Board of Curators Retreat - PUBLIC
University of Missouri System
Barcelona and Madrid Meeting Rooms, Chateau on the Lake, 415 N. State
Highway 265, Branson, MO 65616
Oct 5, 2022 5:00 PM - Oct 7, 2022 12:00 PM CDT

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VI. BOARD OF CURATORS MEETING - EXECUTIVE SESSION (Approximate Time – 3:45 PM)

Location: Barcelona and Madrid Meeting Rooms   The Board of Curators will hold an executive session of the October 6-7, 2022 meeting, pursuant to Sections 610.021(1), 610.021(3), 610.021(12) and 610.021(13) RSMo, for consideration of certain confidential or privileged communications with university counsel, personnel & contract items, all as authorized by law and upon approval by resolution of the Board of Curators.

VII. Reconvene Public Session (Friday, October 7 at 8:00 AM)

VIII. General Business

    A. Information

    B. Action

University of Missouri Board of Curators
2022 Goals

December 22, 2021 (Final Draft)

1. **Board Goals**
   a. Hire a new general counsel.
   b. Continue focus on quality teaching, student success and research on all campuses; and NextGen, Mizzou Forward and AAU membership at Mizzou:
      i. Reward the best and address the worst professors.
      ii. Recognize the achievements of outstanding faculty, staff and students at Board meetings and/or through significant awards.
      iii. Periodically meet with campus groups/stakeholders to discuss Curator strategic decisions.
   c. Support agreed-upon strategic initiatives for each campus:
      i. Evaluate and provide input on each initiative.
   d. Continue to improve cooperation between Board and administrative leadership:
      i. Clearly delineate responsibilities between the Board and administration.
      ii. Review practices for the flow of information between the university and Board, and vice versa, to achieve proactive and effective communications.
   e. Review and revise Board policies and norms:
      i. Evaluate relevant CRRs to determine if those rules reflect appropriate Board governance (e.g., Bylaws, CRR 10.030; Appointed Staff Officers, CRR 10.070, etc.). (https://www.umsystem.edu/ums/rules/collected_rules/)
      ii. Evaluate new Curator orientation content and provide input. An experienced Curator should be present during new Curator orientation.
      iii. Evaluate Board meeting agendas and protocols and revise as needed.
      iv. Establish annual goals for Curators and Committees (see below).

f. Empower Board committees to address relevant issues within the scope of the committee's authority as reflected in the committee Charters. (https://www.umsystem.edu/curators/committees)

g. Continue to improve relationships with elected officials (local, state, and federal):
    i.   Be cognizant of the policy positions of elected officials during the decision-making process.
    ii. Dusty to provide timely legislative updates directly to Board members if requested.

h. Identify and evaluate other campus governance structures (boards, committees, associations, etc.) to ensure those organizations are aligned with the Board's and System's strategic goals:
    i.   Should Board members be ex-officio members of any of those organizations?

i. Accountability:
    i.   Continue to hold the President and Chancellors accountable for execution of the Board's strategic vision

2. **Committee/Individual Curator Goals**
    a. Committee Chairs:
        i.   Understand the scope of your committee responsibilities as reflected in the Charters. (https://www.umsystem.edu/curators/committees)
        ii. Discuss key issues with members of your committee during the year and especially prior to Board meetings
        iii. Groom future Board/committee leadership by delegating tasks to other committee members
        iv. Share your committee goals with your staff liaison and discuss any proposed modifications and timelines for completion

    b. Academic Affairs
        i.   Improve admissions processes (e.g., medical school)
        ii. Review enrollment strategy
        iii. Review Greek Life practices and procedures
        iv. Establish consistent student success metrics for each campus
        v.   Continue to improve student success and refine metrics on how student success is defined

      vi. Evaluate degree programs and close programs that are not performing. Focus on workforce development and evaluate employment opportunities for graduates with certain degrees.

   c. <u>Finance</u>
      i. Get fringe benefits under control - need to establish a percent of salary for benefits that is reasonable
      ii. Evaluate and expand profit centers on each campus including intellectual property and licensing
      iii. Outsource services that save money
      iv. Reduce the footprint of Mizzou and UMSL - better space utilization is needed
      v. Continue to invest in athletics
      vi. Reduce overhead and excessive FTEs to improve efficiency

   d. <u>Governance</u>
      i. Improve the Board annual employee performance review process as shown in the CMA document. Establish clear goals and expectations for Board staff.
      ii. Analyze Council of Chancellors and System leadership structure post COVID

   e. <u>Health Affairs</u>
      i. Review strategy/timeline used to evaluate future opportunities (hospitals, real estate, partnerships, etc.)
      ii. Continue to monitor MU Healthcare as they build a new hospital
      iii. Understand and evaluate the professional health related initiatives at UMKC
      iv. Track brand and communications strategy as MUHC considers market opportunities

3. 2021 Unresolved Issues
   a. Should the Board have its own CRR(s) regarding "shared governance" and how it is defined?
      i. What are the Board's goals related to shared governance?

b. Currently, the Board can "change any decision at any time" (CRR 20.30). Is this sufficient or should a new standard be used?

c. Should the Board have guidelines around the usage of task forces, consultants, etc.?

4. **Strategic Theme Discussions**
   a. Mizzou Forward
   b. Academic freedom
   c. Understanding IDE goals and objectives
   d. How does the central bank work?
   e. How do we define student success and how it is measured on each campus?
   f. Differential tuition – provide details on how this would be applied

5. **Curator Retreat**
   a. Curator Holloway will lead and manage with Cindy

6. **Annual Charter Review** (https://www.umsystem.edu/curators/committees)
   a. Governance Committee to oversee Curator review by February 2022
   b. Ensure that the expectations of the Board and university leadership are aligned in the Charters
   c. Are there any areas of oversight that the Board is missing?

7. **Committee Appointments**
   a. Appointments will remain the same as 2021 with the exception of making Curator Holloway Chair the Audit Committee.

8. **Weekly Meetings and Board Communications**
   a. Curator Attendees: Curators Hoberock, Wenneker and Chatman
   b. Curator Hoberock will distribute notes to all Curators after each meeting.

9. **Wednesday Night Dinner**
   a. We will continue to have Curator dinners the night before the Board meetings.

10. Board Office Communications
   a. Expense Reports – Valerie
   b. Commencements – Phyllis
   c. Hotel reservations for athletic events – Phyllis
   d. Hotel reservations for Board meetings – Valerie
   e. Athletic events tickets – Cindy
   f. Meeting agendas – Cindy
   g. OnBoard technical assistance – Valerie

University of Missouri Board of Curators

2022 Board Goals Progress, Statement of Values and New Curator Orientation Update

University of Missouri
Board Retreat
October 6-7, 2022

2022 Board Goals Progress

Chair Darryl Chatman

2022 Board Goals

- Hire new General Counsel
- Continue focus on quality teaching, student success & research at all universities
- Support agreed-upon strategic initiatives for all universities
- Improve cooperation between Board and administration

2022 Board Goals

- Review and revise Board policies and norms
- Empower Board committees to address relevant issues within scope of charter
- Improve relationships with elected officials
- Identify & evaluate other campus governance structures (boards, committees) for alignment with Board and System's strategic goals
- Hold President & Chancellors accountable for execution of strategic vision

2022 Committee/Individual Curator Goals

- Committee Chairs

- Academic Affairs Committee

- Finance Committee

- Governance, Compensation & Human Resources Committee

- Health Affairs Committee

2021 Unresolved Issues

- Should Board have its' own CRR regarding shared governance?
- Strategic theme discussions
- Board of Curators Retreat
- Annual charter review and committee assignments
- Weekly meetings and Board communications
- Wednesday evening dinners

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Board Statement of Values

Draft – For Discussion

Mark Menghini

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST.LOUIS

Trustworthy & Transparent Communication

We value an environment of openness, collaboration and honesty with each other above all else, and support open communication and the free expression of ideas. We will endeavor to communicate with each other and with all University stakeholders with honesty and integrity. We will perform our duties ethically and avoid conflicts of interest and the appearance of impropriety.

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Respect

We are respectful of each other and all University stakeholders in our interactions. We believe that civility, courtesy, decency and tolerance are critical when engaging in discussions with others with whom we may not agree. We encourage independent judgment and the sharing of a diversity of thoughts, and accept others' unique perspectives as valuable contributions to governing discussions.

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Healthy Board Governance

We are committed to a healthy culture of board governance, one that is dedicated to sustaining the trust and support for the University System's leadership and stakeholders. We will devote time and effort needed to responsibly and capably perform our duties. We will exercise responsible stewardship and uphold our fiduciary duties as Curators. We will fully prepare for, attend and participate in board meetings, and seek to continually increase our understanding of, and adherence to, the standards for effective board governance.

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Support and Hold Accountable Leadership

We are committed to supporting the leadership throughout the University System, while also holding that leadership accountable for the effective management of the University System. We will establish, communicate and monitor clear performance expectations for leadership directly reporting to the Board, and will hold such leadership accountable to maintain the highest standard of ethical behavior. In supporting University leadership, we will endeavor to avoid involvement in administrative matters not subject to the direct authority of the Board.

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Strategic Vision

We are committed to fully understanding, supporting and, when appropriate, challenging the short and long-term strategic priorities of the University System's constituents. We will challenge University leadership to continually develop and assess strategic plans that will be effective in supporting the Missouri Compacts for Achieving Excellence: Excellence in Student Success, Excellence in Research and Creative Works, Excellence in Engagement and Outreach, Inclusive Excellence and Excellence in Operations, Planning and Stewardship.

New Curator Orientation Update

Mark Menghini & Cindy Harmon

Curator Orientation Updates

- Curator Orientation Plan approved early 2022
- Conducted first two-year follow-up orientation
- Shortened the initial orientation PowerPoint (history, higher education hierarchy, governance and professionalism) from 90 – 53 pages
- Developed one-page summaries for each university, Extension and MU Health Care
- Created a Quick Reference Guide for Curators

Review of Curator Committee Structure
October 6-7, 2022

Please see below questions, two articles and 2022 Committee goals for review prior to the retreat. Curators Williams and Brncic will discuss with the group.

Consequential Questions:

1. Is all our committee's work aligned with our institution's strategic vision, goals, and priorities?
2. Do our committees translate their charges into annual goals and work plans that align with the board's governance responsibilities and our institution's strategic plan?
3. Are our committees' meeting agendas concise and developed with clearly stated desired meeting outcomes?
4. When making formal recommendations to the full board, do our committees present conclusions that summarize relevant data and findings, including constituent voices and diverse perspectives?

Anticipating Governance Challenges and Strengthening Relationships

Council Insights: Council of Board Professionals

By Saletta A. Holloway | September 9, 2022 | Blog Post

Home > Blog Posts > Anticipating Governance Challenges and Strengthening Relationships

The August 2022 meeting of the AGB Council of Board Professionals took a deep dive into board readiness for the coming challenges as colleges and universities open for the 2022-23 semesters.

During the plenary discussion, board professionals (BPs) explored the question: "What Keeps You and Your Board Up at Night?" Board professionals, like their presidents, often face this difficult question and are tapped to offer solutions to many challenging issues facing our institutions including COVID, monkeypox, other concerns related to campus safety, and more. On the horizon are a myriad of concerns awaiting campus leaders. Some of these include:

- Responding to campus activism and individuals or groups with divisive political opinions, including board members who share their political philosophies for consideration in institutional decision-making.
- Addressing new changes to athletics—proposals and enacted policies. These policies impact student decisions, institutional structures, and community interest in athletic programs. Many institutions are spending disproportionate amounts of time navigating the new or anticipated changes.
- Being financially sound and containing growing expenditures while remaining affordable is a major challenge and priority issue. For most institutions and systems, tuition and fees are a main source of funding.
- Securing students' scholarships from institutionally related foundations continues to remain a priority. For some donors, skyrocketing inflation means that they want their gifts used to support students and issues related to affordability.
- Growing demands for higher faculty, staff, and graduate assistant compensation, struggling with retaining these personnel (especially those in upper-level positions) while controlling costs, and facing unions and bargaining units. These issues are accelerating at a rapid pace.

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- Hiring new presidents and competing for effective leaders. Presidential turnover is at an all-time high. More searches are expected.

What do board chairs and members need to know and hear in this environment?

"Board members need to think of themselves as strategists instead of executives," one member mentioned. It is important to build and sustain strong relationships with their presidents and other members of the leadership team, noting these leadership positions are stressful and often cause significant "burnout." In many cases, campuses are like small cities or in other cases, large cities; so, the expectations of leadership in these new environments are changing. High levels of turnover and searches are causing anxiety on campuses with some board professionals facing multiple presidential transitions within a short time frame, three to five years.

Faculty and staff retention, especially at the upper levels should be addressed since some boards aren't thinking about the second and third layers of leadership. To avoid a mass exodus, one institution made a retention plan for all senior executives to remain in their positions for one year during their presidential search. Other areas of concern are the retention and succession of CFOs, CIOs, and HR leaders who are specialists. The demand for these executives in other fields outside of higher education is strong and creates a competitive market.

The challenge of declining enrollment is not just a population-based phenomenon. Institutions are not just competing against one another for the shrinking pool of students, but also against the perspective of those who simply aren't choosing to attend college. In many cases, this is a losing battle for higher education. More efforts are needed to strengthen the message about the value of higher education.

The pandemic encouraged or expanded new opportunities for educational delivery. It is likely that online learning will remain an ever-present part of campus environments. As such, campuses are struggling with ways to continue offering traditional learning experiences while addressing the associated rising costs of physical plant/building maintenance. The consolidation of campus buildings and programs presents a structural and fiscal challenge for some institutions. As an example, one system currently oversees 16 colleges with 70 campus locations; and the struggle of supporting this infrastructure is in question.

How can BPs educate and advise their boards on these and other pressing issues in higher education?

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BPs realize the importance of educating and advising their boards yet are unsure how to help them understand how the higher education environment is different from that of the business environment. There are important ways BPs can infuse this learning through ongoing development and education to aid them in serving as ambassadors for their institutions.

What can BPs do for their boards on an ongoing basis?

Some of the tangible solutions to this question include:

- As allies to the board, BPs can be strategic partners and encourage board members to govern at the strategic, not administrative level. Often boards think with a mind-set of "operations" because they are accustomed to this way of thinking in their own work. It is not unusual for boards to discuss issues related to oversight vs. management. Many BPs work with presidents and board chairs to help their board members focus on oversight as well as strategies for future success. BPs can help board members think about the implications of the strategic decisions they make, and how these decisions fulfill their oversight and fiduciary responsibilities.
- BPs know when governance issues start to percolate. They are often in positions to offer strategies to address these issues before they become major problems or disruptions. BPs can support best practices by helping board members engage in deep, meaningful dialogues about consequential topics. BPs can help to balance the information boards receive to ensure they are not overloaded and can focus on what matters most.
- BPs can find opportunities for small groups of presidents, board chairs, and board professionals to participate in programs or have conversations about governance, leadership, and key topics in higher education. BPs are in a unique position to encourage presidents and board members to share their concerns with each other as colleagues in a "safe environment" (e.g., via a consortium or AGB) and have strategic conversations on common issues. These dialogues often promote the exchange of ideas and solutions to common concerns.

AGB and Board Professionals

Board professionals can also help their chief executives and board members take advantage of new AGB resources that were recently developed and launched to support AGB member governance goals. Two of the new services that launched on July 1 include:

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- **AGB Board Self-Assessment Tool** – This is a self-service tool supported by Qualtrics that focuses on mission and strategy, institution sustainability, culture, philanthropy, oversight, and accountability. Board member responses are anonymous and confidential. The completion time of the anonymous survey for board members is approximately 30 minutes.
- **AGB One-Hour Governance Consultation** – This service connects board members with AGB consultants to discuss governance-related challenges, opportunities, resources, and best practices. An optional component includes a governance consultant providing a 20-minute review with your board to discuss specific matters related to successes, and current or emerging issues.

AGB recognizes the important work and essential role of BPs. As proof of the mutual respect for BPs, AGB's Council of Board Professionals was established as an advisory group that provides insights and thought leadership on various issues concerning boards, foundations, and board professionals.

- **AGB Board Professionals Certificate Program**. This program was recently created for and by BPs, with AGB, to offer BPs a professional development certificate program to build their skills. Currently, over 200 BPs are participating in this program! For learners to proceed through the modules, which include readings, videos, practical applications, and other resources, BPs must successfully complete a module before moving to the next. A digital badge and certificate are presented upon completion. This is a top-notch program and a tremendous opportunity for board professionals. AGB hopes that it will continue to help BPs serve as strategic partners.

Key Takeaways

The fall semester is starting or has started for most of us. What's out there is anyone's guess! Are we prepared? Many of us are somewhat prepared, or as prepared as we can be... BPs will continue to help presidents and board members identify and respond to governance needs as they recognize when a big change is needed or when small adjustments are warranted and implemented. BPs help their presidents and board members stay poised and ready!

- The role of the board professional is critical as BPs shape how presidents and boards think and talk about current/real or future/potential governance issues. Ultimately, this shapes what happens in boardrooms and beyond.
- Board professionals provide knowledge, context, and insights to help institutional and board leaders govern effectively. As a result, board members better

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understand their governance responsibilities, fiduciary duties, and how their work and decisions impact their community.

- Board professionals can work with their presidents and board chairs to create policies and practices that support board members as strategic thought partners. BPs support their presidents and board chairs by sharing their own observations and making presidents and board chairs aware of issues/concern that might not be on their radar. By sharing their expertise and connecting people and ideas, BPs support critical relationships for effective governance.

Saletta A. Holloway, EdD, MPS, is the senior vice president for board relations & community engagement at Meharry Medical College and is a member of AGB's Council of Board Professionals.

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Tools of Effective Governance

By Terrence MacTaggart and Andrew Lounder | September 21, 2022 | Blog Post

Home > Blog Posts > Tools of Effective Governance

How can boards of trustees exercise effective leadership without undermining or usurping the president's role as chief executive?

This perennial question is becoming more urgent as pandemics and other challenges demand fresh ideas and decisive leadership from presidents and trustees alike. Our colleges, universities, and systems are best served when boards and presidents act as partners in leadership with differing responsibilities but common objectives. This post outlines some of the practical tools available to the boards and chief executives to enable them to work together when change is the order of the day.

The list below presents well-tested instruments boards can use to set institutional strategy and policy without tripping over the line into institutional management. They are listed in an order that runs roughly from gathering information, using that information to deepen board discussions, and then taking action to bring about institutional change. These tools are intended to provide boards with the instruments to contribute to positive change in partnership with their chief executive.

1. Schedule and set high standards for succinct staff reports on the crucial issues facing the college or university, its leadership, faculty, staff, and students.

> To be clear, succinctness is typically the missing ingredient. Most senior-level higher education administrators, including presidents, arrive in their roles with limited experience staffing boards. Lengthy reports that demonstrate thorough consideration and deep wisdom on any given topic are often a hazard to board members' absorption of insights, connection-making, and ultimately their fluency in discussing these issues. It is the board's responsibility to clarify expectations of staff.

2. Refresh charges to committees to get beyond routine reports and topics in favor of the most important financial, educational, and relational challenges.

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This is about time allocation. Most committees have standards and deadlines for routine oversight tasks (that is, certifying documents for legal compliance, reviewing income statements, etc.). Absent leadership and empowerment, many committees devise annual workplans that do not contribute to board-level insight around strategic priorities. Board and committee leaders must ensure the work of the committees contributes to the work of the whole.

3. Focus committee and board agendas on the top challenges or priorities and avoid excessive staff control of committee agendas.

Again, most staff liaisons (for examples, the academic vice president who also staffs the academic affairs committee) to board committees come into that role by virtue of professional experiences that are completely unrelated to governing boards. As executives, they are stereotypically much more practiced at presenting hard decisions and far less so at elevating hard questions. Committee leaders need to "own" committee agendas and help staff to gain facility in support.

4. Use work sessions and retreats to enable the board and president to discuss selected issues in depth and to determine courses of action and policy changes.

Board-CEO alignment and trust are more important than ever, and it's ultimately the board's responsibility to ensure that relationship thrives. Essential components include both an informed and thoughtful board and a confident, empowered chief executive.

5. Create ad hoc, time-limited task groups of trustees, staff, and external advisors to address topics calling for concerted attention and action.

The imprimatur of the governing board is a powerful tool. Charging appropriate groups with time-limited tasks can be one valuable application of it. In post-pandemic environments, many boards will need to gain fresh clarity alongside presidents as to which challenges present themselves well for taskforce-style response, but boards should also expect the work of such groups to move with an urgency appropriate to the circumstances. The board should consistently state and communicate timelines needed for effective fulfillment of a charge.

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6. Hire external auditors, reviewers, and assessors to evaluate and make recommendations on topics where the staff lacks the expertise or may be too close to the problems to be objective.

Two governance propositions are increasingly questionable today: a) internal staff have the expertise to "figure it out;" and b) other institutions in one's competitive set provide good examples to follow ("What is university X doing?"). Boards should have a healthy appetite for outside perspectives. They should also seek to disabuse staff of unhealthy notions that the board's estimation of them hinges on their ability to independently diagnose and resolve the institution's most difficult challenges.

7. Schedule con dential conversations between the president and the board or an executive committee to confirm their mutual expectations for communications, power sharing, and performance.

The board is responsible for facilitating presidential success in the interest of mission achievement. Therefore, it is the board's responsibility, not the president's, to create opportunities to short-circuit misalignment.

8. Review and adjust major plans to ensure practicality, accountability, and demonstrable results, and rigorously monitor progress.

Gone are the days when strategic planning did not result in clear institutional priorities, goals, and mile-markers. The board needs to "own" strategic plans by not merely ensuring there's a plan but ensuring the institution either progresses satisfactorily against it or changes strategy.

9. Engage in upstream conversations of the board and president and senior staff on strategic plans and initiatives well before they are formulated.

Boards need to be engaged early in the strategic planning process, not just informed near the end when key directions have been set. The very best way to achieve board buy-in and enthusiastic support of strategic plans and initiatives is to invest board members in the thinking behind them.

10. Establish with the president a list of goals and expectations annually and for longer periods that will require multiple years for achievement; regularly discuss progress or lack thereof.

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Everyone has an opinion about the president's performance, and board members are not exempt. The board's collective view needs to be rooted in performance against clear objectives, including some metrics and benchmarks. Annually, the board needs to provide the opportunity to discuss presidential performance and ensure potential differences of opinion—either among board members, or between the board and the president—are clarified. Likewise, the occasion of a presidential milestone achievement is often an opportunity for meaningful recognition by the board.

Experienced trustees and presidents will be familiar with these tools. The art of effective leadership comes into play in matching the right tool with the problem or challenge to be addressed. A candid discussion between board leaders and their president will help determine the most fruitful approach. The other major requirement is the will to use these instruments to bring about positive change.

Terrence MacTaggart, PhD, is an AGB senior fellow and consultant. His consulting and research focus on higher education leadership and policy, strategic planning, board development, shared governance, and leadership evaluation. He has held the chancellor's position at the Minnesota State University System and on two occasions at the University of Maine System. Learn more about effective leadership at the **Retreat for Board Chairs and Presidents of Public Institutions and Systems** on Wednesday, October 26, at 1 p.m. EDT.

Andrew Lounder, PhD, is AGB's associate vice president of programs. He is also a special faculty member in the graduate school at the University of Maryland College Park, where he teaches higher education governance to aspiring leaders, and he is a trustee of Wheaton College Massachusetts.

