facilities. A total of \$96,360 in pre-approved additional services was added to the basic services fee amount to arrive at a total maximum fee of \$738,760.

The project will be delivered traditional Design-Bid-Build and is expected to be complete by Winter 2024.

No. 11

Recommended Action - Project Approval, Thomas Jefferson Library Renovation, UMSL

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

the project approval for the Thomas Jefferson, Library Renovation, UMSL

Funding of the project budget is from:

Gifts	\$3,300,000
Grant - The Bellwether Foundation	\$1,000,000
State Appropriation	\$3,876,530
Campus	<u>\$3,153,470</u>
Total Funding	\$11,330,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

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Project Approval
Music and Fine Arts Relocation to Arts and Administration Building, North Campus
UMSL

The University of Missouri – St. Louis requests Project Approval for the Music and Fine Arts Relocation to Arts and Administration Building, North Campus project. Funding for the \$12,100,000 project consists of a \$6,436,100 appropriation from the State and \$5,663,900 from the campus.

This project is aligned with UMSL’s ten-year Master Plan, Space Survey, and ISES Report by addressing two major findings. First, all studies have identified UMSL as having excessive space compared to campus demand resulting in unsustainable operating expenses. Second, the Master Plan has identified that UMSL is lacking common areas where students can study, learn, and collaborate with their peers resulting in lost enrollment to other state schools. The proposed consolidation effort is vital to UMSL’s survival and will reduce UMSL’s overall footprint, lowering the gross square feet (gsf), thus reducing operational expenses, and addressing facilities needs across seven buildings while adding collaboration space to help retain and attract student enrollment. If all the proposed projects (School of Optometry & Honors College consolidation, College of Education to Quad Area, & Music and Fine Arts to AAB) are approved and implemented, \$45 million in facilities needs will be eliminated.

This project will relocate the programs in the Music and Fine Arts buildings into the Arts and Administration Building on North Campus. This affords the opportunity to demolish the Music Building and eliminate a significant amount of deferred maintenance. These changes will support the University’s effort to make better use of existing spaces and focus the core academic facilities to the center of the campus and away from the peripheries. The project will include new infrastructure, classrooms, teaching labs, and associated technology required to teach and learn in today’s modern education environments. The renovation of the Arts and Administration Building will include: faculty and staff offices, large ensemble practice space and/or recital hall, music practice rooms, classroom, and support spaces (i.e., conference/meeting rooms, kitchen, lounge, workroom, and storage).

Patterhn Ives Architects, St. Louis, Missouri (WBE) is the recommended architect for this project. Patterhn Ives demonstrated successful experience with similar projects such as the renovation of the Missouri State University’s Music Hall. Their comprehensive understanding of pedagogy, mission, and philosophy of UMSL’s Department of Music was impressive and the key differentiation compared to other architect firms. Patterhn Ives team includes The McClure Corporation, St. Louis, Missouri for mechanical, plumbing, electrical, fire protection and telecommunications; and KPFF, Inc., St. Louis, Missouri for structural engineering.

The selection committee also interviewed Ittner Architects, Inc., St. Louis, Missouri and V Three Studios, LLC, Maplewood, Missouri.

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The fee for basic architectural and engineering services has been determined by referencing the University of Missouri's "Architectural and Engineering Basic Services Fee Estimating Guidelines." The project is considered a Type IV - Renovation (considerably more complex than average), and the calculated basic services fee is \$782,600 based upon 8.6% of the estimated \$9,100,000 construction cost. Renderings/models/videos, engagement of an acoustics consultant, AV coordination, electrical evaluation study, and an elevator consultant. A total of \$115,400 in pre-approved additional services was added to the basic services fee amount to arrive at a total maximum fee of \$898,000.

The project is expected to be complete by Fall 2024. The project will be delivered traditional Design-Bid-Build.

No. 12

Recommended Action - Project Approval, Music and Fine Arts Relocation to Arts and Administration Building, North Campus, UMSL

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

the project approval for the Music and Fine Arts Relocation to Arts and Administration Building, North Campus, UMSL

Funding of the project budget is from:

State Appropriation	\$6,436,100
Campus	<u>\$5,663,900</u>
Total Funding	\$12,100,000

Roll call vote Finance Committee YES NO
Curator Graves
Curator Hoberock
Curator Layman
Curator Williams

The motion _____.

Roll call vote Full Board: YES NO
Curator Brncic
Curator Chatman
Curator Graves
Curator Hoberock
Curator Holloway
Curator Layman
Curator Wenneker
Curator Williams

The motion _____.

Project Approval
Optometry and Honors College Consolidation
UMSL

The University of Missouri – St. Louis requests Project Approval for the Optometry and Honors College Consolidation project. Funding for the \$15,950,000 project consists of a \$8,483,950 appropriation from the State and \$7,466,050 from the campus.

This project is aligned with UMSL’s ten-year Master Plan, Space Survey, and ISES Report by addressing two major findings. First, all studies have identified UMSL as having excessive space compared to campus demand resulting in unsustainable operating expenses. Second, the Master Plan has identified that UMSL is lacking common areas where students can study, learn, and collaborate with their peers resulting in lost enrollment to other state schools. The proposed consolidation effort is vital to UMSL’s survival and will reduce UMSL’s overall footprint, lowering the gross square feet (gsf), thus reducing operational expenses, and addressing facilities needs across seven buildings while adding collaboration space to help retain and attract student enrollment. If all the proposed projects (School of Optometry & Honors College Consolidation, College of Education , & Music, and Fine Arts to AAB) are approved and implemented, \$45million in facilities needs will be eliminated.

The School of Optometry is primarily operating on South Campus in three buildings, Patient Care Center, South Campus Classroom Building and Marillac Hall, where space is grossly underutilized, and/or the FCNI index exceeds campus standards. Renovating underutilized space at the Patient Care Center, Provincial House, and Social Sciences Building (North Campus) will allow UMSL to consolidate and reduce UMSL’s footprint. This campus consolidation effort will include the demolition of the six buildings on the South Campus including: Marillac Hall, E. Desmond Lee Technology and Learning Center, Education Administration Building, Music Building, Sassin Building, and South Campus Classroom Building. These demolition efforts will prepare South Campus for future economic developments. This project will renovate Provincial House to support the Honors College and the school of Optometry.

Provincial House was built in 1916 and has approximately \$18 million of facilities needs. The renovation of Provincial House will include constructing offices, laboratories, classrooms, and common core areas to support Optometry and the Honors College. The renovation will replace mechanical, plumbing, and electrical systems, correct building envelope issues, address life safety issues as well as providing the technology required to teach and learn in today’s modern-day world.

Wm. B Ittner Incorporated, St. Louis, MO is the recommended architect for this project. Ittner presented a well-balanced team of experts with in-depth knowledge of higher education and historical renovation experience. They demonstrated impressive cost control on previous projects despite supply chain issues in the market overall. The team includes KAI Engineering, LLC, St. Louis, Missouri (MBE) for mechanical, plumbing, and electrical

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engineering; David Mason + Associates, Inc., St. Louis, Missouri (MBE) for civil and structural engineering; and DTLS, Inc., St. Louis, Missouri (WBE) for landscape architecture.

The selection committee also interviewed Christner, Inc., St. Louis, Missouri (WBE); JEMA, LLC, St. Louis, Missouri; Tao + Lee Associates, Inc., St. Louis, Missouri (MBE); Peckham Guyton Albers and Viets, Inc., Westwood, Kansas.

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 III - Renovation (average complexity), and the calculated basic services fee is \$927,200 based upon 7.6% of the estimated \$12,200,000 construction cost. Additional services to the basic design fee include: Reliability analysis (mechanical and electrical), renderings/models/videos, and measured drawings of existing facilities. A total of \$55,800 in pre-approved additional services was added to the basic services fee amount to arrive at a total maximum fee of \$983,000.

The project is expected to be complete by Summer 2025. The project will be delivered as a traditional Design-Bid-Build project.

No. 13

Recommended Action - Project Approval, Optometry and Honors College Consolidation, UMSL

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

the project approval for the Optometry and Honors College Consolidation, UMSL

Funding of the project budget is from:

State Appropriation	\$8,483,950
Campus	<u>\$7,466,050</u>
Total Funding	\$15,950,000

Roll call vote Finance Committee	YES	NO
Curator Graves		
Curator Hoberock		
Curator Layman		
Curator Williams		

The motion _____.

Roll call vote Full Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

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Project Approval
Welcome and Alumni Center
UMSL

University of Missouri – St. Louis requests project approval for the Richter Family Welcome and Alumni Center. Funding for the \$14,200,000 project consists of a \$4,271,200 appropriation from the State, \$3,428,800 from the campus, and \$6,500,000 from gifts.

This project is aligned with UMSL’s ten-year Master Plan by focusing growth on the North Campus and leveraging underutilized space. The JC Penney (JCP) Building’s location and underutilized space provides an excellent opportunity to provide a new “front door” to the campus and to increase student enrollment. The Welcome and Alumni Center will provide this new “front door” to welcome visitors, alumni, and potential students to campus.

This project will renovate underutilized space in the JC Penney Building and provide a new façade to the existing building. The project will construct a new lobby, welcoming area, large gathering area, meeting rooms and outdoor plaza. The renovation will update mechanical, electrical and plumbing systems as needed and provide updated technology to the facility. New office suites will be built to support campus Admissions, Alumni Activities, and New Student Programs groups.

Lamar Johnson Collaborative, Inc., St. Louis, Missouri (LJC) is the recommended architect for this project. LJC has a deep understanding of the UMSL campus and mission having completed the Campus Master Plan in 2021. LJC also completed the initial study for the Welcome/Alumni Center which was well received and created momentum for university fundraising. They have a strong track record of higher education projects and proposed a professional and capable design team. The design team includes Ross & Baruzzini, Inc., St. Louis, Missouri for mechanical, plumbing, and electrical engineering; and David Mason and Associates, Inc., St. Louis, Missouri (MBE) for civil and structural engineering.

The selection committee also interviewed Patterhn Ives, LLC, St. Louis, Missouri; JEMA, LLC, St. Louis, Missouri; Trivers and Associates, Inc., St. Louis, Missouri; Wm. B. Ittner Incorporated, St. Louis, Missouri.

The fee for basic architectural and engineering services has been determined by referencing the University of Missouri’s “Architectural and Engineering Basic Services Fee Estimating Guidelines.” The project is considered a Type IV - Renovation (more complex than average), and the calculated basic services fee is \$821,300 based upon 8.6% of the estimated \$9,550,000 construction cost. Additional services to the basic design fee include: soils investigations/reports/geotechnical surveys, renderings/models/videos, and measured drawings of existing facilities. A total of \$82,130 in pre-approved additional services was added to the basic services fee amount to arrive at a total maximum fee of \$903,430.

The project is expected to be complete by Summer 2025. The project will be delivered as a traditional Design-Bid-Build project.

