

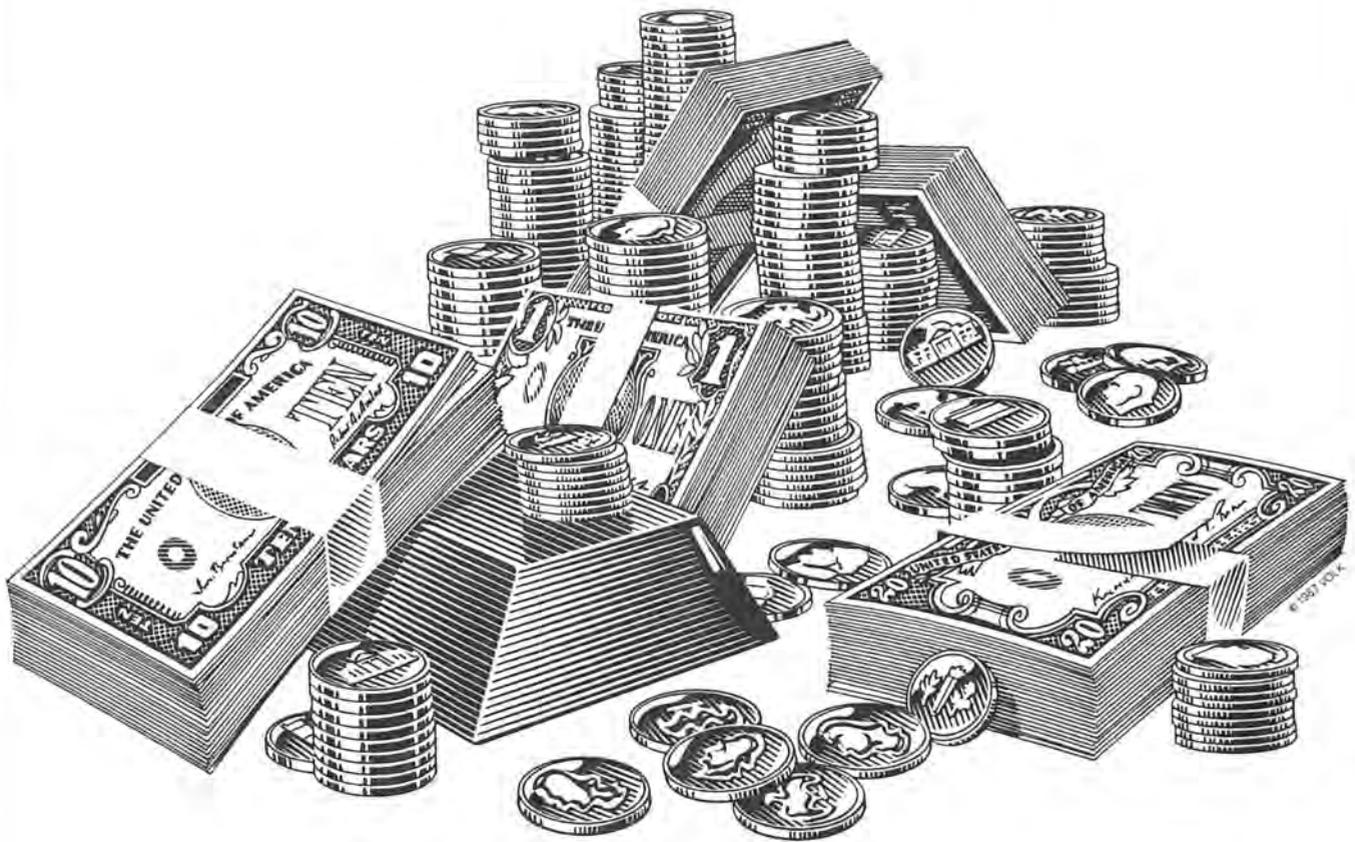
University of Missouri

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Money matters . . .



Money matters are of great concern to University officials as UM begins its fiscal year. A budget that promises minimal salary increases and plans for future appropriation requests is making UM administrators wonder how the University can continue to function at its present funding level. Help must come from various sources, and there is a strategy for improving UM's financial picture. Read about the current situation and plans for the future in this edition.

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Budget includes improvements and salary hikes

Limiting operations at existing levels, minimal salary increases, fixed expense increases and some program improvements will take most of the increased revenue anticipated by the UM system in the 1989 fiscal year.

The 1988-89 budget for the UM system was approved by the UM Board of Curators at its June meeting.

The budget totals \$399.5 million. New funds for 1988-89 come from:

- State appropriations of \$14.6 million (\$7.9 million of this amount has been withheld by the governor until adequate state revenue is assured);
- Non-state revenues of \$5.4 million (\$4.8 million additional from student fees);

- Reallocation of \$3.9 million from lower to higher priority activities.