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2022 Committee Goals (from the 2022 Board Goals and Planning Document)

a. Committee Chairs:
  i. Understand the scope of your committee responsibilities as reflected in the Charters. (https://www.umsystem.edu/curators/committees)
  ii. Discuss key issues with members of your committee during the year and especially prior to Board meetings
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  i. Get fringe benefits under control - need to establish a percent of salary for benefits that is reasonable
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  ii. Analyze Council of Chancellors and System leadership structure post COVID

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Board of Curators Financial Update

University of Missouri Board of Curators Retreat

October 2022

The Colors of Money
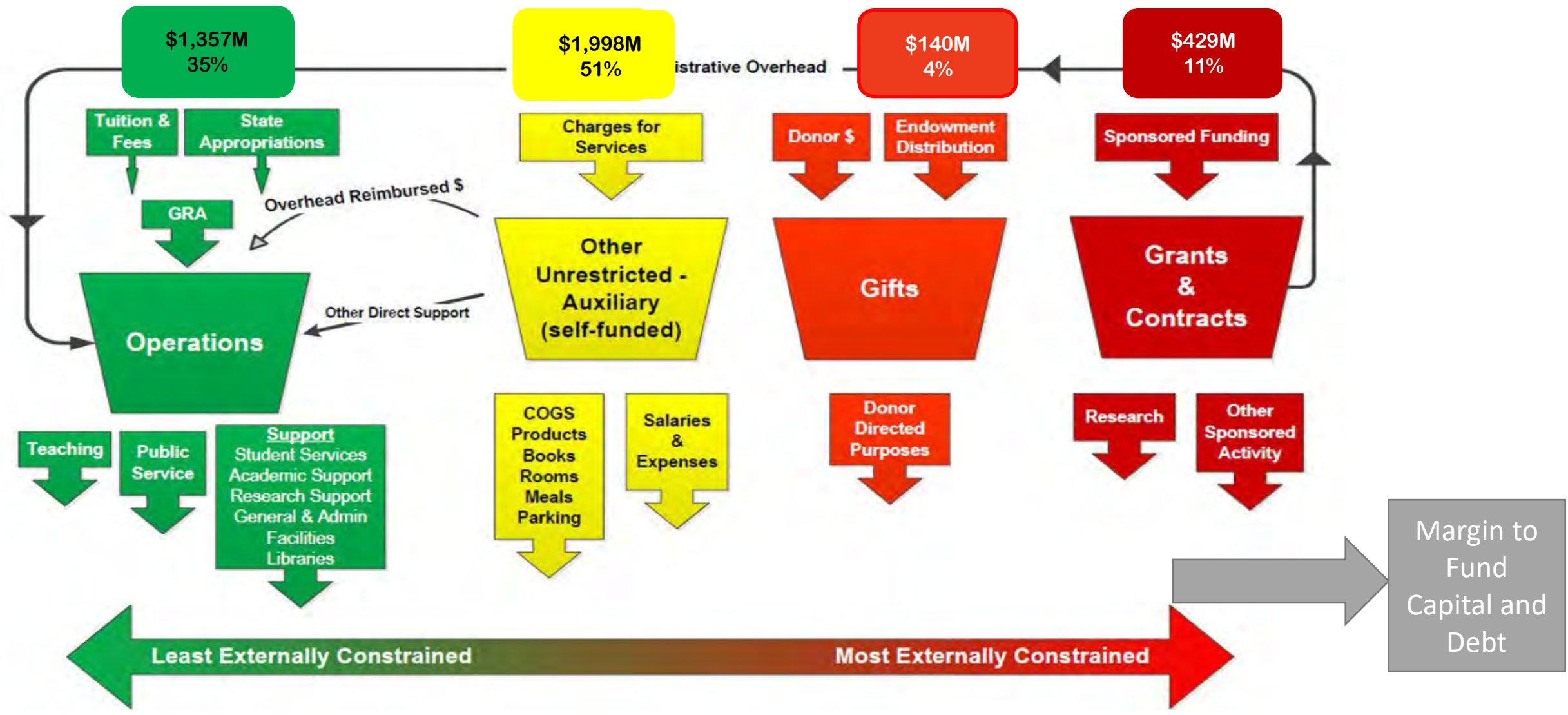
Revenue by Source FY 2022
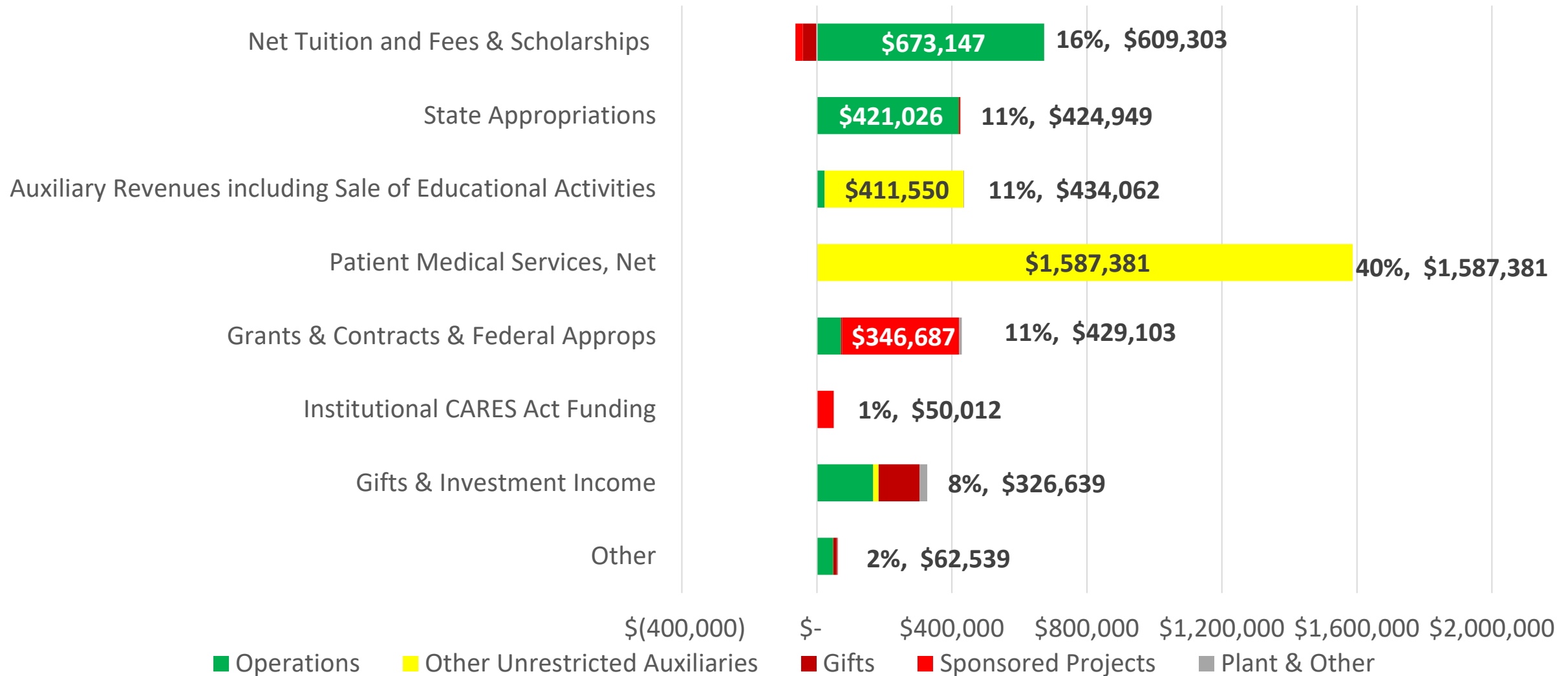
Revenue Mix Varies by University

Revenue Mix by University

University	Net Tuition and Fees & Scholarships	State Appropriations	Auxiliary Revenues	Patient Services, Net	Gifts & Investment Income	Grants & Contracts	Total
UMSL	$78,699	$59,007				$35,059	$222,411
S&T	$67,136	$53,026	$23,098			$44,203	$223,480
UMKC	$154,378	$77,992	$37,856	$39,843		$62,684	$438,858
MU	$309,131	$225,457	$313,311	$288,367		$257,054	$1,607,126

Legend:
- ■ Net Tuition and Fees & Scholarships
- ■ State Appropriations
- ■ Auxiliary Revenues
- ■ Patient Services, Net
- ■ Gifts & Investment Income
- ■ Grants & Contracts
- ■ Institutional CARES Act Funding
- ■ Other

Compensation Drives the Majority of Spending

FY 2022
Spending

$3.6 Billion

Operating Expense
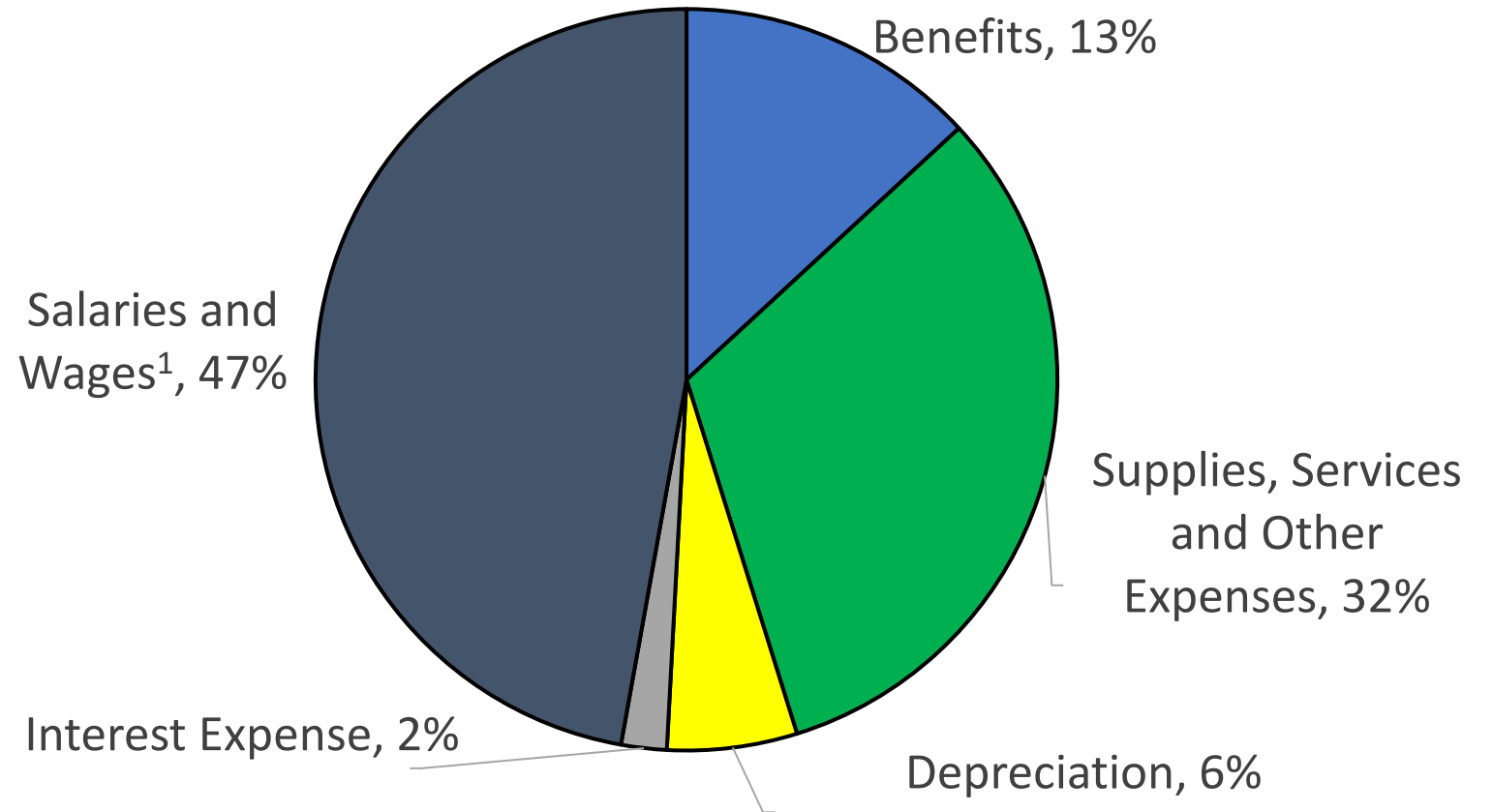
Note 1: PTO is included in this total

MU Detail

Financial Statement by Colors of Money

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Operating Revenues						
Tuition and Fees	$ 491,759	$ -	$ -	$ 516	$ -	$ 492,275
Less Scholarship Allowances	150,788	-	19,794	55,527	-	226,108
Net Tuition and Fees	340,972	-	(19,794)	(55,010)	-	266,167
Federal Pell Grants	-	-	-	24,200	-	24,200
Government Scholarship Funding	-	-	-	18,764	-	18,764
Institutional CARES Act Funding	-	-	-	21,600	-	21,600
Grants and Contracts	50,514	-	-	207,863	(1,324)	257,054
Auxiliary Enterprises	13,745	299,151	25	330	58	313,311
Patient Medical Services, Net	-	288,367	-	-	-	288,367
Other Operating Revenues	29,672	-	520	1,751	931	32,875
State Appropriations	221,534	-	-	3,923	-	225,457
Federal Appropriations	220	-	-	17,907	-	18,127
Private Gifts	-	12,236	27,160	-	-	39,396
Spendable Investment Income (Moody's)	60,068	-	33,597	-	8,145	101,810
Total Operating Revenues	**$ 716,724**	**$ 599,754**	**$ 41,509**	**$ 241,328**	**$ 7,811**	**$ 1,607,126**
Operating Expenses						
Salaries and Wages	359,646	362,279	14,178	114,889	116	851,108
Benefits	114,285	92,112	3,334	31,733	9	241,473
Supplies, Services and Other Expenses	78,338	101,274	14,042	70,377	31,862	295,894
Depreciation	-	-	-	-	102,427	102,427
Interest Expense	-	-	-	-	34,398	34,398
Total Operating Expenses	**$ 552,268**	**$ 555,666**	**$ 31,555**	**$ 216,998**	**$ 168,813**	**$ 1,525,300**
Net Operating Income	**$ 164,456**	**$ 44,088**	**$ 9,954**	**$ 24,330**	**$ (161,002)**	**$ 81,826**

Revenue Breakout

Net Tuition Detail - Funded by Operations		
Undergraduate Tuition	$	284,689
Graduate Tuition		36,738
Professional Tuition		48,494
Supplemental Fees		62,205
Activity & Facility Fees		7,394
Information Technology Fees		12,313
Ext Continuing Education Fees		36,071
Other Educational Fees		3,853
Tuition and Fees		**491,759**
Undergraduate Aid		(115,762)
Graduate Aid		(28,801)
Professional Student Aid		(2,840)
Miscellaneous Aid		(3,385)
Scholarship Allowance		**(150,788)**
Net Tuition and Fees	**$**	**340,972**

Externally Funded Grants & Contracts		
Federal	$	143,367
State		54,004
Local and Other Governmental		6,770
Private		52,913
Total Grants and Contracts	**$**	**257,054**

Auxiliary Detail		
Housing and Dining	$	75,808
Athletics		71,452
Research Reactor		41,921
Bookstore		31,445
Student Auxiliaries		27,842
Vet Med Diagnostic Lab & Teaching Hospital		25,955
Other Auxiliaries		24,728
Total Auxiliary Revenue	**$**	**299,151**

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST.LOUIS

October 2022

Salary Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Salaries and Wages						
Teaching and Research						
Tenure and Tenure Track Faculty	$ 100,579	$ 22,790	$ 5,522	$ 22,278	$ -	$ 151,170
Benefit Eligible Faculty and Clinical Research Staff	55,535	121,331	2,180	34,560	-	213,606
Non-benefit Eligible Faculty	9,778	20,195	447	2,955	-	33,375
Graduate Assistants	23,758	1,020	2,394	12,350	-	39,522
Total Teaching and Research Salaries	189,651	165,336	10,543	72,143	-	437,674
Staff and Supporting Services						
Benefit Eligible Staff	156,731	127,049	2,585	35,439	-	321,804
Non-benefit Eligible Staff	11,015	18,197	681	5,606	53	35,552
Supporting Services	2,249	51,696	370	1,701	63	56,078
Total Staff and Supporting Services Salaries	169,995	196,943	3,635	42,746	116	413,435
Total Salaries and Wages	**$ 359,646**	**$ 362,279**	**$ 14,178**	**$ 114,889**	**$ 116**	**$ 851,108**
Benefits						
Flat Rate Benefits	$ 90,975	$ 69,488	$ 2,563	$ 24,862	$ -	$ 187,888
FICA Benefits	23,310	22,624	771	6,870	9	53,585
Total Benefits	**$ 114,285**	**$ 92,112**	**$ 3,334**	**$ 31,733**	**$ 9**	**$ 241,473**

Supplies, Service & Other Expense Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Cost of Goods Sold	$ 20,133	$ 37,210	$ -	$ -	$ 464	$ 57,808
Fuel and Utilities	46,518	12,051	35	55	4,927	63,587
Subcontracts & Purchased Services	14,069	23,019	1,992	39,366	2,720	81,165
Facility M&R Non-Capital	8,396	6,234	1,180	609	10,797	27,216
Non-Capital Equipment	15,826	7,665	2,360	2,526	10,425	38,802
Supplies	13,889	16,188	1,222	12,986	1,973	46,259
Computing Expenses	12,976	11,404	308	1,751	252	26,690
Business Meeting Expenses, Travel & Training	13,200	18,200	2,779	5,506	51	39,736
Departmental Expenses & Overhead Allocation	(66,669)	(30,698)	4,166	7,577	252	(85,371)
Total Supplies, Service & Other Expense	**$ 78,338**	**$ 101,274**	**$ 14,042**	**$ 70,377**	**$ 31,862**	**$ 295,894**

October 2022

UMKC Detail

Financial Statement by Colors of Money

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Operating Revenues						
Tuition and Fees	$ 208,851	$ -	$ -	$ 8	$ -	$ 208,859
Less Scholarship Allowances	41,609	-	11,051	19,188	-	71,848
Net Tuition and Fees	167,242	-	(11,051)	(19,180)	-	137,011
Federal Pell Grants	-	-	-	12,659	-	12,659
Government Scholarship Funding	-	-	-	4,708	-	4,708
Institutional CARES Act Funding	-	-	-	10,577	-	10,577
Grants and Contracts	8,977	-	1,005	53,210	(507)	62,684
Auxiliary Enterprises	5,142	32,693	21	-	-	37,856
Patient Medical Services, Net	-	39,843	-	-	-	39,843
Other Operating Revenues	11,618	-	9,189	459	(191)	21,075
State Appropriations	77,992	-	-	-	-	77,992
Federal Appropriations	-	-	-	-	-	-
Private Gifts	393	10	17,760	-	148	18,311
Spendable Investment Income (Moody's)	6,320		9,823		-	16,143
Total Operating Revenues	**$ 277,683**	**$ 72,545**	**$ 26,748**	**$ 62,433**	**$ (550)**	**$ 438,858**
Operating Expenses						
Salaries and Wages	133,569	36,738	8,766	22,494	-	201,567
Benefits	40,717	10,113	2,597	6,045	-	59,472
Supplies, Services and Other Expenses	54,450	16,472	8,854	21,049	7,731	108,556
Depreciation	-	-	-	-	25,505	25,505
Interest Expense	-	-	-	-	7,550	7,550
Total Operating Expenses	**$ 228,736**	**$ 63,322**	**$ 20,217**	**$ 49,587**	**$ 40,786**	**$ 402,649**
Net Operating Income	**$ 48,947**	**$ 9,223**	**$ 6,530**	**$ 12,846**	**$ (41,336)**	**$ 36,210**

Revenue Breakout

Net Tuition Detail - Funded by Operations		
Undergraduate Tuition	$	68,028
Graduate Tuition		44,816
Professional Tuition		68,917
Supplemental Fees		12,336
Activity & Facility Fees		3,386
Information Technology Fees		5,324
Ext Continuing Education Fees		3,293
Other Educational Fees		2,751
Tuition and Fees		**208,851**
Undergraduate Aid		(14,981)
Graduate Aid		(14,845)
Professional Student Aid		(11,783)
Miscellaneous Aid		-
Scholarship Allowance		(41,609)
Net Tuition and Fees	$	**167,242**

Externally Funded Grants & Contracts		
Federal	$	31,185
State		5,759
Local and Other Governmental		5,952
Private		19,788
Total Grants and Contracts	$	**62,684**
Auxiliary Detail		
Student Auxiliaries	$	11,697
Housing and Dining		10,030
Dental Clinic		4,380
Athletics		1,851
Child Development Center		1,241
Other Auxiliaries		3,494
Total Auxiliary Revenue	$	**32,693**

Salary Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Total
Salaries and Wages					
Teaching and Research					
Tenure and Tenure Track Faculty	$ 35,508	$ -	$ 2,210	$ 2,513	$ 40,232
Benefit Eligible Faculty and Clinical Research Staff	26,124	24,794	1,158	6,178	58,254
Non-benefit Eligible Faculty	8,269	838	352	1,077	10,537
Graduate Assistants	3,813	179	153	1,514	5,659
Total Teaching and Research Salaries	73,715	25,811	3,873	11,282	114,681
Staff and Supporting Services					
Benefit Eligible Staff	48,583	8,711	3,850	8,065	69,209
Non-benefit Eligible Staff	3,037	1,146	306	1,548	6,038
Supporting Services	8,234	1,070	736	1,598	11,639
Total Staff and Supporting Services Salaries	59,854	10,927	4,893	11,211	86,885
Total Salaries and Wages	**$ 133,569**	**$ 36,738**	**$ 8,766**	**$ 22,494**	**$ 201,567**
Benefits					
Flat Rate Benefits	$ 32,153	$ 7,605	$ 2,029	$ 4,742	$ 46,529
FICA Benefits	8,564	2,508	568	1,303	12,943
Total Benefits	**$ 40,717**	**$ 10,113**	**$ 2,597**	**$ 6,045**	**$ 59,472**

Supplies, Service & Other Expense Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Cost of Goods Sold	$ 4,195	$ -	$ -	$ -	$ -	$ 4,195
Fuel and Utilities	6,757	1,124	63	2	-	7,946
Subcontracts & Purchased Services	4,163	4,874	2,056	14,597	762	26,452
Facility M&R Non-Capital	7,118	1,404	682	79	5,610	14,893
Non-Capital Equipment	8,009	1,262	836	1,633	1,987	13,726
Supplies	3,046	2,744	425	1,698	19	7,932
Computing Expenses	2,557	338	136	153	-	3,184
Business Meeting Expenses, Travel & Training	2,434	2,000	985	1,138	20	6,577
Departmental Expenses & Overhead Allocation	16,171	2,725	3,673	1,750	(666)	23,651
Total Supplies, Service & Other Expense	**$ 54,450**	**$ 16,472**	**$ 8,854**	**$ 21,049**	**$ 7,731**	**$ 108,556**

Missouri S&T Detail

Financial Statement by Colors of Money

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Operating Revenues						
Tuition and Fees	$ 119,995	$ -	$ -	$ -	$ -	$ 119,995
Less Scholarship Allowances	38,702	-	8,787	16,484	-	63,974
Net Tuition and Fees	81,293	-	(8,787)	(16,484)	-	56,021
Federal Pell Grants	-	-	-	5,445	-	5,445
Government Scholarship Funding	-	-	-	5,670	-	5,670
Institutional CARES Act Funding	-	-	-	7,168	-	7,168
Grants and Contracts	7,612	-	2,625	34,504	(538)	44,203
Auxiliary Enterprises	1,171	21,931	(4)	-	0	23,098
Patient Medical Services, Net	-	-	-	-	-	-
Other Operating Revenues	2,871	-	208	35	291	3,405
State Appropriations	53,026	-	-	-	-	53,026
Federal Appropriations	-	-	-	-	-	-
Private Gifts	441	-	7,236	-	531	8,208
Spendable Investment Income (Moody's)	3,442	-	8,134	-	5,659	17,235
Total Operating Revenues	**$ 149,856**	**$ 21,931**	**$ 9,411**	**$ 36,337**	**$ 5,943**	**$ 223,480**
Operating Expenses						
Salaries and Wages Expense	77,038	2,382	2,883	13,674	-	95,977
Benefits	25,156	1,047	561	2,572	-	29,336
Supplies, Services and Other Expenses	25,666	9,035	3,084	9,355	(2,088)	45,052
Depreciation	-	-	-	-	23,901	23,901
Interest Expense	-	-	-	-	5,304	5,304
Total Operating Expenses	**$ 127,860**	**$ 12,464**	**$ 6,528**	**$ 25,600**	**$ 27,117**	**$ 199,569**
Net Operating Income	**$ 21,996**	**$ 9,467**	**$ 2,884**	**$ 10,737**	**$ (21,174)**	**$ 23,911**

Revenue Breakout

Net Tuition Detail - Funded by Operations		
Undergraduate Tuition	$	62,958
Graduate Tuition		15,677
Professional Tuition		-
Supplemental Fees		25,108
Activity & Facility Fees		4,352
Information Technology Fees		2,660
Ext Continuing Education Fees		7,999
Other Educational Fees		1,241
Tuition and Fees		**119,995**
Undergraduate Aid		(29,093)
Graduate Aid		(9,609)
Professional Student Aid		-
Miscellaneous Aid		-
Scholarship Allowance		(38,702)
Net Tuition and Fees	$	**81,293**

Externally Funded Grants & Contracts		
Federal	$	23,869
State		3,882
Local and Other Governmental		180
Private		16,272
Total Grants and Contracts	$	**44,203**
Auxiliary Detail		
Housing and Dining	$	19,149
Student Auxiliaries		2,493
Other Auxiliaries		289
Total Auxiliary Revenue	$	**21,931**

Salary Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Total
Salaries and Wages					
Teaching and Research					
Tenure and Tenure Track Faculty	$ 28,334	$ -	$ 641	$ 3,580	$ 32,555
Benefit Eligible Faculty and Clinical Research Staff	6,186	-	233	1,564	7,982
Non-benefit Eligible Faculty	1,847	-	99	430	2,376
Graduate Assistants	4,630	-	718	5,012	10,361
Total Teaching and Research Salaries	40,998	-	1,690	10,586	53,274
Staff and Supporting Services					
Benefit Eligible Staff	32,852	2,034	770	1,969	37,625
Non-benefit Eligible Staff	2,790	323	287	1,096	4,496
Supporting Services	398	25	136	22	581
Total Staff and Supporting Services Salaries	36,041	2,382	1,193	3,087	42,703
Total Salaries and Wages	**$ 77,038**	**$ 2,382**	**$ 2,883**	**$ 13,674**	**$ 95,977**
Benefits					
Flat Rate Benefits	20,180	891	417	1,999	23,488
FICA Benefits	4,976	156	144	573	5,848
Total Benefits	**$ 25,156**	**$ 1,047**	**$ 561**	**$ 2,572**	**$ 29,336**

Supplies, Service & Other Expense Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Cost of Goods Sold	$ 843	$ 4,771	$ -	$ -	$ -	$ 5,614
Fuel and Utilities	3,471	1,535	2	1	-	5,008
Subcontracts & Purchased Services	2,775	661	643	3,187	9	7,276
Facility M&R Non-Capital	3,580	541	26	(47)	243	4,343
Non-Capital Equipment	3,861	179	342	387	447	5,215
Supplies	2,611	98	462	1,650	79	4,901
Computing Expenses	728	46	28	14	16	832
Business Meeting Expenses, Travel & Training	2,106	68	638	793	5	3,610
Departmental Expenses & Overhead Allocation	5,691	1,135	943	3,369	(2,888)	8,252
Total Supplies, Service & Other Expense	**$ 25,666**	**$ 9,035**	**$ 3,084**	**$ 9,356**	**$ (2,089)**	**$ 45,052**

UMSL Detail

COLUMBIA | KANSAS CITY | ROLLA | ST.LOUIS

Financial Statement by Colors of Money

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Operating Revenues						
Tuition and Fees	$ 110,487	$ -	$ -	$ -	$ -	$ 110,487
Less Scholarship Allowances	26,709	-	2,518	17,031	22	46,279
Net Tuition and Fees	83,778	-	(2,518)	(17,031)	(22)	64,208
Federal Pell Grants	-	-	-	10,729	-	10,729
Government Scholarship Funding	-	-	-	3,761	-	3,761
Institutional CARES Act Funding	-	-	-	10,667	-	10,667
Grants and Contracts	3,786	-	-	31,430	(156)	35,059
Auxiliary Enterprises	1,662	12,750	2	(775)	-	13,638
Patient Medical Services, Net	-	-	-	-	-	-
Other Operating Revenues	1,043	-	140	750	(150)	1,783
State Appropriations	59,007	-	-	-	-	59,007
Federal Appropriations	-	-	-	-	-	-
Private Gifts	-	-	12,785	-	-	12,785
Spendable Investment Income (Moody's)	-	-	4,625	-	6,148	10,773
Total Operating Revenues	$ 149,277	$ 12,750	$ 15,033	$ 39,531	$ 5,820	$ 222,411
Operating Expenses						
Salaries and Wages	78,199	2,211	4,817	12,569	-	97,797
Benefits	25,998	588	1,512	3,718	-	31,815
Supplies, Services and Other Expenses	30,351	7,505	6,494	12,846	558	57,754
Depreciation	-	-	-	-	17,990	17,990
Interest Expense	-	-	-	-	5,368	5,368
Total Operating Expenses	$ 134,548	$ 10,304	$ 12,823	$ 29,132	$ 23,916	$ 210,724
Net Operating Income	$ 14,729	$ 2,446	$ 2,210	$ 10,399	$ (18,096)	$ 11,687

Revenue Breakout

Net Tuition Detail - Funded by Operations

Undergraduate Tuition	$	60,310
Graduate Tuition		25,313
Professional Tuition		6,632
Supplemental Fees		17,638
Activity & Facility Fees		(5,974)
Information Technology Fees		-
Ext Continuing Education Fees		4,438
Other Educational Fees		2,130
Tuition and Fees		**110,487**
Undergraduate Aid		(19,892)
Graduate Aid		(5,975)
Professional Student Aid		(841)
Miscellaneous Aid		-
Scholarship Allowance		(26,709)
Net Tuition and Fees	$	**83,778**

Externally Funded Grants & Contracts

Federal	$	8,118
State		12,082
Local and Other Governmental		5,922
Private		8,937
Total Grants and Contracts	$	**35,059**

Auxiliary Detail

Student Auxiliaries	$	7,085
Housing and Dining		3,880
Performing Arts Center		710
Other Auxiliaries		1,075
Total Auxiliary Revenue	$	**12,750**

