FY 2016 Efficiencies and Effectiveness Report
The Value of System

EXECUTIVE SUMMARY

The University of Missouri System exists to serve the four campuses and health system that comprise Missouri's only public higher education research institution, providing an efficient mechanism to reduce costs for Missouri taxpayers and the system's students. The UM System includes the University of Missouri-Columbia, University of Missouri-Kansas City, Missouri University of Science and Technology, the University of Missouri-St. Louis and the University of Missouri Health System.

The cost of replicating the services provided by the UM System would cost $80 to $90 million for all campuses. The system delivers economies of scale by providing valuable shared services and by eliminating administrative redundancies. Fiscal year 2016 efficiencies and effectiveness are detailed in this report. Highlights include mission-critical advantages realized because of the UM System:

Teaching
- The system facilitates shared governance by closely working with the Intercampus Faculty Council to collaboratively address critical issues such as faculty workload, post-tenure review and faculty responsibility.
- The UM System plays a major role in shaping statewide policies on higher education through chairing the statewide chief academic officers organization and serving on the Missouri Department of Higher Education's Council of Chief Academic Officers.

Research
- The UM System facilitates technology transfer, moving research discoveries and innovations into the marketplace. For example, technology transfer has helped patients suffering from gastrointestinal distress, as well as bone and liver cancer, and has advanced agriculture and food production. In FY16, the university:
  - Received 184 invention disclosures.
  - Was issued 39 patents.
  - Earned $16.4 million in licensing income.
  - Maintained 244 active licensing agreements with 55 new agreements this year.
  - Was the originator of three new startup businesses, each of which resulted from university research.

Public service
- The Missouri Research and Education Network (MOREnet) delivers Internet access to hundreds of public institutions through the state. MOREnet members include 515 K-12 schools, 63 higher education institutions, 120 public libraries, 10

governments and 17 not-for-profits as members. MOREnet helps reduce the cost of Internet connections and offers IT support and training to these smaller governments and entities that lack the scale of the UM System.

Economic development
- In 2016, the UM System awarded 336 design and construction projects throughout Missouri, for a total investment in the state of $162.6 million.
- Over the past year, the UM System's shared services have led to improved supplier diversity. Procurements with federally designated minority- and women-owned business enterprises have increased from $58 million in FY15 to $91 million in FY16.

Cost savings across mission areas
- The UM System's institutional support cost, per full-time equivalent student, is 39% less than peers. If the UM System spent at similar levels as peer systems, institutional support would cost an additional $80 million per year across the system.
- The UM System maintains support for IT enterprise solutions, reducing the duplication of resources. By managing IT via a central support function, the university is able to engage in more efficient contracting, as software implementation and maintenance costs are spread across a much larger base than individual license purchases.
- The UM System's employee medical insurance plan is 23% more efficient than other plans of similar design in higher education. This saves the university an estimated $42 million in medical costs annually. And on average, a UM System employee pays $135 per year less than average on medical insurance.
- On an annual basis, the UM System's scale of purchasing power alone saves the university an estimated $14.3 million on supplies.
- By combining the risk insurance needs of the four campuses and health system, the university recognizes significant savings and reduces self-insured reserves across campuses as actuarial risk drops. In addition to the lower reserves necessary, the UM System saves the campuses an estimated $3 million annually.
- By performing treasury functions centrally, the UM System saves $2.5 million in annual interest on external debt, due to lower individual debt ratings of the campuses and health system, and saves $7.6 million in investment management expenses, due to decreased fees from larger scale investing.

One of the UM System's state performance funding measures is the percentage of total expenditures spent on core mission, and the university continues to perform above the top third of doctoral institutions. Importantly, the value of the UM System eclipses cost savings. The UM System's contributions to teaching, research, public service and economic development, across Missouri and across the world, is far greater than can be measured.

THE ADVANTAGES OF A SYSTEMWIDE APPROACH

State university systems in the United States trace their roots back to the late 1700s, with several of the recently formed states creating their own public systems to deliver higher education. The use of the system structure expanded in the 1950s and 1960s as the public higher education system prepared to educate returning veterans as a part of the GI Bill and expanded to educate the baby boom generation. At the time, systems were created to leverage administrative efficiencies and utilize the brand of flagship campuses to extend valuable public higher education degrees to a larger portion of the population. Currently, 38 of the 50 states maintain at least one system of public higher education, with some states maintaining multiple systems.

A majority of students across the US are on campuses that are part of systems, largely for the reasons mentioned in the paragraph above. The advantages of a system of institutions rather than stand-alone entities include:

- Greater financial flexibility as the result of combining the resources of several campuses.
- Coordinated prioritization of statewide needs with the ability to shift resources across programs.
- The productive division of labor between the president and chancellors, with the president focusing on serving the governing board, gaining the support of the legislature, and identifying and securing the cooperative advantages offered by the multi-campus structure. Chancellors devote their energy to shaping and achieving the missions of their campuses, providing leadership for excellence in programs with the support of faculty and students, and engaging alumni and similar constituents important to the future of their campus.
- Reduced cost by minimizing program duplication and from economies of scale on administrative and support functions.
- Facilitated access, particularly for transfer of students within the UM System.

The structure and role of university systems vary by state and institution, with structures and operations of the system rooted in individual institutional histories. However, all systems exist to realize some form of administrative efficiency and coordinate statewide and legislative needs. The structure of the system matters less than the overall goal to spend less money on administrative overhead freeing more resources to achieve the core mission and ensure the educational delivery aligns with the needs of the state the system serves.

In Missouri, the UM System:

- Provides a single focus of university accountability to public authorities.
- Allocates state resources to the campuses in accord with their missions and programmatic priorities, which permit educational rather than political

considerations to control the delivery of doctoral and professional education in addition to undergraduate education.

- Develops cooperative academic programs, using specialized faculty resources to produce high quality graduate programs at lower costs.
- Maintains an economy of scale that generates cost savings.
- Serves as a unified, leading voice in higher education within the state.
- Ensures the institution can meet its essential corporate responsibilities including finance, control, audit, personnel, legal and investments.