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AUDIT, COMPLIANCE AND ETHICS COMMITTEE

Keith A. Holloway (Chair)

Julia G. Brncic

Jeff L. Layman

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;
 - 2. in conjunction with the Governance, Compensation and Human Resources Committee, the appointment, compensation, annual performance evaluation and termination of the University’s Chief Audit and Compliance Officer;
 - 3. 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:
 - 1. Administrative compliance risks
 - 2. Healthcare compliance risks
 - 3. Research compliance risks
 - 4. Information security compliance risks
 - 5. 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:

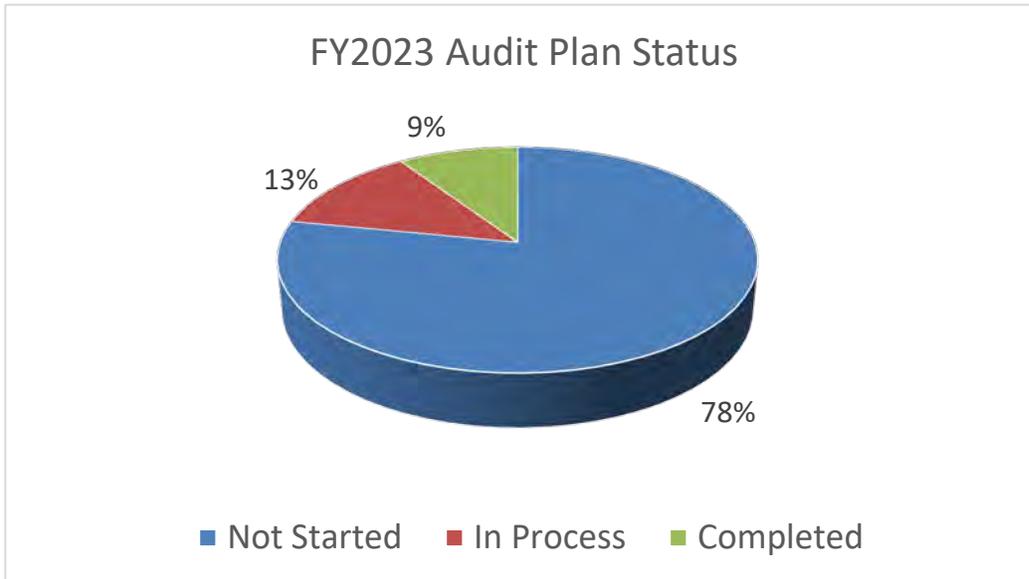
1. the independence, performance, resources and structure of the internal audit, compliance and ethics functions;
2. audit reports and open audit issue status updates;
3. management's written responses to significant findings and recommendations by the auditors;
4. the adequacy of the University's information 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; and
6. the effectiveness of the compliance and ethics program ensuring it has appropriate standing and visibility across the system.

Internal Audit, Compliance and Ethics Quarterly Report
UM

Status of the FY2023 Annual Audit Plan

- Three audits/consulting projects completed
- Four audits/consulting projects in process
- Twenty-five audits/consulting projects not started

The following graph represents the status of the FY2023 Audit Plan.



Audit Performance

Since the June 2022 meeting of the Audit Committee, Internal Audit completed the Third-Party Risk Management consulting engagement, the UMSL College of Business Administration audit, the MUH Missouri Telehealth Network audit, six investigations, and completed verification of action plan implementation for prior audits.

Third Party Risk Management Consulting Engagement – MU/MUH

2020 Guidance provided by the US Department of Justice (DOJ) on the *Evaluation of Corporate Compliance Programs* places an increased emphasis on third-party risk. Important characteristics of an effective third-party risk management program include:

- Engagement in risk management throughout the life of the relationship.
- Contract terms that accurately describe the work to be performed, and evidence the work is being completed.
- Compensation aligned with similar work in the industry and geographic area.

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This consulting engagement was performed to provide leadership information about what aspects of a third-party risk management program are in place and recommendations for moving towards a more effective program. As more goods and services are outsourced, the ability to manage and continuously monitor third-party risks becomes increasingly important. A third-party risk management approach includes:

1. Identifying third-party risks
2. Implementing risk management program policies and procedures
3. Consolidating the data about third parties and contracts into one repository
4. Gathering additional data about third parties through sources that vendors or others will provide
5. Conducting initial risk assessment scoring and classification of third parties

Once the classification of vendors from a risk perspective is established, the next step is defining the ongoing monitoring, including:

6. Ongoing due diligence of third parties
7. Onboarding and termination of third parties
8. Oversight, reporting, and analytics
9. Contract management
10. Issue and case management

Conclusion

This engagement confirmed that many risk management activities are occurring at both UM System and MUHC. Focusing on two key elements will build a foundation for more formal and cohesive third-party risk management program. These elements are:

1. A third-party risk management program that aligns risk ranking with all subsequent activities to ensure highest risk vendors/partners/acquisitions receive the most scrutiny.
2. Leverage technical tools/repositories currently in place throughout UM System and MUHC by linking and/or integrating the various systems used to store proposals, bids, contracts, justifications, statements of work, questionnaires, risk assessments, etc. This will facilitate appropriate due diligence activities for higher risk vendors.

Internal Audit Summary Report
UMSL, College of Business Administration
May 2022



Background

The College of Business Administration (COBA) and University of Missouri – St. Louis (UMSL) has been a center for education of business professionals in St. Louis and the Midwest for over 50 years. Accredited by the world’s premier business school accrediting organization, the Association to Advance College Schools of Business (AACSB), the College of Business Administration is one of two business schools in St. Louis to hold the distinction. UMSL is the only public university in the region to carry dual AACSB accreditations for its business and accounting programs at undergraduate and graduate levels. The College of Business Administration offers programs in management, marketing, accounting, finance, information systems, supply chain management, cybersecurity, entrepreneurship, and international business. UMSL reported enrollment of 15,205 students in fall 2021, over 2,800 of which are enrolled in undergraduate or graduate programs at the College of Business Administration. Dr. Joan Phillips has been dean of the College of Business Administration since 2021, following the retirement of Dean Charles Hoffman.

Issues Summary

1. Reconciliations of revenue collected from the Midwest Digital Marketing Conference ticket sales via Authorize.net with the general ledger should be done by the College of Business Administration to verify all funds received are posted timely and accurately. This reconciliation is not occurring.
2. Net proceeds from the Midwest Digital Marketing Conference should be used for scholarships, faculty research, etc. as advertised on the conference website. No evidence was found this is occurring. There is a miscommunication and/or misunderstanding between conference facilitators and the fiscal office regarding use of Midwest Digital Marketing Conference funds.

Management Action Plan Summary

1. Management has agreed as batch settlements for Midwest Digital Marketing Conference are received, the College of Business Administration business manager will prepare a reconciliation between revenue indicated in the Gateway report (Authorize.net) and revenue received in the Midwest Digital Marketing Conference operating account.
2. Management has changed the language on the Midwest Digital Marketing Conference website to reflect current practices for use of conference proceeds.

Risk Rating Rationale

The two issues identified are easily addressed and do not pose any significant risk to the College of Business Administration.

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Internal Audit Summary Report
MUH, Missouri Telehealth Network
June, 2022



Background

The Missouri Telehealth Network (MTN) was established in 1994 with the goal of utilizing telehealth technology to connect rural patients in Missouri with specialty care. Today, MTN activities are directed towards facilitating the adoption of telehealth across the state of Missouri, in support of improving disease management and health outcomes. Through [Show-Me Extension for Community Healthcare Outcomes](#) (ECHO), MTN is recognized as a global leader in the ECHO model, sharing expertise, research, and resources to support and facilitate development of new ECHO program hubs.

Beginning in 2010, MTN partnered with [Heartland Telehealth Resource Center](#) (HTRC) to become one of 12 regional resource centers with the objective to increase access to healthcare for underserved rural, urban, and frontier populations. In 2014, MTN launched Show-Me ECHO, based on the [University of New Mexico Project ECHO](#) program, which trains providers in specific disease states or conditions. Show-Me ECHO uses videoconferencing to connect primary care providers and other health professionals with interdisciplinary experts in interactive, case-based learning to develop advanced clinical skills and best practices, focusing on improving patient care access, quality, and efficiency. Currently, MTN delivers nearly 40 ECHO learning sessions, which are provided at no cost and offer free continuing education credits to participants. Show-Me ECHO has been designated as one of 24 global “superhubs” for developing best practices and providing training to other organizations to grow ECHO programs. Rachel Mutrux serves as the Director/Administrator of MTN.

In January 2020, MTN was combined with four other units [Community Health Engagement and Outreach (Extension), Continuing Education for Health Professions (Extension), Rural Health Education (School of Medicine), and Center for Health Policy (School of Medicine)] into the new Office of Health Outreach, Policy and Education (HOPE). HOPE is led by Kathleen Quinn, the Associate Dean of Rural Health (School of Medicine), and Associate Dean and Senior Program Director for Health and Safety (MU Extension).

MTN is funded through state appropriations, grants, and contracts, with 36% of funding received from state appropriations, and 64% from grants and contracts. State appropriations fund the general promotion of telehealth at MTN. The Show-Me ECHO program receives an appropriation from the State, as well as \$3M annually from Missouri’s managed Medicaid health plans. Additional funds for the development of specific ECHO projects and programming come from various grant awards and contracts. Neither the University nor School of Medicine allocate funds to MTN. University Physicians had provided \$26K towards the MTN Director’s salary, but that recently ended.

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Over the past few years, the obligated funds account at MTN has grown to \$7M. This audit was conducted to provide assurance department funds are being spent appropriately, and to understand potential drivers behind the growing obligated funds account.

Issues Summary

1. Testing of nearly 50% of expense transactions resulted in zero exceptions, providing confirmation MTN is expending funds (grants, state appropriations, managed care funds) appropriately and in accordance with official guidance and source requirements. The monthly budget reconciliation process provides an effective method of reviewing and validating transaction activity.
2. The largest increase in the obligated funds account (\$5.2M) occurred in FY19 and was due to the initial delay in state funds allocation to managed care plans (six months), plus the time required for the university to fully execute agreements with managed care plans (nine months). MTN received two years of funding (\$6M) in a nine-month period in FY19.
3. The impact of COVID-19 and School of Medicine-mandated budget cuts and spending restrictions imposed on MTN in FY20-21 contributed to additional obligated funds growth (\$1.7M).
4. School of Medicine dissolution of MTN service contracts, plus delays in obtaining approvals for several new staff positions and changes limited MTN's ability to expend funds and fully engage in fulfilling contract obligations throughout FY21 and into FY22.

Management Action Plan Summary

Management agrees as a global leader in the ECHO model, MTN needs be able to expend funds and access resources towards building infrastructure in support of telehealth education, ECHO development, evaluation and research, advancement of best practices, and health outcomes measurement. To best facilitate this, MTN will present a multi-year financial plan for approval by the Executive Vice Chancellor of Health Affairs and Dean of the School of Medicine. Funds can be expended in accordance with the approved plan without seeking additional approvals.

Risk Rating Rationale

The source of the obligated funds, managed Medicaid agreements, does not impose spending time limits; therefore, the risk MTN will lose this funding due to failure to spend funds timely is low. Continuing to require MTN to adhere to standard School of Medicine approval procedures that restrict spending will likely cause additional obligated funds growth and interfere with MTN's ability to meet contractual obligations.

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Audits and Consulting Engagements Currently in Process

Audit Area	Overall Objective	Status	Risk Area(s)
MUH – School of Medicine Equipment Inventory	Validate process for equipment valuation, inventory, and tracking.	Reporting	Operations
UMKC – Standard Financial Audit	Focus on processes impacting financial performance.	Planning	Operations
UMSL – Scholarship Awards	Assessment of scholarship awards to donor restrictions and/or established criteria.	Planning	Compliance Operations
S&T – Export Controls	Assessment of export control processes.	Planning	Compliance

In addition, we are actively working eight investigations.