University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

October 2022

Salary Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Total
Salaries and Wages					
Teaching and Research					
Tenure and Tenure Track Faculty	$ 22,339	$ -	$ 155	$ 918	$ 23,411
Benefit Eligible Faculty and Clinical Research Staff	12,172	156	443	2,029	14,801
Non-benefit Eligible Faculty	4,775	7	267	152	5,201
Graduate Assistants	2,357	61	476	785	3,679
Total Teaching and Research Salaries	41,643	223	1,341	3,884	47,092
Staff and Supporting Services					
Benefit Eligible Staff	34,675	1,080	3,130	7,288	46,172
Non-benefit Eligible Staff	2,043	877	359	1,313	4,592
Supporting Services	(162)	32	(14)	84	(59)
Total Staff and Supporting Services Salaries	36,556	1,988	3,476	8,685	50,705
Total Salaries and Wages	**$ 78,199**	**$ 2,211**	**$ 4,817**	**$ 12,569**	**$ 97,797**
Benefits					
Flat Rate Benefits	$ 20,650	$ 469	$ 1,174	$ 2,880	$ 25,172
FICA Benefits	5,348	119	339	838	6,643
Total Benefits	**$ 25,998**	**$ 588**	**$ 1,512**	**$ 3,718**	**$ 31,815**

Supplies, Service & Other Expense Breakout

	Operations	Other Unrestricted Auxiliaries	Gifts	Sponsored Projects	Plant & Other	Total
Cost of Goods Sold	$ 462	$ 877	$ -	$ -	$ -	$ 1,339
Fuel and Utilities	5,243	193	60	1	-	5,497
Subcontracts & Purchased Services	6,126	1,810	2,549	5,263	36	15,784
Facility M&R Non-Capital	1,863	144	35	1,273	254	3,568
Non-Capital Equipment	2,275	198	286	319	12	3,091
Supplies	2,320	126	301	4,502	97	7,347
Computing Expenses	944	97	53	54	-	1,149
Business Meeting Expenses, Travel & Training	1,988	37	395	527	3	2,950
Departmental Expenses & Overhead Allocation	9,130	4,023	2,814	906	155	17,029
Total Supplies, Service & Other Expense	**$ 30,351**	**$ 7,505**	**$ 6,494**	**$ 12,846**	**$ 558**	**$ 57,754**

Hospital Financial Performance

Hospital Income Statement

	Other Unrestricted Auxiliaries
Operating Revenues	
Grants and Contracts	867
Auxiliary Enterprises	23,187
Patient Medical Services Net	1,259,147
Other Operating Revenues	166
Private Gifts	1,417
Total Operating Revenues	**1,284,784**
Operating Expenses	
Salaries and Wages	410,203
Benefits	121,566
Supplies, Services and Other Expense	655,791
Depreciation	66,844
Interest Expense	12,010
Total Operating Expenses	**1,266,414**
Net Operating Income	**18,370**

System Central and Shared Services

System Administration Key Services

Central Services *only at* System Administration:

- General Counsel
- Internal Audit & Compliance
- Legislative/Government Relations
- MDHE Relations
- Board of Curators Activities
- State and Federal Compliance Reporting

Scaled Delivery of Finance, Human Resources, and Information Technology with presence both at unit and System Administration

Function	System	Unit-Level
Information Technology	- ERP Applications - Information Security Program - Network & Internet Access - Enterprise Data Warehouse	- IT Infrastructure for Distributed Services - Applications Support - Custom Technology Development
Finance	- Investments & Treasury - Financial Reporting & Taxation - Risk & Insurance - Procurement - Facility Planning & Development - Real Estate	- Budget Planning - Campus Operations - Design & Construction - Cashiering & Student Billing - Research and Sponsored Programs - Auxiliary Services
Human Resources	- Benefits & Retirement - Compliance - Compensation (Grading) - Executive Recruiting	- Employee Recognition Programs - Recruitment - HR Transaction Processing

Benefits Details

Benefits Spend by Major Category

Benefits Spend by Category $Millions, FY22

Medical, 168.67, 46%

Retiree Medical (OPEB), 12.09, 3%

Dental, 5.56, 2%

Tuition Assistance, 8.43, 2%

Worker's Comp and Unemployment, 8.57, 2%

Other (LTD, EAP, etc.), 9.77, 3%

Retirement, 151.73, 42%
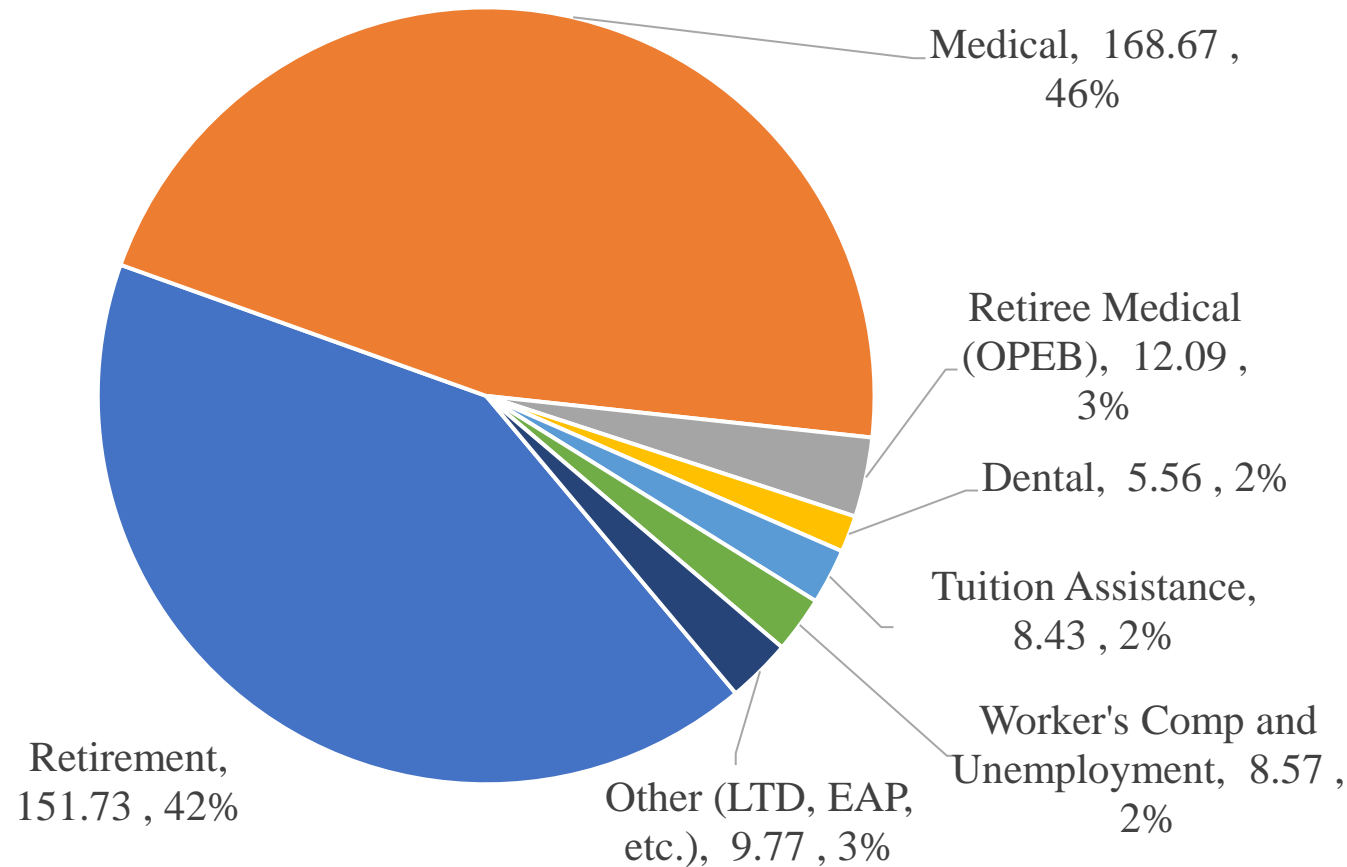
Retirement Costs Driven by Pension

Retirement Cost Component	2022 Contributions	% Payroll
Full DB Normal Cost	32,817,840	5.62%
Full DB Amortization of Unfunded	41,109,892	7.04%
Hybrid DB Normal Cost	9,332,544	2.07%
Hybrid DB Amortization of Unfunded	31,739,666	7.04%
Defined Benefit Cost	114,999,942	
Hybrid DC Match	22,842,751	5.00%
DC Only Match	19,746,511	7.00%
Less DC Forfeitures	(5,859,301)	
Defined Contribution Cost	36,729,961	
Retirement Plan Contributions	151,729,903	

$19 billion → Total Projected Benefit Payments Through 2110

31,000 → Total Retirement Plan Membership

$5.3 billion
Pension Liability at Current 7.0% Discount Rate (GASB) → $1.0 billion
Unfunded Pension Liability

$8.2 billion
Pension Liability at 2.8% Discount Rate (Corporate/Moody's) → $3.6 billion
Unfunded Pension Liability

Pension is the largest item on the balance sheet
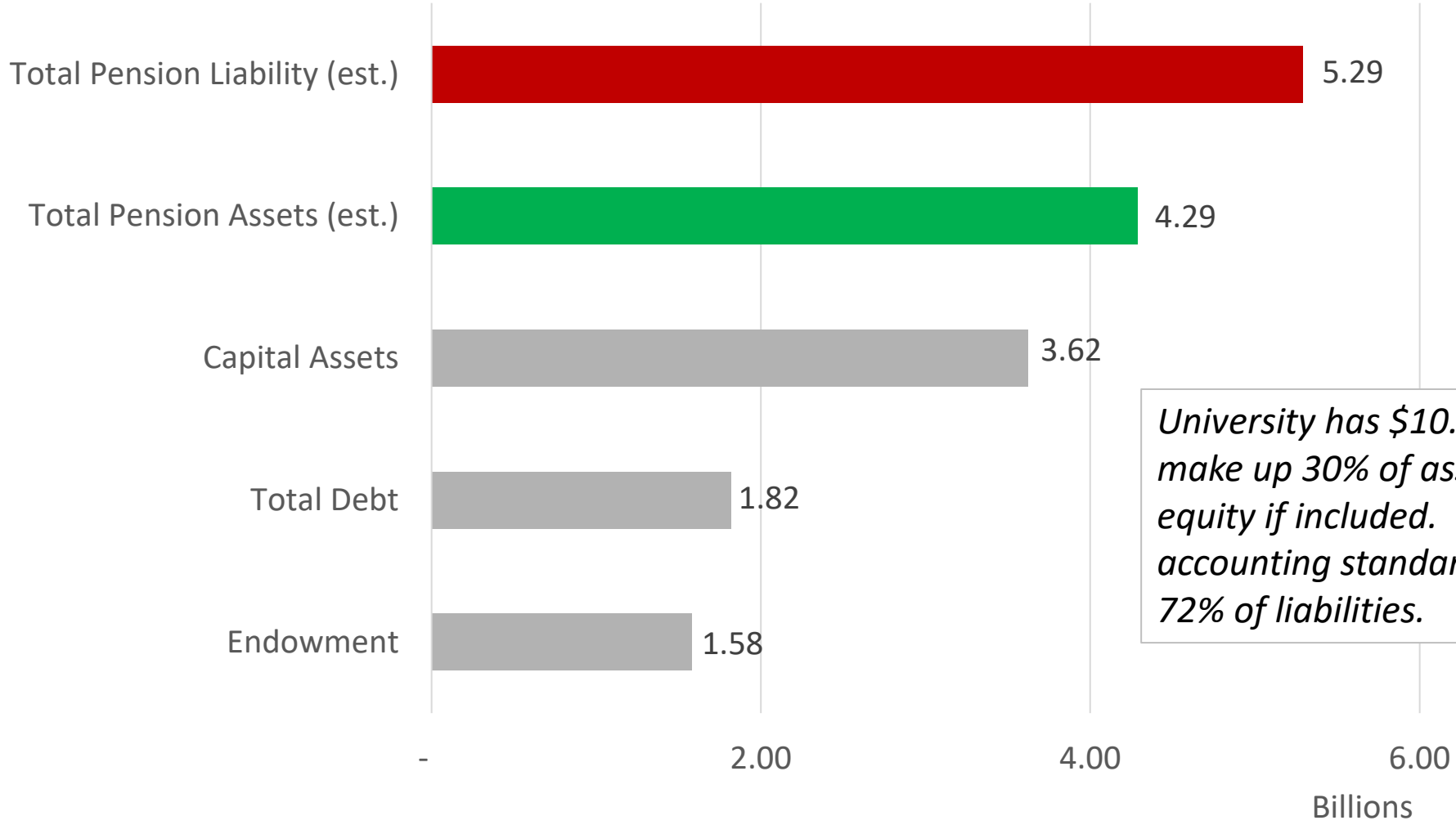
University has $10.0 billion in assets; pension would make up 30% of assets and 37% of liabilities and equity if included. If the University followed private accounting standards, the pension would compose 72% of liabilities.

Pension Liability Is Large and Volatile

Unfunded Liability at Market Value
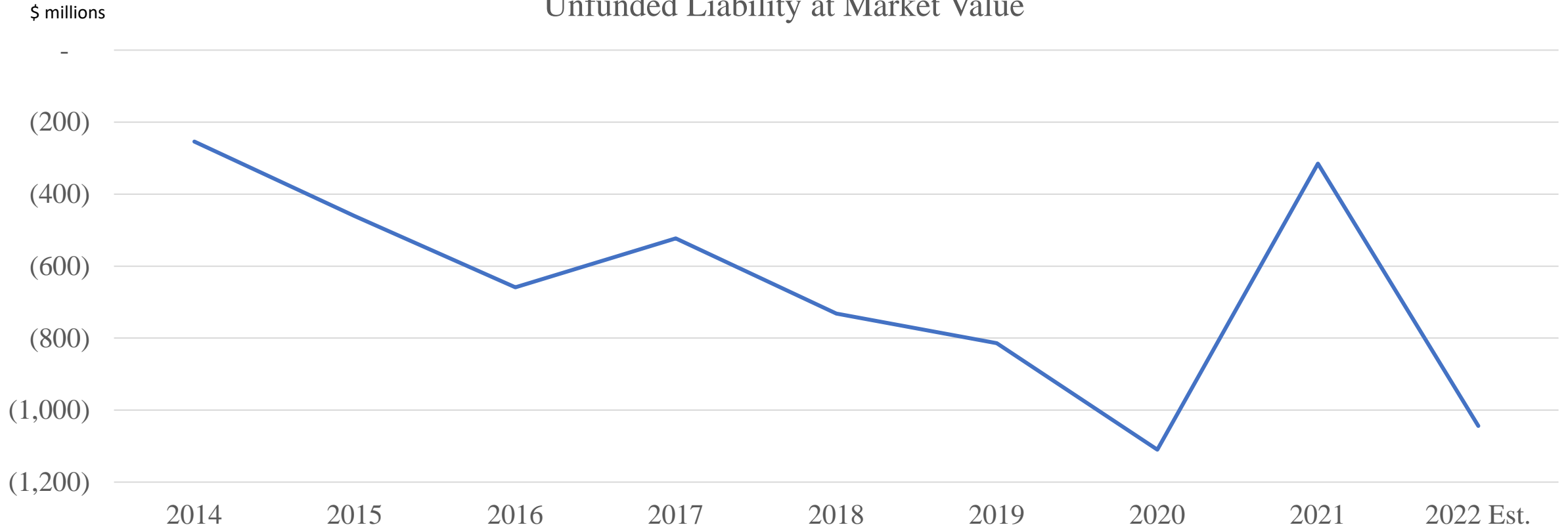
KEY QUESTION FOR BOARD: *When we manage the pension how do we manage near term needs with the long-term risk of the plan?*

Report on UM System Professional Programs

University of Missouri Board of Curators Retreat | October 6, 2022

University of Missouri – Columbia

College	Program	Annual Admissions	Admissions Standards	Admissions Process	Academic Profiles and Student Outcomes	Notes
College of Veterinary Medicine	Doctor of Veterinary Medicine (DVM)	**Annual Spots** 130* **Fall 2022 Stats.** Tot. Applied: 1739 In-state: 188 Out-of-state: 1551 Tot. Admitted: 116 In-state: 65 Out-of-state: 51	[Click here]	• Students submit application through national clearinghouse used by colleges of veterinary medicine • Qualified applicants granted interviews based on academic and non-academic materials • Academic score includes total GPA, GPA in the last 3 semesters, and average course load. • Non-academic score includes assessments of motivation, concepts in the profession, contact experience with different animal species, research experience, communication skills, etc. • Process differs slightly for CVM pre-admissions students and whether applicant is a MO resident. Pre-admissions students must maintain a 3.5 GPA and conduct observational hours; students completing the pre-admissions program are admitted automatically. • All Missouri residents meeting admission criteria are granted an interview. Out-of-state students must go through a screening process.	**Average Student Profile** • Avg. GPA: 3.76 • Avg. GPA Last 3 Sem: 3.70 • Avg. Academic Score: 28 • Avg. Non-Acad. Score: • Avg. Total Score: 69.6 • Most have > 1K observation hrs. **In-state/out-of-state comparison** • Avg. In-state GPA: 3.76 • Avg. Out-of-state GPA: 3.76 **Grad Rate (2022)^** • 4yr: 89.4% • 6yr: 96.8%	*Cap is consistent with American Veterinary Medical Association (AVMA) rules. ^Some DVM candidates take more than 4 years to graduate due to several factors, including pursuing a concurrent degree or for personal reasons. **Preliminary data.
School of Law	Juris Doctor (JD)	**Annual Spots** 135* **Fall 2022 Stats.** Tot. Applied: 611 In-state: 295 Out-of-state: 316	[Click here]	• Students submit application through national clearinghouse used by law schools. • Admissions committee reviews each application and considers potential to pass bar exam and possession of attributes needed to be successful members of the legal profession.	**Class Beginning 2022** • Median GPA 3.70 • Median LSAT: 160 **Class Beginning 2021** • Median GPA: 3.69 • Median LSAT: 159	*No formal cap. Number reflects ideal incoming class based on resources. ^Expected to rise to 96.8% as six additional students complete the program.

		Tot. Admitted: 316 In-state: 168 Out-of-state: 148		• In recent years, the Law School has received 600-700 applications annually, 300-350 of which are admitted and 125-140 of which ultimately matriculate on an annual basis.	**Class Beginning 2020** • Median GPA: 366 • Median LSAT: 158 **In-state/out-of-state comparison** • Avg. In-state GPA: 3.79 • Avg. In-state LSAT: 160 • Avg. Out-of-state GPA: 160 • Avg. Out-of-state LSAT: 3.66 **Grad Rate (2022)** • 95.5%^	
School of Medicine	Doctor of Medicine (MD)	**Annual Spots** 128* **Fall 2022 Stats.** Tot. Applied: 3,069 In-state: 560 Out-of-state: 2,509 Tot. Admitted: 128 In-state: 109 Out-of-state: 19	[Click here]	• Students submit application through national clearinghouse for medical colleges. • Admissions Office reviews all applications to determine if they meet minimum GPA, MCAT and course requirements; out-of-state students are required to complete an additional form to determine eligibility. • If minimum criteria are met the applicant receives a secondary application and, once submitted, the application is screened through a holistic review process by SOM faculty to determine whether an interview will be granted (typically over 800 applications are screened and 400 interviews are offered). • Interviewed applicants receive two 45-minute interviews with members of the admissions committee • Applicants are discussed weekly following interviews and the committee submits a committee score • Admissions offers are rolling and start as early as October.	**Average Student Profile** • Avg. Total GPA: 3.78 • Avg. Math/Science GPA: 3.72 • Average MCAT Score: 510 • More information. **In-state/out-of-state comparison** • Avg. In-state MCAT: 509 • Avg. Out-of-state MCAT: 508 • Avg. In-state GPA: 3.79 • Avg. Out-of-state GPA: 3.65 **Grad Rate (2022)** • 4yr: 86.7%	*128 students are admitted and 128 are placed on a waitlist, which is used until the first day of the semester.
Sinclair School of Nursing	Doctor of Nursing Practice (DNP)	**Annual Spots** 156-160* **AY 21-22 Stats.** Tot. Applied: 70	[Click here]	• Students submit application through national clearinghouse for nursing schools. • Advisors evaluate eligibility,	**Average Student Profile** • Prior Nursing/Clinical Major GPA: 3.51	*No formal cap. Number reflects capacity. ^Rate is in line with policies established by the nursing accrediting

		In-state: 18 Out-of-state: 52 Tot. Admitted: 45 In-state: 12 Out-of-state: 33		• Eligible applications provide interview and essay responses through an online platform (Kira Talent). • Faculty groups for each emphasis area review applicants and make admissions decisions. • Admitted students apply to the MU Graduate School via Slate platform.	**In-state/out-of-state comparison** • Avg. In-State GPA: 3.56 • Avg. Out-of-state GPA: 3.58 **Grad Rate (2019)** • 100.0%^	body to account for uniqueness of doctoral nursing programs, which are more self-paced in nature. The nature of work demands for RNs often require students to stop out and return at a later date. The DNP is more in line with other graduate programs in that students do not complete the program in lock step with one another.
College of Health Sciences	Doctor of Physical Therapy (DPT)	**Annual Spots** 60* **Fall 2022 Stats.** Tot. Applied: 259 In-state: 187 Out-of-state: 72 Tot. Admitted: 60 In-state: 53 Out-of-state: 7	[Click here]	• Students submit application through the MU Graduate School. • Faculty score transcripts, essay on unique attributes, and CV arriving at a subtotal. • Subtotal ranks applicants; top 100-115 invited to campus for interview. • Interview is scored and added to subtotal for final ranking. • 60 offers are made and a waitlist is created.	**Average Student Profile** • Avg. Core GPA: 3.63 • Avg. GPA Last 60hrs: 3.74 **In-state/out-of-state comparison** • Avg. In-State GPA: 3.82 • Avg. Out-of-State GPA: 3.65 **Grad Rate (2022)** • 100.0%	*No formal cap. Number reflects what is feasible to remain in compliance with accreditation rules.
College of Health Sciences	Doctor of Occupational Therapy (OTD)	**Annual Spots** 44* **Fall 2022 Stats.** Tot. Applied: 100 In-state: 55 Out-of-state: 45 Tot. Admitted: 44 In-state: 36 Out-of-state: 8	[Click here]	• Students submit application through a national clearinghouse for occupational therapy programs. • Faculty score applications based on academic performance and professional skills. • Students are notified of application status: admitted, denied, still under consideration. • Some in the still under consideration category are invited for interview and then admission status is determined. • Process continues weekly until 44 spots are filled.	**Average Student Profile** • Avg. Prerequisite GPA: 3.66 • Avg. Cumulative GPA: 3.73 **In-state/out-of-state comparison** • Avg. In-State GPA: 3.72 • Avg. Out-of-State GPA: 3.75 **Grad Rate (2022)** • 100.0%	*No formal cap. Number reflects what is feasible to remain in compliance with accreditation rules.

College	Program	Annual Admissions	Admissions Standards	Admissions Process	Academic Profiles and Student Outcomes	Notes
School of Dentistry	Doctor of Dental Surgery (DDS)	**Annual Spots** 109 **Fall 2022 Stats.** Tot. Applied: 932 In-state: 130 Out-of-state: 802 Tot. Admitted: 169 In-state: 76 Out-of-state: 93	[Click here]	• Students submit application with a national clearinghouse for dental schools • The national and centralized application includes candidate's personal information, experiences, personal statement, coursework and recommendation letters. • The application service opens in mid-May. The preference application deadline is September 1 and the hard deadline is October 1.	**Average Student Profile** • Avg. DAT Exam Score: 20 • Avg. Sci/Math GPA: 3.70 **In-state/out-of-state comparison** • Av. In-state Math/Sci GPA: 3.67 • Av. OOS Math/Sci GPA: 3.70 • Avg. In-State DAT: 20.32 • Avg. Out-of-state DAT: 20.41 **Grad Rate (2022)** • 96.3%	
School of Law	Master of Laws (LLM) and Juris Doctor (JD)	**Annual Spots** 160* **Fall 2022 Stats.** Tot. Applied: 601 In-state: 301 Out-of-state: 300 Tot. Admitted: 129 In-state: 89 Out-of-state: 40	[Click here]	• Students submit application through a national clearinghouse for law schools • The Law School makes admissions decisions on a rolling basis. • The process begins in September of the year preceding the academic year applicants are applying for and continues until sufficient admissions are granted to fill the entering class. • Students may complete their JD in the Spring, Summer, or Fall semester and admissions are considered separately for each of these entry points. • In a typical year, faculty members interview approximately 400 applicants, preferably in person but also by telephone, Zoom, and Skype. • After the interview, the Director of Admissions makes admissions decisions based on the file, the recommendations of the reviewers, and when needed, in consultation with the chair of the Admissions Committee.	**Average Student Profile** • Mean LSAT Score (25th percentile): 152 • Mean LSAT Score (50th): 154 • Mean LSAT Score (75th): 157 • Mean UGRD GPA (25th): 3.16 • Mean UGRD GPA (50th): 3.47 • Mean UGRD GPA (75th): 3.73 **In-state/out-of-state comparison** • Avg. In-state GPA: 3.52 • Avg. Out-of-state GPA: 3.46 • Avg. In-state LSAT: 155 • Avg. Out-of-state LSAT: 154 **Grad Rate (2018 Cohort, JD)** • 98.4%	*No formal cap. Number reflects ideal incoming class based on resources.

| School of Medicine | Doctor of Medicine (MD) | **Annual Spots** 40

Fall 2022 Stats.
Tot. Applied: 1020
In-state: 240
Out-of-state: 780

Tot. Admitted: 141
In-state: 74
Out-of-state: 67 | [Click here] | • Candidates complete national clearinghouse for medical schools between Aug. 1 – Nov. 1
• General Admissions Review: Calculate GPA based on 17 core requirements, compile transcripts and test scores
• Supplemental Application Review: Verify that minimum requirements have been met; quantitative evaluation of non-cognitive application materials (pre-screening); review of each candidate by 2-3 committee members to determine who is interviewed (screening).
• Interviews: Multiple mini-interviews are held in February, where they meet with a variety of representatives from UMKC and affiliated hospitals to answer prompts, who then provide quantitative and qualitative evaluations of the candidates.
• Decisions: Selection committee of 15-18 people including faculty and three upper year students evaluate all candidates and vote Yes/No on admission. Final class built on residency pool and waitlist creation. Decisions communicated in March. | **Average Student Profile**
BA/MD Program
• Avg. ACT Score: 34
• Avg. High School GPA: 3.92
MD Program
• Avg. MCAT Score: 509
• Avg. Cumulative GPA: 3.84
• Science/Math GPA: 3.81

In-state/out-of-state comparison
• Avg. In-state GPA: 3.92
• Avg. Out-of-state GPA: 3.97
• Avg. In-state ACT: 32
• Avg. Out-of-state ACT: 34

Grad Rate (Class of 2018-19)
• BA/MD, 6Yr: 98.0%
• MD: 88.0% | |
| School of Nursing and Health Studies | Doctor of Nursing Studies (DNP) | **Annual Spots** 195*

Fall 2022 Stats.
Tot. Applied: 54
In-state:43
Out-of-state: 11

Tot. Admitted: 38
In-state: 34
Out-of-state: 4 | [Click here] | • Students submit application through national clearinghouse for nursing schools.
• Applicants with a GPA below 3.0 may request special consideration and are asked to include evidence of successful completion of graduate-level statistics course, GRE results, and evidence of certifications obtained.
• Qualified applicants are admitted each year for spring or summer admission to the DNP program. | **Average Student Profile**
• Avg. GPA: 3.86

Grad Rate (Class of 2019)^
• BSN-DNP: 100.0%
• MSN-DNP: 80.0% | *Some emphasis areas within the DNP program have enrollment caps due to accreditation standards; others have caps due to resource limitations.