UM System leaders direct systemwide strategic planning and facilitate systemwide programs; chancellors provide direct operational leadership of each university within the system. When central administration intrudes into daily operations, it weakens its assigned role and blurs the lines of authority. The provision of support services, such as those delivered by the UM System, has been studied on numerous occasions, most recently with the Hackett Group Survey in the early part of the decade. The UM System's support services reduce costs to students and improve efficiency for the campuses. Key services and functions by unit are described through the remainder of this report. ***Current cuts by the state legislature will force the elimination of some valued services listed below, likely at a higher cost to the campuses.***
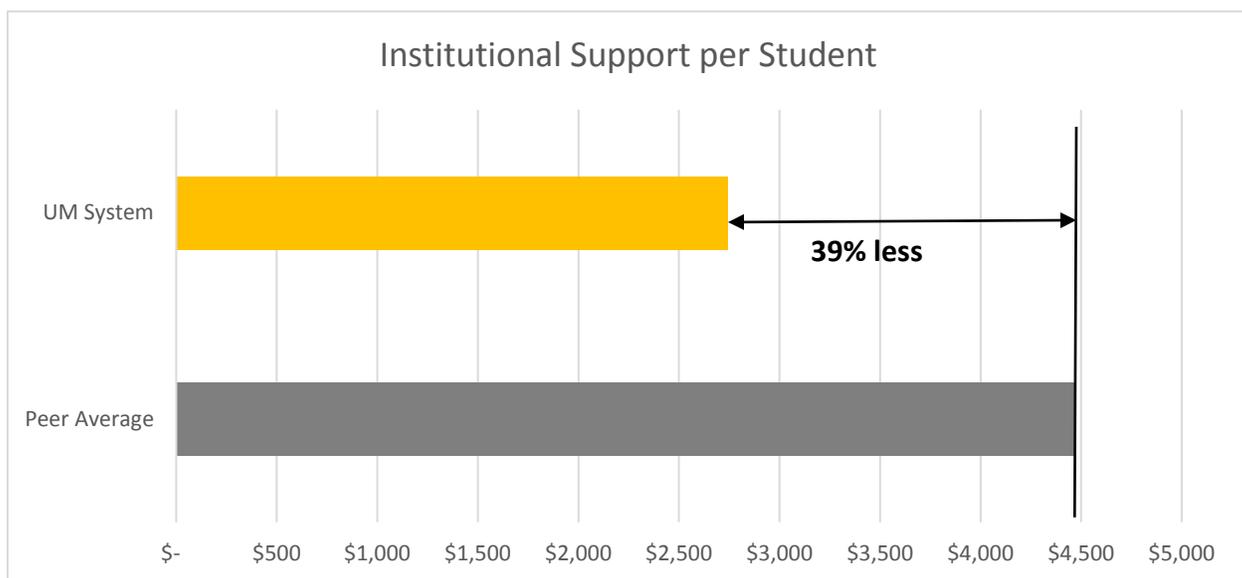
The UM System is efficient at delivering low administrative cost for its students and constituents. Based on FY 2015 data, the UM System's institutional support cost per full-time equivalent student is 39% less than its peers. Institutional support costs include general administration costs, executive-level positions, legal and fiscal operations, logistical services and development activities. If the UM System spent at similar levels as peer systems, institutional support would cost an additional $80 million per year across the campuses of the system.

Cost to Replicate System

Department	Current Cost	Cost to Replicate
Academic Affairs	10.1	4.4
Finance	18.8	23.4
General Counsel	4.3	4.3
University Relations	3.0	2.0
Information Technology	23.4	43.6
Human Resources	12.3	13.4
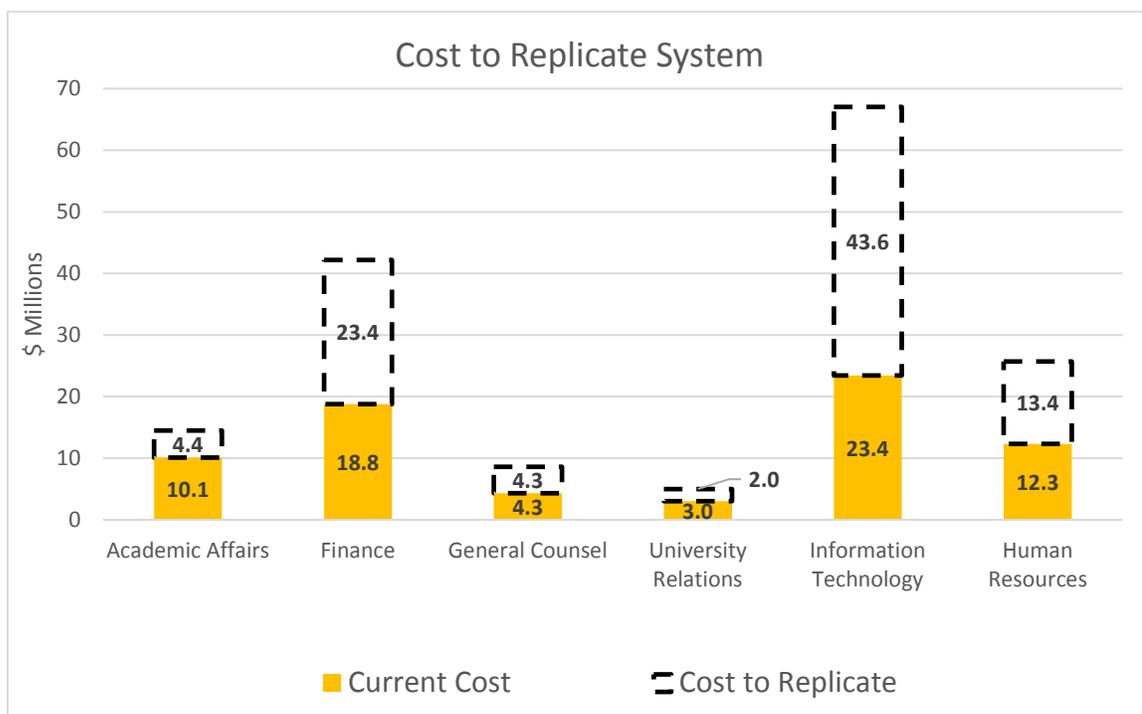
In FY 2016, the UM System conducted a high-level analysis to evaluate the costs of replicating system functions at the campus level. The analysis removed executive costs, but added any cost that would need to be replicated at the campus level if campuses were moved to a free-standing entity. Based on the analysis' assumptions, it was estimated that it would cost $80 to $90 million per year to replicate the administrative functions of the system at the campuses and health system, as required to maintain basic enterprise functionality. ***None of the system functions and processes contemplated in this analysis exist at the campus level, and would need to be replicated by each campus to maintain operations***. Any additional cost savings mentioned in the following sections are savings generated from administrative economies of scale, exclusive of the estimated savings of $80 to $90 million as a result of having a system environment. The remainder of the report explores the different system functions and the value they provide to the campuses and external constituents.

ACADEMIC AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT

The UM System Office of Academic Affairs, Research and Economic Development (AARED) provides guidance to the system and campuses on major trends in the environment that have an impact on higher education both nationally and regionally. Compared to other UM System units that provide foundational processes and systems to enable operations, AARED focuses on enhancement of mission attainment in the key mission areas of teaching, research and economic development. These efforts are carried out through internal and external partnerships, through use of general revenue funds to

carry out strategic plan actions, by seeking external funding when available and by investments of licensing and endowment income to "seed" research and economic development activities.

Academic Affairs

Working closely with the Intercampus Faculty Council (IFC), AARED engages faculty in shared governance on key faculty issues where their involvement is critical. The issues range from developing guidelines for non-tenure-track faculty appointments and faculty leave policies to developing Title IX policies for faculty as accused. Most recently, the IFC addressed critical issues on faculty workload, post-tenure review and faculty responsibility. These critical relationships with IFC allow for shared governance by providing a venue for robust discussions among faculty and university administrators.

Another critical role AARED plays is working with the Missouri Department of Higher Education (MDHE) as well as the other public two- and four-year institutions. It plays a major role in shaping statewide policies on higher education through chairing the statewide chief academic officers organization and serving on MDHE's Council of Chief Academic Officers. This is critical in representing the UM System's position during crucial activities like developing MDHE's Blueprint for Higher Education and in the current MDHE System and Mission Review. Ideally this continued involvement keeps Missouri higher education heading in the right direction and protects the university's core interests. AARED also provides statewide leadership among the thirteen public four-year institutions on academic matters and develops responses to legislative inquiries regarding academic and faculty matters and initiatives resulting from legislative actions.