Most of these increased revenues

Board approves budget to increase salaries, improve programs, enhance development.

are allocated to continue operations at existing levels, to provide minimal salary adjustments, to follow through on existing commitments to certain program areas and to make modest improvements in long-range plan goals.

Among major allocations:

- \$5.3 million for salary increases for faculty and staff. Salary increases are expected to average at least 2 percent (see related story on salary adjustments). Additional salary increases will be given highest priority if future state revenues permit the governor to release the \$7.9 million of state appropriations he has withheld.
- \$2 million for costs of operating new buildings

- \$2.1 million for added benefit costs (primarily medical benefits and Social Security)

• \$5.1 million for necessary increases in library acquisitions, fuel and utilities and other expense and equipment accounts

• \$3.6 million for commitments to specific programs such as veterinary medicine, commercial agriculture and optometry

• \$2.3 million for increased scholarship and fee waiver programs

• \$700,000 for extension and agricultural experiment stations supported by fees

• \$900,000 for development

• \$1.9 million for other improvements

Modest salary increases result of other expenses, prior commitments

With increased revenues of 5.3 percent for 1988-89, many faculty and staff are wondering why only about 2 percent has been targeted for improvements in salaries.

"It's a good question," says Jim McGill, vice president for administrative affairs. "To answer it requires a close look at all the activities needing money and the effects of withholding."

According to McGill, the 5.3 percent increase in revenues, or \$20 million, consists of an increase of \$14.6, before withholding, in state appropriations and an increase in non-state revenues, primarily educational fees, of \$5.4 million. In addition to the increased revenue, planned reallocations of 1 percent, or \$3.9 million, provide the University with \$23.9 million in new dollars to allocate in the next year.

"First with respect to withholding, the University was unable to spend \$7.5 million appropriated to it in 1987-88," McGill says. "To keep salary increases as high as possible last year, \$1.3 million was generated for salaries by delaying the implementation of some of the activities to which the University was committed. The full-year expense of those activities could not be delayed further."

For 1988-89, a full 3 percent of the state appropriation, \$7.9 million, has been set aside for the expected amount of withholding.

The use of the \$23.9 million breaks down this way:

The cost of maintaining new buildings in the next year will be \$2 million. "These are costs for heating, cooling, lighting and salaries for staff

for cleaning these newly occupied facilities," McGill says.

"Then there are several cost increases imposed on the University just so it can continue to operate as it has. For instance, some utility and rental costs have increased.

1988-89 Budget (\$ = millions)

Increase in Resources	
State Appropriations	\$14.6
Non-State	5.4
Total	20.0
Reallocation	
Total Resources to Allocate	23.9
Expenditure Increases	
New Buildings	2.0
Cost of Continuing	5.1
Program Improvements	3.6
Scholarships & Fee Waivers	2.3
Extension Fees	0.7
Development	0.9
Other	1.9
	16.5
Compensation Increases	
Salary & Wages	5.3
Medical Insurance & Social Security	2.1
	7.4

"In addition, some of the campuses determined they had to allocate money for increased costs of library acquisitions and for unavoidable expense and equipment increases. All of these costs of continuing, including the additional \$1.3 million for the withholding, total \$5.1 million."

Added to these costs are some commitments for program improvements. These include, for instance, veterinary medicine and the second year of a five-year commitment for the School of Journalism, a total of \$0.9 million for UM-Columbia. At UM-

Kansas City there are improvement commitments to several programs from previous years that total \$1.4 million. Similarly, at UM-Rolla, there are certain costs built into the 1988-89 budget related to its program structure, a total of \$300,000. And at UM-St. Louis, program improvements include Partnerships for Progress, a total of \$1 million. The total for all campuses is \$3.6 million.

"Scholarships and fee waivers are a significant item, too. At UMC, a three-year plan to waive fees for graduate research and teaching assistants is in its second year. And, the Columbia campus put more money into minority scholarships.

"At UMKC, some Kansas students can attend the University at the cost of in-state fees. To account for the funds, the University charges those students at the out-of-state rate and then waives that portion. The amount is included as both a revenue and expenditure, although there are no net new funds. Altogether, scholarships and fee waivers total an increase of \$2.3 million."

McGill explains that many extension and agricultural experiment station programs are supported by user fees. Although an increase in the use of those programs generates more revenue, it must in turn be expended in those programs. That money is not available for other uses. Total: \$700,000.

"Building the University's capability in private fund-raising is a high priority, so we have invested \$900,000 in those efforts," McGill says.

Other improvements total \$1.9

million, most of which is yet to be allocated from funds being reallocated on the campuses.

"So although salaries are a high priority item," McGill says, "this year there are other bills to be paid and commitments to be honored.

"The net new funds available for compensation are \$7.4 million. But the increased cost of the University's share of the medical insurance and Social Security increases consumes \$2.1 million, leaving \$5.3 million for salary increases, an average of a bit over 2 percent."



Concerning the 1988-89 withholding, McGill says there are several possible scenarios.