^Rate is in line with policies established by the nursing accrediting body to account for uniqueness of doctoral nursing programs, which are more self-paced in nature. The nature of work demands for RNs often require students to stop out and return at a later date. The DNP is more in line with other graduate programs in that students do not complete the program in lock step with one another. |

| School of Pharmacy | Doctor of Pharmacy (PharmD) | **Annual Spots** 155*
 • 95 – KC
 • 30 – MU
 • 30 – MoState

 Fall 2022 Stats.
 Tot. Applied: 169
 In-state: 103
 Out-of-state: 66

 Tot. Admitted: 84
 In-state: 76
 Out-of-state: 8 | [Click here] | • Students submit application through national clearinghouse for pharmacy programs. The application opens in July of each year.
 • Applications reviewed after applicants have completed the online application, which includes receipt of all college transcripts, a personal essay, and at least one letter of recommendation.
 • Formal admission interview invitations to select applicants will go out soon after, and applicants find out their admission status the next business day after interviews.
 • Applicants are admitted in the following fall term only. The next Pharm.D. application deadline is June 1, 2023. | **Average Student Profile**
 • Avg. Cumulative GPA: 3.51
 • Avg. Math/Science GPA: 3.36
 • Avg. Pre-requisite GPA: 3.26

 In-state/out-of-state comparison
 • Avg. In-state GPA: 3.52
 • Avg. Out-of-state GPA: 3.51

 Grad Rate (Class of 2022)
 • 92.7% | *Consistent with rules and guidelines of pharmacy program accrediting body. |

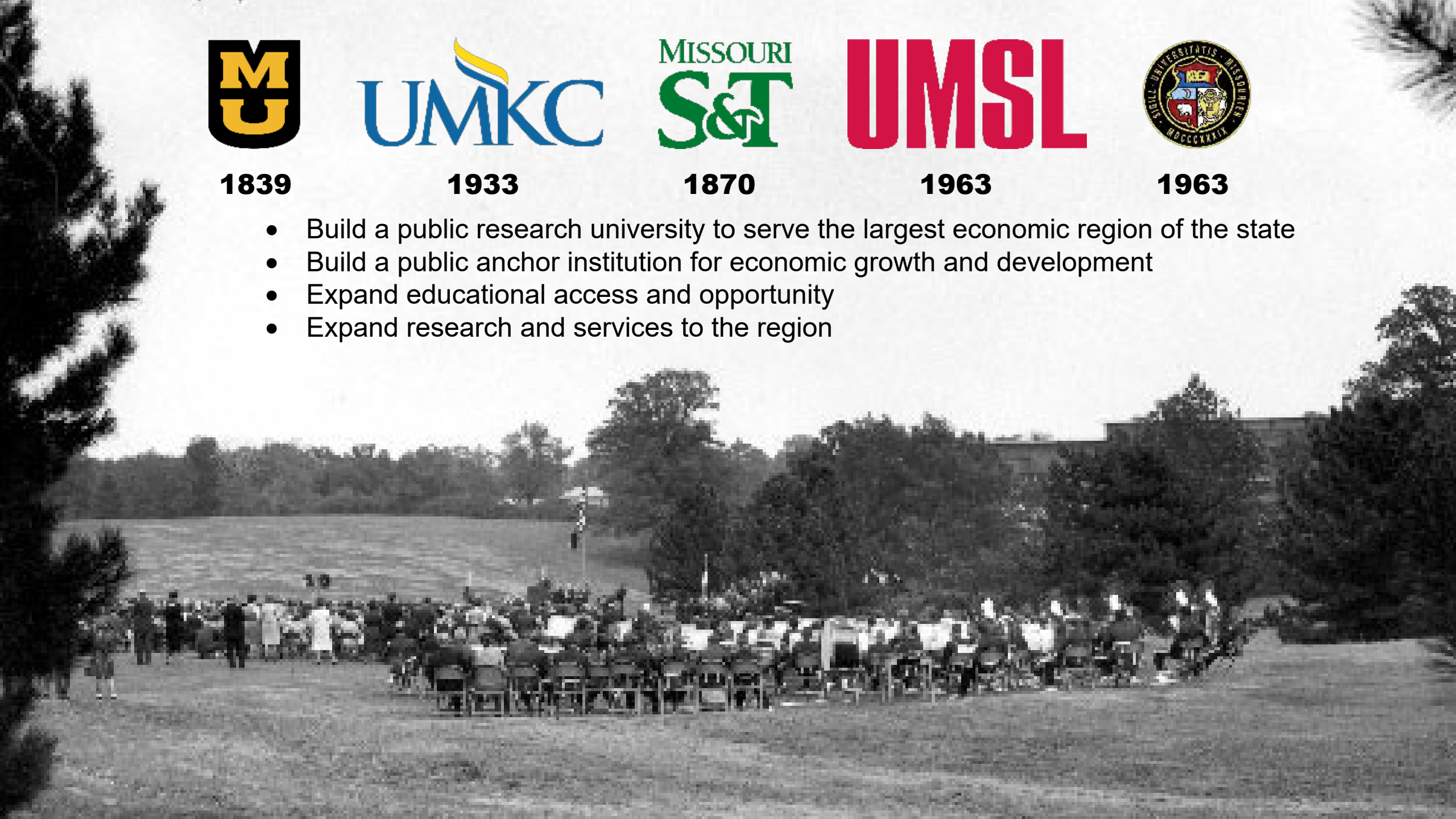| College	Program	Annual Admissions	Admissions Standards	Admissions Process	Academic Profiles and Student Outcomes	Notes
College of Optometry	Doctor of Optometry (OD)	**Annual Spots** 48* **Fall 2022 Stats.** Tot. Applied: 309 In-state: 36 Out-of-state: 273 Tot. Matri: 43 In-state: 23 Out-of-state: 20	[Click here]	• Students submit application through national clearinghouse for optometry programs. The College uses a rolling admissions process when admitting students. • Once an application is deemed complete, it is reviewed by the admissions committee based on GPA (science and cumulative), Optometry Admission Test (OAT) scores (MCAT, PACT, DAT, and GRE also accepted), letters of recommendation, extracurricular involvement, personal statement, and work experience. • The admissions committee then determines whether the applicant will be invited for an on-campus interview.	**Average Student Profile** • Avg. OAT Score: 314 • Avg. Cumulative GPA: 3.50 **In-state/out-of-state comparison** • Avg. In-state GPA: 3.59 • Avg. Out-of-state GPA: 3.42 • Avg. In-state OAT: 306 • Avg. Out-of-state OAT: 302 **Grad Rate (2022)** • 98.0%	*There is no formal cap; this number reflects current capacity.
College of Nursing	Doctor of Nursing Practice	**Annual Spots** 90 **Fall 2022 Stats.** Tot. Applied: 44 In-state: 35 Out-of-state: 9 Tot. Admitted: 37 In-state: 29 Out-of-state: 8	[Click here]	• Students submit application through national clearinghouse for nursing programs. • Applications screened for minimum requirements • Student identities are redacted as appropriate. • Reviewers (Group A) assigned to evaluate/score essays. • Reviewers (Group B) assigned to review packet and recommend admission.	**Average Student Profile** • Avg. GPA: 3.09 **In-state/out-of-state comparison** • Avg. In-state GPA: 3.40 • Avg. Out-of-state GPA: 3.70 **Grad Rate (2022)*** • BSN-DNO: 87.2% • MSN-DNP: 97.3%	* Rate is in line with policies established by the nursing accrediting body to account for uniqueness of doctoral nursing programs, which are more self-paced in nature. The nature of work demands for RNs often require students to stop out and return at a later date. The DNP is more in line with other graduate programs in that students do not complete the program in lock step with one another.

MU 1839 **UMKC** 1933 **MISSOURI S&T** 1870 **UMSL** 1963 1963

- Build a public research university to serve the largest economic region of the state
- Build a public anchor institution for economic growth and development
- Expand educational access and opportunity
- Expand research and services to the region

![CUMU Coalition of Urban and Metropolitan Universities logo]

100+
INSTITUTIONAL MEMBERS

33%
MINORITY SERVING INSTITUTIONS

50+
METROPOLITAN AREAS COVERED

2.2M+
STUDENTS ENROLLED

Athens State University
Augsburg University
Baylor University
Brown University
Buffalo State College
California State Polytechnic University, Pomona
California State University, Dominguez Hills
California State University, Los Angeles
California State University, Northridge
California State University, Sacramento
California State University, San Bernardino
California State University, San Marcos
Case Western Reserve University
Central Connecticut State University
College of Staten Island, CUNY
Colorado State University Spur
Community College of Philadelphia
Coppin State University
D'Youville College
Dallas College
DePaul University
Drexel University
Duquesne University
Florida Atlantic University
Florida International University
Florida International University
Gannon University
Georgetown University
Indiana University Northwest
Indiana University South Bend
Indiana University-Purdue University Indianapolis
Johns Hopkins University
Leeds Beckett University
Loyola University Chicago
Marquette University
Medical College of Wisconsin
Metropolitan Community College, Nebraska
Metropolitan State University
Metropolitan State University of Denver

Michigan State University
Morgan State University
Mount Saint Mary College
National Louis University
New York University
Northeastern Illinois University
Oakland University
Pace University
Portland State University
Purdue University Fort Wayne
Purdue University Northwest
Rochester Institute of Technology
Rollins College
Rutgers University – Camden
Rutgers University – Newark
Simon Fraser University
Southern Illinois University, Edwardsville
Stockton University
Syracuse University
Temple University
The George Washington University
The Ohio State University
The University of Akron
The University of Memphis
The University of North Carolina at Charlotte
The University of North Carolina at Greensboro
The University of Tennessee at Chattanooga
The University of Texas at El Paso
The University of Texas Rio Grande Valley
The University of Utah
Towson University
Tulane University
University of Arkansas at Little Rock
University of Baltimore
University of Central Florida
University of Central Oklahoma
University of Colorado – Denver
University of Connecticut, Hartford

University of Dayton
University of Denver
University of Houston
University of La Verne
University of Louisville
University of Maryland, Baltimore
University of Massachusetts Boston
University of Massachusetts Lowell
University of Michigan Dearborn
University of Michigan Flint
University of Minnesota
University of Missouri Extension and Engagement
University of Missouri-Kansas City
University of Missouri-St. Louis
University of Nebraska at Omaha
University of Nevada, Las Vegas
University of North Texas at Dallas
University of Pennsylvania
University of Pittsburgh
University of Pretoria
University of San Diego
University of South Carolina Upstate
University of Southern Indiana
University of the District of Columbia
Virginia Commonwealth University
Virginia Wesleyan University
Wagner College
Washington State University Tri-Cities
Weber State University
West Chester University
Worcester State University
York University

UMSL We transform LIVES

UNIVERSITY OF MISSOURI–ST. LOUIS

University of Missouri–St. Louis earns **2022 Higher Education Excellence Award** from INSIGHT Into Diversity magazine

The HEED Award is a national honor recognizing universities that demonstrate an outstanding commitment to diversity and inclusion. UMSL is one of 103 universities across the nation – and the only university in Missouri– to be recognized with the distinction this year.
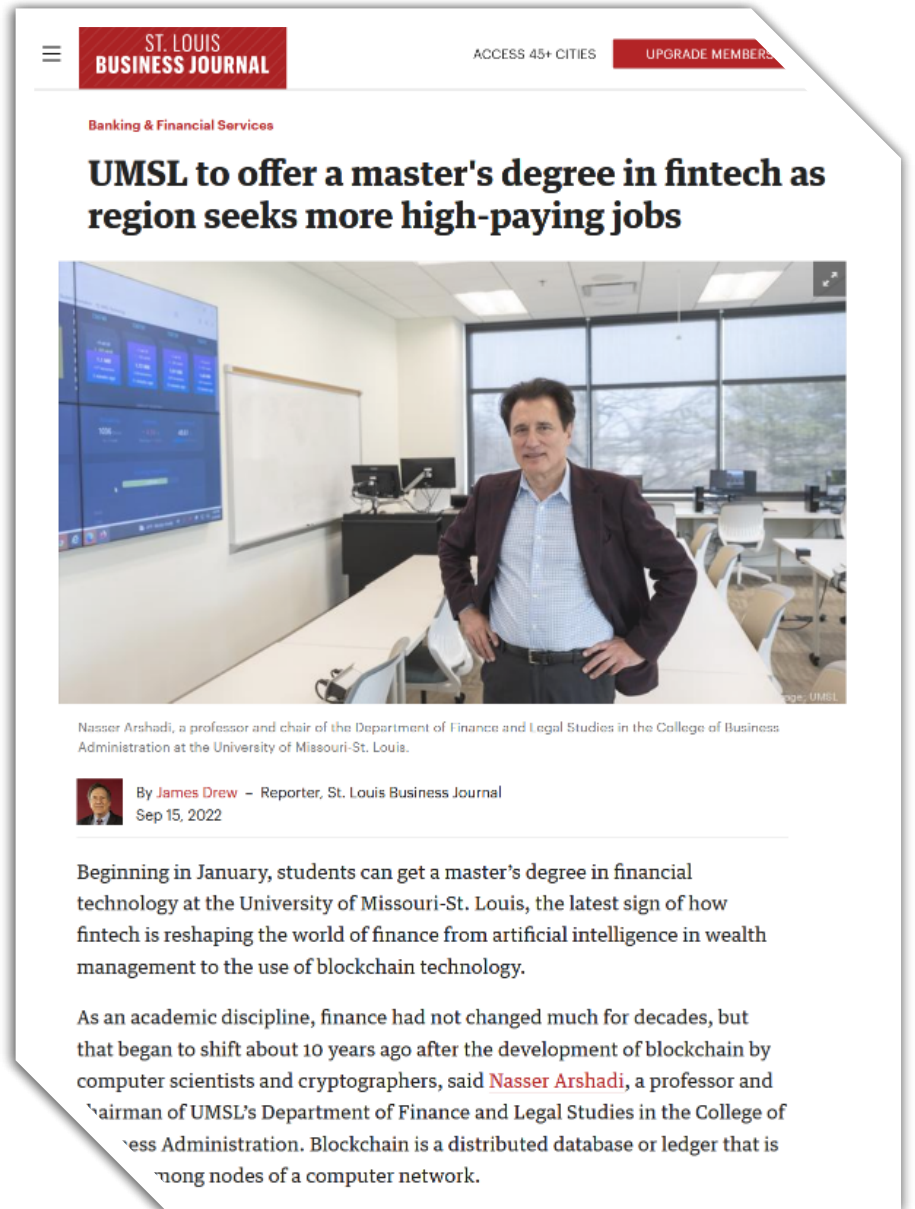
UNIVERSITY OF MISSOURI–ST. LOUIS

UMSL We transform LIVES

Launching educationally relevant, in-demand degrees

- MS Financial Technology – 2022
- BA Psychology, Online, Joint with MU – 2022
- BA Applied Psychology of Child Advocacy Studies – 2021
- BS Data Science and Analysis – 2021
- MS Applied Behavior Analysis – 2021
- MS Supply Chain Analytics – 2020
- BS Sport Management – 2020
- BA Organizational Leadership – 2020
- BS Computing Technology – 2019
- BA/BS Entrepreneurship – 2019
- BS/MS Cybersecurity – 2019
- BS Actuarial Science – 2018

ST. LOUIS BUSINESS JOURNAL

ACCESS 45+ CITIES   UPGRADE MEMBER

Banking & Financial Services

UMSL to offer a master's degree in fintech as region seeks more high-paying jobs

Nasser Arshadi, a professor and chair of the Department of Finance and Legal Studies in the College of Business Administration at the University of Missouri-St. Louis.

By **James Drew** – Reporter, St. Louis Business Journal
Sep 15, 2022

Beginning in January, students can get a master's degree in financial technology at the University of Missouri-St. Louis, the latest sign of how fintech is reshaping the world of finance from artificial intelligence in wealth management to the use of blockchain technology.

As an academic discipline, finance had not changed much for decades, but that began to shift about 10 years ago after the development of blockchain by computer scientists and cryptographers, said Nasser Arshadi, a professor and chairman of UMSL's Department of Finance and Legal Studies in the College of Business Administration. Blockchain is a distributed database or ledger that is among nodes of a computer network.

Workforce Integration

- Developing relevant curricular pathways with regional and national corporate partners and expanded connections
- Amazon, Verizon/Generation USA, Heartland Coca-Cola, Edward Jones, Boeing, BJC HealthCare, St. Louis County & City Police, and more to come

Growing research and grant expenditures

65% Increase since 2017
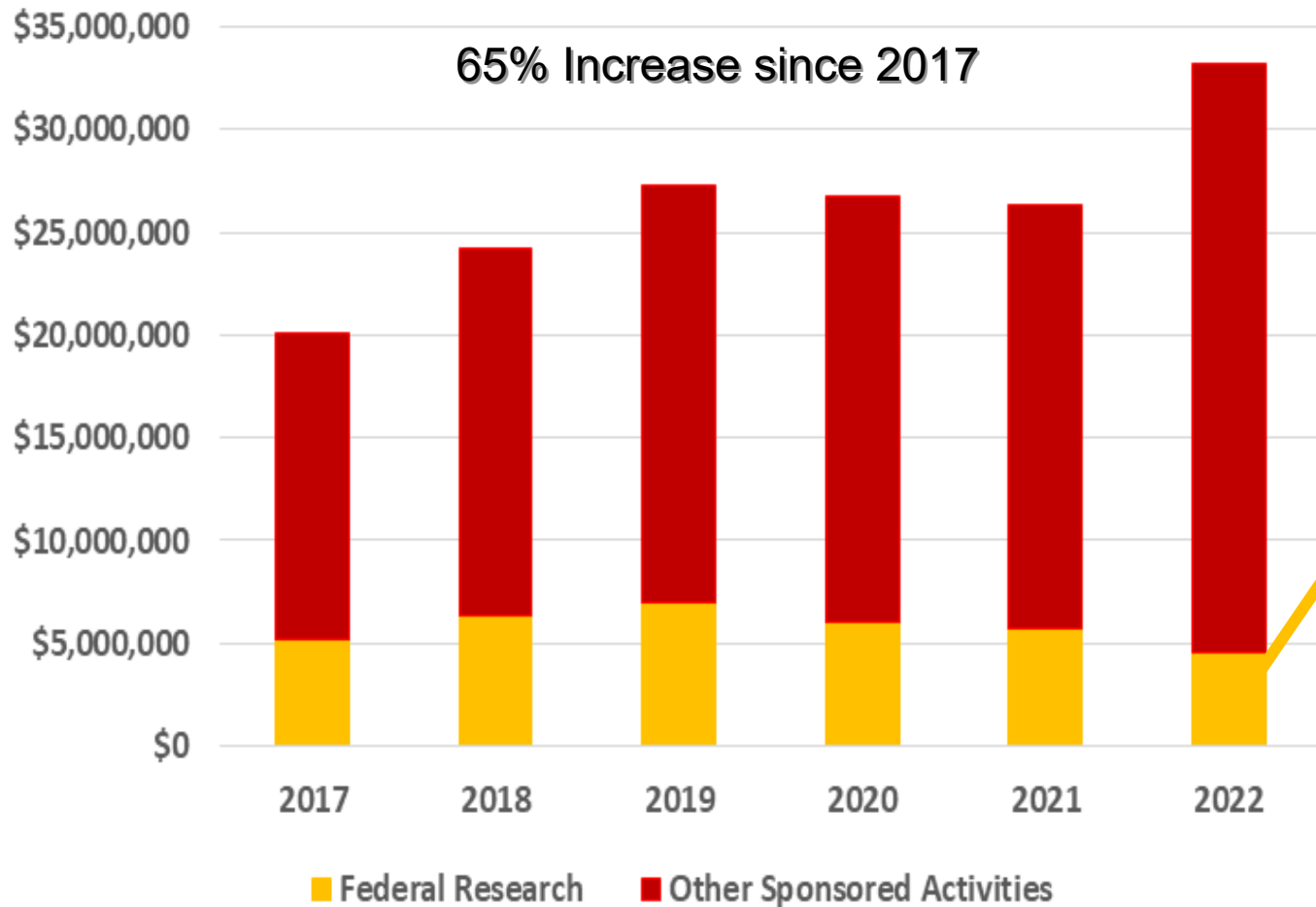
Professor Xuemin (Sam) Wang was awarded a $1.2M NIH grant to study the molecular connections between the circadian clock and lipid metabolism.
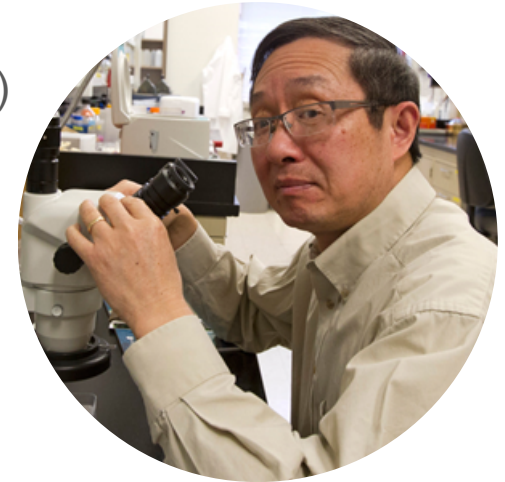
Associate Professor Nancy Singer received $5.1M from the U.S. Dept. of Education to promote evidence-based literacy strategies in 40 STL schools.

UMSL We transform LIVES

UNIVERSITY OF MISSOURI–ST. LOUIS

Mission focused sponsored programs and grant funding

65% Increase since 2017
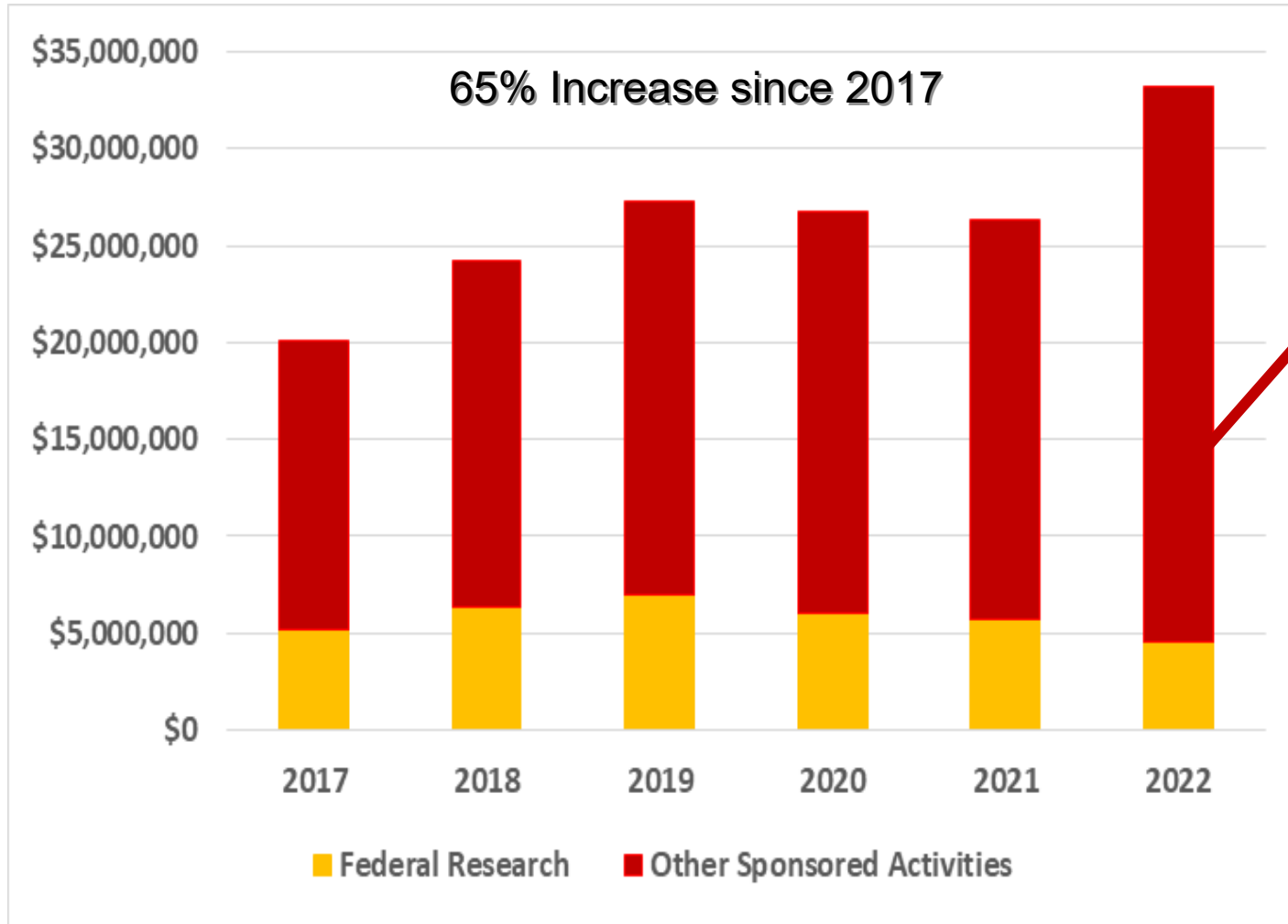
MIMH awarded $2.75M from the Substance Abuse/Mental Health Services Administration to combat opioid overdose crisis.

- **Children's Advocacy Services** awarded $5M from the National Child Traumatic Stress Network to implement trauma-informed treatment models.
- **CIAC** awarded $464K from St. Louis County to train and evaluate community health workers.
- **Center or Behavioral Health** awarded $350K from St. Louis Mental Health Board to conduct psychology evals of children.
- **Social Work** awarded $238K from the Health Resources and Services Administration for behavioral health workforce education and training

Chart data (Federal Research and Other Sponsored Activities):
- $35,000,000
- $30,000,000
- $25,000,000
- $20,000,000
- $15,000,000
- $10,000,000
- $5,000,000
- $0

Years: 2017, 2018, 2019, 2020, 2021, 2022

Legend: ■ Federal Research ■ Other Sponsored Activities

STL 2030 Jobs Plan guides the vision and strategies fueling growth across our region

The Greater St. Louis, Inc. 2030 Jobs Plan highlights key sectors for regional and state growth:

- Geospatial
- Advanced Manufacturing
- Biotechnology
- Transportation and Logistics

STL 2030 Jobs Plan
umsl.edu/go/jobsplan

Geospatial: Partnership in the St. Louis Geospatial Ecosystem, driving career pipeline

- 1 of 4 universities in the U.S. to have an Educational Partnership Agreement with the NGA to create a geospatial career pipeline

- Leading partner with NGA to develop K-16 education program

- Educational partner with the Taylor Geospatial Institute

- Establishing on-campus facilities supported by MoExcel funding

Advanced Manufacturing: St. Louis Regional Advanced Manufacturing Innovation Center (AMICSTL)

- Regional effort secured $25M Build Back Better Challenge Grant

- St. Louis is one of 21 proposals across the US to be funded

- UMSL is co-leading with SLU on research and development

- Aligns UMSL with region's innovation triangle, including CORTEX Innovation Center

"This grant illustrates the tremendous things that can happen when we bring organizations together on behalf of our community and region."
– Rodney Crim, CEO and President of St. Louis Economic Development Partnership

Biotechnology: Active Pharmaceutical Ingredient Innovation Center

- Addressing API supply chain, critical to public health and national security

- Lead partner in convening universities, advancing workforce development and inclusive prosperity

- UMSL is hosting an API Forum on Oct. 7 for industry, academic and workforce development stakeholders

"This investment in the advanced manufacturing of active pharmaceutical ingredients will help strengthen our domestic supply chains and create quality jobs right here in Missouri."– Gov. Mike Parson

Supply Chain: Expanding as a Center of Excellence

- UMSL is quickly becoming a Center of Excellence in supply chain management and analytics, addressing many areas of research to address regional, state and national needs.