Through its programs and support of various initiatives, AARED leads initiatives focused on improving faculty and student success. The Manuel T. Pacheco Leadership Development Program (LDP), for example, provides a professional development experience for faculty members who have or are being groomed for academic administrative leadership roles. Other efforts led by the office, such as the Faculty Scholars program, are aimed at enhancing faculty teaching effectiveness and research success. Student success is promoted through the Comprehensive Retention Initiative (CRI). The goal of CRI is to develop and promote best practices across the four campuses in student advising and retention. Related programs are carried out in collaboration with the Office of Information Technology to develop and implement software for student-degree progress road mapping and other tools to enable more effective student advising.

AARED also serves as the liaison with campus leadership to enhance the efficiency and effectiveness of academic programs. This includes leveraging the unique strengths of each campus to generate the best degree opportunities for students, such as course sharing and the development of e-learning programs to meet student needs in the 21st century. The office also carries out review of new degree proposals and program review to ensure quality teaching.

Research and Economic Development

AARED also drives the system's research and economic development missions. The unit advances discovery by promoting a culture of innovation and entrepreneurship and provides resources and support to facilitate the transfer of research discoveries to the marketplace. In furtherance of its mission, the unit spurs economic development through intellectual property management support, operation of research parks across the state and funding of research and technology development across the four campuses. These functions translate the ground-breaking research of the university's academic mission into businesses and good paying jobs for the state of Missouri.

Intellectual Property Administration

The Office of Intellectual Property Administration (OIPA), within AARED, supports the economic development mission by encouraging the practical application of university research for the public benefit. The OIPA is an advisor to the campus technology transfer offices on issues related to intellectual property management and university intellectual property policies and procedures. Through funding programs, standard processes and policies, and centralized administrative support, the office assists the campus technology transfer offices in achieving success in moving the university's intellectual property to the marketplace. As part of the shared services the UM System delivers to each of the campuses, the OIPA:

- Funds external patent filing expenses.
- Funds market analyses of disclosed inventions.
- Establishes and maintains intellectual property policies and procedures.
- Manages and supports a central technology transfer database.
- Distributes license revenues to the inventors, the campus and department from which the intellectual property resulted, and the UM System, in accordance with the University of Missouri System's Collected Rules & Regulations.
- Develops, manages and supports an electronic software decision support tool for evaluating invention disclosures.
- Performs data entry and develops reports.
- Coordinates the payment of law firm invoices.
- Assists with drafting and negotiating contracts.

Centralizing these services eliminates redundancy and reduces the amount of campus-level investment in technology transfer operations.

License revenues received by the UM System are reinvested in the campuses to further research and to protect and manage new intellectual property. In no small part because of UM System's coordination of technology transfer, in FY16 the university:
- Received 184 invention disclosures.
- Was issued 39 patents.

- Earned $16.4 million in licensing income.
- Maintained 244 active licensing agreements with 55 new agreements this year.
- Was the originator of three new startup businesses, each of which resulted from university research.

In the last decade, the university has experienced significant success in its technology transfer activities. UM System technologies reaching the marketplace have helped patients suffering from gastrointestinal distress, as well as bone and liver cancer, and has advanced agriculture and food production. Truly, the UM System is improving the lives of people and around the world.

Research Parks

The UM System currently operates three research parks in Columbia, St. Charles and Fort Leonard Wood. The parks provide opportunities for regional economic growth and partnership with the university in the areas of workforce and research needs. A team approach with personnel from the Office of Finance and AARED is used to improve management of the parks and to create strategic plans for each of the parks.

FINANCE

The Office of Finance (Finance) provides leadership in financial management and strategic decision support across the UM System. Finance provides a source of accountability and consistency for financial policies, processes and platforms, helping the university manage its resources in a prudent manager. Additionally, Finance provides an efficient platform for the UM System to administer the necessary cash management and financial functions for the four campuses and the health system. Finance drives value to the campuses and health system via significant economies of scale, especially as it relates to external party relationships and financial compliance functions. The Office of Finance encompasses the mandatory finance functions necessary to run a multibillion-dollar enterprise; without the system finance office, each campus would need to replicate the following finance functions, at a higher cost.

Budget and Planning

The Budget and Planning Office within Finance serves as the central planning function for the university's finances. Primarily responsible for compiling the university's operating budget, state appropriations request, and for maintaining approved fee schedules, Budget and Planning provides a very efficient communication interface for the state. Instead of having to work through four separate higher education institutions and a health system, state legislative staff and the Missouri Department of Higher Education work with a single interface point. As a system function, Budget and Planning works to prioritize the needs of each campus in a systemwide context, providing a unified, efficient operating model for public funding. Without the central budget office, the state would have to interface with:

- Five separate operating funding requests.
- Larger dollar requests, without appropriate prioritization.
- Five different points of contact for providing answers to legislative inquiries and data requests.
- Four separate institutions with regard to institutional data compliance and submission.

Controller's Office

The Controller's Office within Finance oversees the accounting function for the entirety of the UM System, including the campuses and health system. Centralizing the accounting function in a system realizes the following benefits:

- Reduced number of audits by the number of institutions, including the Financial Report and the OMB Single Audit.
- Decreased tax payments, as gains and losses on unrelated income across campuses and business units offset, reducing amounts paid to the federal government.
- Improved cash management for federal awards, as amounts from all campuses are combined and drawn on a more frequent basis.
- Decreased payroll cost per employee and tax filings, as the work for the entire system is managed within an office of five individuals.
- The ability to scale larger electronic processes for accounts payable, accounts receivable, grants management and capital assets, reducing the cost per transaction for all operating units.

In addition to the benefits listed above, the Controller's Office serves as a central point of contact for the Internal Revenue Service, federal Office of Inspector General audits and other financial regulatory agencies, reducing the burden on individual campuses.

Facilities Planning and Development

Facilities Planning and Development is a Finance division that supports all campuses in the planning, design and construction of facilities to maximize resources and minimize risk. The division is also the university's building code authority and design/construction contracting officer. In 2016, the UM System awarded 336 design and construction projects throughout Missouri, for a total investment in the state of $162.6 million.

Management Services

The university maintains centralized management services to efficiently deliver services to the UM System's campuses and health system. Management Services primarily provides value by centralizing policy setting, providing oversight to the university's risk insurance programs and providing overarching policies that meet regulatory requirements while

maintaining campus flexibility where applicable. By combining the insurance needs of the four campuses and health system, the university is able to recognize significant savings and reduce self-insured reserves across campuses as actuarial risk drops. It is estimated that in addition to the lower reserves necessary as one entity versus multiple, the UM System approach to insurance management saves the campuses $3 million on an annual basis.

Management Services also oversees the university's supplier diversity initiatives. Over the past year, the UM System's shared services have led to improved supplier diversity. Procurement with federally designated minority- and women-owned business enterprises have increased:

- Campus Procurement: $28 million total, up $9 million from FY15.
- Health Care: $6 million, up $1 million from FY15.
- Construction: $56 million, up $20 million from FY15.