"The \$7.9 million is earmarked predominantly for salaries," he says. "If the governor releases the money soon, we would allocate it this year for an average additional increase of about 3 percent. If he releases it early enough in the fiscal year, we would likely make a mid-year salary adjustment. If it's released toward the end of the year, we would probably wait and make adjustments at the beginning of next year.

"And finally, if the money is not released at all this year but is carried over into next year's base, we will have a 3 percent salary pool already funded for 1989-90."

Salary and wage guidelines

GENERAL

The aggregate average increase for each employee category will be at least 2 percent. To the extent there are funds available for salary and wage increases in excess of 2 percent, such funds will be allocated to address market and performance objectives.

TEACHING, RESEARCH AND EXTENSION STAFF

Salary adjustments will be made on the basis of relative quality of performance and/or market circumstances. Not every individual's performance will warrant a salary adjustment, nor is there an upper limit on the increase which may be given in a case of unusually high quality of performance.

ADMINISTRATIVE/ PROFESSIONAL STAFF

Salary adjustments will be made on the basis of relative quality of performance and/or market circumstances. Not every individual's performance will warrant a salary adjustment, nor is there an upper limit on the increase which may be given in a case of unusually high quality of performance. In the absence of exceptional circumstances, an employee who is performing at a satisfactory level must be paid at least the minimum of the pay range; however, if a 2 percent increase is insufficient to raise the employee to the minimum, the employee may be paid below the minimum for 1988-89.

OFFICE/TECHNICAL SERVICE AND SUPPORT STAFF

Salary adjustments will be made on the basis of relative quality of performance and/or market circumstances. Salary range minimums and maximums in the pay plan will be increased by 2 percent. Individual salaries are to fall within the minimums and maximums, with the exception that employees at or above the maximum may receive an increase not to exceed 2 percent.

REPRESENTED SERVICE AND SUPPORT STAFF

Increases will be announced following establishment of wage rates.

New board resource committee formed

UM Board of Curators President Jeanne V. Epple has established a new board committee.

The Committee on University Resources will be composed of Curator James C. Sterling, chairman; Curator W.H. (Bert) Bates; and Curator Edwin S. Turner.

The committee will deal with matters concerning the resources of the statewide University of Missouri. It will advise the president of ways to improve the University's financial outlook in order to meet its commitments to Missouri citizens.

The committee will also consider ways in which the people of Missouri can help address the needs of the University.

Magrath to ask for appropriation for coming years

UM President C. Peter Magrath has sounded the alarm that the University cannot sustain itself for the benefit of Missouri at its current funding level.

Noting the University has made progress the people of the state can be proud of during the past few years by strategically focusing limited resources, he said examination of the University's financial condition and associated educational quality make it time for "candor and straight talk." (For President Magrath's remarks to the UM Board of Curators, see "Commentary" on page 6.)

"Five years from now the University needs \$147 million a year more in operating support," Magrath says. An additional \$117 million will be needed from the state, while the University estimates it can generate an additional \$30 million a year by the end of the period.

Magrath recommends the University's 1989-90 request for state funds be part of a five-year plan to repair the University's base support for salaries, libraries, academic computing, equipment replacement and maintenance and repair, plus selected program improvements called for in UM's long-range plan.

Magrath is recommending the University ask for \$51.8 million more for operations during 1989-90. This would be a state appropriation 19.6 percent higher than the fiscal year that began July 1.

Curator Eva Louise Frazer, chairwoman of the board's Finance Committee, agrees with Magrath.

"One of the critical functions of the governing board of a public university is to articulate the financial needs of the university to the citizens

of the state," Frazer says. "By almost every indicator, the need for additional funds for the University has been accumulating over the last decade.

"The lives of our students and citizens we serve bear the imprint of the needs and capabilities of this University. This review of the full needs of the University will aid the board in our role of articulating those needs to the people of the state."

The appropriation of \$51.8 million more in state funds, plus \$9.1 million more in non-state income, would allow the University to provide an average 12.5 percent increase in compensation for faculty and staff.

"If the University is to realize its full potential for the building of the future of the state of Missouri, it simply must be able to compete for first-rate faculty and staff," Frazer says. "To do so requires not only competitive salaries and benefits, but the tools — whether they be computers, state-of-the-art equipment or modern facilities — needed for contemporary education and research."

Major areas about which Magrath is sounding the alarm:

- Compensation — An additional \$51.4 million will be required to repair the compensation deficiency that has developed.

- Academic Support Resources — An additional \$50 million will be needed to make up deficiencies that have developed in academic support areas. Additional annual state support of \$6 million is needed by University libraries, \$10 million for academic computing, \$15 million for equipment replacement and \$19.6 million for building maintenance and repair.

- Selected Improvements — The long-range plan identified areas of

strength and opportunity. An additional \$40 million is needed for investment in specific disciplines to strengthen Missouri economically and educationally.