No. 1 master's in supply chain, Intelligent.com

Mitch Millstein appears as an in-studio guest on a half-hour special titled "Season of Shortages," a joint production of KTVI and KMOX Radio.

Haitao Li works with Express Scripts to better predict and mitigate supply risk in the pharmaceutical industry. He also collaborates with Ameren to improve their supply chain network.

St. Louis Anchor Action Network: Leading inclusive prosperity

UMSL University of Missouri–St. Louis

Edward Jones

Ameren MISSOURI

BJC HealthCare

christian hospital

EQUIFAX

FEDERAL RESERVE BANK OF ST. LOUIS — CENTRAL TO AMERICA'S ECONOMY

Great Rivers Greenway

GREATER ST. LOUIS INC.

HARRIS-STOWE STATE UNIVERSITY

Mercy

MISSOURI BOTANICAL GARDEN

SAINT LOUIS UNIVERSITY.

Saint Louis Zoo Animals Always®

SSMHealth.

St. Louis Community College

Washington University in St. Louis

Webster UNIVERSITY

STL 2030 Jobs Plan
Pillar 1: Buy, Hire, and Invest Locally

22
ZIP-CODE GEOGRAPHY

10%
INCREASE IN PURCHASING AND EMPLOYMENT BY 2023

$48.8M
FY23 DIRECT INVESTMENT IN FOCUS GEOGRAPHY

$124.5M
FY23 OVERALL ECONOMIC IMPACT IN FOCUS GEOGRAPHY

Transform UMSL

$100M project with $40M in funding from the American Rescue Plan Act:

- Reimage and renew academic core on the North Campus
- Develop a health sciences and Honors College core on the South Campus
- Make way for the North St. Louis County Business and Workforce Development along Natural Bridge Road on the South Campus

THIRD PARTY DEVELOPMENT

EAST / WEST CONNECTION

ATHLETICS / ART AND PERFORMANCE

ACADEMIC CORE AND HOUSING

NSLC BUSINESS AND WORKFORCE DISTRICT

HEALTH SCIENCES / HONORS CONCENTRATION
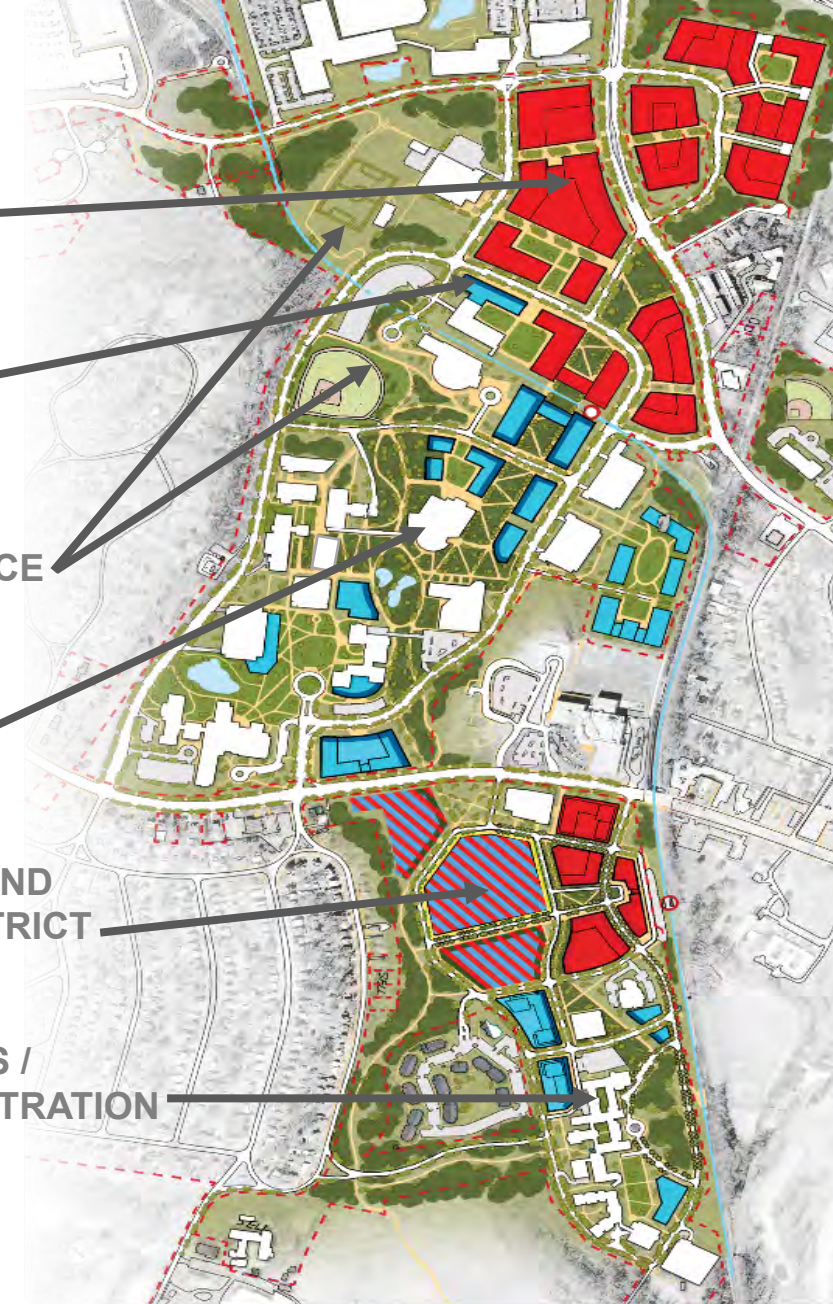
Thank you. Questions and discussion.

Advancing Aerospace Advanced Manufacturing, Engaging Engineering Minds to Advance Health Care

Mo Dehghani, Chancellor | Board of Curators Retreat | October 6-7, 2022

In Pursuit of Our North Star Goals

... S&T will become a world-class science and technology university for workforce development, research breakthroughs and economic development
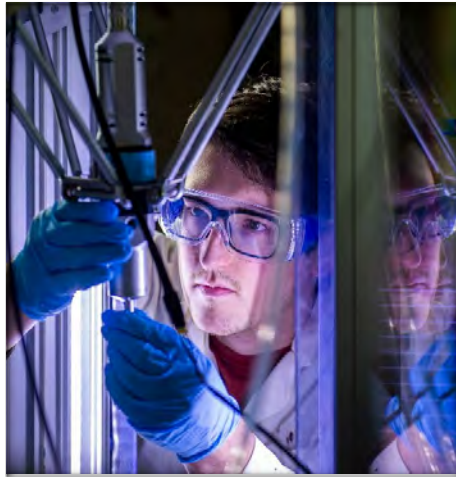
Carnegie R-1 University

Top 100 Ranking

12,000 Enrollment

Exceptional Outcomes, High Return on Investment (ROI)
... S&T students are highly sought after by employers

Selected Rankings	S&T	MU	UMKC	UMSL
SmartAsset Best Value (in-state)	1	4	10	8
Money Magazine Best Value (in-state)	1	4	NR	8
Princeton Review Career Placement (public universities, national)	3	NR	NR	NR
DegreeChoices: Best Colleges (national)	12	99	145	97
DegreeChoices: Best Colleges (in-state)	1	4	6	3

$65,301	Average starting salary, undergraduates
$140,00	Top salary offer for B.S. graduate
6.8	Average number of job offers per student (self-reported)
$79,464	Average starting salary, master's degree
$98,780	Average starting salary, Ph.D.
100%	Employer satisfaction
$29,005	Average student debt – less than half the average student salary

Current Capital Projects

... progress on our new Arrival District and Innovation Campus

▶ Innovation Lab, Completion by October 2023

▶ Welcome Center, Completion by December 2024

▶ Missouri Protoplex, Completion by September 2025

Innovation Lab

Welcome Center

Missouri Protoplex

Future Capital Projects

... expanding to meet capacity for new students, faculty and staff

▶ Engineering Research Lab Expansion

▶ Innovation Campus Building #2 (Arc Jet Facility)

▶ BIO X Building

Engineering Research Lab

Arc Jet Facility

BIO-X Building

Advancing Advanced Manufacturing

… enhancing Missouri's manufacturing competitiveness

▶ Kummer Center for Advanced Manufacturing

▶ Manufacture Missouri Ecosystem (MME)

▶ Peaslee Steel Manufacturing Research Center

▶ Center for Aerospace Manufacturing Technologies

▶ M.S. in Manufacturing Engineering

▶ B.S. in Manufacturing Engineering under development
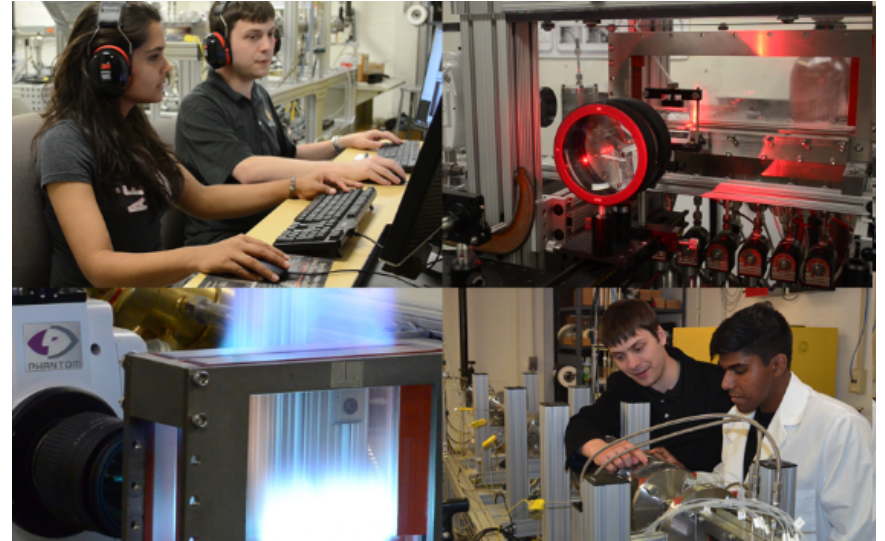
Advancing Advanced Manufacturing, continued

... key projects:

▶ **Manufacture Missouri Ecosystem Company Workforce Training**

  ‣ $6M Department of Labor/Department of Education grants (Rick Billo)

  ‣ Promote adoption of advanced manufacturing technologies by Missouri companies

▶ **Advanced Steel Manufacturing**

  ‣ $7.5M Department of Energy awards related to electric arc furnace (EAF) process (Ron O'Malley)

  ‣ $19M U.S. Army Research Lab project to develop ultra-high-strength steels for military applications (Laura Bartlett)
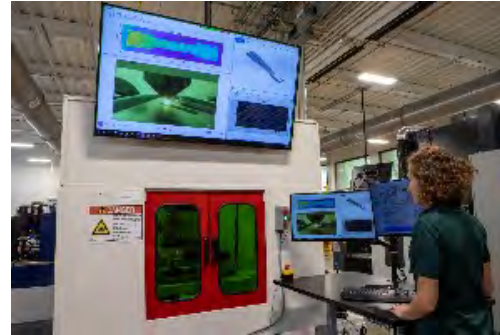
Supporting National Defense

… addressing hypersonics material needs

- ▶ 20-plus years of experience researching ultra-high-temperature ceramics (Greg Hilmas and Bill Fahrenholtz, Ceramic Engineering)

- ▶ Consortium with GE Aviation and Clemson University to develop new materials for hypersonic vehicles

- ▶ High-temperature ceramic matrix composites (HTCMCs) for acreage thermal protection systems.

- ▶ Ultra-high-temperature ceramic matrix composites for leading/trailing edges and scramjet components.
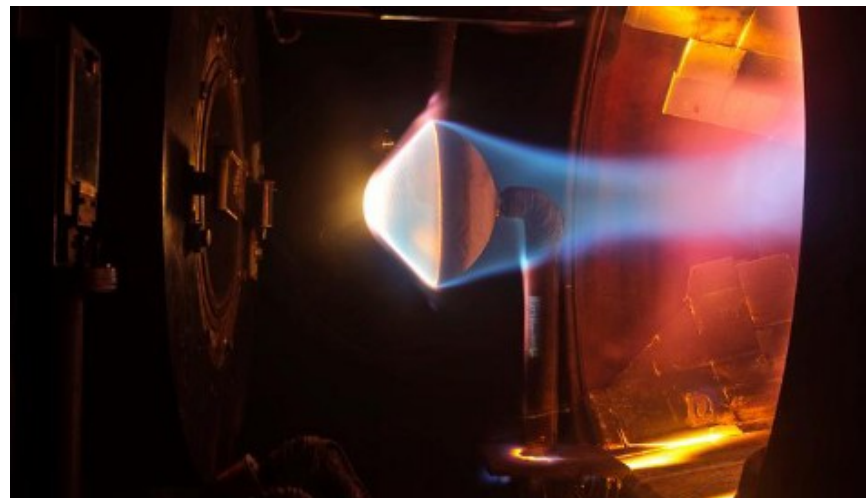
Industrial Research Awards in FY21
... our top 15 industrial research partners have contributed $6M to Protoplex-related programs
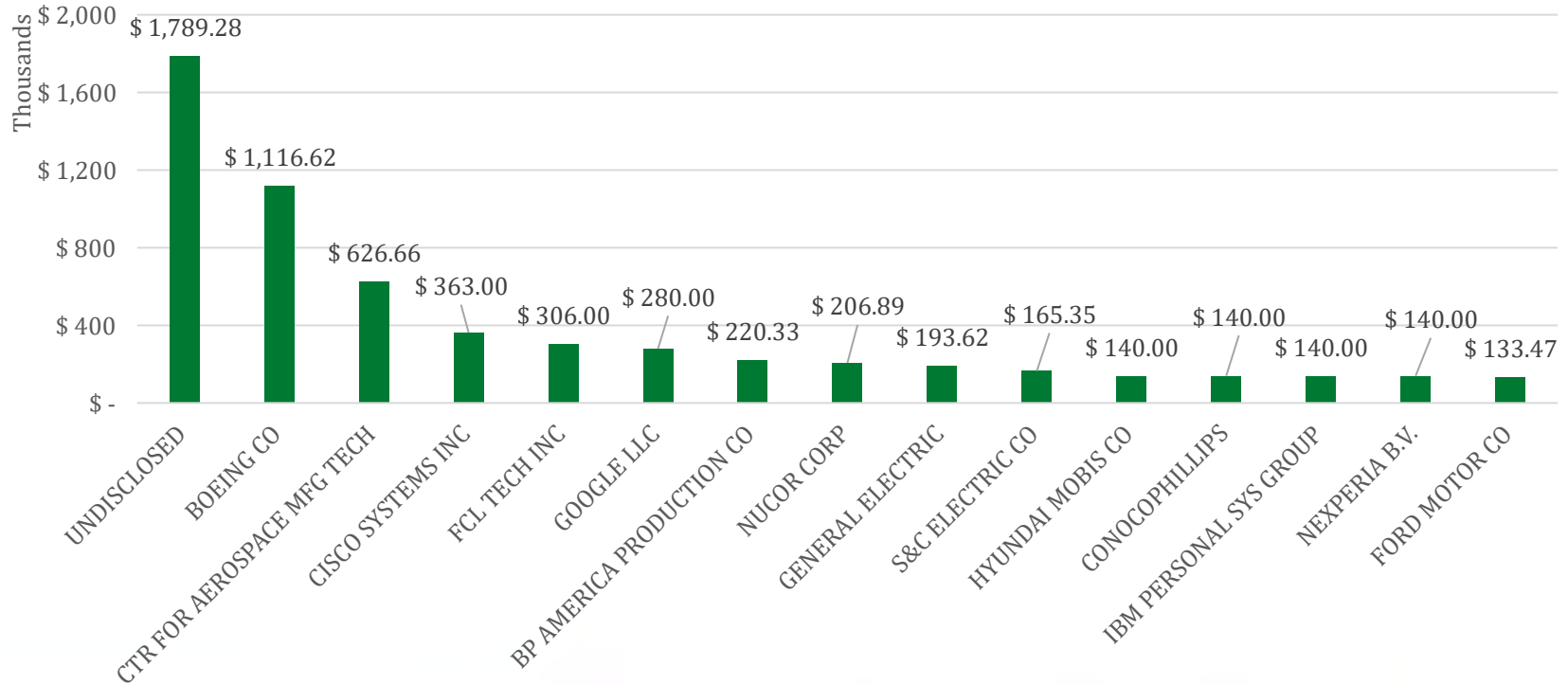
Missouri Protoplex

... Advancing Aerospace Advanced Manufacturing

▶ Enabling testing and prototyping for Missouri manufacturers

▶ Collaboration space for entrepreneurs and researchers

▶ Funded through the Kummer Institute Foundation, state and federal support

▶ Corporate partnerships with major aerospace, advanced manufacturing companies

Advancing
Aerospace Advanced Manufacturing

The S&T BIO-X Initiative

... maximizing impact and opportunity at the intersection of our unique strengths

▶ Over 20 faculty already conducting research at this nexus

▶ A history of business success

▶ Solidifying our pathway to R1

▶ Partnerships with UM System medical centers, Phelps Health, Washington University

  ‣ Ozark Biomedical Initiative established 2015

  ‣ $330K seed funding has yielded $12M+ in federal awards

▶ A platform to grow diversity and partnerships

Engineering, Computational and Physical Sciences

Life Sciences

S&T BIO-X

Environment

Medicine
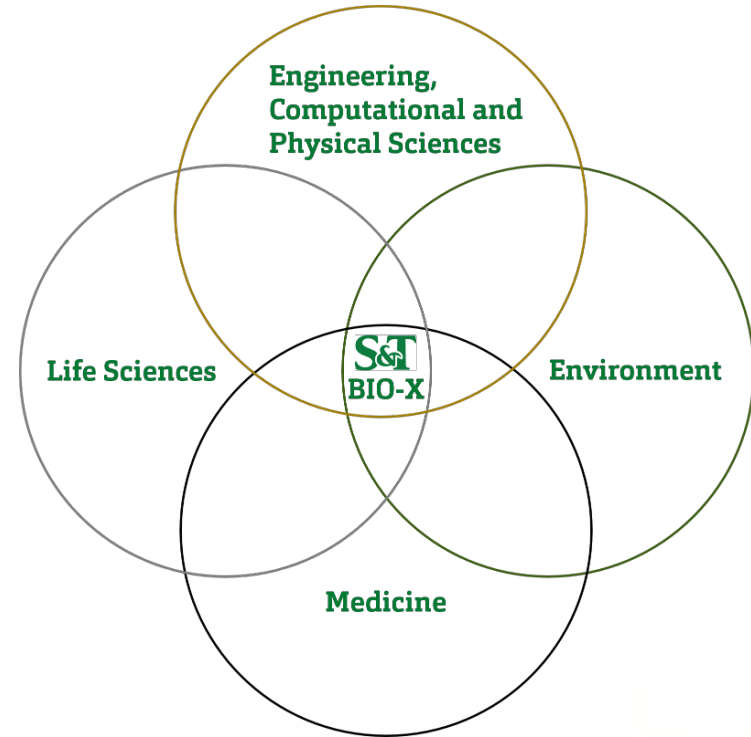
The S&T BIO-X Initiative

... examples of ongoing research:

▶ **Traumatic brain injury**

- ‣ Catherine Johnson and Jie Huang
- ‣ Over $6M in US Army funding
- ‣ Collaborating with MU Health

▶ **Nanoparticle drug delivery systems**

- ‣ Anthony Convertine, Risheng Wang, and Hu Yang
- ‣ $1.5M in NSF funding; $1M in NIH funding
- ‣ Convertine elected to National Academy of Inventors in 2022

▶ **Bio-active glass for health applications**

- ‣ Dick Brow and Delbert Day
- ‣ Led to the founding of the Mo-Sci Corporation
- ‣ S&T's largest source of patent royalties

The S&T BIO-X Initiative

... examples of ongoing research, continued:

▶ **Artificial Intelligence and Organ Transplant Decisions**
  - ‣ Casey Canfield, Engineering Management and Systems Engineering (EMSE)
  - ‣ $1.8M NSF grant

▶ **Music Therapy and Cognitive Impairment**
  - ‣ Amy Belfi, Psychological Science
  - ‣ $462K NIH grant
  - ‣ 2020 Rising Star Award from the Association for Psychological Science

▶ **A Framework for Estimating Personalized Genomic Variants of Hypertension for Precision Medicine**
  - ‣ Jinling Liu, EMSE and Biological Sciences
  - ‣ $721K CAREER Award from the National Institutes of Health

The S&T BIO-X Initiative

... tapping into the nation's largest R&D funding stream.
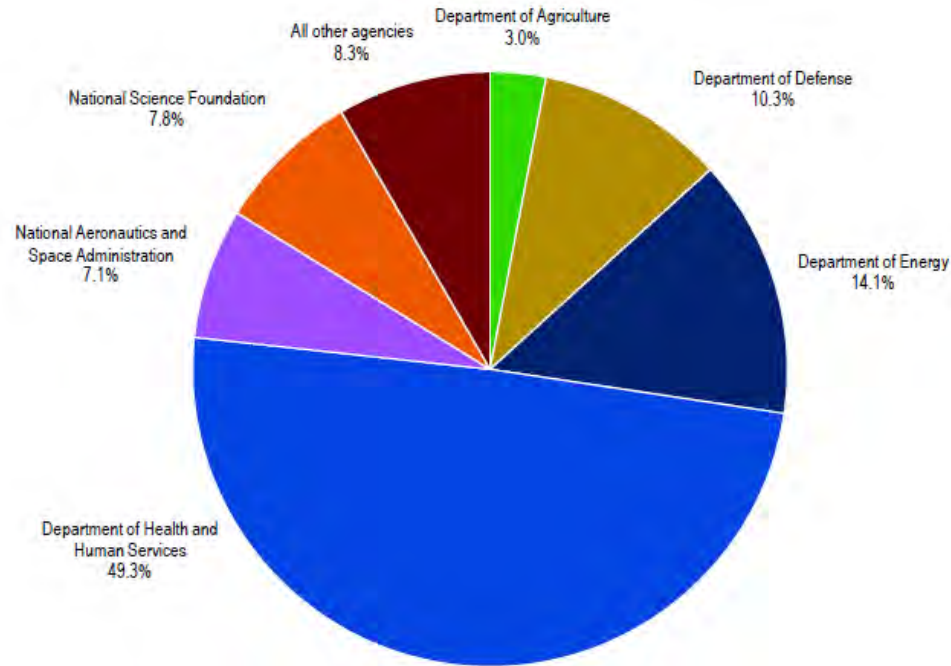
The S&T BIO-X Initiative

... creating diversity, inclusion and equity

% of degree recipients at each level who are women

	Bachelor's	CHANGE SINCE 2014	Master's		Research doctorate		Professional doctorate	
All degrees	58%	+1 pt	63	+1	55	0	55	+2
STEM degrees	53	+1	60	+2	48	+2	58	+1
Health-related	85	0	83	-1	77	0	58	+1
Life science	61	+4	58	+2	53	0		
Mathematics	42	-1	36	-2	25	-2		
Physical science	40	+1	37	-1	36	+2		
Engineering	22	+2	27	+2	28	+3		
Computer science	19	+1	29	+2	23	+2		
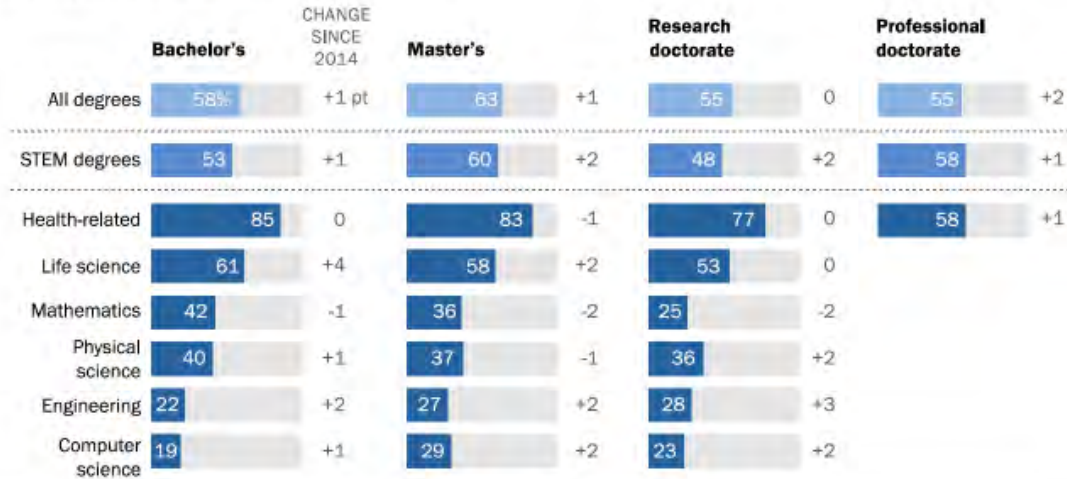
Note: Degrees awarded for all fields and science, technology, engineering and math fields (STEM) based on U.S. citizens and permanent residents. Engineering includes architecture.
Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System analyzed using the National Center for Science and Engineering Statistics Interactive Data Tool, 2017-18 school year.
"STEM Jobs See Uneven Progress in Increasing Gender, Racial and Ethnic Diversity"

PEW RESEARCH CENTER

BIO-X Building

... future home of the Ozark Biomedical Initiative and new academic programs

Future BIO-X initiatives
include:

- ▶ Radiation Science for Health Applications
- ▶ Medical Data Analytics
- ▶ Bioinformatics
- ▶ Biosynthesis for Manufacturing and Industrial Application
- ▶ Bio-inspired/Bio-mimetic Materials and Design
- ▶ BS, MS, and PhD in Bioengineering
- ▶ Making rural health care more accessible and affordable

Engaging Engineering Minds
to Advance Health Care

The S&T BIO-X Initiative

... creating opportunities for partnerships and business development

Delbert Day Cancer Institute and the Phelps Health Medical Campus

Thank you! Questions?