Supply Chain

The Supply Chain Office within Finance oversees the purchasing operations of all four campuses and the health system. By combining the buying power of all of the university's operating units, Supply Chain is able to drive significant contract savings with suppliers. On an annual basis, the scale of purchasing power alone saves the university an estimated $14.3 million on supplies spend. This results in savings that can be spent directly on the core mission of the institution. Supply Chain also oversees the university's asset disposal process. By managing the disposals of a larger group of institutions, Supply Chain is able to generate larger auctions with more interest and generate more dollars on assets no longer needed by the institutions within the system.

Treasurer's Office

The Treasurer's Office within Finance oversees the management of the university's investments and external liabilities. In addition, the Treasurer's Office manages the banking and disbursement processes for all campuses and the health system. By performing these functions centrally with a staff of eight individuals, the Treasurer's Office is able to achieve the following savings:

- $2.5 million in annual interest on external debt, due to lower aggregate debt ratings of separate campuses and health system.
- $7.6 million in investment management expenses, due to increased fees from smaller scale investing at each campus.

These savings do not include the administrative costs to the campuses of administering the Treasurer's Office functions. By investing at the scale of all operating units, the Treasurer's Office is also able to achieve better diversification of the investment portfolio,

accessing investments not available to investors with smaller asset bases to invest. Over the long run, this scale will improve the return streams to the system and campuses.

OFFICE of GENERAL COUNSEL

The Office of General Counsel (OGC) is responsible for providing all legal representation to the board of curators and the university. OGC currently consists of thirteen individual attorneys in addition to the general counsel. By consolidating legal services at the system level, the university is able to achieve efficiency through in-sourcing attorney expertise in specialized areas, reducing the need for external legal spending. With a centralized approach to the hiring of external counsel, the general counsel is able to achieve better control of the university's legal matters and ensure more effective representation of the university.

HUMAN RESOURCES

The Office of Human Resources (HR) provides leadership in human capital management, benefits and workforce strategies across the UM System. HR provides a source of consistency and accountability for human resource policies, practices and frameworks allowing the university to attract, develop and retain diversified faculty and staff. Systemwide, HR provides thought leadership, tools, technology and resources related to compensation and benefits, supports the delivery of HR services, creates the talent management infrastructure, serves as a shared resource for workforce analytics and sets the governing policies for the institutions of the UM System.

People Services and HR Technologies

The People Services and HR Technologies groups are comprised of the Benefits and Retirement, HR Service Delivery and HR Information Systems functions. These teams provide shared and centralized services including insurance and retirement benefits, wellness and employee assistance programming, and centralized and campus-embedded resources to address the needs of faculty, staff and retirees across the system.

By consolidating the university's benefit eligible-employee population of over 18,300 into a single set of plans, the university is able to realize significant cost savings from scale, this includes the university's ability to self-insure most benefit programs, generating significant cost savings compared to peer institutions. Further, this allows for efficient contracting and reduced pricing of ancillary benefit programs including vision, dental and long-term disability.

Medical Plan Cost Per Member

	9,397	2,815

(Chart: horizontal bar showing 9,397 in solid fill and 2,815 in dashed outline; x-axis labeled: -, 2,000, 4,000, 6,000, 8,000, 10,000, 12,000, 14,000)
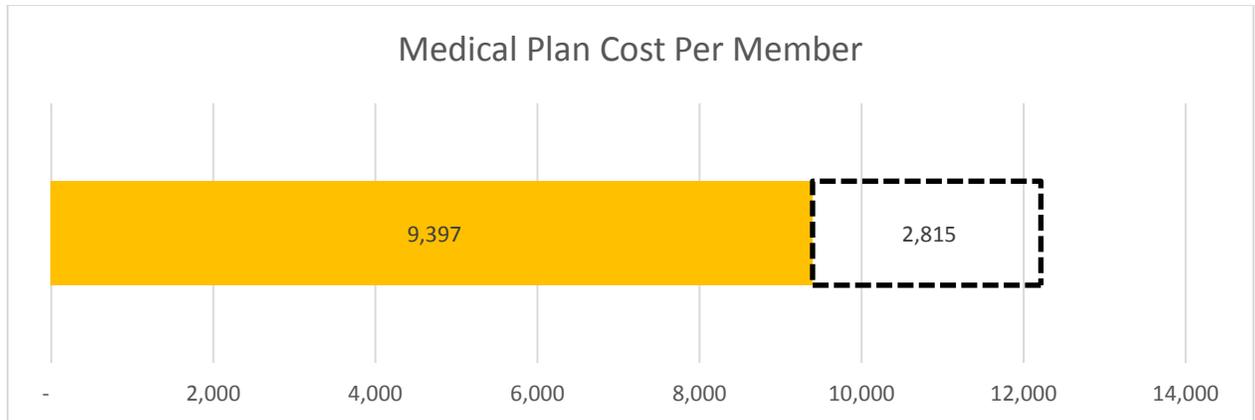
Based on a 2015 Towers Watson study, the University of Missouri System's employee medical insurance plan is 23% more efficient than other plans of similar design in higher education. This saves the university an estimated $42 million in medical costs annually.

In collaboration with the health system, HR has worked to manage one of the university's fastest growing costs. To accomplish this, the Benefits Office within HR created a Custom Network Plan, initially in the Columbia market, that reduces employee and university medical costs while leveraging the university's healthcare enterprise. Through risk sharing between the plan and the health system, the university is better able to address the appropriate utilization of services and reduce costs, by providing patients with the most appropriate care not the most expensive care. The university will begin delivering a comparable plan to the St. Louis market in 2017.

The UM System retirement plan consists of both defined benefit and defined contribution components. Due to its scale, the university is able to offer a plan to all operating units that is in line with overall operations.

The HR Service Delivery team provides employee programs and assistance and transactional services to each of the campuses through a centrally located service center and campus-based UM System HR staff who are equipped to address faculty, staff and retiree questions related to benefits, compensation, employee programs, HR systems and more. Through a variety of HR technologies, including PeopleSoft, HR works to bridge the gap between tools and processes and operational effectiveness by way of centrally managed technology solutions.

People Strategies and Executive Initiatives

The People Strategies and Executive Initiatives groups are comprised of the compensation, workforce analytics, careers and culture, employee and labor relations and executive search functions. By focusing resources at the system level, the university is able to be more agile in its HR efforts, make data-informed decisions and better support the strategic HR needs

of the campuses and their operating units. Economies of scale create process, program and resource efficiencies.

The Compensation team sets the structure of jobs and pay ranges and career structures that each campus operates within. By managing these efforts at the system level, the university ensures consistent pay practices, as well as compensation programs that are aligned to the market and peer organizations, all while maintaining the requisite flexibility necessary within higher education to allow the university to compete for the best available faculty and staff. Further, this team works to ensure equitable pay practices across campuses, utilizing pay and demographic data to proactively identify trends in support of campus HR functions and diversity, equity and inclusion efforts. Also, the Compensation team manages major initiatives affecting faculty and staff, such as changes to overtime policies related to the Fair Labor Standards Act (FLSA).