Management Action Plan Status as of June 30, 2022

Follow-up procedures are performed twice a year to verify status of management actions for previously issued audit reports. For this period, seven action items were due for completion by June 30, 2022. Three additional items were scheduled for interim follow up, bringing total items reviewed for this period to ten.

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 March 1, 2022, through June 30, 2022. Five action items were completed, and two items were extended and assigned revised due dates. A progress note on the interim items can be found below in Progress Updates.

Revised Due Date:

UMKC Lab Safety – Medium Risk

Two action items associated with this audit were extended, including final approval and implementation of lab closeout procedures, and resolution of a programming error impacting accurate tracking in the learning management system. This activity is reported in the “Revised Due Date” column of the table on the last page of this report.

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Progress Updates:

MUH Organized Health Care Arrangement (OHCA) – Medium Risk

An interim review was conducted to follow up on development of a management action plan for issues identified in the audit of MUH Organized Health Care Arrangements (OHCA). This engagement was completed in September and reviewed for closing in January 2022.

The identified issues, in this engagement and others, require a complex and coordinated plan involving technology, personnel, and processes at both MU and MUH to address concerns and strengthen security. The IT team is continuing to work towards assessing and developing a comprehensive plan for centralized identity and access management and monitoring. Leadership will be presented with recommendations and resources needed to achieve the desired future state. Once leadership has approved the recommendations, specific action plans for this audit, with due dates, can be finalized.

Ethics, Compliance, and Audit Services commends and supports this comprehensive approach that will result in resolving issues from multiple reviews.

Management Action Plan Summary as of June 30, 2022

Entity	Report Name	Risk Rating	Total # of Action Plans in Report	Complete	Not Due	Past Due	Revised Due Date	Will Not Be Implemented
MU	Lab Safety	High	6	2			4	
	Conflict of Interest Process	Medium	5	5				
UMKC	UMKC Lab Safety	Medium	5	1	2		2	
MUH	Organized Health Care Arrangement	Medium	3		3			
	Insurance Payor Websites	Low	4		4			
S&T	Lab Safety	Medium	7		3		4	
	Conflict of Interest Process	Low	4		4			
UMSL	Lab Safety	Low	6	4	2			
	College of Business Administration	Low	2		2			
UMS	External Student-Funded Accounts	Medium	1	1				
	One Card Process	Medium	8	6	1			1
Totals			51	19	21	0	10	1

KEY: Audits with action plans due between February 28 and June 30, 2022, are highlighted in GOLD. Audits in **BOLD** font have revised due dates; **RED** are past due.

University of Missouri System

Board of Curators

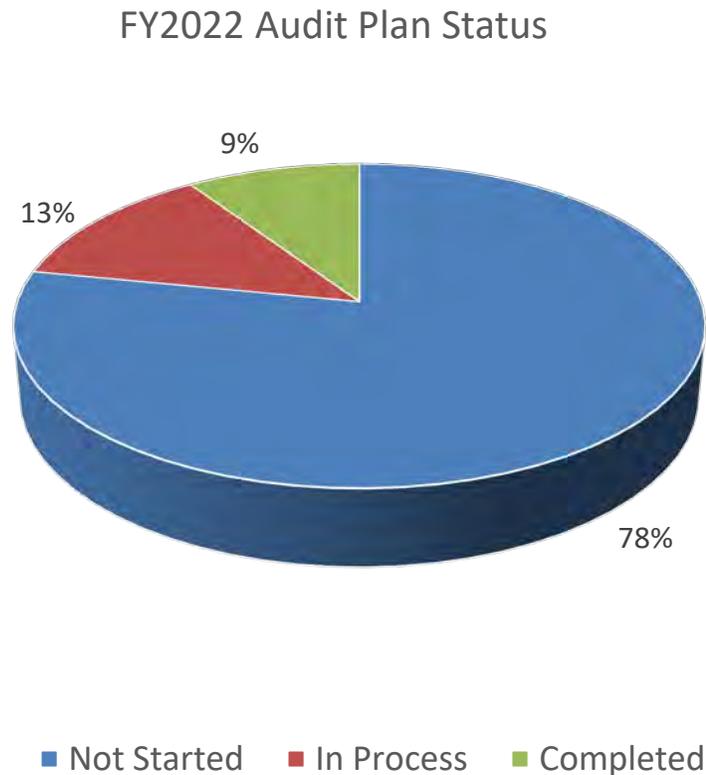
September 7, 2022

Audit, Compliance and Ethics Committee

Audit, Compliance and Ethics Committee
Quarterly Report
UM



Summary of Internal Audit Activity



- Two audits and one consulting engagement completed
- Four internal audits in process
- Twenty-five audits/consulting projects not started
- Actively working eight investigations

Third Party Risk Management Program – MU/MUH

Opportunities

- Formalize third-party risk identification and risk assessing and scoring vendors
- Centralized repository for all documents related to a procurement transaction
- Use a consistent approach for ongoing due diligence for high-risk vendors
- Integrate changes into a comprehensive policy for a third-party risk management program

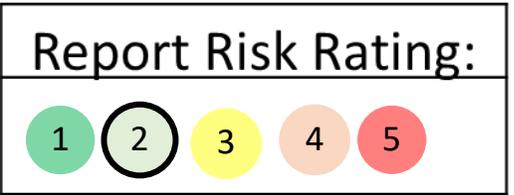
Summary Observations

- Reconciliation performed by College of Business between tickets sold for the Midwest Digital Marketing Conference and the general ledger was missing.

Management Actions

- Management has implemented this reconciliation.

MUH Missouri Telehealth Network



Summary Observations

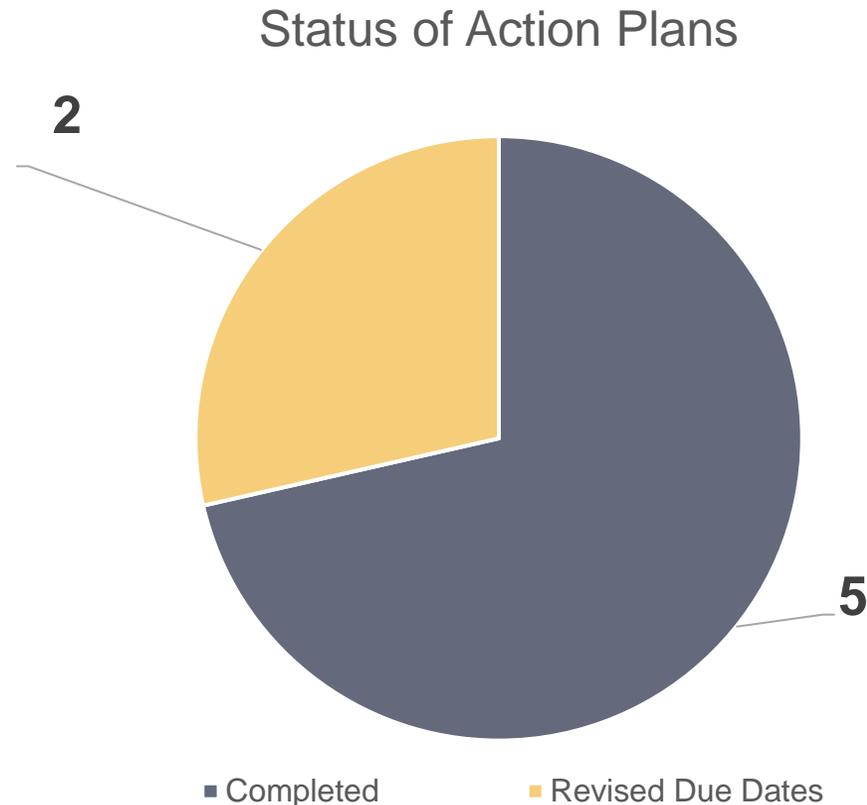
- Testing of nearly 50% of expense transactions resulted in zero exceptions.
- Requiring Missouri Telehealth Network to adhere to standard School of Medicine approval procedures for spending and hiring will cause additional obligated funds growth and interfere with meeting contractual obligations.

Management Actions

- Missouri Telehealth Network will present a multi-year financial plan for approval. Funds can be expended in accordance with the approved plan without seeking additional approvals.

Status of Management Action Plans

As of June 30, 2022



- Seven action plan items in five audits were reviewed for completion as of June 30, 2022.
- Five of seven action plan items, or 71 percent were completed.
- Two action plans in one audit were assigned extended due dates.



University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

GOVERNANCE, COMPENSATION AND HUMAN RESOURCES COMMITTEE

Michael Williams (Chair)

Julia Brncic

Keith Holloway

Robin 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

1. 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.

2. 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.

3. 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. overseeing, or determining with the Board Chair and President, the timing and process of periodic Board self-assessment;
4. establishing expectations and monitoring compliance of individual Board members;
5. ensuring that the Board adheres 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. periodically reviewing 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. identifying best practices in institutional and Board governance;
8. monitoring and assessing external influences and relationships with affiliated entities;
9. assessing areas of expertise needed in future Board members; and
10. those additional matters customarily addressed by the governance committee of a governing board for an institution of higher education.

III. Compensation and Human Resources

1. 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.

2. 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.

3. 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:
 1. President
 2. General Counsel
 3. Secretary of the Board of Curators
 4. Chief Audit and Compliance Officer, in conjunction with the Audit, Compliance and Ethics Committee
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:
 1. Vice Presidents
 2. Chancellors
 3. Curators Professors
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 annual base salary 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. Provide oversight over 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.

Proposed Leave Design for Staff

Executive Summary

A proposed leave design for staff was presented to the Board as an informational item in the June 2022 meeting. Guiding principles that have shaped the project and recommended proposal were developed in partnership with the board.

Guiding Principles:

1. Modernize leave programs to make them more market competitive
2. Improve the effectiveness of the leave programs
3. Realize cost savings
4. Design leave programs that promote work-life balance
5. Explore differentiating leave by staff type and industry

Following the June 2022 Board meeting, a dedicated webpage with resources was made available to employees. The webpage allows employees the ability to submit feedback and questions. Four virtual Information Sessions were held in August. Further details of the Paid Time Off (PTO) design were shared, and employees could submit live questions for response. Leaders also engaged with representative groups, including The Total Rewards Advisory Committee (TRAC) and Intercampus Staff Advisory Council (ISAC).

The feedback received supports that:

- employees are receptive to the flexibility of PTO; and
- short-term disability and parental/caregiver leave were overall viewed as favorable.

The primary areas of concern included:

- the difference of 10 days when comparing PTO to the current traditional design;
- sixty percent income replacement for short-term disability;
- whether intermittent leave was available under short-term disability;
- the original recommendation of limited carryover and full pay out at separation; and
- what would happen to current accruals for vacation, sick, and personal days.

As a result of the feedback, the current recommendation allows for:

- two times the accrual with a maximum of 10 days of accrued PTO paid out at separation;
- more details and options related to honoring accruals for vacation, sick, and personal days;

- supplementing short-term disability with accrued sick leave;
- using accrued sick leave for sick occurrences if PTO and all other available leave is exhausted; and
- exploring an employee paid buy-up option for additional income replacement under short-term disability.