Missouri S&T: Solving for Tomorrow

Beyond the Degree: Moving UMKC Forward

UM System Board of Curators Retreat | October 2022

Geared up for UMKC Forward and beyond

- Fulfilling UMKC's strategic vision
- We have assembled the right parts, now making sure we have a well-oiled machine
- Today, we'll discuss key challenges, strategies for next 5-10 years

UMKC

UMKC mantra: Take students beyond the degree

Our No. 1 focus is student success that ensures our graduates leave prepared for careers. Next steps:

- Scale up Professional Career Escalators, FirstGen Roos
- Expand Career Services with the goal of linking all students to internships, mentorships, jobs
- Create steady year-over-year improvements in grad rates, retention. 2021 results: highest retention rate in UMKC history.
- Customize a college experience that meets needs for adult learners

Vision for academic enterprise

We're changing our academic enterprise to align with student success plan. We will:

- Grow programs with applied focus, strong job market (e.g. comp sci/data/cyber, engineering, healthcare, education)
- Continue to assess programs with low student demand
- Integrate applied experiences/career paths into traditional liberal arts degrees
- Redesign academic program delivery (modality/time-e.g., 4-week vs. 16-week sessions)
- Develop bridge between degree programs and TalentLink and vice versa

UMKC

Vision for academic enterprise

UMKC will redesign or add programs that have high student demand potential or need a contemporary overhaul.

- New degree programs under consideration:
    - Bachelor Architecture
    - Master's in Legal Studies
- Launched redesign to strengthen Ph.D. program Downsize the IPh.D program: no longer meeting university strategic goals.
    - Transition to new, strategic number of Ph.D.'s that can lead to better career outcomes in industry and academia.

Sustainable enrollment growth

Enrollment growth is key to all future successes.

- Aggressive strategies to grow enrollment:
  - New markets
  - New brand experience
  - New incentives
  - More recruiting staff
- Revisiting goals on mix of UG/Grad/Professional students
- Overhauling graduate recruitment

2021 Undergraduate
2021 Graduate/Professional
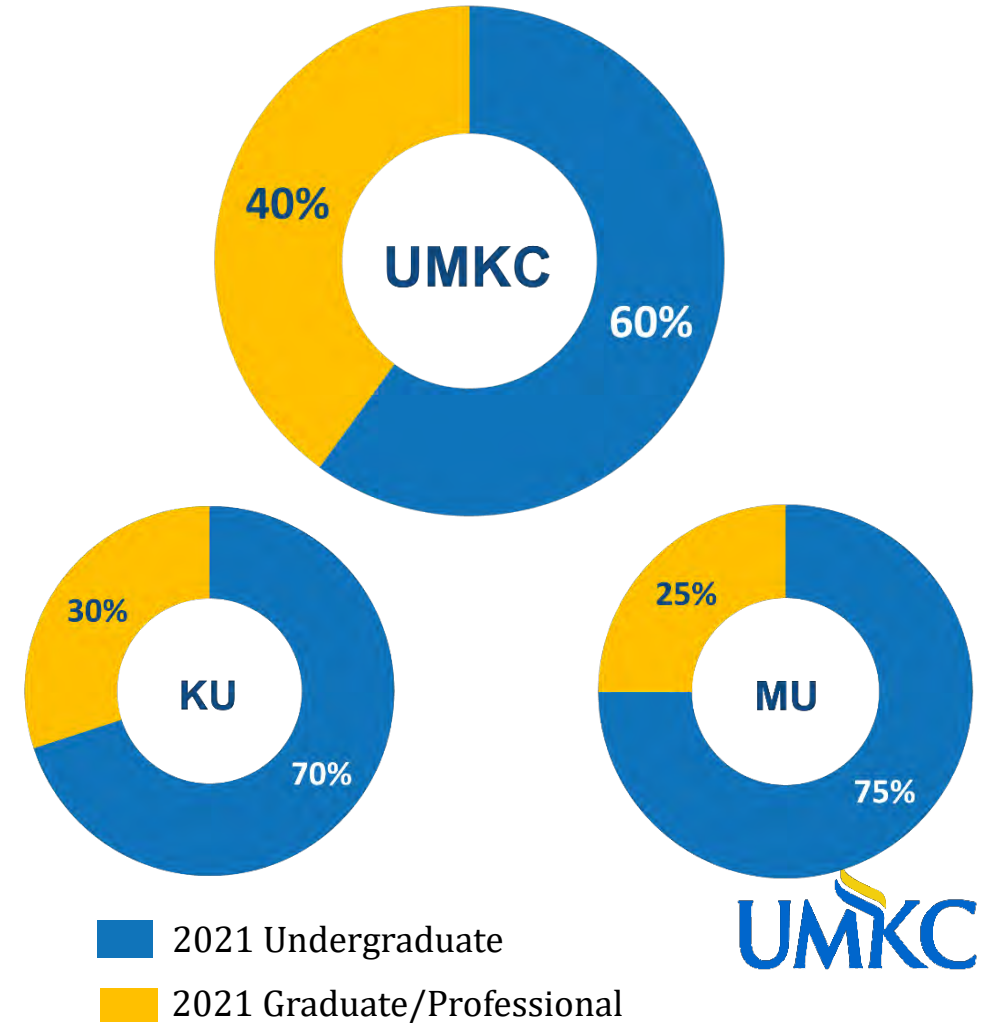
Sustainable enrollment growth

- New scholarshipping strategies
- Earlier notification of financial aid
- Moving to "own" the west side of Missouri

UMKC

Leading edge faculty development

A strong, vibrant faculty provides an essential ingredient for research and student engagement.

- Grow and expand Center for Faculty Excellence
    - First year shows that development leads to increases in research grants and faculty success metrics
- Next: Increase high prestige faculty awards
- Increase emphasis on accountability and responsibility in Promotion and Tenure process using benchmarks

Accelerate research excellence

A strong research enterprise is another foundational ingredient.

- Steady progress toward Strategic Plan research goals
- Elevate within R-2 group, then make next move
- Stay on track with growth of infrastructure
  - Add 200 research faculty over next 10 years
  - Overall enrollment growth and expansion of medical school class space to provide additional revenue
- Build out established research strengths

Top research focus areas

Defense

Neuro/ Brain

Data Science
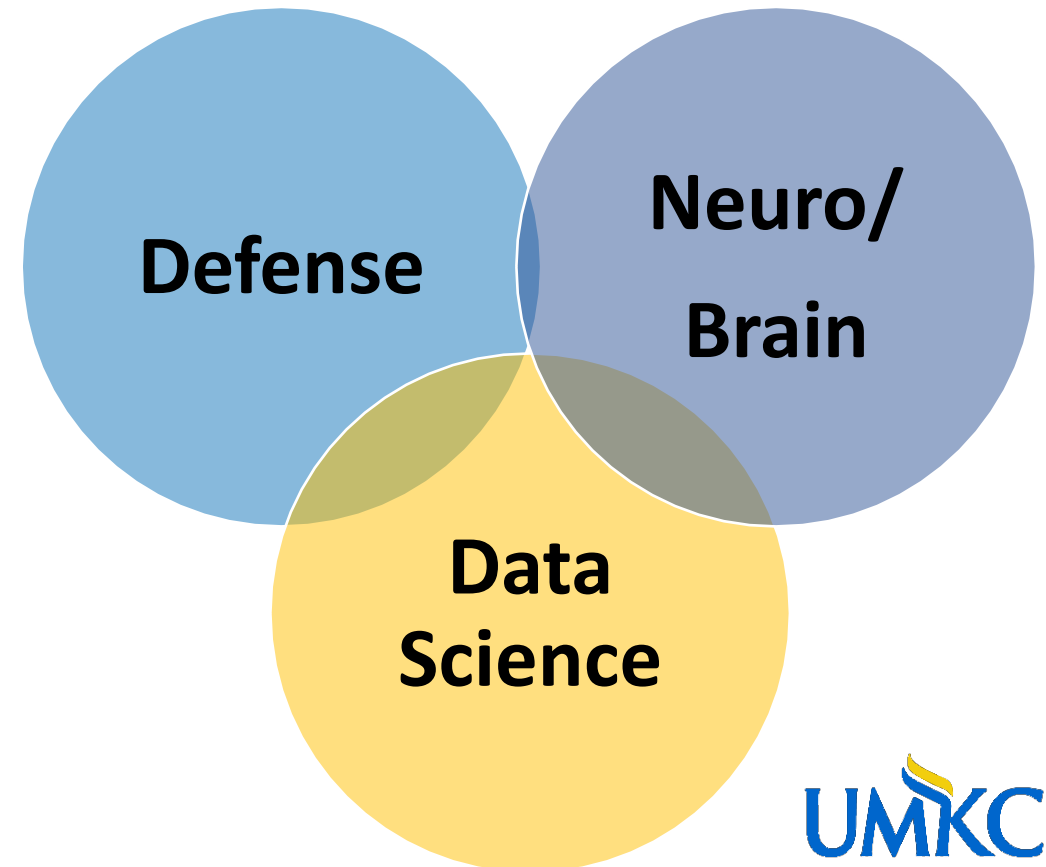
UMKC

UMKC research growth: External grants

Existing Award Amount – as of August 30, 2022
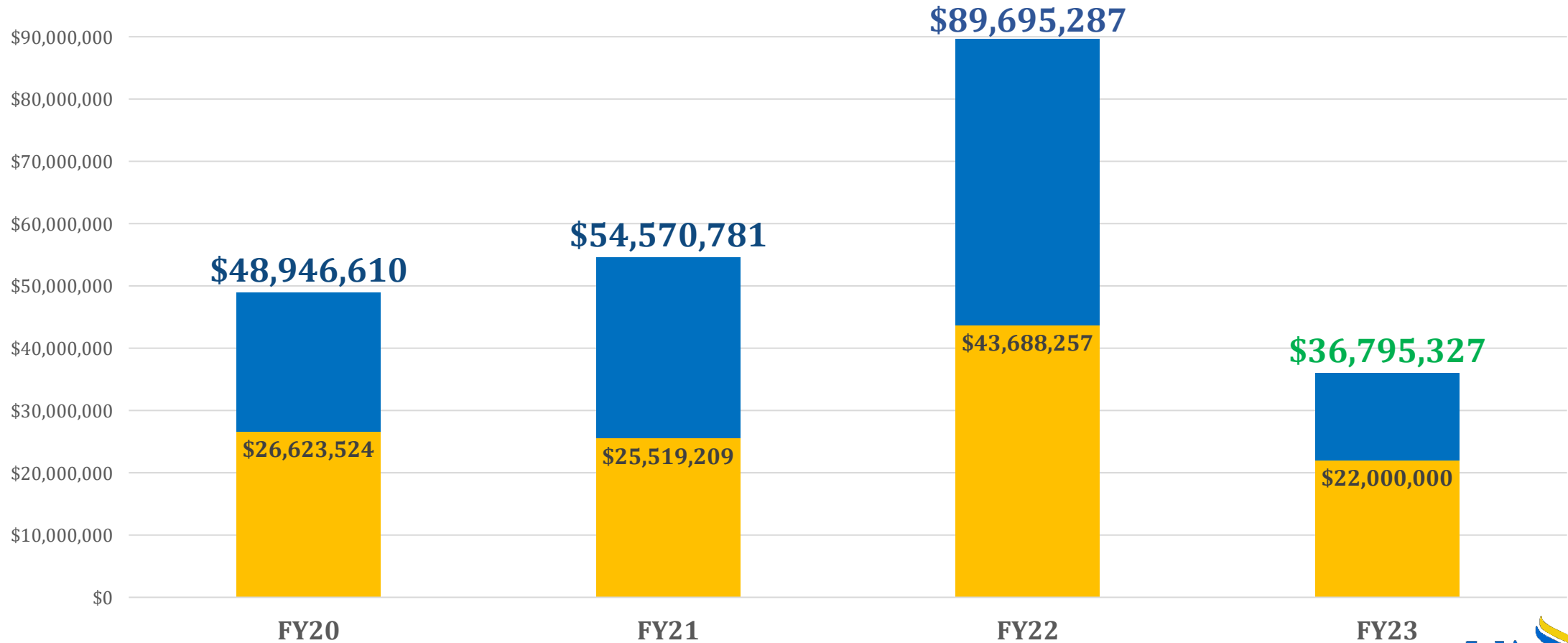
Legend: Total external grants (blue) | Sponsored research grants (yellow)

Chart data:

Fiscal Year	Total external grants	Sponsored research grants
FY20	$48,946,610	$26,623,524
FY21	$54,570,781	$25,519,209
FY22	$89,695,287	$43,688,257
FY23	$36,795,327	$22,000,000

Elevate our people enterprise

Investments in people deliver great customer service and enhance campus excellence.

- Continue to invest in training and development for staff
- Continue to address salary compression
- Check in on campus climate

UMKC

Fiscal sustainability and strategic investment

Financial stability will be a critical ingredient.

- Roll out differential tuition.
- Budget model review and rollout
- Continued financial progress to support ongoing strategic investments
- Onboard new UMKC Foundation leader, rebuild philanthropic enterprise
- New capital campaign (nearly) completed by 2028.

UMKC

High impact facility additions

New or improved physical facilities will be necessary to support our strategic vision.

- Healthcare education expansions:
  - Healthcare Innovation and Delivery Building
  - Medical education building in St. Joseph

- Student/Athletics arena exploration
- Future expansion for School of Science and Technology to meet growing demand
- 51st Pedestrian Corridor

Questions?

MU
A LEADING RESEARCH UNIVERSITY

Board of Curators Retreat

Mun Y. Choi

October 6, 2022

Mizzou Statistics

- 23,396: Number of UG (2022)
- 7,707: Number of Grad/Prof Students (2022)
- $400M: Total R&D Expenditures (FY22)
- #79: Total R&D Expenditures Rank (FY20)
- $182M: Federal R&D Expenditures (FY22)
- #87: Federal R&D Expenditures Rank (FY20)
- 10: Number of National Academy Members (2022)
- 48: Number of Highly-Prestigious Awards (2022)
- 55,000: Annual number of citations (2022)

- 75%: Graduation Rate (2022)
- 65%: Black/AA Graduation Rate (2022)
- 66%: Hispanic Graduation Rate
- 62%: Pell Graduation Rate (2022)
- #79: Peer Assessment Rank (2022)
- #84: Alumni Giving Rank (2022)
- #108: High School Counselor Rank (2022)
- #163: Financial Resources Rank (2022)
- #206: Faculty Resources Rank (2022)

MizzouForward

o To become a leading AAU university focused on excellence in *student success*, *research breakthroughs* and *meaningful engagement*.

o Key strategies to significantly grow extramural research and student success and meaningful engagement:

  o Hire outstanding faculty and staff

  o Make strategic and targeted investments for research, teaching and engagement

    o NextGen Precision Health

    o Frontiers in Science & Engineering

    o Promote a Democratic & Civil Society

  o Implement a culture of accountability

  o Educate students to succeed

  o Recruit, retain and graduate students

  o Align leadership to objectives

$1.5B, 10-Year Plan to Achieve Excellence

MIZZOU FORWARD

$350M	**$200M**	**$200M**	**$100M**	**$75M**	**$75M**	**$500M**
Recruit 150 T/TT faculty by 2026	Startup for 150 T/TT faculty	Infrastructure, instrumentation for research	Research Investment programs	Faculty success programs	Student success programs	Performance increases for faculty, staff

Science & Engineering Frontiers:
- Advanced Measurement Science & Imaging
- Agricultural Sciences
- Energy, Environment and Earth Sciences
- Advanced Materials & Manufacturing
- Artificial Intelligence, Computing and Communications
- Geospatial and Location Services
- Critical Infrastructures

NextGen Precision Health:
- Infectious Disease
- Cancer
- Neuroscience, Neurodegenerative Diseases
- Cardiovascular and Metabolic Disorders
- Maternal, Infant and Child Health

Democratic & Civil Society:
- Prevention Science
- Health, Educational and Economic
- Opportunities and Disparities
- Humanities in the 21st Century

4

Select R&D Programs

Select Science & Technology Programs in the FY 2023 Request
Nominal percentage change from FY 2022 Omnibus

Legend: White House Request | House | Senate
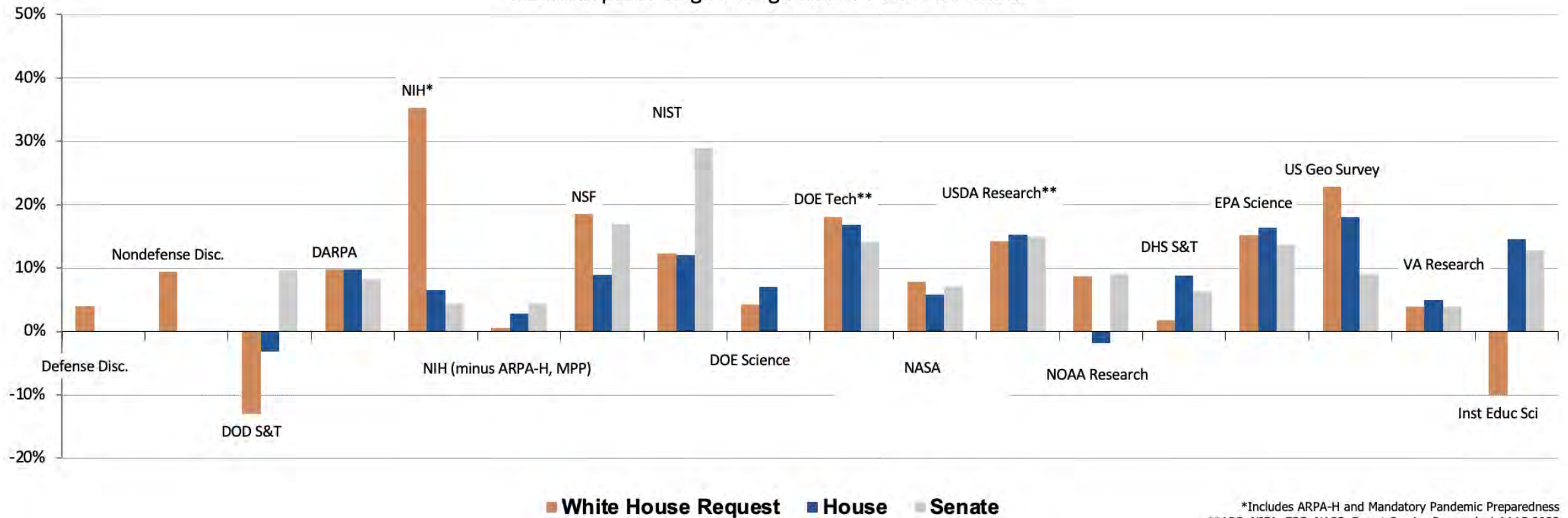
*Includes ARPA-H and Mandatory Pandemic Preparedness
**ARS, NIFA, ERS, NASS, Forest Service Research. | AAAS 2022

Key Scientific Focus Areas of NIH

- Biomedical Engineering & Biophysics
- Cell & Cancer Biology
- Chemical Biology
- Chromosome Biology
- Computational Biology
- Developmental Biology
- Molecular Biology & Biochemistry
- RNA Biology
- Stem Cell Biology
- Structural Biology
- Systems Biology
- Epidemiology
- Genetics & Genomics
- **Health Disparities**
- Immunology
- Microbiology & Infectious Diseases
- Molecular Pharmacology
- Neuroscience
- **Social & Behavioral Sciences**
- Virology
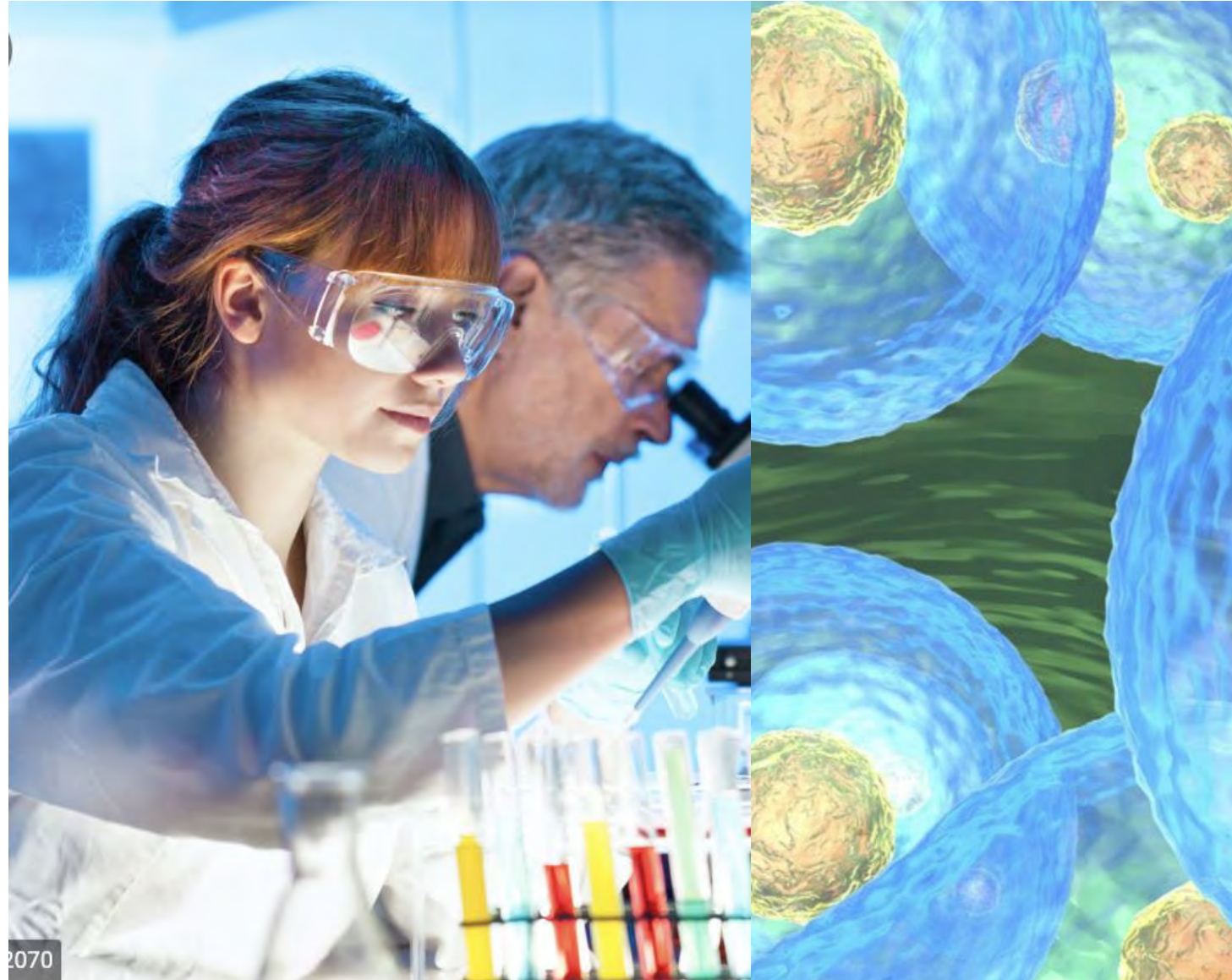
Key Scientific Focus Areas of Federal R&D Agencies

- **NSF emphasis areas:** Biocomplexity in the Environment; Information Technology Research; Nanoscale Science and Engineering; Mathematical Sciences; Human and Social Dynamics.

- **DOD emphasis areas:** Hyper-sonics; Directed energy; Command, control and communications; Space offense and defense; Cybersecurity; Artificial intelligence/machine learning; Missile defense; Quantum science and computing; Microelectronics; Autonomy

- **DOE emphasis areas:** Basic Energy Sciences; Biological & Environmental Research; Fusion Energy Sciences; High Energy Physics; Nuclear Physics

- **NASA emphasis areas:** Astrophysics; Earth Sciences; Helio-physics; Planetary Science

- **Congressional Infrastructure Programs:** Advanced Manufacturing; Advanced Construction Technologies; Climate Science; Resilience

A Leading Research University
- Supporting One Health and Agriculture Research

NIH National Swine Resource Center
NIH Swine Somatic Cell Editing Center

Researchers with many firsts in the world:

- 1st swine model for a human disease.
- 1st for in vitro fertilization in swine.
- 1st gene editing in swine.
- 1st FDA-approved swine for food use.
- 1st seven examples of gene knockouts.

- The **only** center producing genetically engineered swine, more than the rest of the world combined.
- 1st to develop genetically modified swine to create organs that are less resistant to human rejection.
- 22 AAU institutions use our swine models for research.

The New York Times

"In a First, Surgeons Attached a Pig Kidney to a Human — and It Worked"

A Leading Research University
- Supporting Agricultural Research

Pioneering Research

o Created new genome editing techniques for:

- o drought resistance for soybeans in the U.S;
- o disease resistance for rice in Asia and Africa.

o Integrated Approach to Scaling-Up Climate-Smart Practices for Crop, Livestock and Agroforestry Production

- o $25M Dept of Agriculture Research & Extension Project.
- o PI is Dr. Rob Myers (CAFNR)
- o Partnership with CAFNR, Extension and Lincoln U.

A Leading Research University
- Supporting National Security Research

NSA Center for Geospatial Intelligence

o Nation's leading academic research center developing advanced geospatial and AI technologies to support national security and military research.

o Trained 800 NGA researchers on advanced data science from 2016-2021.

o Center/SCIF has highest U.S. government security clearance level, one of few in the Midwest.

WIRED

JEREMY HSU   SECURITY   11.21.17   06:00 AM

AI CAN HELP HUNT DOWN MISSILE SITES IN CHINA

MU's CGI created a deep learning algorithm to recognize surface-to-air missile sites in China and detect them among terabytes of digital imagery.