In the past two years, HR developed and launched the People Analytics team. At the forefront of data analysis in HR, this team has received national recognition from groups like the College and University Professional Association for Human Resources (CUPA-HR), receiving multiple profiles in the association's publications and invitations to speak at select events like the Higher Education HR Symposium. The People Analytics team serves as a model in the higher education space. The function has provided significant support to key university decisions, including decisions surrounding Retiree Insurance and changes to overtime policies related to the Fair Labor Standards Act. By providing data to support the key drivers of these decisions, the team was able to support a smarter, data-driven path forward for the university.

The Careers and Culture team enables the campuses to effectively deliver people-focused programs and initiatives at both the campus and system level by providing infrastructure and tools to recruit, retain and develop faculty and staff. These programs and initiatives include:

- The Dr. Elson S. Floyd Administrative Leadership Development Program, which is respected as a proving ground where emerging and current leaders alike can expand their leadership skills.
- Consistent performance management and review processes and tools – a first in the UM System's 50-plus year history.
- Online learning and training programs and tools including the delivery of compliance and mandatory training.
- The Women in Leadership Conference, highlighting topics important to women and leadership in academia.
- Management of the university's leadership and staff competency models.

The Employee and Labor Relations team manages all union relationships across the system. Independent from the campuses, this function allows the campus HR offices to maintain a more positive relationship with union-eligible employees while ensuring a consistent approach to contract negotiations across operating units, realizing effectiveness

in negotiation through consistency. Beyond union management, Employee and Labor Relations is responsible for maintaining and managing HR policies, facilitating affirmative action plans and managing third- and fourth-level grievance processes for all operating units across the system.

Created in early 2016, the Executive Initiatives group serves as a leader in the higher education space through its management of the Greater Missouri Higher Education Recruitment Consortium (HERC), part of the National HERC. Executive Initiatives provides resources, knowledge and programs to universities and colleges across the state, like the Missouri Higher Education Diversity Summit and a dual job search tool for couples who are searching for faculty positions, thus making it easier for the UM System to recruit highly sought-after faculty members. Additionally, Executive Initiatives provides executive search services and resources across the system for strategic leadership and executive roles ranging from deans, provosts, and most recently the president of the UM System.

INFORMATION TECHNOLOGY

The Office of Information Technology (IT) provides leadership in the planning and implementation of information technologies. The system IT office is responsible for information technology systems utilized across the enterprise and the security of those systems.

Enterprise Application Services

IT maintains support for enterprise solutions, reducing the duplication of resources across IT functions among the business units. Software managed at the system level include:

- PeopleSoft ERP (Finance, HR, and Student)
- Email
- Account management
- IT service requests

By managing these services via a central support function, IT is able to achieve significant cost efficiencies. The cost efficiencies come via more efficient contracting, as software implementation and maintenance costs are spread across a much larger base than individual license purchases. Additionally, IT is able to leverage scale to reduce the need for currently high-demand IT resources, including database administrators, programmers and systems analysts.

Strategic Project Management Office and Operational Excellence

IT supports the system's implementation of core business processes across the System's system's operating units, finding technology that supports streamlined processes and

reducing the complexity and cost of administrative functions. The initiatives are governed by representation from every campus across functions, providing an aligned plan to make the university's administrative functions more efficient in the areas identified as opportunities by the campuses. Annually, teams across each pillar of the organization (Finance, HR, IT and student) identify opportunities to:

- Improve relationships through high quality service.
- Reduce operating costs.
- Increase productivity to free staff to work on mission-critical activities.
- Increase leveraging of electronic processes and technology.
- Re-engineer processes.

These initiatives and structures played a key role in many projects reported over the past five years of efficiency and effectiveness board reports. Realizing the need for additional change agents in the organization, IT created the Strategic Project Management Office to manage the enterprise project portfolio. The team manages the mission-critical projects that move the university forward, using project management principles to deliver effective results at an accelerated pace.

MOREnet

The Missouri Research and Education Network (MOREnet) provides Internet connectivity, access to Internet2, technical support and training to Missouri's public sector entities including K-12 schools, colleges and universities, libraries, healthcare and government. MOREnet provides the foundation of infrastructure to support the Internet connectivity of its 700 members.

In addition to the benefits of accessing the Internet, MOREnet also provides the benefits of a purchasing consortium for member institutions and governments, reducing the acquisition costs of software for these public entities. MOREnet also works to meet the needs of consortium members at the lowest cost possible. For example, in FY15, MOREnet was able to help the rural Ash Grove school district configure wireless Internet access utilizing new Metropolitan Area Network (MAN) structures at all schools at a cost of only $8,400 a year. Utilizing more traditional networking methods, setting up the same level of service, would have cost between $150,000 and $840,000.

MOREnet is a consortium driven by the interests of its members, with 515 K-12 schools, 63 higher education institutions, 120 public libraries, 10 governments and 17 not-for-profits as members. MOREnet helps members reduce the cost of obtaining Internet connections by applying for e-Rate money provided by the federal government to support Internet connectivity. MOREnet also serves as a knowledgebase of IT support for its member institutions, offering advanced training courses on relevant IT topics to these smaller governments and entities that lack the scale of the university.

UNIVERSITY RELATIONS

The UM System Office of University Relations is responsible for strategic communications, government relations and external affairs at the national, state and local levels. University Relations provides a unified voice across operating units, speaking to the priorities of the state's only research-focused higher education system. By coordinating the requests of all the operating units through the president and board of curators, University Relations saves local, state and federal governmental agencies significant energy by prioritizing the requests of the system's operating units in the context of the needs of the institution's constituents. Without the coordination provided by University Relations, each campus and the health system would maintain their own governmental relations office with its own priorities and requests.

Additionally, University Relations provides a key point of contact for external constituents which includes the handling of all open records requests which provides a central point of contact to the university's complex structure for external parties. University Relations also handles media relations for the board and system administration, providing a uniform contact point for the media to access both the board of curators and president, ensuring a consistent message is delivered to the public and protecting the credibility of the UM System. Finally, University Relations coordinates communication to the university's more than 30,000 employees, helping to boost positive employee engagement and deliver clear and consistent employee programs to every faculty and staff member so they can concentrate on their mission-critical responsibilities.

THE VALUE OF A SYSTEM

As demonstrated in this report, the value of a university system goes beyond simply providing financial savings. The existence of the UM System, specifically, allows the individual campuses and health system to take advantage of opportunities and services that would not be possible if executed alone. The combined approach allows the UM System to pool resources, which saves money and improves efficiency while making the university attractive to external parties that want to conduct business with larger clients. The value of the UM System eclipses cost savings. The UM System's contributions to teaching, research, public service and economic development, across Missouri and across the world, is far greater than can be measured.

LOOKING AHEAD

The University of Missouri System remains focused on continuing to deliver upon its educational, research, public service and economic missions in the most efficient and effective manner as possible. ***One of the UM System's state performance funding measures is the percentage of total expenditures spent on core mission, and the university continues to perform above the top third of doctoral institutions.*** Effectively delivering the core mission requires the most efficient administrative structure possible,

and the UM System remains focused on continued improvements in reducing administrative cost. This will include:

- Expand shared services for administrative functions,
- Continued implementation of Total Rewards Task Force recommendations,
- Streamlining business policies and practices, and

Building out analytical capabilities to support data driven decision-making.