After further market evaluation, the current recommendation also allows for a maximum four weeks paid time off for approved parental leave and two weeks paid time off for approved caregiver leave, within a rolling 12-month period.

The Board action item provides for the Board’s approval of the following Collected Rules and Regulations:

1. New Collected Rules and Regulations (CRRs):
 - a. CRR 340.025 Paid Time Off (PTO)
 - b. CRR 340.015 Parental and Caregiver Leave
 - c. CRR 340.031 Sick Leave – clarifying the treatment of sick leave balances as of the effective date of CRR 340.025 Paid Time Off (PTO)
2. Current Collected Rules and Regulations (CRRs) with redlined changes:
 - a. CRR 340.040 Holidays – adding Juneteenth as an official University holiday
 - b. CRR 340.030 Sick Leave – suspending provisions of CRR as of the effective date of CRR 340.025 Paid Time Off (PTO)
 - c. CRR 340.500 Vacation – suspending provisions of CRR and clarifying treatment of balances as of the effective date of CRR 340.025 Paid Time Off (PTO)
 - d. CRR 340.060 Personal Days – suspending provisions of CRR and clarifying the treatment of balances as of the effective date of CRR 340.025 Paid Time Off (PTO)

Design Proposal

1. Paid Time Off (PTO)
 - a. The PTO structure will be the same for both campus and health care, including a separate leave allowance for University recognized holidays. Eligible employees will accrue PTO days on the following schedule, which the service level continues to increase at 5 and 15 years:

Years of service	Non-Exempt	Exempt
At hire - <5 years	18 days	23 days
5-15 years	23 days	28 days
15+ years	28 days	28 days

- b. Eligible employees will be able to carry a maximum of two times their annual PTO accrual.
- c. Eligible employees will continue to receive paid Winter Break Leave annually. Winter Break paid leave continues to not apply to MU Health Care.
- d. Hourly paid health care staff will be eligible for an annual PTO cash out program. Additional parameters will be developed during implementation for this program.

2. Ancillary Plans

- a. Short-term disability (total of up to 21 weeks)
 - i. Provides paid time off for approved serious health conditions
 - ii. One-week elimination period
 - iii. Sixty percent replacement salary for a maximum duration of 20 weeks
 - iv. Definitions consistent with CRR 340.010 Family and Medical Leave
- b. Parental and Caregiver Leave
 - i. Parental leave is paid time off for the birth of a child or placement of a child with the employee for adoption or foster care.
 - ii. Caregiver leave is paid time off to care for an immediate family member with a serious health condition.
 - iii. Maximum four weeks paid time off for approved parental leave and two weeks paid time off for approved caregiver leave, within a rolling 12-month period
 - iv. Definitions consistent with CRR 340.010 Family and Medical Leave

No. 1

Recommended Action – Approval of Leave Design Plan

It was recommended by Vice President and Chief Human Resources Officer Marsha Fischer, endorsed by President Choi, recommended by the Compensation and Human Resources Committee, moved by Curator _____, and seconded by Curator _____, that the following actions be approved:

Collected Rules and Regulations listed below be amended or added as indicated in the attached documents containing proposed language changes:

New Collected Rules and Regulations (CRRs):

- 340.025 Paid Time Off (PTO)
- 340.015 Parental and Caregiver Leave
- 340.031 Sick Leave

Current Collected Rules and Regulations (CRRs) with redlined changes:

- 340.040 Holidays
- 340.030 Sick Leave
- 340.050 Vacation
- 340.060 Personal Days

Establishment of an employer paid short-term disability program, with one week elimination period and 60 percent of income replacement for up to 20 weeks, for a total leave time of up to 21 weeks.

Non-material changes to related CRRs appropriate for implementation of this recommended action may be made with approval of the Vice President of Human Resources or designee, subject to review and approval by the Office of the General Counsel that the changes do not alter the substantive legal or policy effect of the rules and regulations.

Roll call vote of the Committee: YES NO

Curator Brncic
Curator Holloway
Curator Wenneker
Curator Williams

The motion _____.

Roll call vote of the Board: YES NO

Curator Brncic
Curator Chatman
Curator Graves
Curator Hoberock
Curator Holloway
Curator Layman
Curator Wenneker
Curator Williams

The motion _____.

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

340.025 Paid-Time-Off (PTO)

Bd. Min. TBD

- A. Purpose** – Paid Time Off (PTO) is a benefit program that allows eligible employees to use available time off with pay for any reason. Employees are encouraged to plan in advance of the need for time off and submit requests to supervisors for approval prior to being absent. Supervisors have the responsibility of approving or denying time away from work.
- B. Eligibility** - Regular benefit-eligible administrative, service and support positions and certain non-regular academic employees as approved by the Chancellor and President.
- C. Annual PTO**
1. PTO is accrued weekly based on the employee's years of continuous benefit-eligible service as follows (based on 1.0FTE):
 - i. Hourly Paid, Nonexempt Employees
 - 0 – 5 years inclusive: 18 days
 - Over 5 years: 23 days
 - Over 15 years: 28 days
 - ii. Monthly Paid, Exempt Employees
 - 0 – 5 years inclusive: 23 days
 - Over 5 years: 28 days
 - iii. Nurses accrue on the monthly, exempt schedule
 2. Employees working on a basis of 75 percent - 99 percent full-time equivalence will accrue PTO time on a pro-rata basis.
 3. PTO is available for use once it is accrued, subject to appropriate supervisory approval.
 4. Employees shall be permitted to accumulate two times the allowed PTO earned each year.
- D. Cash Out Program** – A cash out program is authorized for non-exempt MU Health Care employees and other similar employees as designated by the President and Vice President of Human Resources, subject to program parameters as established by the President and Vice President of Human Resources.
- E. Separation of Employment** – Upon separation of employment from the University of Missouri System or an employment change to position not eligible for PTO, employees will receive payment of unused accumulated PTO, not to exceed 80 hours (based on

1.0FTE), provided that an employee discharged for willful gross violation of rules, misconduct or similar causes may not receive such payment. For employees working on a basis of 75 percent - 99 percent full-time equivalence, the 80-hour cap will be adjusted on a pro rata basis.

- F. Effective date** – The provisions of this CRR will be effective on or around January 1, 2024 as approved by the President and Vice President of Human Resources.

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

340.015 Parental and Caregiver Leave

Bd. Min. TBD

- A. Purpose** – Parental leave is for the birth of a child or placement of a child with the employee for adoption or foster care. Caregiver Leave is to care for an immediate family member, as defined below, with a serious health condition, as certified by a health care provider.
- B. Eligibility** - Regular benefit-eligible administrative, service and support positions and certain non-regular academic employees as approved by the Chancellor and President.
- C. Definition**
1. Parental leave is leave for purposes identified in Collected Rules and Regulation 340.010: Family and Medical Leave section D, paragraph 1.a.
 2. Caregiver leave is leave for purposes identified in Collected Rules and Regulations 340.010: Family and Medical Leave section D, paragraph 1.b.
 3. Rolling 12-month period is defined as the 12-month period measured backward from the date an employee uses parental or caregiver leave. With this “rolling” method, each time an employee uses parental or caregiver leave, the remaining leave entitlement is the balance of the leave which has not been used during the immediately preceding 12 months.
- D. Leave Available** – Eligible employees may receive a total of four (4) workweeks of approved parental leave over a rolling 12-month period and two (2) workweeks of approved caregiver leave over a rolling 12-month period. Leave may be taken intermittently or continuously, as allowed under Collected Rules and Regulations: 340.010: Family and Medical Leave Act.
- E. Compensation**– Approved parental and caregiver leave is paid at 100 percent of the eligible employee’s salary at the time the leave begins.
- F. Effective date** – The provisions of this rule will be effective on or around January 1, 2024 as approved by the President and Vice President of Human Resources.

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

340.031 Sick Leave

Bd. Min. tbd

- A. Eligibility** – Regular benefit-eligible administrative, service and support positions and certain non-regular academic employees as approved by the Chancellor and President who have accrued available sick leave balances as of the effective date of Collected Rule and Regulation 340.025 Paid Time Off (PTO).
- B. Beginning Balance** – Beginning sick leave balance is the number of sick hours recorded in the university's central payroll system at the time of implementation of this rule.
- C. Using Sick Leave** – Eligible employees may use sick leave balances under the following circumstances:
 - 1. Short-Term Disability - Payment during the required elimination period may be allowed by the use of Sick Leave or other available paid time off. Use of Sick Leave may also be allowed to make up the difference between what is paid by Short-Term Disability and the employee's regular pay.
 - 2. Workers' Compensation - Payment during the required waiting period may be allowed by the use of Sick Leave or other available paid time off. Use of Sick Leave may also be allowed to make up the difference between what is paid by Workers' Compensation and the employee's regular pay.
 - 3. Illness and Injury, Other – After an employee has exhausted PTO, Short-Term Disability (if applicable), and Parental and Caregiver Leave (if applicable), an employee may use available Sick Leave subject to limits stated in the sick leave policy in effect one day prior to the effective date of this rule.
- D. Separation of Employment** – Upon separation of employment, employees will not receive payment for any unused accumulated sick leave.
- E. Retirement** -- Employees will receive additional creditable service in calculating retirement benefits for all unused accumulated sick leave, subject to the terms of the applicable retirement plan. Sick leave credit is allowed only upon retirement and does not apply to deferred vested benefits.
- F. Effective date** – The provisions of this CRR will be effective on or around January 1, 2024 as approved by the President and Vice President of Human Resources.

Collected Rules and Regulations

Chapter 340: Employee Absences

340.040 Holidays

Bd. Min. 6-28-68; Bd. Min. 12-12-69; Amended Bd. Min. 11-19-71; Amended Bd. Min. 3-23-73; Amended Bd. Min. 9-20-74; Amended Bd. Min. 4-25-75; Amended Bd. Min. 9-9-77; Amended 9-7-79; Amended Bd. Min. 11-13-81; Amended 7-30-82, effective 9-1-82; Bd. Min. 7-15-86; Bd. Min. 1-25-90; Amended 9-26-97; Amended 7-19-02; Amended 10-23-09; Amended 7-23-10; Amended TBD.

A. Observance of Holidays -- The following days have been designated as official University holidays:

- New Year's Day
- Martin Luther King, Jr., Day
- Memorial Day
- Juneteenth
- Independence Day
- Labor Day
- Thanksgiving Day and the Friday following
- Christmas Day
- And other days as may be designated by the President

Holidays are considered to extend over a 24-hour period. When a holiday falls on Saturday, the preceding Friday is observed. When a holiday falls on Sunday, the following Monday is observed. Notwithstanding the foregoing observations for holidays falling on the weekend, units/departments that operate 24 hours a day and/or 7 days a week may choose to observe the holiday on the actual day of the holiday. The holiday schedule for these 24/7 operations will be determined by the unit/department. Employees required to work on the day the holiday is observed in their unit/department and entitled to receive premium pay, as described in Section 340.040C below, will receive holiday pay and premium pay only on the day the holiday is observed in their unit/department.

B. Eligibility – Regular employees entitled to receive pay up to a maximum of eight (8) hours for official University holidays include all full-time Administrative, Service & Support employees, whether or not they are scheduled to work on the holiday, with 99 % to 75% FTE employees to receive holiday pay on a prorata basis.

C. Required Work on a Holiday -- All nonexempt regular benefit-eligible employees required to work on a holiday will receive 1-1/2 times their straight-time wage rate for the hours worked (premium pay) in addition to their holiday pay.