10

New Research Institutes

o Materials Science & Engineering Institute

o Center for Infectious Diseases

o Center for Reproductive Sciences

o *Planning stages*

  o *Sustainable Agriculture*

  o *Sustainable Water & Energy*

  o *Big Brain Science & Artificial Intelligence*

  o *Geospatial and Location Sciences*
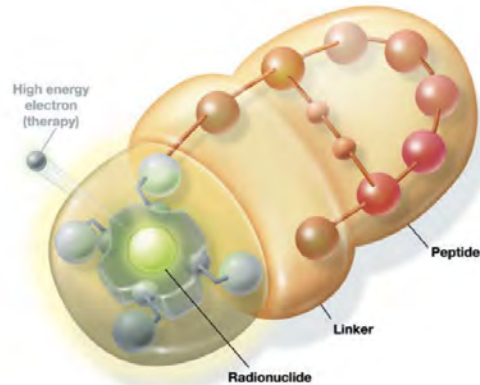
Current Capital Projects

o $232M Children's Hospital Tower, Completion Fall 2023

o $30M Vet Medicine Diagnostics Laboratory, Completion by Fall 2024

o $20M MURR West Expansion, Completion by Fall 2024

o $20M Medical Sciences Building Renovation, Completion by Spring 2025

o $17M NextGen Precision Health 4th Floor Fitout, Completion by Fall 2024

o $8M National Swine Resource and Research Center, Completion by Spring 2025

o $8M Influenza Research Center, Completion by Spring 2025

o $5M South Farm Swine Research Facility Phase II, Completion by Spring 2025
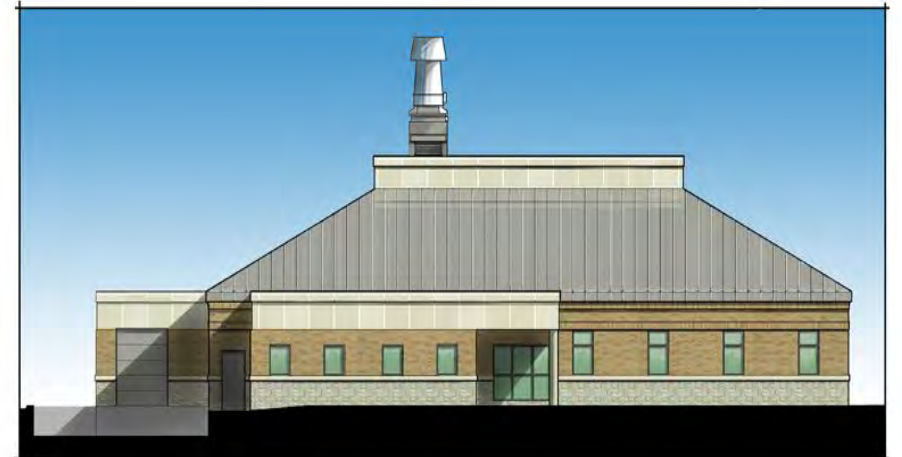
Future Capital Projects

o $150M Engineering and Applied Sciences Research Building, Completion TBD

o $80M Bond Life Sciences Center Phase II, Completion TBD

o $20M Radioisotope Facility at Discovery Ridge (DOE), Completion TBD

o $60M Thompson Center Research, Clinical and Training Facility, Completion TBD

MURR NextGen

o MURR is the most powerful university research reactor in the U.S. and the ***only reactor in the world*** that operates 24 hours a day, 6.5 days a week, 52 weeks a year.
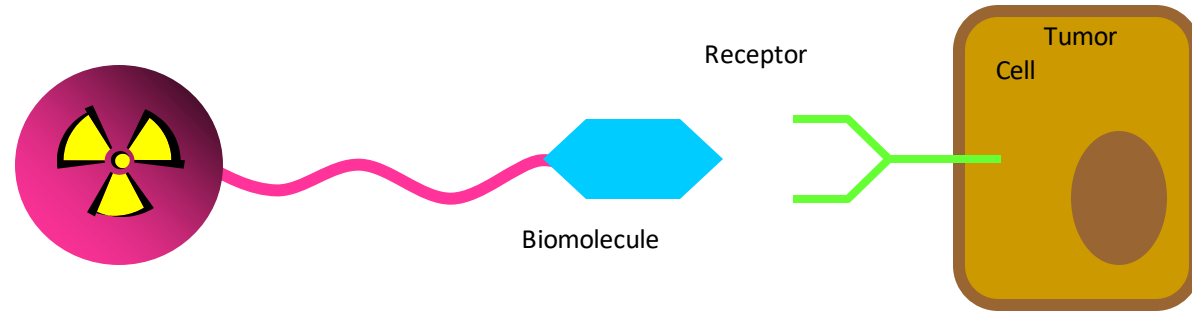
o MURR is the ***sole domestic supplier*** of I-131, Lutetium-177 and Yttrium-90, which are all used to treat various forms of cancer.

o These medical isotopes must be manufactured and distributed every week.

o 10,000 doses of radio-isotopes are shipped each week.

o Any interruption in supply results in delays in patient diagnosis, and/or cancellation of scheduled cancer treatments.

MURR NextGen

o While MURR has been operating safely for over 50 years, its remaining functional lifetime is limited

o There is currently no plan in the U.S. for a new research reactor that can produce short-lived medical isotopes.

o The next generation of radiopharmaceuticals is being designed around Lu-177 and I-131.

o Saving lives of American Cancer patients will be at risk without replacement.

o MURR NextGen can be an important revenue source for key investments in the academic and research mission at MU.
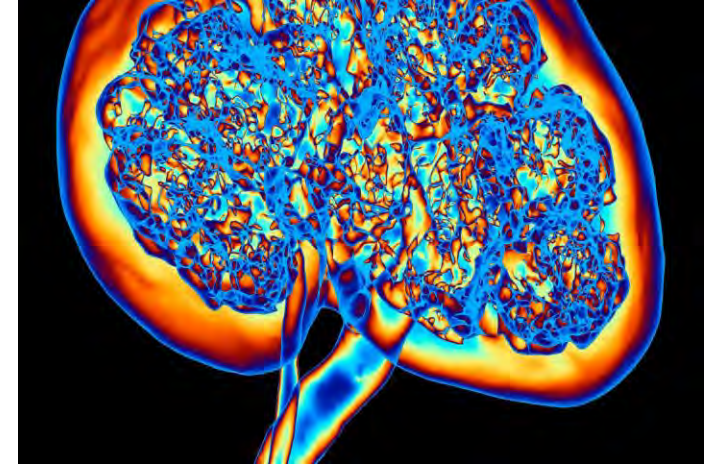
Student Success Initiatives

o Invested in new classroom and teaching laboratories

o Hired new advisors

o Increased faculty use of '**MU Connect Flags**'

o Improved financial literacy

o Invested in Honors Colleges programs

o Launched new outreach for research experiences

o Launched new outreach for graduate fellowship applications

o Early and frequent check-ins with Advisors, Faculty, Care Team, and Residence Hall Advisors

o Rapid access for mental health counseling

o Hired new employer relations staff

o Career coaching programs

16

MU USN&WR Rankings

➢ **1ˢᵗ in Best Value** among bordering flagship universities
➢ **1ˢᵗ in Best Value** among SEC Public universities
➢ **9ᵗʰ in Best Value** among ALL flagship universities

Research Performance
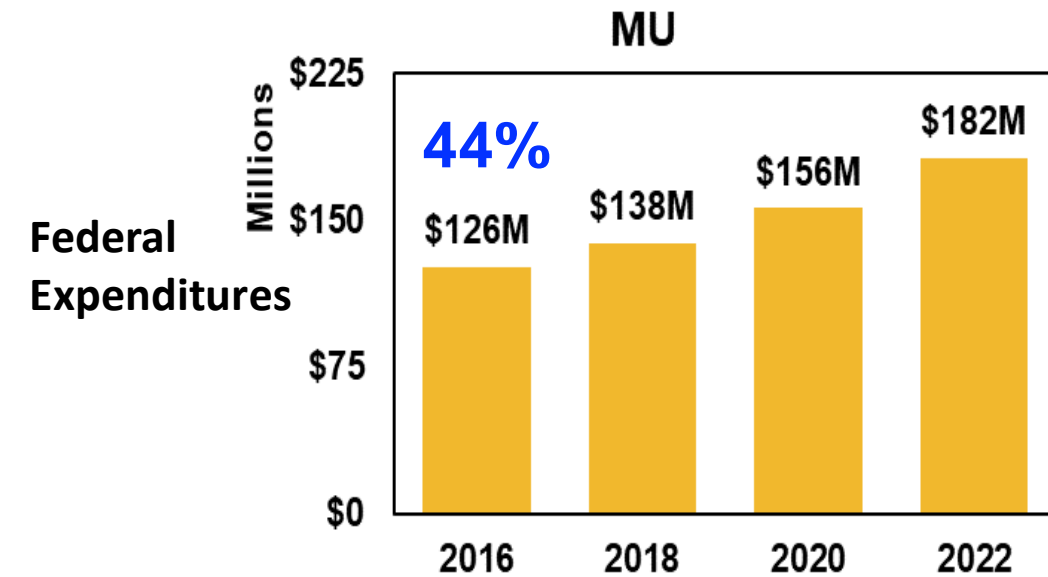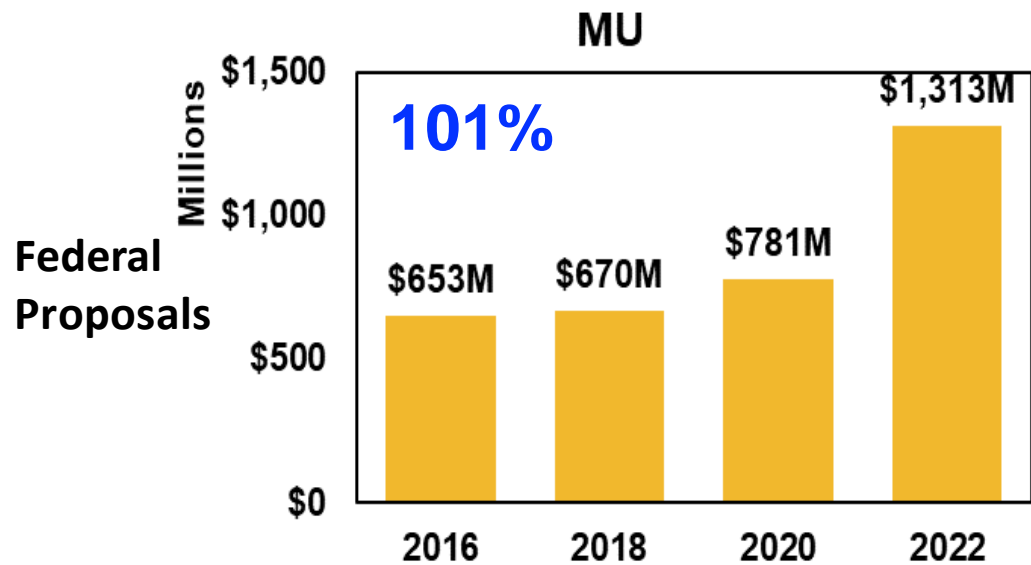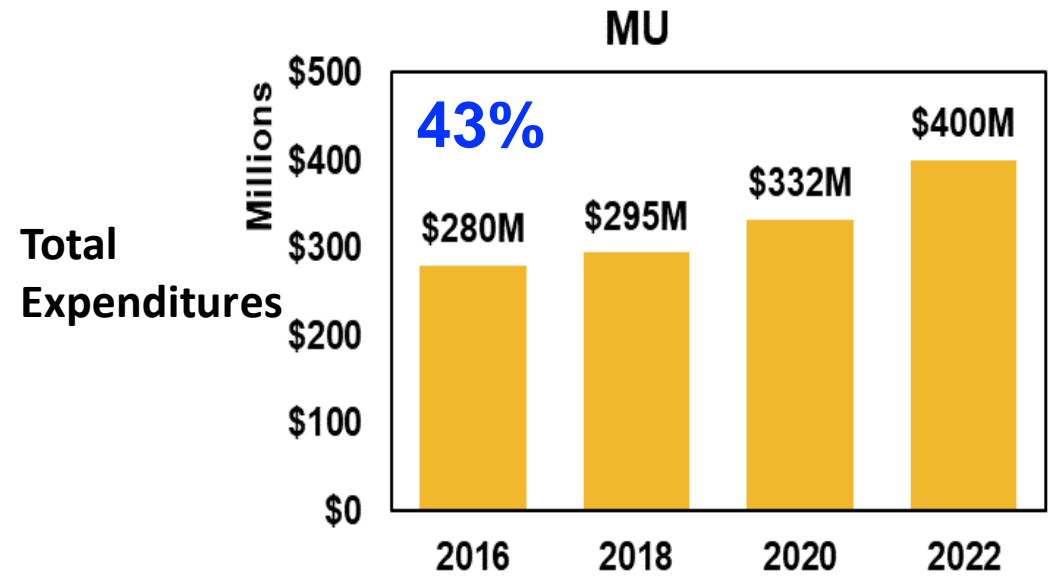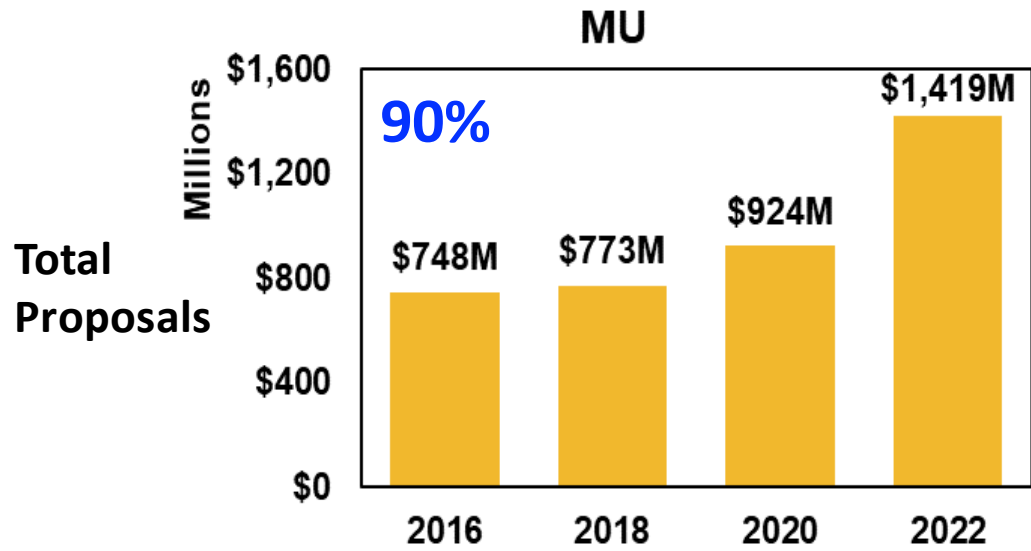
THANK YOU

Academic Health System Update

October 6-7, 2022

Robin Wenneker

MU School of Medicine and NextGen Precision Health

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

Education: The Class of 2026

Average Math/Science GPA: **3.72**
Average Total GPA: **3.78**
Average MCAT Score: **510**

3,201 TOTAL APPLICATIONS

387 Interviews scheduled

128 Students matriculated

Students from socioeconomically disadvantaged backgrounds: **26%**

Students from rural areas: **17%**

Students from Missouri: **86%**

34% Students who self-identify as an ethnic minority

13% Students who self-identify as an underrepresented minority

AGE RANGE: **20** ⬌ **37**   **75**   **53**

GEOGRAPHIC REPRESENTATION

MISSOURI - 110
FLORIDA - 2
ILLINOIS - 2
NORTH CAROLINA - 2
UTAH - 2
ARKANSAS - 1
CALIFORNIA - 1
GEORGIA - 1
IOWA - 1
KANSAS - 1
MINNESOTA - 1
NEW YORK - 1
OKLAHOMA - 1
PUERTO RICO - 1
TENNESSEE -1

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

Eminence & Impact

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

Research: The Why

Bends the curve to shorten the time between discovery and solutions for patient care.

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS
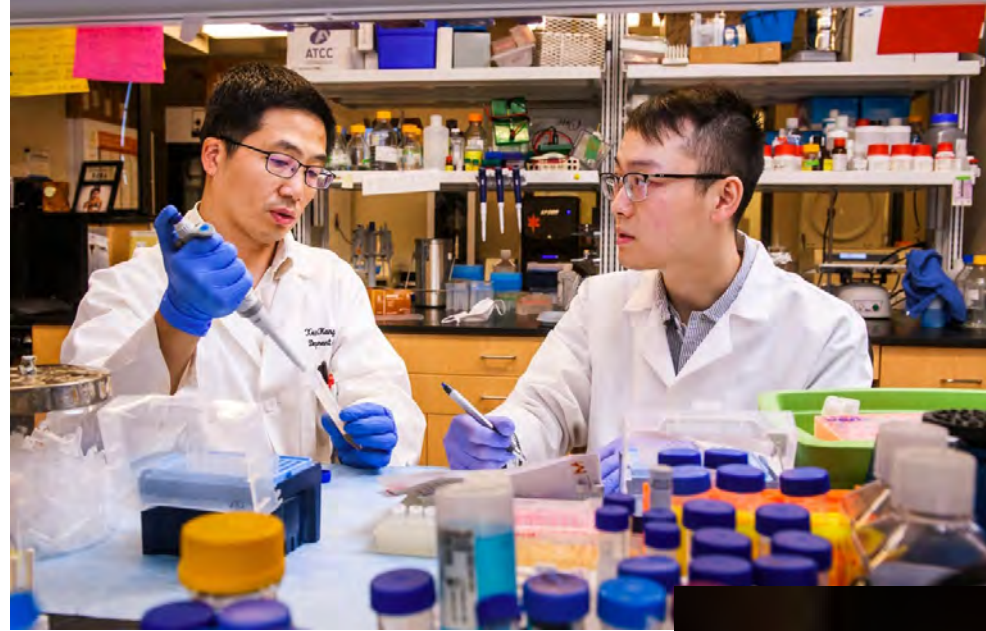
Research: The Why

- Research finds answers to things that are unknown, filling gaps in knowledge and changing the way that health care professionals work.

- The advances and innovations that come from research extend and save lives and improve the quality of life for millions of patients.

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS
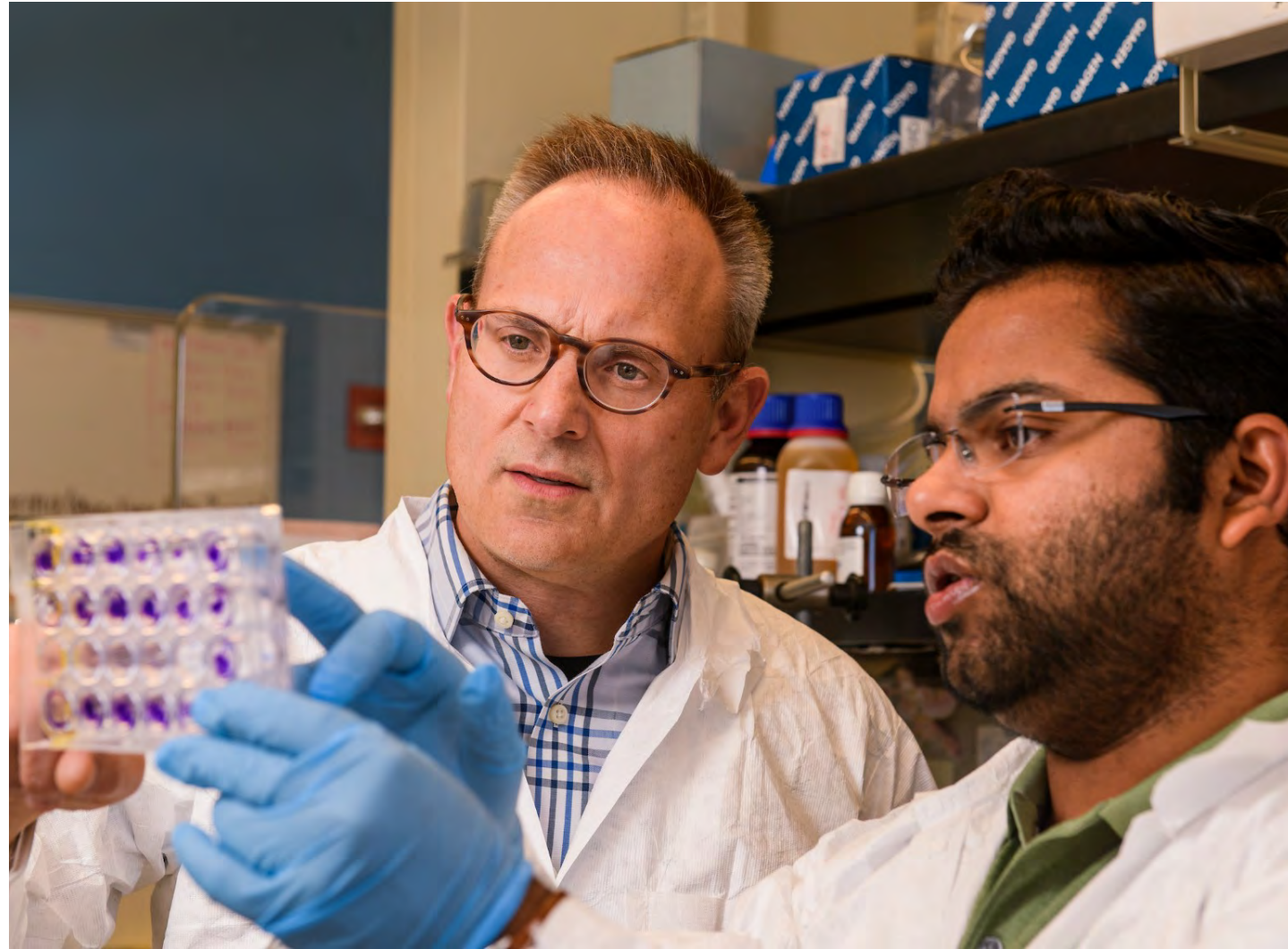
Research: Impact on the Academic Health System
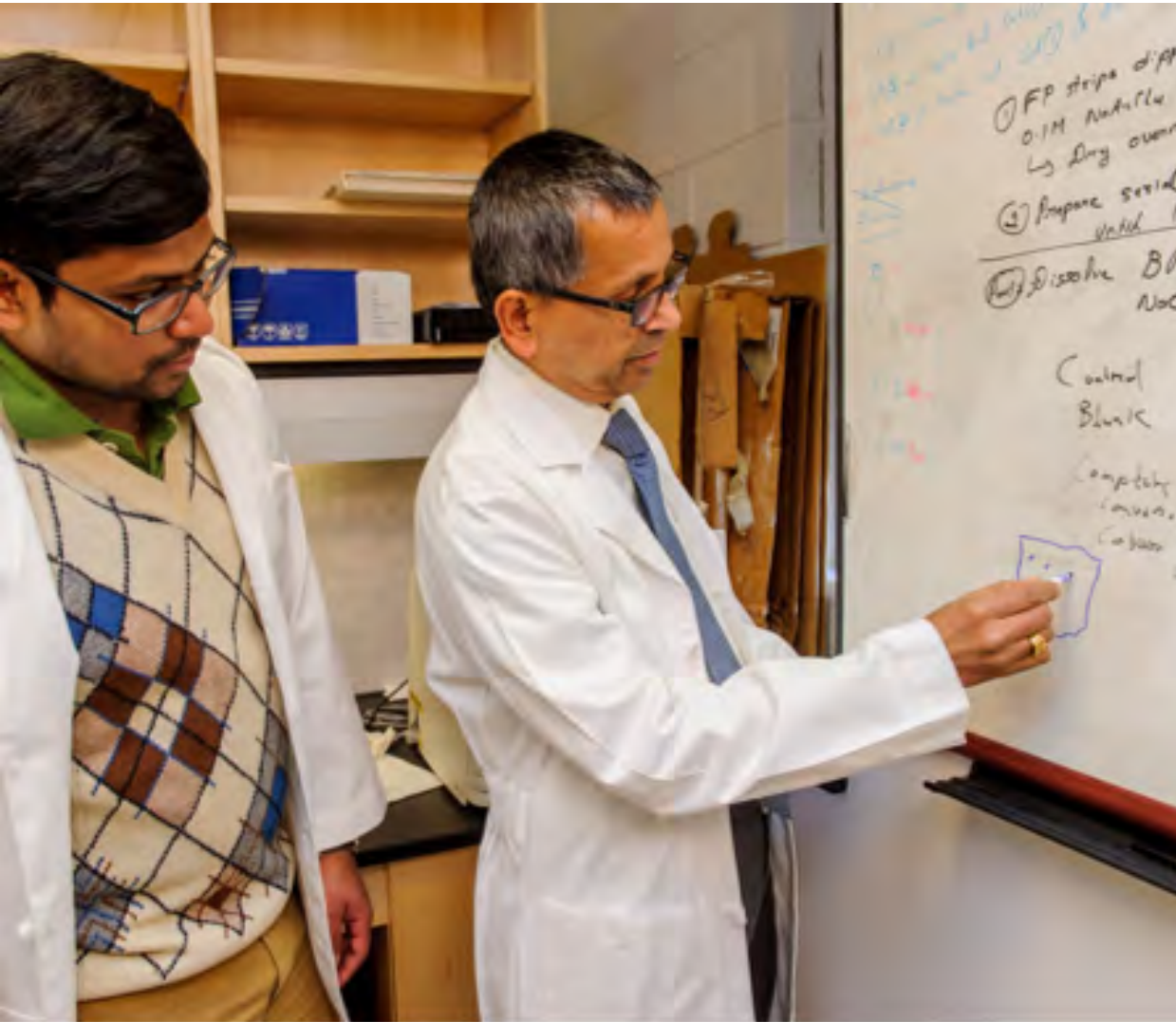
- **Attracts the best and brightest clinician-researchers**
- **Recruits**
- **When we have these clinician-researchers at MU Health, they:**
  - teach the next generation
  - attract strong medical students and high-quality residents
  - build confidence in the clinical services of MU Health Care and local care
  - bring localized cures for patients in Mid-Missouri

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

Research is not about care today – it allows MU to be part of improving care for tomorrow.

How patients help us advance knowledge

- No one in a research study should be consented because they are led to think they will receive better care

- All participants are ethically required to get state-of-the-art, best practice care regardless of which arm of a study they are in
    - Some participants may be randomized to a study arm of a new therapy or care model or medication and see improvement over those in the usual care arm

This is the fundamental way that patients help us advance knowledge!