# 2016 Efficiencies & Effectiveness Report

The Value of System

Systems achieve administrative economies of scale

- US state university systems trace their roots to Georgia and North Carolina systems formed in the late 1700s

- Use of public systems increased in the 1950s-1970s to achieve administrative efficiencies to educate returning veterans and baby boomers

- 38 states (including Missouri) maintain public higher education systems

It would cost $80 - $90 million to replicate the functions of the UM System
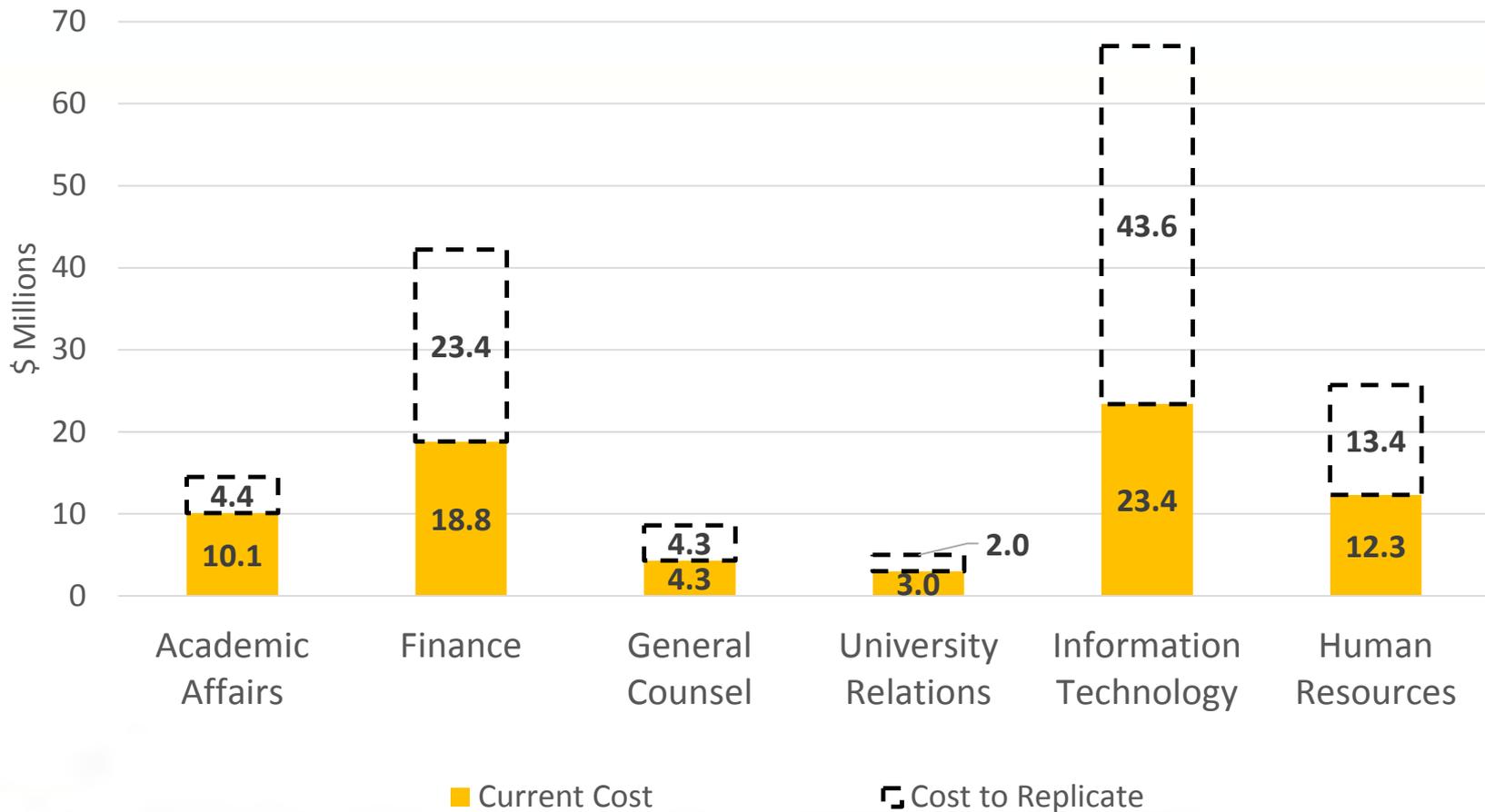
The UM System spends approximately 40% less than peer systems on administration

Institutional Support per FTE Student

UM System	$2,745
	39% less
Peer Average	$4,471

Chart scale: $- | $500 | $1,000 | $1,500 | $2,000 | $2,500 | $3,000 | $3,500 | $4,000 | $4,500 | $5,000
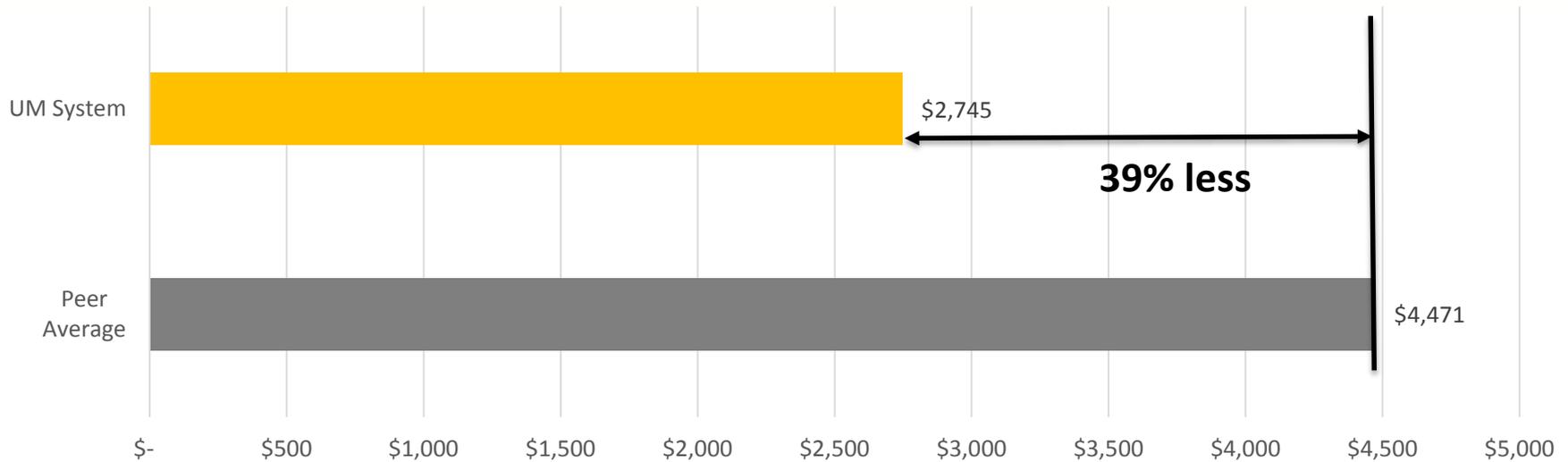
If the UM System met the peer average on administrative spend, UM would spend $80 million more on administration that it does currently

In addition to administrative efficiencies, the UM System provides academic leadership and delivers economic growth to the state of Missouri