D. Special Religious Holidays -- The observance of special religious holidays may be permitted by the employee's supervisor. In such cases, time off is charged to accumulated ~~vacation leave, personal days~~PTO, compensatory time or leave without pay.

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

340.040 Holidays

Bd. Min. 6-28-68; Bd. Min. 12-12-69; Amended Bd. Min. 11-19-71; Amended Bd. Min. 3-23-73; Amended Bd. Min. 9-20-74; Amended Bd. Min. 4-25-75; Amended Bd. Min. 9-9-77; Amended 9-7-79; Amended Bd. Min. 11-13-81; Amended 7-30-82, effective 9-1-82; Bd. Min. 7-15-86; Bd. Min. 1-25-90; Amended 9-26-97; Amended 7-19-02; Amended 10-23-09; Amended 7-23-10; Amended TBD.

A. Observance of Holidays – The following days have been designated as official University holidays:

- New Year's Day
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- Memorial Day
- Juneteenth
- Independence Day
- Labor Day
- Thanksgiving Day and the Friday following
- Christmas Day
- And other days as may be designated by the President

Holidays are considered to extend over a 24-hour period. When a holiday falls on Saturday, the preceding Friday is observed. When a holiday falls on Sunday, the following Monday is observed. Notwithstanding the foregoing observations for holidays falling on the weekend, units/departments that operate 24 hours a day and/or 7 days a week may choose to observe the holiday on the actual day of the holiday. The holiday schedule for these 24/7 operations will be determined by the unit/department. Employees required to work on the day the holiday is observed in their unit/department and entitled to receive premium pay, as described in Section 340.040C below, will receive holiday pay and premium pay only on the day the holiday is observed in their unit/department.

B. Eligibility – Regular employees entitled to receive pay up to a maximum of eight (8) hours for official University holidays include all full-time Administrative, Service & Support employees, whether or not they are scheduled to work on the holiday, with 99 % to 75% FTE employees to receive holiday pay on a prorata basis.

C. Required Work on a Holiday -- All nonexempt regular benefit-eligible employees required to work on a holiday will receive 1-1/2 times their straight-time wage rate for the hours worked (premium pay) in addition to their holiday pay.

D. Special Religious Holidays -- The observance of special religious holidays may be permitted by the employee's supervisor. In such cases, time off is charged to accumulated PTO, compensatory time or leave without pay.

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

340.030 Sick Leave

Bd. Min. 7-16-58, p. 13,307; Bd. Min. 6-28-68; amended 9-17-76; amended 9-7-79, amended Bd. Min. 7-30-82, effective 9-1-82; Bd. Min. 7-15-86; Bd. Min. 3-11-94; amended Bd. Min. 9-26-97; amended Bd. Min. 7-17-98; amended Bd. Min. 7-19-02; amended Bd. Min. 7-23-04; amended Bd. Min. 10-23-09, amended Bd. Min 9-13-13; amended Bd. Min. 6-21-18; Amended TBD.

A. Sick Leave - The university provides paid sick leave to eligible employees to encourage time off to care for one's own health, and the health of immediate family members. The following sick leave applies to Regular Administrative, Service and Support employees and certain non-regular academic employees as approved by the Chancellor and President.

B. Accruals

1. Sick leave is accrued from the first day of eligible employment.
2. Eligible employees accrue sick leave at the rate of 12 working days per year accrued over each pay period.
3. Credit for sick leave accumulates during vacations, sick leave, excused absence with pay and any leave of absence without pay granted for an on-the-job injury compensable under Workers' Compensation. Credit does not accumulate when an employee is receiving shared leave. Sick leave accruals will be available to the employee only after returning to work in regular status.

C. Using Sick Leave

1. Sick leave is available for use once it is accrued, subject to appropriate supervisory approval.
2. Eligible employees may use accrued sick leave to cover absences related to:
 - a. the employee's own illness, injury, pregnancy, or preventative care; or
 - b. an immediate family member's illness, injury, pregnancy, or preventative care.
3. Eligible employees also may use accrued sick leave subject to limits stated below to cover absences related to:
 - a. the placement of an adoptive or foster child in the employee's home or care of that child within twelve (12) months after placement; or
 - b. the care of an employee's child within twelve (12) months after birth.
 - c. When used in these instances, the amount of accrued sick leave plus all other forms of paid leave (e.g., vacation, personal) used by an employee may not exceed 480 hours for each instance of placement and associated care of

child or care of child after birth. This 480 hour limit will apply on a basis of 100% full-time equivalence and will be reduced on a pro-rata basis for an employee working on a basis of 75 percent – 99 percent full-time equivalence. In instances where both parents are eligible employees, each will have a 480 hour limit.

D. Separation of Employment – Upon separation of employment, employees will not receive payment for any unused accumulated sick leave.

E. Retirement -- Employees will receive additional creditable service in calculating retirement benefits for all unused accumulated sick leave, subject to the terms of the applicable retirement plan. Sick leave credit is allowed only upon retirement, and does not apply to deferred vested benefits.

F. Sunset – The provisions of this rule will be suspended as of the effective date of Collected Rule and Regulation 340.025 (PTO).

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

340.030 Sick Leave

Bd. Min. 7-16-58, p. 13,307; Bd. Min. 6-28-68; amended 9-17-76; amended 9-7-79, amended Bd. Min. 7-30-82, effective 9-1-82; Bd. Min. 7-15-86; Bd. Min. 3-11-94; amended Bd. Min. 9-26-97; amended Bd. Min. 7-17-98; amended Bd. Min. 7-19-02; amended Bd. Min. 7-23-04; amended Bd. Min. 10-23-09, amended Bd. Min 9-13-13; amended Bd. Min. 6-21-18; Amended TBD.

A. Sick Leave - The university provides paid sick leave to eligible employees to encourage time off to care for one's own health, and the health of immediate family members. The following sick leave applies to Regular Administrative, Service and Support employees and certain non-regular academic employees as approved by the Chancellor and President

B. Accruals

1. Sick leave is accrued from the first day of eligible employment
2. Eligible employees accrue sick leave at the rate of 12 working days per year accrued over each pay period.
3. Credit for sick leave accumulates during vacations, sick leave, excused absence with pay and any leave of absence without pay granted for an on-the-job injury compensable under Workers' Compensation. Credit does not accumulate when an employee is receiving shared leave. Sick leave accruals will be available to the employee only after returning to work in regular status.

C. Using Sick Leave

1. Sick leave is available for use once it is accrued, subject to appropriate supervisory approval.
2. Eligible employees may use accrued sick leave to cover absences related to:
 - a. the employee's own illness, injury, pregnancy, or preventative care; or
 - b. an immediate family member's illness, injury, pregnancy, or preventative care.
3. Eligible employees also may use accrued sick leave subject to limits stated below to cover absences related to:
 - a. the placement of an adoptive or foster child in the employee's home or care of that child within twelve (12) months after placement; or
 - b. the care of an employee's child within twelve (12) months after birth.
 - c. When used in these instances, the amount of accrued sick leave plus all other forms of paid leave (e.g., vacation, personal) used by an employee may not exceed 480 hours for each instance of placement and associated care of child or care of child after birth. This 480 hour limit will apply on a basis of 100% full-time equivalence and will be reduced on a pro-rata basis

for an employee working on a basis of 75 percent – 99 percent full-time equivalence. In instances where both parents are eligible employees, each will have a 480 hour limit.

- D. Separation of Employment** – Upon separation of employment, employees will not receive payment for any unused accumulated sick leave
- E. Retirement** -- Employees will receive additional creditable service in calculating retirement benefits for all unused accumulated sick leave, subject to the terms of the applicable retirement plan. Sick leave credit is allowed only upon retirement, and does not apply to deferred vested benefits.
- F. Sunset** – The provisions of this rule will be suspended as of the effective date of Collected Rule and Regulation 340.025 (PTO).

Chapter 340: Employee Absences

340.050 Vacation

Bd. Min. 7-16-58, p. 13,307, as amended 6-28-68, p. 33,907; Amended 9-7-79; Amended 7-30-82, effective 9-1-82; Bd. Min. 7-15-86; Amended 9-26-97; Amended Bd. Min. 7-17-98; Amended Bd. Min. 7-19-02; Amended Bd. Min 9-13-13; Amended Bd. Min. 9-26-19, effective 10-1-19; Amended TBD.

A. Eligibility

1. Eligible Employees – Benefit-eligible full-time administrative, service and support employees and certain non-regular academic employees as approved by the chancellor and president who have satisfied appropriate probationary periods shall be eligible for paid vacation time accrued from the date of employment.
2. Ineligible Employees -- Employees with primary titles that are administrative, service and support who are exempt from classification because their positions are primarily directing instructional or research activities are not subject to this policy.

B. Accruals

1. Hourly Paid, Nonexempt Employees – Eligible hourly paid, nonexempt employees accrue vacation time over each pay period at the following rate:
 - 0-5 years inclusive: 12 days
 - Over 5 years: 17 days
 - Over 15 years: 22 days
2. Monthly Paid, Exempt Employees – Eligible monthly paid, exempt employees accrue vacation time over each pay period at the following rate:
 - 0-5 years inclusive: 17 days
 - Over 5 years: 22 days

C. Credit for vacation accumulates during vacations, sick leave, excused absence with pay and any leave of absence without pay granted for an on-the-job injury compensable under Workers' Compensation. Vacation accruals will be available to the employee only after returning to work in regular status

D. Conditions Governing Vacation Accruals

1. Vacation is available for use once it is accrued, subject to appropriate supervisory approval.
2. Extra pay shall not be made in lieu of vacation leave.
3. Employees working on a basis of 75 percent - 99 percent full-time equivalence or more will accrue vacation time on a pro-rata basis.

E. Maximum Accruals -- An employee shall be permitted to accumulate two times the allowed vacation earned each year.

F. Sunset – The provisions of this rule will be suspended as of the effective date of Collected Rule and Regulation 340.025 (PTO). Individuals employed at that time may elect to transfer a portion of their unused vacation time to Paid Time Off (CRR 340.025) in accordance with the policy and processes approved by the Vice President of Human Resources. Any remaining unused vacation will be paid lump-sum.

Chapter 340: Employee Absences

340.050 Vacation

Bd. Min. 7-16-58, p. 13,307, as amended 6-28-68, p. 33,907; Amended 9-7-79; Amended 7-30-82, effective 9-1-82; Bd. Min. 7-15-86; Amended 9-26-97; Amended Bd. Min. 7-17-98; Amended Bd. Min. 7-19-02; Amended Bd. Min 9-13-13; Amended Bd. Min. 9-26-19, effective 10-1-19; Amended TBD.

A. Eligibility

1. Eligible Employees – Benefit-eligible full-time administrative, service and support employees and certain non-regular academic employees as approved by the chancellor and president who have satisfied appropriate probationary periods shall be eligible for paid vacation time accrued from the date of employment.
2. Ineligible Employees -- Employees with primary titles that are administrative, service and support who are exempt from classification because their positions are primarily directing instructional or research activities are not subject to this policy.