"Investments in selected new areas are essential in moving the University into the forefront of research and economic development," Frazer says. "The long-range planning process under way will generate specific proposals that are part of the Agenda for Action. These improvements are candidates for financing by partnerships between the state, private individuals and corporations and federal government where Missouri's interests overlap with the availability of such funds."



- Student Aid — Although UM has allocated substantially more of its operating budget to financial aid to offset federal cuts and to make educational opportunity available to all who are capable, \$5 million a year more is needed to fill the gaps that remain.

The 1989-90 operating budget appropriations request includes:

- A \$16.2 million increase to meet ongoing needs. This amount and an estimated additional \$9.1 million in non-state funds would provide for an average 6.5 percent increase in compensation, \$700,000 more for

libraries, \$4.7 million more for expenses and equipment and \$500,000 for opening new buildings. This would maintain University operations at about the current level.

- A \$19.4 million increase for repairing the base budget. This amount, and an estimated \$4 million in reallocation, would provide an average 6 percent increase in compensation, \$1.5 million more for libraries, \$1.5 million more for academic computing and \$2.5 million more for building maintenance and repair. This would allow the University to overcome some deficiencies that have developed in recent years.

- A \$16.2 million increase for Agenda for Action improvements. This amount will provide \$7.2 million more for research and economic competition, \$5 million more for undergraduate education improvements, \$1.4 million for improving programs for the preparation of teachers and \$2.6 million more for improving professional education programs. This would allow the University to develop new programs to benefit the state.

Continuing reallocation of internal resources would fund about \$4 million needed to achieve goals for 1989-90. Although the University has successfully reallocated \$23 million from lower to higher priorities during the first three years of the long-range plan, Frazer does not believe reallocation alone is the answer.

"Personally, I believe that it will not be possible to achieve these aspirations of quality and service by a reshuffling of programs or by reallocation," she says. "There simply must be an infusion of new resources into the University, wisely and well spent, to achieve our objectives."

Research parks offer promise for economic development

Development of UM research parks in Kansas City and St. Louis is moving forward, according to Duane Stucky, UM associate vice president and executive director for economic development.

In discussing the current status of University Park in Kansas City and the Missouri Research Park located near St. Louis in St. Charles County, Stucky says both parks have made substantial progress.

"Development of both parks has continued steadily over the last several months with property being acquired in Kansas City and roads and utilities nearing completion in St. Louis," Stucky says.

According to Stucky, the entire 51-acre site of University Park in Kansas City has been leased to Continental Development Corp., which will develop and secure financing for the project. All of the property west of Troost Street has been purchased with additional property acquisition still needed on the east side of the street.

The Missouri Department of Economic Development provided \$4.5 million in state funds for property acquisition, demolition and relocation of tenants. Stucky says an estimated \$3.2 million more is needed to buy remaining property and do site preparation. The University is seeking an additional \$2.75 million in support from the Department of Economic Development for this.

Stucky says plans are being developed to construct a science and

technology building in the park. Total cost of the building is estimated at \$18 million with private funds already committed to finance part of the cost.

Research parks will provide jobs and sites for cultivating University research and instruction.

"The building will provide state-of-the-art facilities for the computer science division, the physics and mathematics departments, a proposed graduate engineering program and a portion of the School of Basic Life Sciences," Stucky says. "It will give the University a visible presence in the park and make possible business, industry and education linkages vital to economic development."

When the park is completed, it is expected to provide more than 2 million square feet of space. About 5,000 people are expected to be employed there.

Stucky says the first phase of infrastructure development at the 246-acre Missouri Research Park in St. Charles County is nearing completion.

"Roads, storm sewer and sanitary sewer systems are completed," he says. "Water, electric and gas utilities will be installed this summer and completion of a waste water treatment plant is expected by August."

Previously appropriated state funds are being used to complete planning for a technology and agriculture center to be constructed in the park. The center will encourage development of an International Food and Fiber Center, help Missouri and the nation develop agricultural policies, house UM-Rolla's Graduate Engineering Center and University Extension and continuing education programs from the UM-St. Louis campus.

Construction costs of the 100,000-square-foot technology and agricultural center building are estimated to be \$10 million. Total infrastructure and development costs of the research park are projected to be \$14 million with initial funding coming from the University and the Missouri Department of Economic Development. The Missouri Research Park expects to attract firms involved in research and development in such areas as agribusiness, computers, robotics, medicine, chemistry and engineering.

Trammell Crow Co. of St. Louis is the development manager for the Missouri Research Park. On completion, the park is expected to generate an estimated 4,000 to 5,000 jobs.

Stucky says a recently written

report prepared jointly by the National Science Foundation, the National Governors' Association and The Conference Board emphasizes science and engineering research and education will play a crucial role in determining the U.S. competitiveness in the global marketplace. A section of the report cites the need for immediate improvement in university and industry cooperative ventures and greater commercialization of research findings.

The Missouri Department of Economic Development has cooperated with UM in acquiring property for the parks.