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

OPEN – FIN – INFO 1-22

UMSYSTEM.EDU

Impact on Academic Mission

- Provides state-wide leadership among 13 public four-year institutions on academic matters
- Responds to legislative inquiries regarding faculty matters and academic issues
- Creates and leads cooperative programs to facilitate student success
- Delivers faculty professional development to prepare academic leaders and enhance teaching and research outcomes
- Advances online and technology-based education
- Provides academic program oversight

From Cutting-Edge Research to Economic Growth

- 184 invention disclosures

- 39 patents issued

- 244 active licensing agreements

- 55 new licensing agreements in 2016

- $16.4M in licensing income to the university

- 3 startup businesses as the result of university research

Promoting Economic Development and Partnerships

Tenants Include:
- ABC Labs
- IDEXX RADIL
- Newest Park with opportunities to grow with location of research reactor

Tenants Include:
- National Weather Service
- Federal Aviation Administration
- Nike
- Natoli Engineering, Inc.
- Wachovia Securities Data Center

Rating agencies see the UM System as more than a sum of its parts

Public Higher Education Institutions by S&P Debt Rating
System is actual rating, campuses and health system are projected ratings

Projected

Number of Institutions

AAA | AA+ | AA | AA- | A+ | A | A- | BBB+ | SG
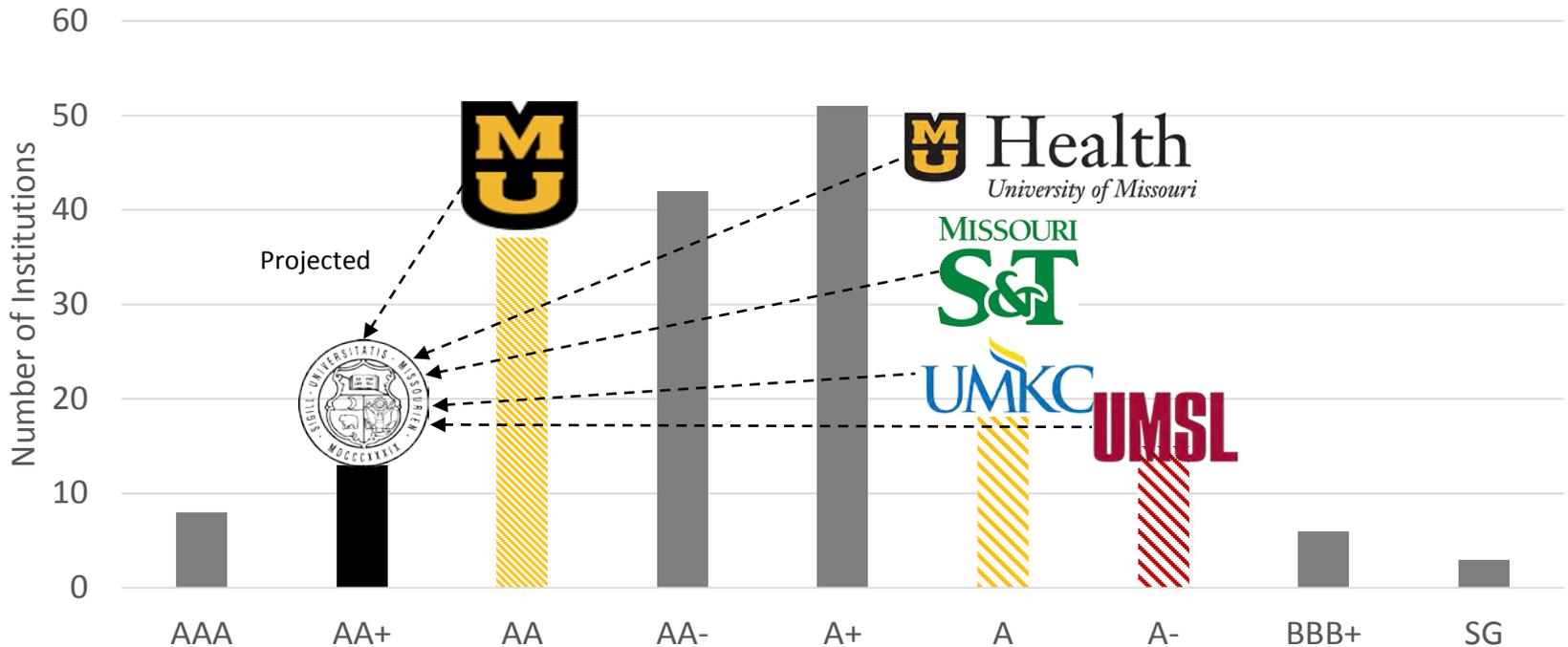
- $2.5 million less in annual interest
- Greater access to funds and reduced costs of issuance

Additional savings driven directly to departments from finance

- $14.3 million less spent on supplies due to volume contracting
- $7.6 million less in investment management expenses
  - Due to scale, the UM System can also get investment managers to share return risk against benchmark
- $3.0 million less on insurance paid by campuses, due to risk sharing
- Increased spending with diverse suppliers from $58 million in FY15 to $91 million in FY16

Value of HR System: *The numbers*

$200M
annual spend on retirement and pension

9K+
retirees

37K
employees

1
staff compensation structure

100+
wellness events

62%
Total university expenditures related to pay and benefits

46K
covered lives

4K
retirement eligible employees

$1.4B
annual salary spend

27K
benefit eligible employees/retirees

System HR Efficiencies

- Shared and collaborative services:
  - Benefit and retirement administration
  - Compensation programming
  - People data and HR analytics
  - HR Information Systems administration
  - HR Service Center
    - UM Service Generalists embedded on each of the four campuses
  - Performance management systems
  - Compliance training
  - Union agreement management and negotiations
  - Policy management and grievance administration

Efficient Medical Plan

Medical Plan Cost Per Member

9,397		2,815

Axis: - | 2,000 | 4,000 | 6,000 | 8,000 | 10,000 | 12,000 | 14,000
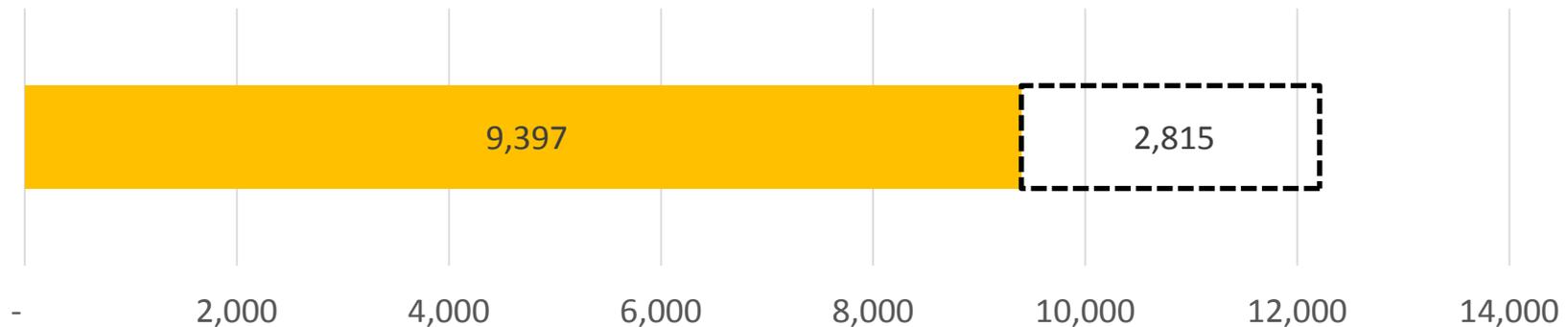
- **25% more efficient than industry average**
  - *Saves the UM System $42 million annually*
- **14% better than top quartile performance**
- **On average, employees pay $135 per year less than average**