B. Accruals

1. Hourly Paid, Nonexempt Employees – Eligible hourly paid, nonexempt employees accrue vacation time over each pay period at the following rate:
 - 0-5 years inclusive: 12 days
 - Over 5 years: 17 days
 - Over 15 years: 22 days
2. Monthly Paid, Exempt Employees – Eligible monthly paid, exempt employees accrue vacation time over each pay period at the following rate:
 - 0-5 years inclusive: 17 days
 - Over 5 years: 22 days

C. Credit for vacation accumulates during vacations, sick leave, excused absence with pay and any leave of absence without pay granted for an on-the-job injury compensable under Workers' Compensation. Vacation accruals will be available to the employee only after returning to work in regular status

D. Conditions Governing Vacation Accruals

1. Vacation is available for use once it is accrued, subject to appropriate supervisory approval.
2. Extra pay shall not be made in lieu of vacation leave.
3. Employees working on a basis of 75 percent - 99 percent full-time equivalence or more will accrue vacation time on a pro-rata basis.

E. Maximum Accruals -- An employee shall be permitted to accumulate two times the allowed vacation earned each year.

F. Sunset – The provisions of this rule will be suspended as of the effective date of Collected Rule and Regulation 340.025 (PTO). Individuals employed at that time may elect to transfer a portion of their unused vacation time to Paid-Time-Off (CRR 340.025) in accordance with the policy and processes approved by the Vice President of Human Resources. Any remaining unused vacation will be paid lump-sum.

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

340.060 Personal Days

Bd. Min. 7-30-82, effective 9-1-82; Bd. Min. 7-15-86; Amended 9-26-97; Amended Bd. Min. 7-17-98; Amended Bd. Min. 7-19-02; Amended Bd. Min. 9-13-13; Amended Bd. Min. 6-21-18; Amended TBD.

A. Eligible Employees -- Regular Administrative, Service and Support employees and certain non-regular academic employees as approved by the Chancellor and President will be granted four personal days each year. The year will be calculated using the employee's beginning employment date. Personal days are to be used at the employee's discretion, subject to supervisory review and approval. Personal days must be taken before the end of the anniversary year and accumulation beyond the year is not permitted.

B. Sunset – The provisions of this rule will be suspended as of the effective date of Collected Rule and Regulation 340.025 (PTO). Unused personal day balances recorded in the University's time-keeping system at that time will remain available for use during approved absences until the employee's next anniversary date. Personal days must be taken before the end of the anniversary year. Accumulation beyond the year and payment at separation are not permitted.

Collected Rules and Regulations

Personnel

Chapter 340: Employee Absences

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Proposed Leave Program Design



Overview

- Why consider a Paid Time Off (PTO) plan?
- How the proposal was developed
- Recommended design for campuses and MU Health Care
 - Number of PTO days per year
 - Short-Term Disability
 - Parental and Caregiver Leave
- PTO accruals and carryover
- How current plan balances will be honored at transition

Why are we considering changes to our time-off programs?

How did we develop this proposal?

- **Aon**, a national expert in the field, provided expertise and analysis to the project committee, working group, and leadership
- In 2020, a **committee** comprised of faculty and staff representatives across the system evaluated the university's current leave programs. From this evaluation, the committee identified three key areas for improvement:
 - Paid Time Off (PTO) model
 - Short-term disability leave
 - Parental/Caregiver leave
- Following the committee's work, a **working group** of HR, Finance, and campus and health care representatives developed a proposed design
- Review with **representative groups** including Total Rewards Advisory Committee (TRAC) and Intercampus Staff Advisory Council (ISAC) and **university leadership**

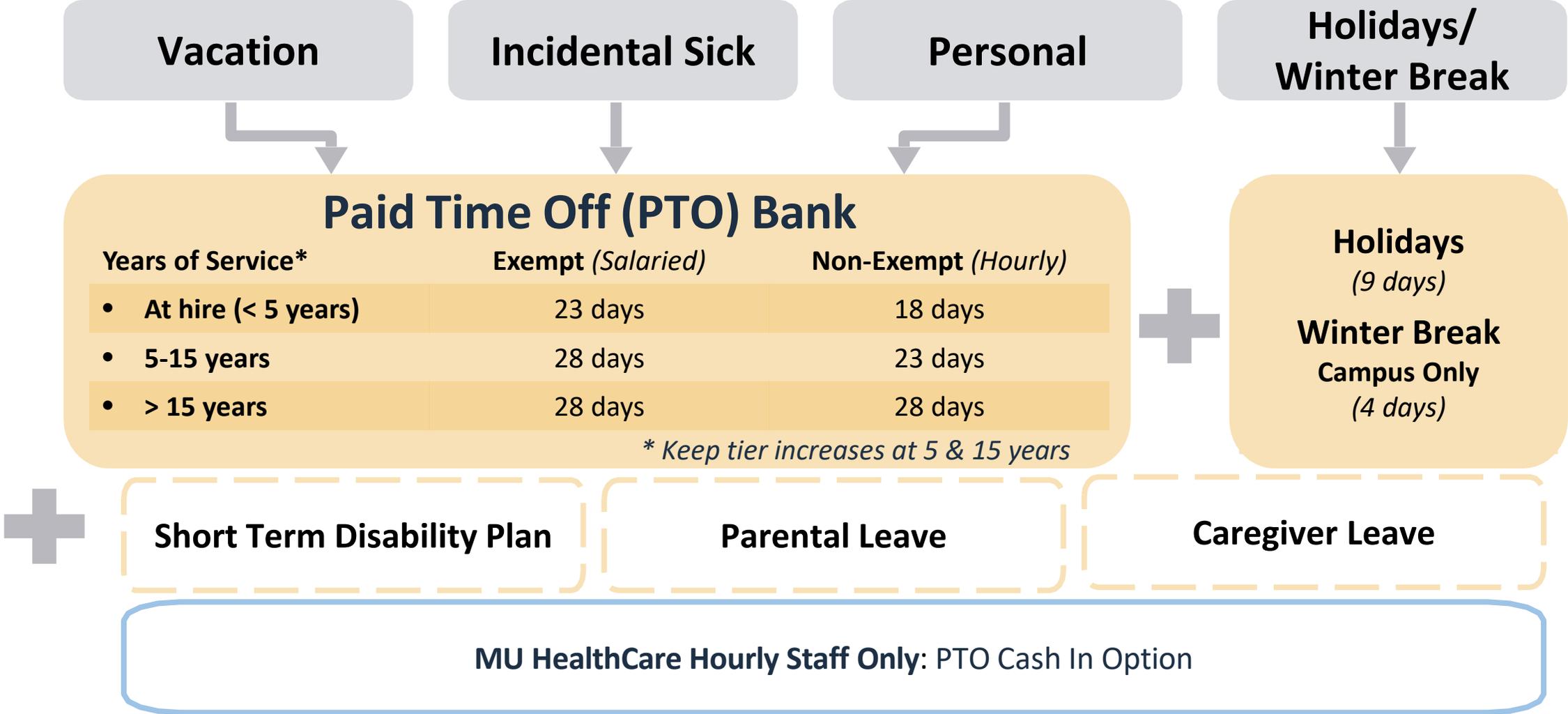
Guiding Principles

1. Modernize leave programs to make them more market competitive
2. Improve effectiveness of leave programs
3. Realize cost savings
4. Design leave programs that promote work-life balance
5. Explore differentiating leave by staff type and industry

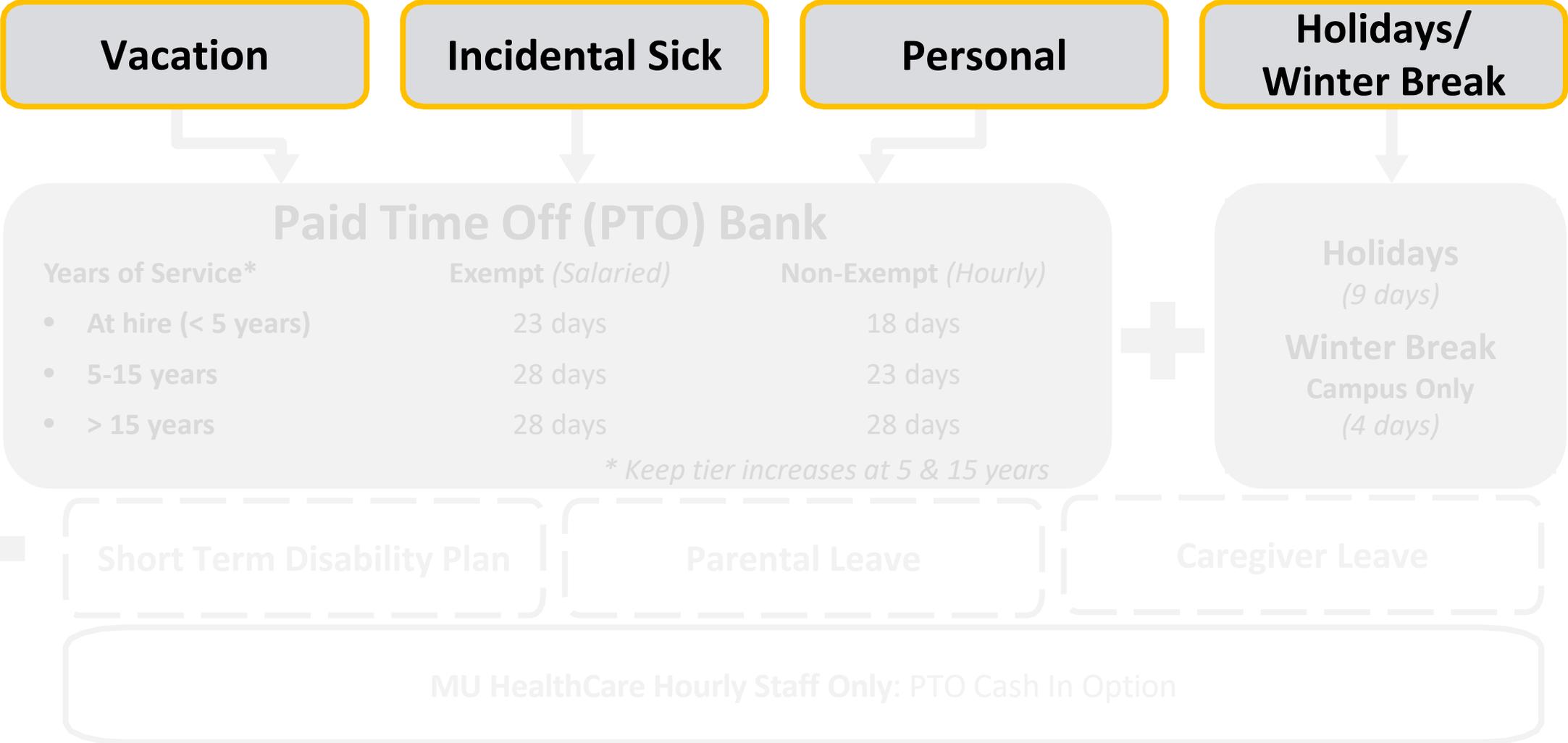
Board Timeline

- June 2021 – Informational: Principles for Change
- November 2021 – Informational: Status Update
- June 2022 – Informational: Proposed Design
- September 2022 – Action: Recommended Design