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

Together, Eminence and Impact Improve Lives

Elizabeth Parks, PhD, and precision nutrition research

- Collaborating with R. Scott Rector, PhD, exercise physiologist; Jamal Ibdah, MD, gastroenterologist; and colleagues on five-year clinical study of the effects of exercise and weight loss on fatty liver disease

- Personalizing diet and workout plans

- Goal of achieving lifelong healthy eating patterns for Missourians and beyond

- MUHC partnership with Columbia Center for Urban Agriculture, Farmers Market and Food Bank

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MU Health Care

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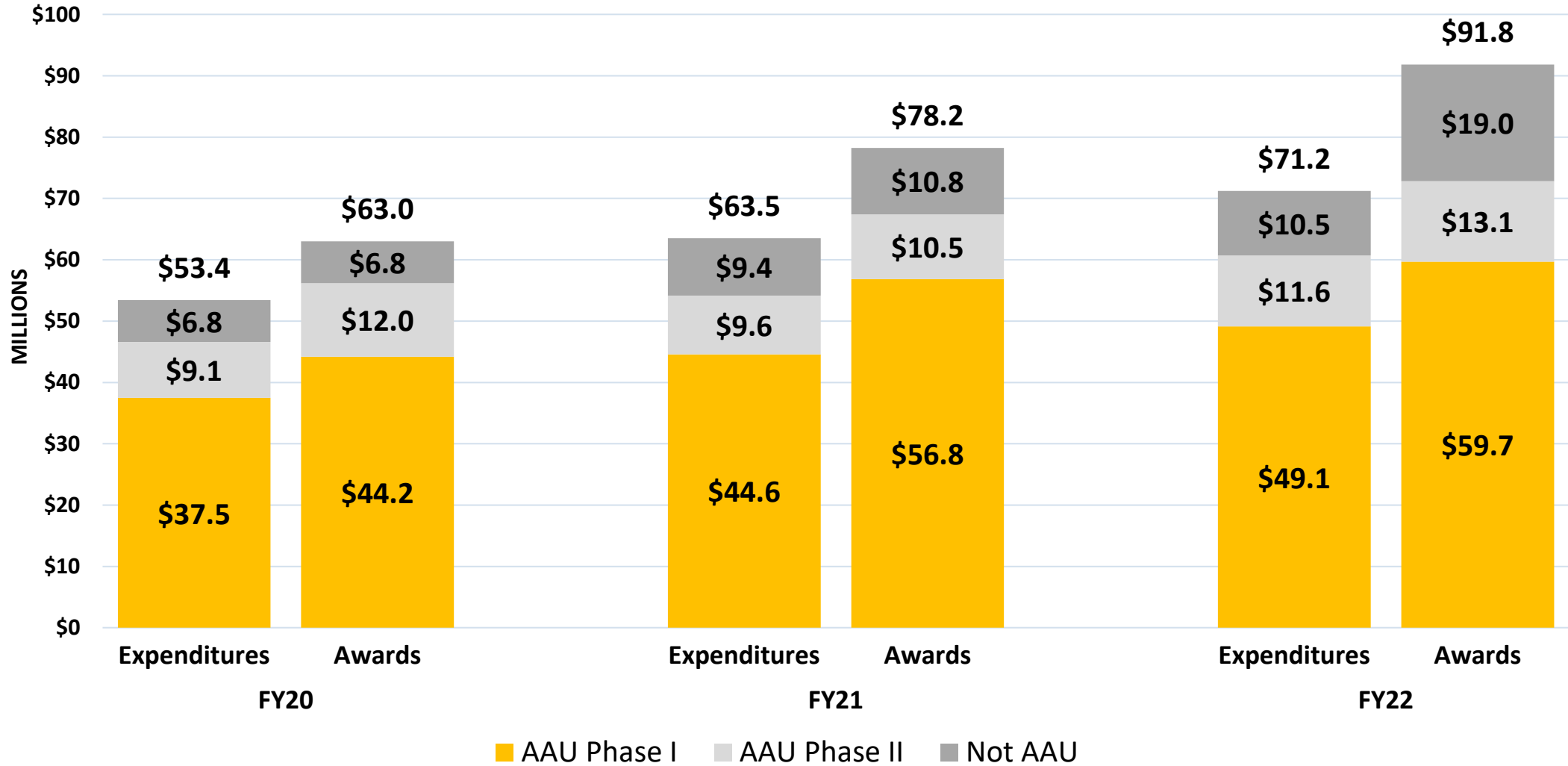
Impact: Caring for the State of Missouri

FISCAL
2022 in NUMBERS

312,770 radiological exams + treatments

790,770 clinic visits (all sites)

26,792 patient discharges

25,771 MAJOR surgical operations

83,599 ER + trauma visits

406 PATIENTS transported by helicopter

263,116 TOTAL PATIENTS

256,144 Missourians
6,972 out-of-state

6 HOSPITALS
- Children's Hospital
- Ellis Fischel Cancer Center
- Missouri Orthopaedic Institute
- Missouri Psychiatric Center
- University Hospital
- Women's Hospital

2,280 BIRTHS

2,582,798 lab tests

5,977,241 pharmacy orders

6,324 total staff
750 MEDICAL STAFF
5,574 OTHER STAFF

613 BEDS
174 intensive care • 439 acute care

*Based on FY 2022 statistics (July 1, 2021-June 30, 2022).

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Areas of Clinical Excellence

ORTHOPAEDICS

WOMEN'S HEALTH

NEUROLOGY

CANCER

CARDIOLOGY

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14

Key Leadership Roles: Filled

Katrina Lambrecht
Chief Operating Officer

Dustin Thomas
Chief Financial Officer

Shanon Fucik
Chief Nursing Officer

Matt Frederiksen-England
Chief Compliance Officer

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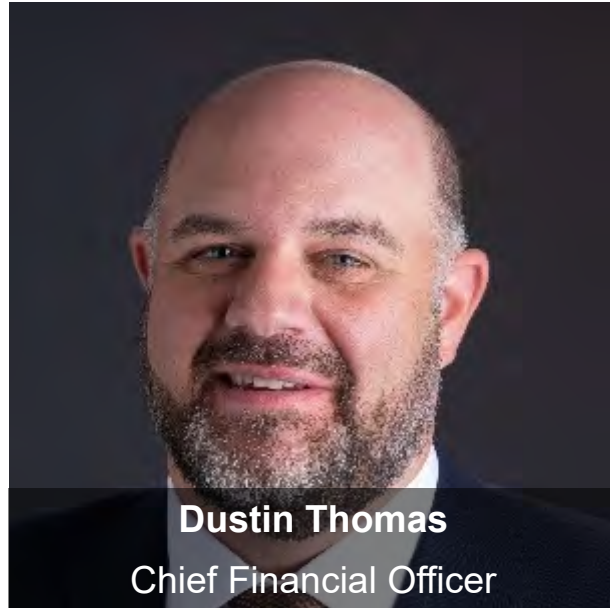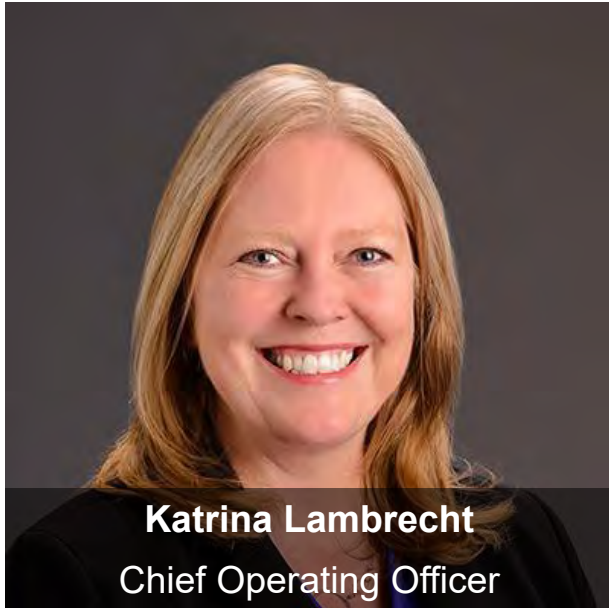
Key Leadership Roles: Open

Chief Executive Officer

Chief Marketing and Communications Officer

Chief Quality Officer

Chief Information Officer

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Culture, Marketing and Branding

- Working to re-engage the workforce on issues related to recruitment, retention and patient experience

- Extending the MU Health Care brand across the state of Missouri

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Financial Performance

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Five-Year Financial Plan: FY22-27 Summary

- Provides support of strategic plan
  - Growth, stewardship and mission to save and improve lives through exemplary research, education and patient care
- Growth
  - In collaboration with SOM, based on organic growth, market analysis and strategic physician recruitment
  - Focused service lines: Cardiovascular, Neurosciences, Oncology, Pediatrics, Primary Care, Surgery and Women's Health
- Stewardship initiatives focused on revenue opportunities; fixed and variable expenses

Assumptions:

- BY22 revenue and expenses serve as the baseline
- Reimbursement trends
- Inflation factors
  - Salary and wages
  - Drugs and Supplies
  - Other expenses

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FY23 Budget Plan

	Preliminary FY2022	in $Ms Budget FY2023	Variance
Net Patient Revenues	$ 1,091.2	$ 1,161.7	$ 70.5
Other Operating revenue	23.4	23.0	(0.4)
Pharmacy Sales	170.2	189.1	18.9
Total Net Revenues	**$ 1,284.9**	**$ 1,373.7**	**$ 88.8**
Expenses			
Labor Expense	527.1	555.3	(28.2)
Medical Supplies	142.3	142.8	(0.5)
Drug Supplies	192.0	209.7	(17.7)
Other Expenses	393.7	382.5	11.2
Total Expenses	**$ 1,255.1**	**$ 1,290.2**	**$ (35.1)**
Operating Income (Loss)	**$ 29.8**	**$ 83.5**	**$ (53.7)**
Operating Margin	1.4%	5%	

Growth

- Service Lines
  - Subspecialty recruitment
  - Ambulatory care expansion
  - Occupational medicine
- Contract/Specialty Pharmacy
  - Data sharing in contract pharmacy and growth in specialty pharmacy

Expense Control

- Labor
  - Agency utilization and rate reduction
- Medical Supply
  - Elimination of extraordinary COVID costs
- Other Expense
  - Elimination of revenue cycle contract staffing

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Risks and Opportunities

Risks:

- Payer/contracts changes

- Workforce

- MD recruitment

- Inpatient to outpatient shift

- Stewardship initiative execution

  - Expense management

  - Revenue opportunity

Opportunities:

- Philanthropy

- Incremental state support

- Value-based payer contracts

- Market consolidation

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Five-Year Capital Plan

- ## Technology Investments

  - Enhancing patient experience by improved access

  - ED & Specialty care growth into rural areas

  - Security Infrastructure

- ## Growth Investments

  - Attracting top clinical providers requires cutting edge equipment/technology

  - Primary care expansions in Boonville, Mexico & Fulton

- ## Facilities

  - Enabling projects for consolidation of facilities: Lottes Library and Pershing faculty offices, Pershing Student Health

  - Accommodate Growth: Therapies in Columbia & Mexico, ORs within Children's Hospital, Thompson Center, Discovery Park clinics

  - Room Expansion: Room conversion resulting in another 65 beds

  - Ongoing Maintenance: Roof at Quarterdeck, air handlers, elevators

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Enabling Space and Facilities

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New Children's Hospital
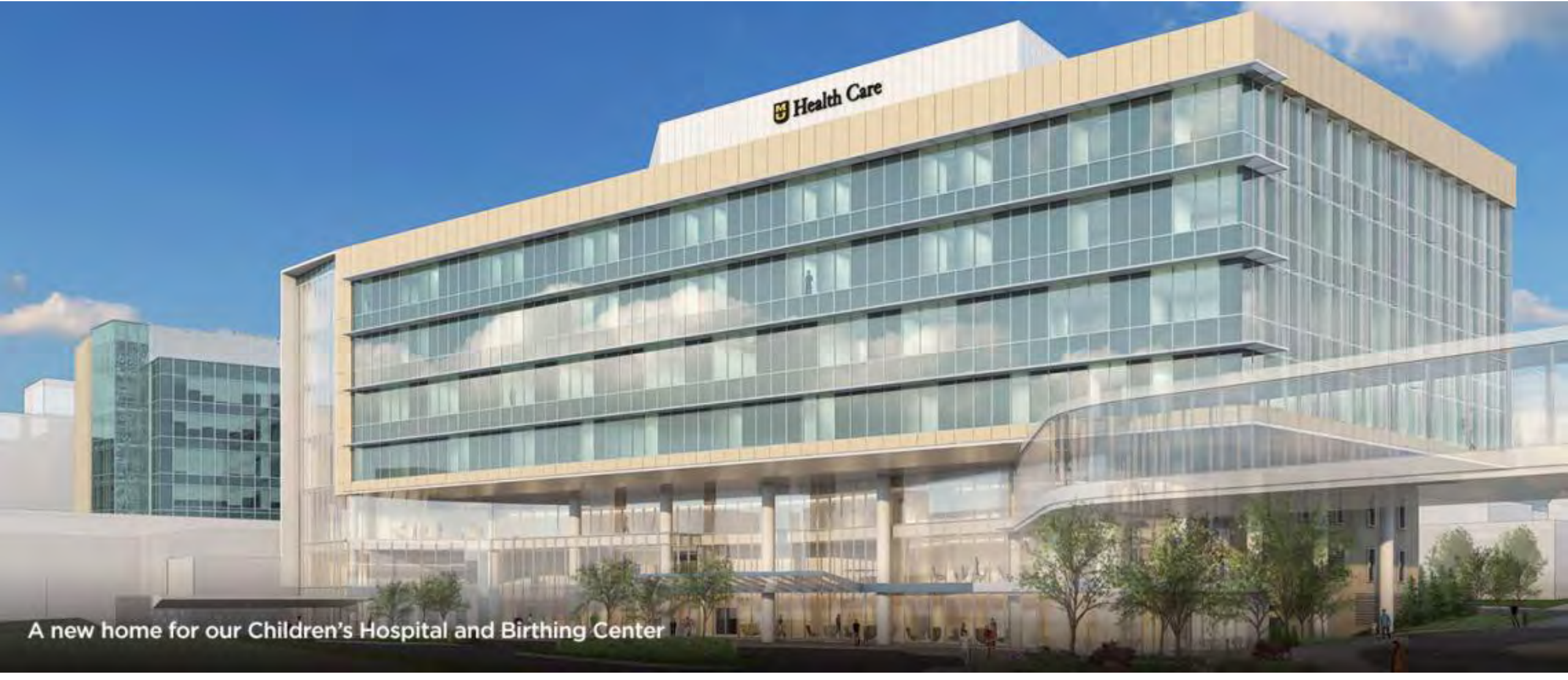
A new home for our Children's Hospital and Birthing Center

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New Clinics

South Clark Medical Building in Mexico now open

Jackson Road Medical Building in Boonville opening 2023

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Real Estate Holdings

The health care property portfolio is being reviewed with specific focus on the following:

- Evaluation of owned vs. leased properties

- Keene Street strategy and disposition plan of applicable assets

- Consolidation of properties where applicable

- Strategic investments as needed for long-term optionality

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Future Needs

- Ambulatory Surgery Center
- Support for physician recruitment
  - Key recruits impact our needs
- Supporting services
  - Lab, imaging, parking, others

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Support for Physician Recruitment

- Recruiting key physician-scientists impacts space needs and decision-making

  - **Dr. Gerhard Hildebrandt, Chief of Hematology/Oncology and Nellie B. Smith Endowed Chair of Oncology and Cancer Center Director**

    - Creation of bone marrow transplant program

  - **Dr. Michael Chicoine, Chair of new Department of Neurosurgery**

    - Creation of intraoperative MRI for neurosurgery

- Space and facilities needs for faculty research, office and clinical space

- These programs create eminence and impact and will draw patients to MU Health Care

Dr. Gerhard Hildebrandt

Dr. Michael Chicoine

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Health Affairs Committee

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Health Affairs Committee

- Robin Wenneker

- Ron Ashworth

- Dan Devers

- Keith Holloway

- Jeff Layman

- Jim Whitaker

- Mike Williams

2022 Goals

- Review strategy/timeline used to evaluate future opportunities (hospitals, real estate, partnerships, etc.)

- Continue to monitor MU Health Care as they build a new hospital

- Understand and evaluate the professional health-related initiatives at UMKC

- Track brand and communications strategy as MU Health Care considers market opportunities

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No. 1

Recommended Action –   Resolution for Executive Session of the Board of Curators Retreat October 6-7, 2022

It was moved by Curator _____ and seconded by Curator _____, that there shall be an executive session with a closed record of the Board of Curators meeting October 6-7, 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(12), RSMo,** relating to matters identified in that provision, which include sealed bids and related documents and sealed proposals and related documents, or documents related to a negotiated contract; and

- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment.

Roll call vote of the Board: YES   NO

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

The motion _____.

Board of Curators Retreat

Mun Y. Choi

October 7, 2022

Key UM Activities

o Enable the four universities to reach their full potential in **research, teaching and engagement.**

o Recognize and support uniqueness of each university to achieve excellence
  o AAU - Science & Technology - Urban Public Institutions

o Recognize and support collaborations across universities to achieve excellence
  o Federal & MO programs
  o Educational program approvals, course sharing and cross enrollment
  o Missouri Online

o Provide strategic development funds to achieve excellence

o Develop policies and practices to achieve excellence:
  o CRRs
  o Executive Orders

Key UM Activities (cont'd)

- o Continue to Engage Chancellors through COC for System-wide Decisions
- o Communicate value of public higher education and coordinate lobbying efforts for the research-focused Universities in Missouri
- o Continue with Administrative Efficiencies Project
  - o Consolidate key compliance and support functions into a single infrastructure that supports the four universities and health system
  - o Provide shared services for common administrative functions that can be performed at scale

UM Challenges

o Demographics:
  o Declining number of high school graduates in MO and Illinois
  o Declining % of MO high school graduates that attend MO public 4-year universities
o Demonstrate value of higher education
  o Demonstrate student success
  o Invest in degree programs in high growth areas
  o Emphasize key qualities that employers seek in courses and experiences
o Financial Support to Achieve Mission:
  o State appropriations
  o Federal legislative support
  o Need to grow philanthropy and OTHER sources of support
o Inflation and Recession
o Recruitment and Retention of Talent (Faculty, staff, leaders)

Declining High School Graduates

o The number of high school graduates is expected to drop by 400,000 nationwide from 2026 – 2037

o 10-year forecasts show drops in all our feeder markets – except Texas which is expected to grow (+8%)

    o MO **(-3%)**, IL **(-12%)**, KS **(-4%)**, CA **(-6%)**

MO Public High School Graduates that Attend	2011	2021	Change
MO Public 2-year College	20,182	14,930	-5,252 (**-26%**)
MO Public 4-year College	23,028	22,204	-824 (**-4%**)
Employment	9,980	15,318	5,338 (+54%)

6-yr First Time College (FTC) Graduation Rates

	2018	2021	2022
MU	69.0%	72.5%	75.2%
UMKC	49.4%	56.8%	55.2%
S&T	62.7%	63.4%	61.5%
UMSL	52.1%	57.5%	51.1%

Placement Outcomes

Institution	Placement Outcomes
Mississippi State	96%
Mizzou	95%
UMSL	93%
Vanderbilt	93%
Georgia	92%
Missouri S&T	90%
Tennessee	90%
Alabama	89%
UMKC	88%
Arkansas	84%
Kentucky	78%
Auburn	77%
LSU	69%
Florida	N/A
Ole Miss	N/A
South Carolina	N/A
Texas A&M	N/A

30 Top Jobs for the Future

Rank	Job	Total # of Jobs	Projected Job Growth, 2017-2027	Median Annual Salary	Typical Education
# 1	**App Developer**	878,990	30.4%	$100,857	Bachelor's degree
# 2	**Nurse Practitioner**	172,102	35.2%	$103,947	Master's degree
# 3	**Health Services Manager**	371,020	21.0%	$96,517	Bachelor's degree
# 4	**Financial Manager**	610,056	19.1%	$122,733	Bachelor's degree
# 5	**Marketing Research Analyst**	634,330	24.4%	$62,828	Bachelor's degree
# 6	**Computer Systems Manager**	384,340	14.4%	$138,142	Bachelor's degree
# 7	**Information Security Analyst**	110,914	27.2%	$95,506	Bachelor's degree
# 8	**Physician Assistant**	112,463	35.3%	$104,986	Master's degree
# 9	**Physician***	393,399	13.7%	$200,774	Doctoral degree
# 10	**Physical Therapist**	237,539	27.1%	$85,694	Doctoral degree
# 11	**Dental Hygienist**	215,720	20.9%	$74,432	Associate's degree
# 12	**General Manager**	2.3 million	12.0%	$99,754	Bachelor's degree
# 13	**Operations Research Analyst**	112,187	26.8%	$81,441	Bachelor's degree
# 14	**Registered Nurse**	3.0 million	16.3%	$69,789	Bachelor's degree
# 15	**Speech Language Pathologist**	150,730	19.9%	$75,747	Master's degree

30 Top Jobs for the Future

Rank	Job	Total # of Jobs	Projected Job Growth, 2017-2027	Median Annual Salary	Typical Education
# 16	Medical Sonographer	70,351	23.2%	$71,598	Associate's degree
# 17	Physical Therapist Assistant	91,319	31.3%	$57,429	Associate's degree
# 18	Respiratory Therapist	129,745	22.4%	$59,717	Associate's degree
# 19	Services Sales Rep*	1.1 million	12.5%	$51,437	High school diploma
# 20	Statistician	39,787	30.1%	$84,410	Master's degree
# 21	Postsecondary Teacher	1.5 million	14.0%	$69,750	Doctoral degree
# 22	Human Resources Manager	176,205	10.2%	$106,809	Bachelor's degree
# 23	Community Services Manager	164,391	20.7%	$62,638	Bachelor's degree
# 24	Family Practitioner	141,107	16.0%	$189,738	Doctoral degree
# 25	Personal Financial Adviser	249,909	12.0%	$86,711	Bachelor's degree
# 26	Electrical Power-Line Installer and Repairer	117,960	16.7%	$69,040	High school diploma
# 27	Dentist	143,243	13.9%	$154,901	Doctoral degree
# 28	Industrial Engineer	268,709	11.2%	$85,863	Bachelor's degree
# 29	Veterinarian	80,712	18.5%	$87,199	Doctoral degree
# 30	Administrative Services Manager	288,653	11.6%	$93,750	Bachelor's degree

MO Occupational Projections

Title	Total Annual Openings	Average Wage
General and Operations Managers	5,593	$105,280
Software Developers and Software Quality Assurance Analysts and Testers	3,122	N/A
Accountants and Auditors	2,848	$70,240
Sales Representatives, Except Technical and Scientific Products	2,423	$65,640
Project Management Specialists and Business Operations Specialists	2,180	N/A
Management Analysts	1,645	$81,300
Human Resources Specialists	1,569	$62,790
Market Research Analysts and Marketing Specialists	1,481	$65,360
Medical and Health Services Managers	932	$113,120
Financial Managers	869	$136,520
Lawyers	768	$113,780
Nurse Practitioners	715	$102,470
Sales Representatives, Technical and Scientific Products	687	$84,150
Industrial Engineers	504	$87,620
Construction Managers	483	$96,680
Civil Engineers	474	$86,710
Logisticians	318	$76,540
Information Security Analysts	295	$95,010
Speech-Language Pathologists	258	$77,790
Financial Examiners	247	$73,870

Qualities that Employers Seek
National Association of Colleges & Employers Study

ATTRIBUTE	PERCENT OF RESPONDENTS	ATTRIBUTE	PERCENT OF RESPONDENTS
Ability to work in a team	81%	Computer skills	59%
Problem-solving skills	79%	Interpersonal skills	58%
Analytical/quantitative skills	76%	Detail-oriented	56%
Communication skills (written)	73%	Organizational ability	39%
Initiative	68%	Creativity	30%
Leadership	68%	Strategic planning skills	28%
Technical skills	68%	Friendly/outgoing personality	26%
Flexibility/adaptability	66%	Entrepreneurial skills	20%
Strong work ethic	65%	Tactfulness	18%

Graduation Rates

University	6 Year Graduation Rate
MU	73%
Truman State	72%
S&T	64%
Missouri State	59%
UMSL	58%
UMKC	57%
UCM	53%
Northwest Missouri	51%
SEMO	54%
Missouri Southern	36%
Missouri Western	39%
Lincoln University	26%
Harris Stowe	17%

University	6 Year Pell Graduation Rate
MU	61%
Truman State	61%
UMSL	53%
S&T	51%
UMKC	46%
SEMO	46%
Missouri State	45%
UCM	42%
Northwest Missouri	42%
Missouri Western	32%
Missouri Southern	28%
Lincoln University	21%
Harris Stowe	15%

USN&WR Rankings & Financial Resources

	MU		UMKC		S&T		UMSL	
	'03	'23	'03	'23	'08	'23	'03	'23
NATIONAL UNIVERSITIES RANKING	66	121	158	263	118	182	211	212
FINANCIAL RESOURCES RANK	80	179	98	248	120	226	192	298

Higher Education Funding Formulas

o FY17 was the last year that performance funding was received by UM universities.

o Effective performance funding model is needed in Missouri.

o Tennessee:
  o Outcomes focused on student progression, degree productivity, and research
  o Line items for medical schools, extension programs, and specific areas of research

o Georgia:
  o Cost-based model determines appropriations
  o Costs differentiated between instruction, research, and public service

o Florida:
  o Outcomes focused on progression, degrees granted, access for underserved, and graduate earnings

Financial Support
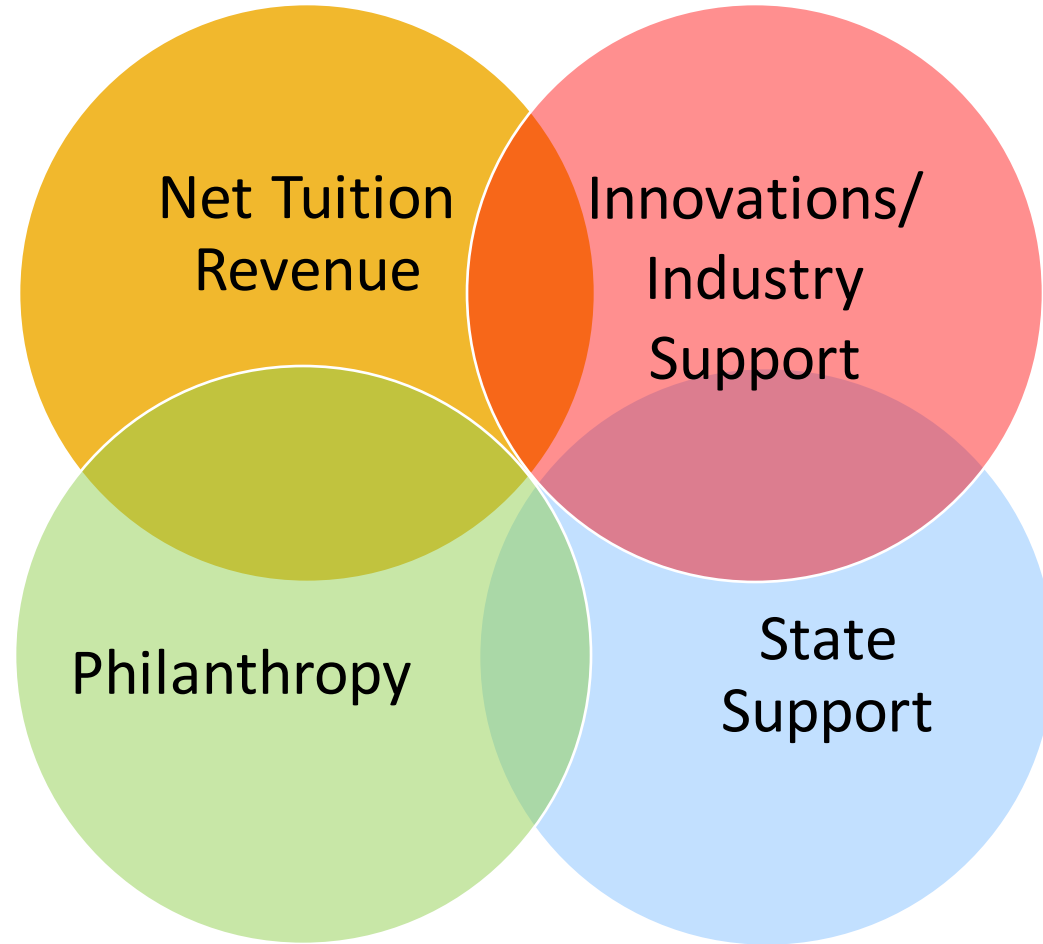
THANK YOU

No. 1

Recommended Action -   Adjourn Board of Curators Retreat

It was moved by Curator _____ and seconded by Curator _____, that the Board of Curators Retreat, October 6-7, 2022, be adjourned.

Roll call vote: YES   NO

Curator Brncic

Curator Chatman

Curator Graves

Curator Hoberock

Curator Holloway

Curator Layman

Curator Wenneker

Curator Williams

The motion _____.

Time: _____   Date: _____

October 6-7, 2022
GB VIII B 1-1