Source: August 2015 Towers Watson Study

Utilizing Data Driven Decision Making

Retirement Eligibility Distribution
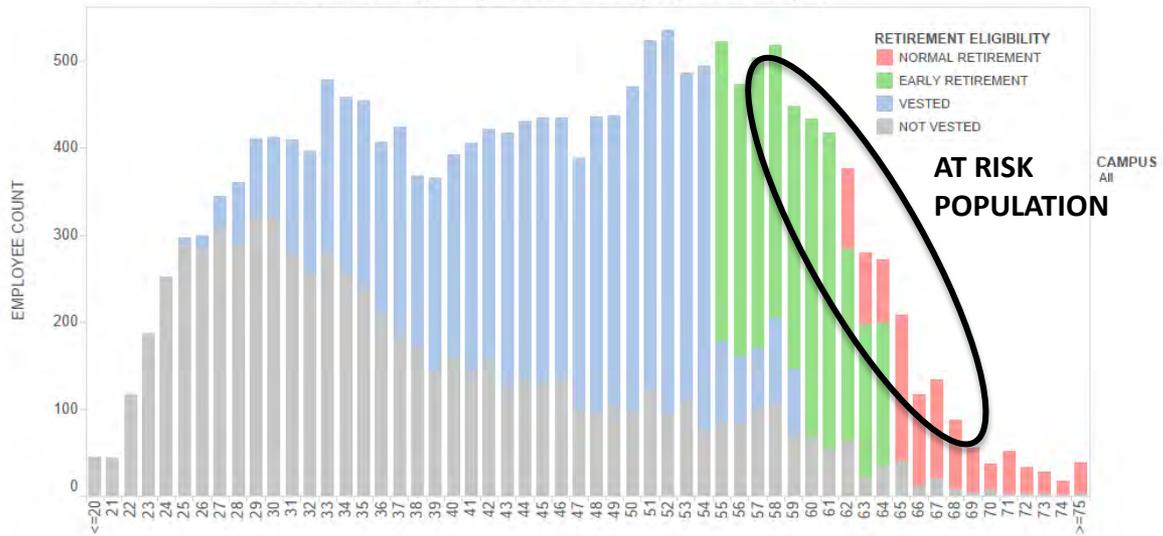
- Utilizing data to make better decisions at UM
  - Retiree insurance
  - FLSA
  - Revenue and expenditure trending
- Recognized as a best practice

Enterprise-level IT Applications

- By consolidating key enterprise software, the university realizes significant licensing and support cost efficiencies
  - PeopleSoft ERP (Finance, HR, Student)
  - Email
 - Account management and security

Operational Excellence

- Successful projects:
  - Electronic Process implementations for personnel actions, expense reports and check requests
  - Shared Service Center for Accounts Payable
- Current projects:
  - Finance Policy redesign and realignment
  - PeopleSoft HR reimplementation
  - Credit card program consolidation and improvement

These initiatives have held administrate costs down compared to higher education peers

MOREnet

Member Types
- K-12 School
- Public Library
- Higher Education Institution
- UM Extension Office
- Missouri Telehealth
- Affiliate
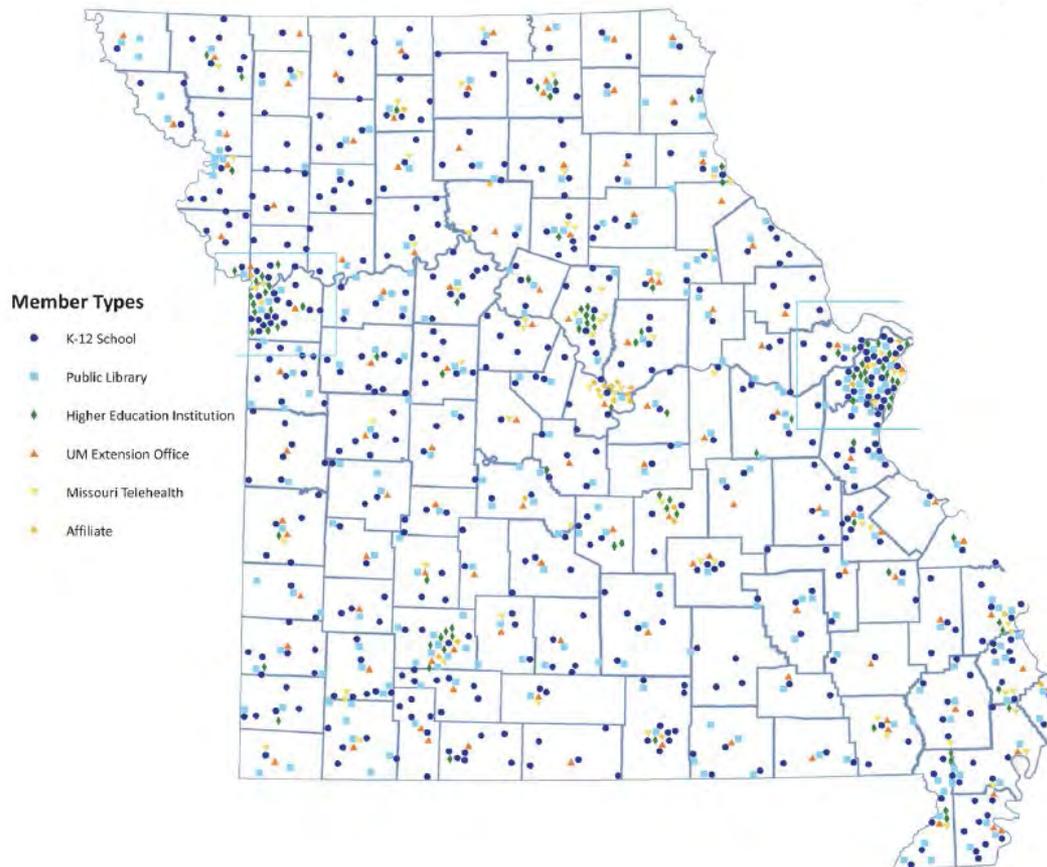
- Internet connectivity to public entities in every county in Missouri

- Consortium provides cheaper access to service and technical support for public entities

In Summary

- The UM System delivers efficient administrative support, saving the university approximately $80 million per year in foregone administrative spend

- Through programs administered by the UM System, the university units save another $70 million annually

- The UM System supports the economic development of the State of Missouri

Looking Ahead

- University funding at risk for administrative efficiency

- Plans for the coming year include:
  - Continued expansion of shared services
  - Implementation of Total Rewards Task Force recommendations
  - Streamlining business policies and practices
  - Improving analytical capabilities to support data driven decision making

University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST.LOUIS