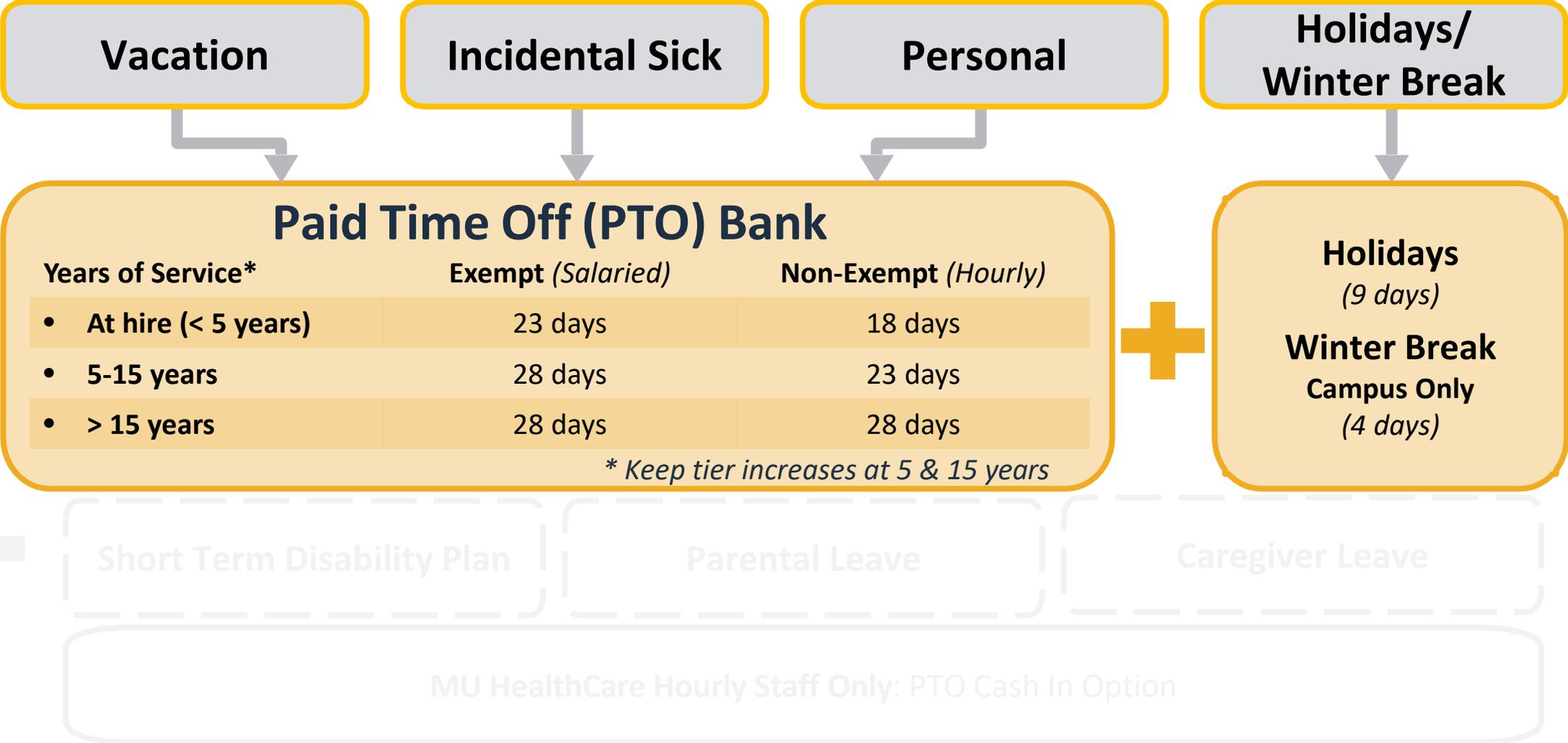
Recommended Design: Campus & MUHC



Recommended Design: Campus & MUHC



Recommended Design: Campus & MUHC



What is a Paid Time Off (PTO) Program?

Paid Time Off (PTO)

PTO combines general leave into a single bank – the **PTO bank**. This type of leave generally includes time off for vacation, incidental illness, and personal time.

How would PTO work?

“How much time can I carryover from year to year?”

Employees would be able to carry a **maximum of 2 times their annual PTO accrual** at any time.

For **example**, if an employee earns **18 PTO days per year**, they can carry a **maximum of 36 days** (18 times 2).

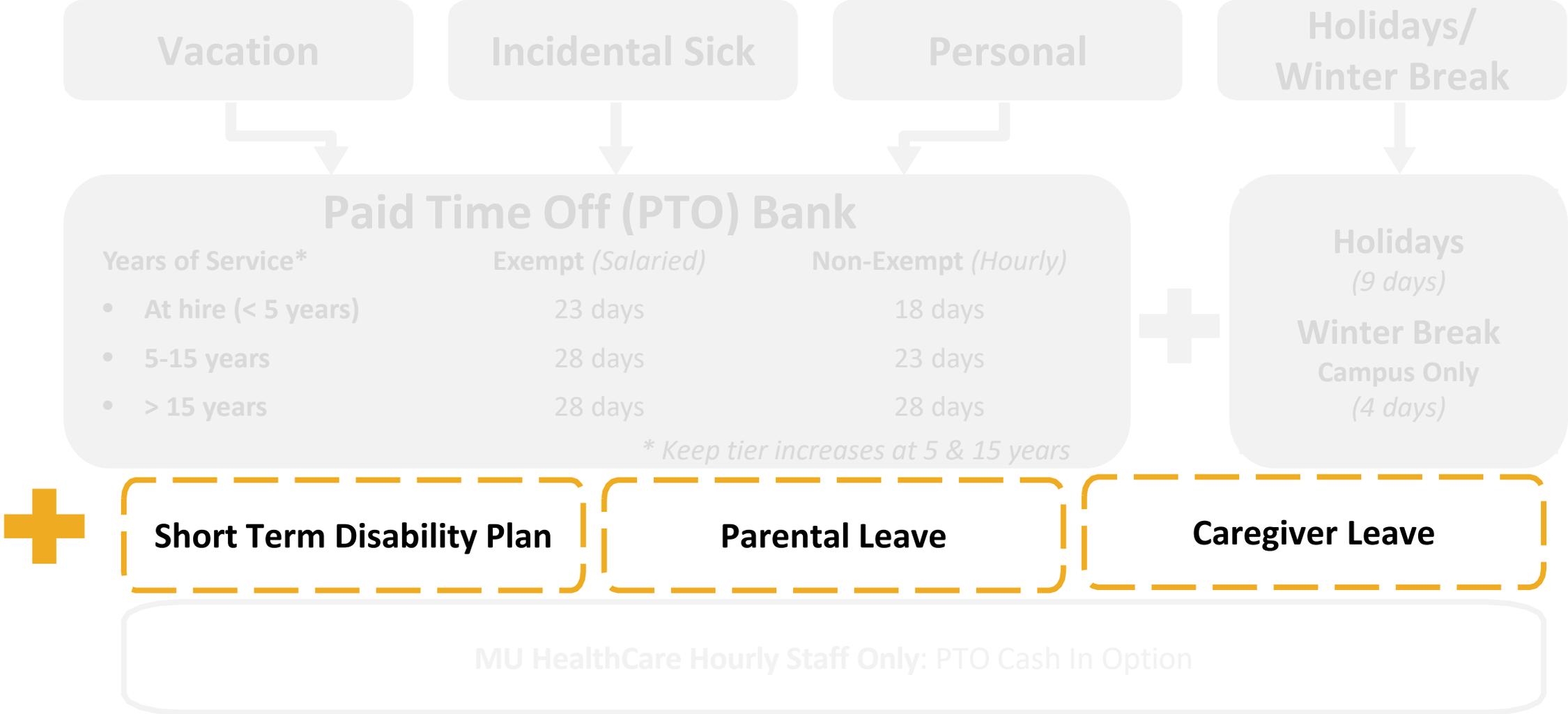
“How will I earn PTO days each year?”

Employees will **continue to accrue** their leave time in hours **on a weekly basis** based on their annual PTO allotment.

“Will the new PTO plan payout unused time if I leave the university?”

Employees **who leave the University** after transition to the PTO plan will receive a **maximum of 10 days of unused PTO paid out**.

Recommended Design: Campus & MUHC



What is Short-Term Disability?

60% income replacement,
for up to 20 weeks.

For an employee's qualifying
medical event.

Some examples may include:

- birth of a child, or
- hospitalization, or
- serious health conditions such as cancer.

Elimination Period:
7 calendar days
(5 working days)

Employees may utilize PTO or banked sick leave to cover
elimination period and income up to 100%.

What is Parental Leave?

100% income replacement for up to **4** weeks in a rolling 12-month period.

Provides paid time off for employees to welcome a new child into their home as defined under our FMLA rule.

Qualifying Events:

- The birth of a child, or
 - placement of a child with the employee for adoption or foster care;
- Leaves for birth, adoption, or foster care must be taken with 12-months of the event.

What is Caregiver Leave?

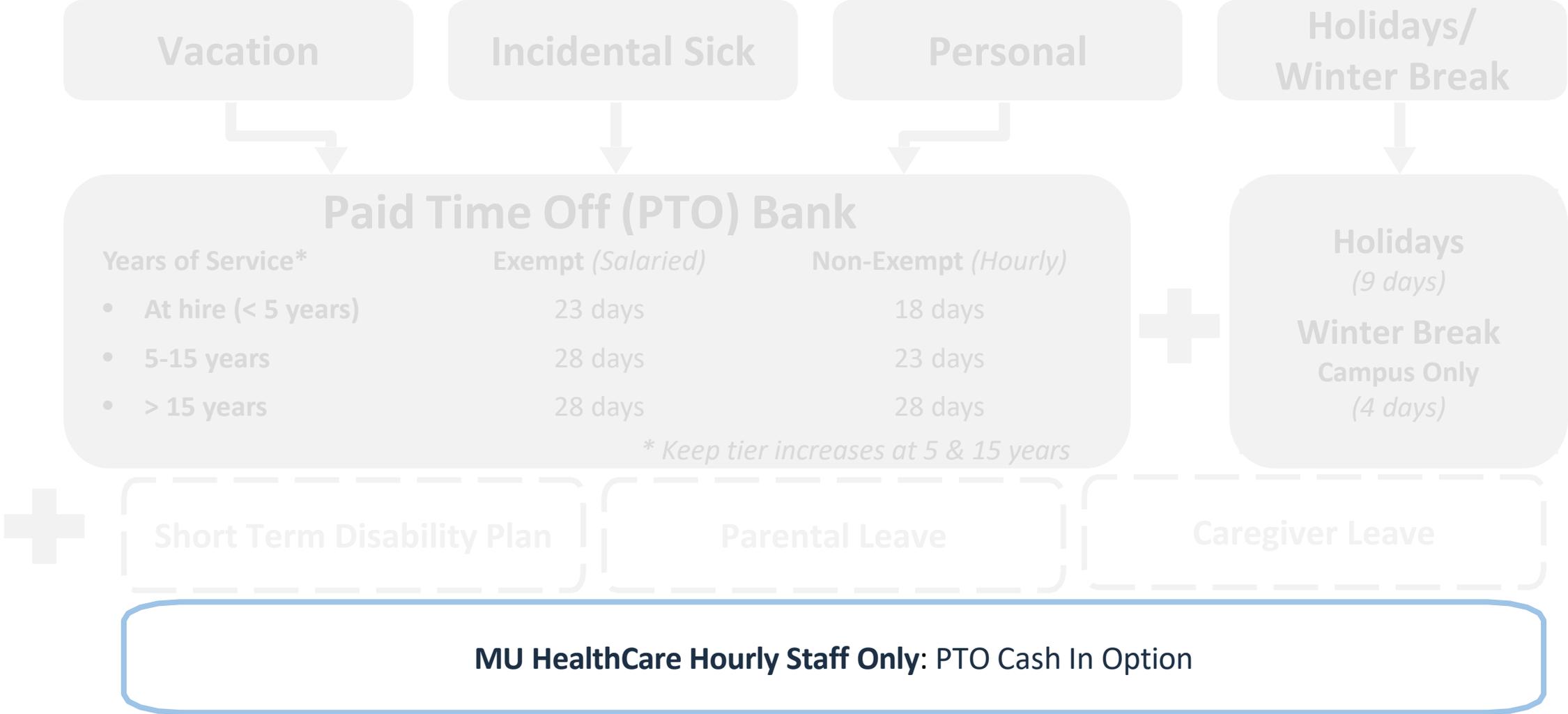
100% income replacement for up to **2** weeks in a rolling 12-month period.