"Development of UM research parks in the Kansas City and St. Louis areas is an important contribution in fostering strong ties between business, industry and education as well as promoting economic development in the state," Stucky says.

John P. Lichtenegger

Development. Reallocation. The University helping itself.

Ask Curator John Lichtenegger of Jackson what some of the most pressing issues are for the University and its administration, and he'll tell you the institution will have more legitimacy in asking for more state support if it can prove it's holding its own in helping itself.

"Those may not seem like the most pressing issues that curators have to deal with," Lichtenegger, who is serving as vice president of the board, says, "but the stronger focus we are placing on development efforts on the campuses, our efforts at capital campaigns and our continued work toward reallocation all add to our credibility in asking for help from the state."

"Part of the problem is that it is not prudent to discuss some of our efforts toward private giving in a public forum, so we're not really able to communicate what planning efforts we're doing in that area. I'm planning to ask Chris Kelly and Roger Wilson to sponsor some legislation that will allow us to discuss fund-raising efforts in closed session so we can work on these plans and projects more closely with the administration. But I do know we're on the way to developing some comprehensive fund-raising campaigns."



Photos by Pat Nicholls

Lichtenegger says most people would say the University's most important priority should be to improve salaries, and he agrees that unless it does, the University is going to lose key professors it desperately needs to retain. But he emphasizes development, fund raising and continued reallocation are absolutely critical to the University having the legitimacy to ask the public for a tax increase or the legislature for an increase in appropriations.

Lichtenegger, an attorney, brings an admittedly rural perspective to the Board of Curators that allows him to communicate the concerns of the citizens outside the metropolitan areas. As far as people in most rural areas of the state are concerned, he says, the University is the greatest asset the state has.

"Higher education is a high priority to Missouri citizens," he says, "but many of them do not realize we could be doing so much more than we are. Most Missourians want us to have a first-rate educational system, and they believe we have that now. To people in rural Missouri, higher education is the University of Missouri. The University's status is good in the rural areas. Part of that

comes through contact with extension programs.

"The legislature knows we could be doing more, the curators know it, the faculty and staff know it, but the people out in the state who count don't know it. It's not a pressing issue to people in rural areas."

The key, according to Lichtenegger, who is himself a commercial farmer and businessman, is communication.

"In my opinion, our chancellors and our president need to spend at least 40 percent of their time in development activities and public relations," he says. "I would call it a transfer of knowledge about the University and what it has to offer. Often administrators get so caught up in the day-to-day management of the University that there is no time for a more active approach to communicating our funding situation and the entire higher education situation in the state. But it can be done."

Lichtenegger suggests we rely on our own resources — our school of journalism, our television station, alumni who are working in the area of public relations — to help us better tell our story.

"We have some of the brightest graduates in the country working for large networks as writers and producers," he says. "We could tap a lot of our graduates for assistance rather than going to an outside firm for help."

"And our administrators are good ambassadors. Haskell Monroe has been to more than 90 counties in the state. I doubt there are many people who can say that other than statewide politicians. CEOs for large companies do it. We're no different."

Which brings Lichtenegger to another observation about the University's administration.

"I look upon the business of curators and the administrative staff as more of a board of directors management type of function, and I think it needs to stay on that course," Lichtenegger says. "We need to be more businesslike in our approach to running the University. Most of our agenda is concerned with items that are purely business. Right now we have a good mix on the board of people with a wide background in business interests."

"Most university administrators in their careers have not been too involved in business management, yet they're called upon to run one of the largest businesses in the state. So my emphasis has been to try to highlight the businesslike approach to running the institution."

Lichtenegger was appointed to the board in 1985 to complete the term of Charles Kruse who had been appointed state director of agriculture. Lichtenegger is the only member of his family to attend the University. As a graduate of the UM-Columbia law school, he admits he has a special interest in its development. He feels it gave him an excellent education and the opportunity to develop professionally so the knowledge gained as a student was easily transferrable to his business interests. As a resident of a rural community, he feels he has had more opportunity to become involved in a wide range of business opportunities than an attorney in a more metropolitan setting.

His interest in agriculture can be attributed to the fact that his

grandparents were farmers, and his great-great-great-grandfather had a farm that has been in the family for more than 150 years.

Even though Jackson is one of the fastest growing communities in the state, Lichtenegger enjoys the rural atmosphere and his involvement in agriculture.

"I enjoy farming," he says. "The more I do it, the more I like it. If it's possible in 10 or 15 years, I wouldn't mind becoming a full-time farmer."

Lichtenegger feels very strongly the University is fulfilling the mission of a land-grant university, but he is quick to add he believes too much emphasis has been placed on communicating the mission of the University and not enough on the historical background explaining the establishment of the land-grant system.