Provides paid time off for employees to care for an immediate family member with a serious health condition as defined under our FMLA rule.

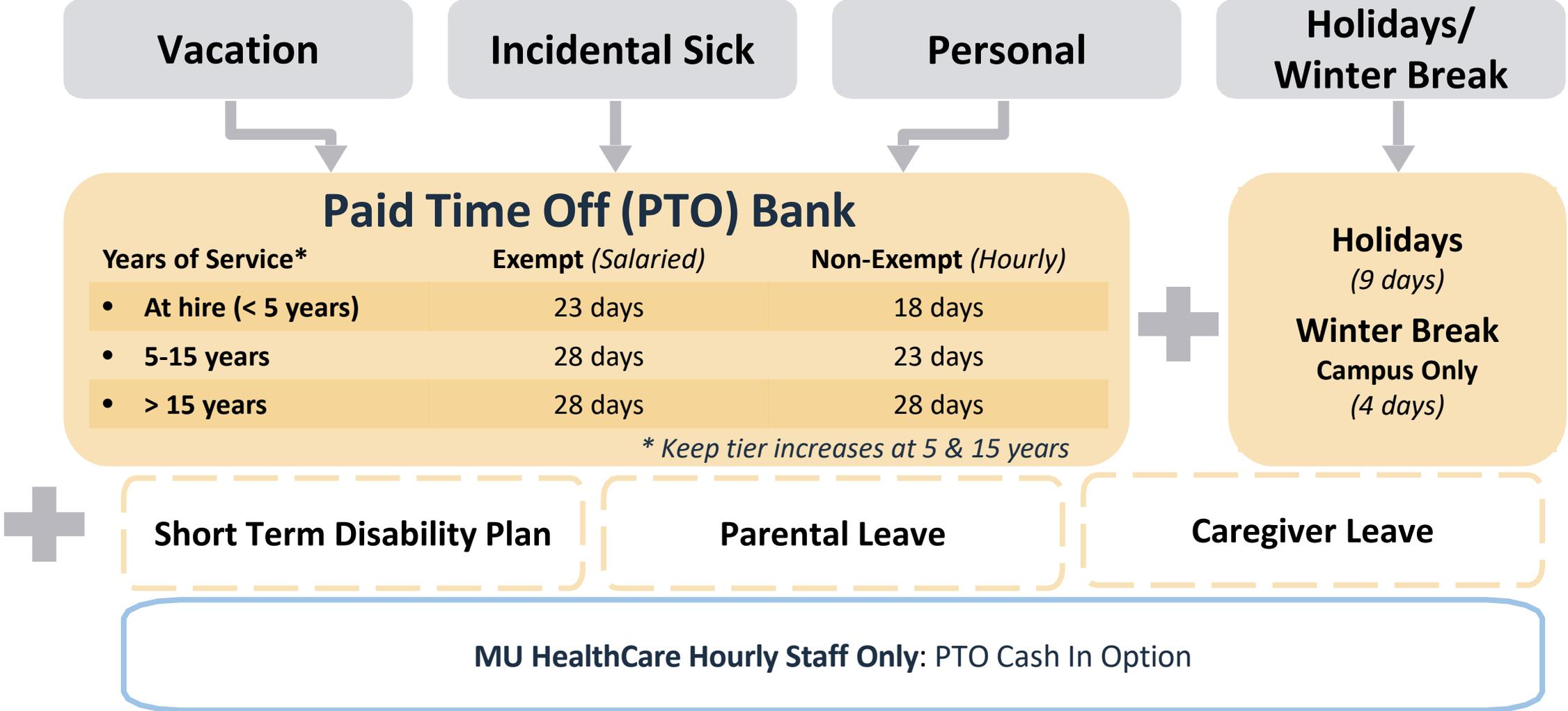
Examples may include:

To care for the employee's spouse, child, or parent, with a serious health condition, as certified by a health care provider.

Recommended Design: Campus & MUHC



Recommended Design: Campus & MUHC



How current plan balances will be honored at transition

Vacation

Options under review:

- Ability to transfer vacation to PTO
- Payout vacation at a specific point in time
- Combination of the two above options

Sick

Banked balances:

- Continue to be eligible for service credit at retirement
- Supplement University paid Short-term Disability
- If PTO bank and other leave options exhausted, use for sick leave occurrences

Personal

No new accruals after transition:

- Employees will have until their anniversary date in 2024 to use or lose remaining personal days

Employee Feedback

- Feedback collected through:
 - Virtual Informational Sessions Aug. 19, 23, 25 and 29
 - Portal to submit feedback available on dedicated webpage
 - Engagement with representative groups including TRAC and ISAC
- As a result of the feedback, current recommendation allows for:
 - two times the accrual with a maximum of ten days of accrued PTO paid out at separation;
 - more details and options related to honoring accruals for vacation, sick, and personal days;
 - supplementing short-term disability with banked sick leave;
 - using banked sick leave if PTO and all other available paid leave is exhausted; and
 - exploring an employee paid buy-up option for additional income replacement under short-term disability.

Proposed Timeline



Dedicated webpage available at umurl.us/ModernizeLeave



University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE

Todd P. Graves (Chair)

Greg E. Hoberock

Jeff L. Layman

Robin R. Wenneker

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 Senior 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 Annual Academic Appointments Report

Section 320.070, *Academic Appointments*, of the Collected Rules and Regulations, states that the University of Missouri System Office of Human Resources shall maintain records for all academic appointments and send an annual report to the Secretary of the Board of Curators detailing said appointments. This report is then forwarded to the Board as an informational item.

This is the first such report that is being provided to the Board following its approval of modifications to this Collected Rule and Regulation in April 2021. These changes were made to streamline and update requirements, including removing the onerous requirement that individual signed acceptances of appointment be filed with the Board Secretary.

Table 1, below, details academic appointments across the four universities during the preceding fiscal year. In sum, there were 47 tenured/tenure-track faculty and 104 non-tenure track faculty hired in FY 2022.

Table 1: Academic Appointments for Fiscal Year 2022 (07/01/21 – 06/30/22)

Academic Group	MU	UMKC	S&T	UMSL	Total
Non-Tenure Track	80	20	1	3	104
Clinical Faculty	47	3			50
Extension Faculty	1				1
Extension Professionals	8				8
Librarian	2	4			6
Professional Practice Faculty	6	1			7
Research Faculty	5	2		1	8
Teaching Faculty	11	10	1	2	24
Unranked Other Academic	196	184	22	14	416
Instructor/Lecturer Faculty	37	8			45
Librarian				3	3
Other Teaching/Research	60	162	7	6	235
Post-Doctoral/Fellow	91	10	14	5	120
Visiting Faculty	8	4	1		13
Tenured/Tenure Track	33	8	5		46
Total	309	212	28	17	566

Executive Summary
Name Change Request: School of Health Professions
University of Missouri - Columbia

The University of Missouri – Columbia (MU) requests that the School of Health Professions (SHP) be renamed the College of Health Sciences. This change is intended to reflect the significant changes that have taken place in the academic unit since its inception and to position it for future growth.

The School of Health Professions was originally named the School of Health Related Professions and was a sub-unit of the School of Medicine focused on the allied health professions (i.e., those involved with the delivery of health services). In 2000, the School had four departments and approximately 550 students. In 2001, the Board of Curators approved the request to make the School an independent unit and adopt its current name.

Today, the School of Health Professions is composed of seven departments and the School of Social Work, enrolls more than 3,500 students, and offers two professional doctoral degrees, two research doctoral degrees, four master’s degrees, 11 undergraduate degrees, and a psychology residency program. The disciplinary areas of study include:

- Clinical and Diagnostic Sciences
- Health Sciences
- Occupational Therapy
- Social Work
- Speech, Language and Hearing Sciences
- Public Health
- Physical Therapy
- Health and Rehabilitation Science

The School continues to experience dramatic growth in research, the provision of clinical services, and fundraising. As illustration, SHP’s research proposals value grew from \$12M in 2018 to \$58M in 2022. It’s research expenditures grew from \$1.9M in 2018 to \$5.6M in 2022. The School’s clinical services range from neuropsychological evaluation, to speech therapy, to respiratory therapy. According to Dean Kristofer Hagglund, “Changing the name to the College of Health Sciences recognizes the diversity of scope and scale of our work across our missions.” It will also allow for a clearer, more intuitive, organizational structure.

The change was requested by Dean Hagglund and was approved by Provost Latha Ramchand and President Mun Choi. It is submitted to the Board for its consideration and approval.

No. 2

Recommended Action – Resolution for Executive Session of the Board of Curators Academic, Student Affairs, Research and Economic Development Committee Meeting, September 7, 2022

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record and closed vote of the Board of Curators Academic, Student Affairs, Research and Economic Development Committee Meeting, September 7, 2022 for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment.

Roll call vote of the Committee: YES NO

Curator Graves
Curator Hoberock
Curator Layman
Curator Wenneker

The motion _____.

HEALTH AFFAIRS COMMITTEE

Robin R. Wenneker (Chair)
Keith A. Holloway
Jeff L. Layman
Michael A. Williams
Ronald G. Ashworth (non-curator)
Jim Whitaker (non-curator)
Dan Devers (non-curator)

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

I. Scope

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

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

II. Executive Liaison

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

III. Responsibilities

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

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

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

IV. Committee Membership and Quorum Requirements

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

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

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

EXECUTIVE VICE CHANCELLOR REPORT

There are no materials for this information item.

UNIVERSITY OF MISSOURI–KANSAS CITY
CAMPUS HIGHLIGHTS

There are no materials for this information item.

GOOD AND WELFARE
OF THE BOARD

There are no materials for this information item.

No. 1

Recommended Action – Resolution for Executive Session of the Board of Curators Meeting September 7, 2022

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 7, 2022 for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(2), RSMo**, relating to matters identified in that provision, which include leasing, purchase, or sale of real estate; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021(12), RSMo**, relating to matters identified in that provision, which include sealed bids and related documents and sealed proposals and related documents or documents related to a negotiated contract; and
- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment; and
- **Section 610.021(14), RSMo**, relating to matters identified in that provision, which include records which are protected from disclosure by law.

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graves		
Curator Hoberock		
Curator Holloway		
Curator Layman		
Curator Wenneker		
Curator Williams		

The motion _____.

September 7, 2022