John P. Lichtenegger

B.A., Political Science, UMC, 1969
 Juris Doctor, UMC, 1972
 Chairman, University of Missouri Alumni Association, Cape Girardeau County, 1976-77
 President, Jackson Industrial Development Company, 1978
 Vice President, Jackson Chamber of Commerce, 1983
 Member, Missouri Industrial Development Council, 1979
 Distinguished Service Award, Jackson Jaycees, 1982
 Member, Missouri Bar Association, Agricultural Law Section
 Member, American Bar Association, Legal Economics Section
 Member, National District Attorneys Association, 1980-81
 Member, Missouri Municipal Attorneys Association
 Admitted, Supreme Court of United States Bar, 1976
 Former City Attorney, City of Jackson
 Current Assistant City Attorney, City of Jackson
 Lodge Chief, Southeast Missouri Council, Boy Scouts of America
 SEMO Council, Executive Committee, Boy Scouts of America
 Member, Farmland Industries COOP, Jackson
 Member, Farm Bureau

"Most of the speeches I hear about the land-grant university don't go back far enough," he says. "Why do we call it land-grant? How were these schools started? Which institutions are land-grant institutions? It would be nice to explain that it was the assets of the people and the federal government that started these institutions, and they survived for many years without state support."

"How many acres were given to the University, and what did they reap that first year when they cut the timber and mined the ore? Everyone concentrates a little too much on the mission. Most people don't know what these institutions are or how they began."

But whatever the past, Lichtenegger believes the institution, especially with the help of the long-range plan, has a bright future.

"I was not on the board that developed the original plan, but I believe that board did the University a great service in originating that process," he says. "It has set a course for us to follow, and I believe we have been faithful in trying to achieve the objectives of the plan."

"The only thing it's missing is the strategies to fund its implementation. With the recent enactment of the bond mechanism to fund some of

our buildings, it appears that we are on the way to solving the funding problem for capital investments. I know there are some legislators who are not happy with it, but it's one way to get the facilities we have been needing for many years.

"It's evidence of the fact that there must be a strategy and plan with the cooperation of the executive branch and legislative branch of the state and the University. It will require some future appropriations, but at least we seem to be agreed that yes, we need to build these buildings. Now we have to concentrate the same sort of effort on maintenance and repair and on faculty salaries."

Lichtenegger admits that before he was appointed to the Board of Curators, his impression of faculty was far from accurate. But after exposure to faculty groups, having met with them and heard their concerns, he believes the University has a "great faculty" on all campuses.

"What disturbs me is to see some of our best faculty leaving us for salary increases of \$10,000, \$20,000 and \$30,000," he says. "I believe one thing we need to sell is the idea of an endowment pool supported by the state and the University to attract and retain a solid core of professors who are leaders in their field."

"I would like every student who leaves the University to be able to remember professors years later. If I can remember a certain instructor I had in governmental budgeting or finance 20 years later, that individual had an impact on me and must have been good. I must have learned something. We're losing those people."

At the same time, Lichtenegger believes faculty and staff have obligations to play a role in the University's management.



"I think faculty and staff should come to curators' meetings if they possibly can. In effect, we're the last word on many issues that directly affect them. We read in the papers about how bad the situation is, but faculty and staff can do a lot to tell other citizens the story. Curators can only spend so much time on that effort."

"And I think employees should know we're committed to having not only a comparable university with the Big Eight and the Big Ten (and I'm opposed to using those comparisons), but we're committed to having a world-class university. We need their help in giving us ideas. We're only nine people, and the administration is only a few people. Although we don't mind hearing salaries are too low, we'd like to hear some ideas on how to improve the situation. Help us, work together with us."

"This board is not an honorarium board. This is very much an activist board in terms of time and commitment. We'll work hard. No longer will the people of the state, the

(Continued on page 8.)

MHE champions Missouri colleges and universities

In a home office in St. Louis, manned by one full-time staff person, a part-time secretary and a Macintosh computer, wonderful things are happening for higher education in Missouri.

That's the home of Missourians for Higher Education and its executive director, Doug Arnold.

It's a small, but powerful, combination — a combination responsible for an organization rare in the United States, one that brings together common concerns of the leaders in higher education, whether they be from public, private, community or junior college institutions.

"There is quite a bit of misunderstanding as to what is happening in higher education today in Missouri and the role that everyone can play in its development," Arnold says. "MHE is one of the first organizations ever to try to have a common focus among four-year and two-year schools and between public and private institutions."

MHE was born in 1983 of a concern shared by UM President Emeritus James Olson and William Danforth, chancellor of Washington University in St. Louis. They called a "summit" meeting at the Columbia campus to consider developing more cooperative relationships on behalf of the entire higher education community.

Their concern was that Missouri was ranking in the high 40s in the nation in the amount of appropriation per capita given to higher education. Enrollments were slipping. Colleges and universities were losing ground.

As a result of the summit attended by all the presidents and chancellors of higher education institutions throughout the state, a committee was formed that included representatives of the Council on Public Higher Education (of which UM is a member); The Independent Colleges and Universities of Missouri, which represents most of the private institutions; and The Missouri Association of Community and Junior Colleges. They hired Arnold as their executive director in 1985 and decided their aim was to put together a public information program.

"There was no agenda at that time to promote any one idea or concern," Arnold says. "The goal was to assemble information and statistics and disseminate that information throughout the state, primarily to opinion leaders, but to the citizenry as well."

"We have spent a good two years involved in a variety of public information programs that include a newsletter that we produce on our desktop publishing system, a newspaper column distributed throughout the state, a traveling display that we set up in malls and shopping areas throughout the state, special events in Jefferson City, Kansas City and St. Louis featuring speakers on higher education and a slide show.

"A great deal of my time is spent visiting with editors and other media representatives trying to spread the word."

Arnold feels one of the single most important projects MHE has completed is its economic impact report that took more than a year to research and develop. But its results were remarkable.

The report revealed that 120,000 people are directly or indirectly

employed by higher education in Missouri. The economic impact is estimated at \$7.4 billion, making higher education in Missouri one of the top 10 industries.

"The goals of MHE are three-fold," Arnold says. "The first has been to encourage greater participation by Missouri citizens in the higher education community in the enrollment of traditional students and non-traditional students and in programs related to the University but not directly tied to the classroom."

Arnold says MHE works to promote the common concerns of Missouri higher education.

"The second element concerns state investment in higher education. Missouri has traditionally been below the national average, and now we're extremely far down the ladder in terms of funding. One of our major concerns is why Missouri is at that level. Are Missourians really aware of that? What can be done to improve the picture?"

"And finally, the third thrust is on the business community and economic development. How can Missouri's higher education community make significant strides to increase opportunities for employment, for new businesses and to stimulate economic development through research and technology?"

One of MHE's projects is to maintain a data base on what other states are doing in terms of funding for higher education. Based on MHE's research, it's easy to see how Missouri compares.

The role of the leaders

"We rely very heavily on the chancellors and the presidents to get our information out," Arnold says. "I don't have the background or reputation to be an authority on higher education. I'm more of a facilitator working to get the information to the key players. I am not a lobbyist. I don't carry a lobbyist card, but I provide information to the people who do."

UM President C. Peter Magrath took on the chairmanship of MHE soon after coming to Missouri. He was the first chairman, and Arnold says without his leadership and vision the young organization may not have survived.

"He made personal calls, wrote a lot of letters and maintained a high profile for MHE," Arnold says. "He took a lot of time out of his schedule, and it was vital to our survival."

"Peter Magrath went above and beyond the call of duty to be sure he developed lines of communication with community colleges and private institutions. His dedication helped galvanize the organization. When I walked into an editor's office and was able to say Peter Magrath was the chairman of our organization, people listened. Having someone like that in that position gives you instant credibility with the media, with the legislature and the public at large."

Magrath was followed by Danforth, and currently Bill Stacy, president of Southeast Missouri State University, is serving as chairman.

"You might think that Peter Magrath would have come to this state, looked at the numbers we provided him and gotten discouraged," Arnold says. "But he's been extremely positive. He is dynamic and aggressive and will be a prime mover in the changes in higher education in this state."

"Another thing that was impressive was Magrath's immediate and astute recognition of the Missouri political scene. He didn't rush in and try to win everyone to his view. But he sought where he could fit in and adapted very quickly. That isn't to say he doesn't have his own agenda, however."

Changing the misperceptions

MHE is not funded through tax dollars but through money provided by its member institutions.

That funding is going a long way toward a campaign to change some perceptions Missourians have about higher education. Arnold plans to spend the remainder of 1988 on an attitude survey that will provide not only demographic information but data on how higher education in Missouri is perceived and whether the citizens of the state are in favor of increased support.

"We firmly believe that the average Missourian does not have a good grasp on where Missouri is in its support of higher education," Arnold says. "The idea of a tax increase scares a lot of people, so we need to find some neutral ground where we can all agree on a good way to enhance funding."

"Missouri remains a state where many of the freshmen entering a college or university are the first generation in their family to do so. It's a difficult time for a family, especially if it has not had any contact with higher education. People are intimidated by their misperceptions of what a college or university really is. There is an intellectual chasm there — a perception that everyone on a college campus speaks Latin, carries a book under his arm and that professors all make \$50,000, leave at 2 p.m. and work until June 1. If someone has never been on a college campus, there is nothing to refute that."

"That's what we're about."

Arnold also feels that Missourians seem to lack an identity as state residents. St. Louis and Kansas City, he says, are very different cities, and the small farmer in southeast Missouri has little in common with the larger farmer in the northwest part of the state.

"Everyone can relate to wanting better roads or raising the gas tax," Arnold says. "But when you talk to them about education, they want their children to attend the local college. It's difficult to find commonalities. We hope our research will give us some ideas on how we can eliminate some of the misperceptions and link parts of the state together."

"We're moving slowly from a stance of providing information to being more of an influential organization. We're working more closely with representatives of state government. I think Chancellor Danforth said it well when he said 'A rising tide lifts all ships.' What is

good for one institution will ultimately benefit the others. It's not necessarily a tide of money, but a tide of programs and intellectual support and economic development."

Available resources

MHE has developed a set of slides available to any institution depicting in generic form the statistics about higher education in Missouri.

"One of the things I'm very concerned about is that there be a uniformity of information provided to the public," Arnold says. "This set of statistics is simply assembled and will be made available to all of our member institutions. They can be duplicated freely, and anyone making a presentation can use them as a base for discussion."

The other valuable resource is the T.H.E. DataBank — The Higher Education DataBank — an electronic bulletin board service provided by MHE. Initiated just this year, the bulletin board is a computerized system that can be reached by phone and used to gain information about member institutions and higher education.

It allows home, school or business computers to communicate with the computer in the MHE office. All that is needed is a phone modem to communicate though standard telephone lines.

"We purchased a second computer that we use during the day," Arnold says. "But in the late afternoon we turn it over to the data bank, and it is available all night, on weekends and holidays. It provides information on admissions for more than 50 Missouri colleges and universities, current financial aid information, testing information, information on how to select a major, study tips, housing information and other timely reports. The information is updated at least weekly."

"The service also provides electronic mail so that callers can leave messages for other users or the system operator. The only charge for the service is the cost of a long distance call if made from without the St. Louis area."

The data bank number is (314) 256-7363.

Everyone is an ambassador

"If I could offer something to your readers, it would be my personal belief that every person who is employed at or attends a college or university should be a goodwill ambassador for higher education," Arnold says. "I think we all have an obligation to arm ourselves with the kind of information MHE provides and be able to provide accurate and current information."

"People are often not aware of higher education until it touches their lives when their children reach college age. But what happens in this state not only has an impact on them, but on everyone."

"We have a bright future if we all concentrate on the commonality."

Arnold says all citizens need to be stakeholders in higher education, and not just their local institution.

"I have two little boys, and I hope that something I have done will give them a more positive educational environment when they are ready for college," Arnold says. "Every citizen, whether they have a child or not, should embrace that goal."

University researchers pioneer treatment for liver cancer

by Ernie Gutierrez

UMR

Researchers at UM-Rolla, in cooperation with Theragenics Corp., have developed an innovative method of treating liver cancer with radiation contained in microscopic glass beads. This experimental method is currently undergoing clinical tests in the United States and Canada.

Delbert Day, Curators' Professor of ceramic engineering at UMR, and Gary Ehrhardt have developed a glass used to make the radioactive beads. Millions of those beads are injected into the liver's main artery and deliver radiation doses to cancerous cells in liver tumors while leaving healthy tissue virtually unaffected.

Those tiny beads, or microspheres, are 15-35 microns in diameter — about half the thickness of a human hair — and contain yttrium, a rare-earth element. The beads are made radioactive at the University Research Reactor in Columbia under the direction of Ehrhardt, a senior research scientist.

Day, who is also director of the UMR Graduate Center for Materials Research, says that one of the body's mechanisms speeds up the delivery of the microspheres to the tumors.

"Medical researchers have discovered that cancerous tumors are more active than healthy tissue and require a greater blood supply," Day says. "Because of that, the irradiated microspheres tend to concentrate in diseased tissue."

According to Day, the glass beads have several advantages over plastic beads, which were used previously, and over external methods of radiation treatment.

"There is no unwanted release or escape of radioactivity from the liver," Day says. "And larger doses of

radiation can be delivered by the beads than with an external beam."

According to Day, the glass from which the microspheres are made is extremely durable and is insoluble in body fluids. "In fact, about the only thing that can destroy them is concentrated hydrofluoric acid," Day says.

This insolubility prevents the glass microspheres from breaking up in the liver and releasing radiation to other parts of the body, which has been a problem with other types of beads used for that purpose.

Because the injected beads do not significantly affect over- or underlying tissue, radiation doses four to five times greater than those given by an external radiation beam can be delivered to cancerous tumors, Day says.

He adds that the beads gradually lose their radioactivity and become non-radioactive in about 30 days. They remain in the liver indefinitely.

After intensive testing in laboratory animals, Theragenics Corp., an Atlanta company licensed by the University of Missouri to market the beads, has conducted experiments with liver cancer patients in Canada since July 1986.

According to Julie Stephens, Theragenics project director, 42 liver cancer patients have been treated in Canada. Tests are being conducted at five hospitals in conjunction with Atomic Energy Canada Ltd.

"Reports we have received show that of the 42 patients treated, approximately 30 are still surviving," Stephens says. "One patient has survived for nearly 1-1/2 years. The prognosis for most liver cancers is not good. Death usually occurs within six months to a year after the cancer is diagnosed."

Day says that no side effects have been reported by patients in the

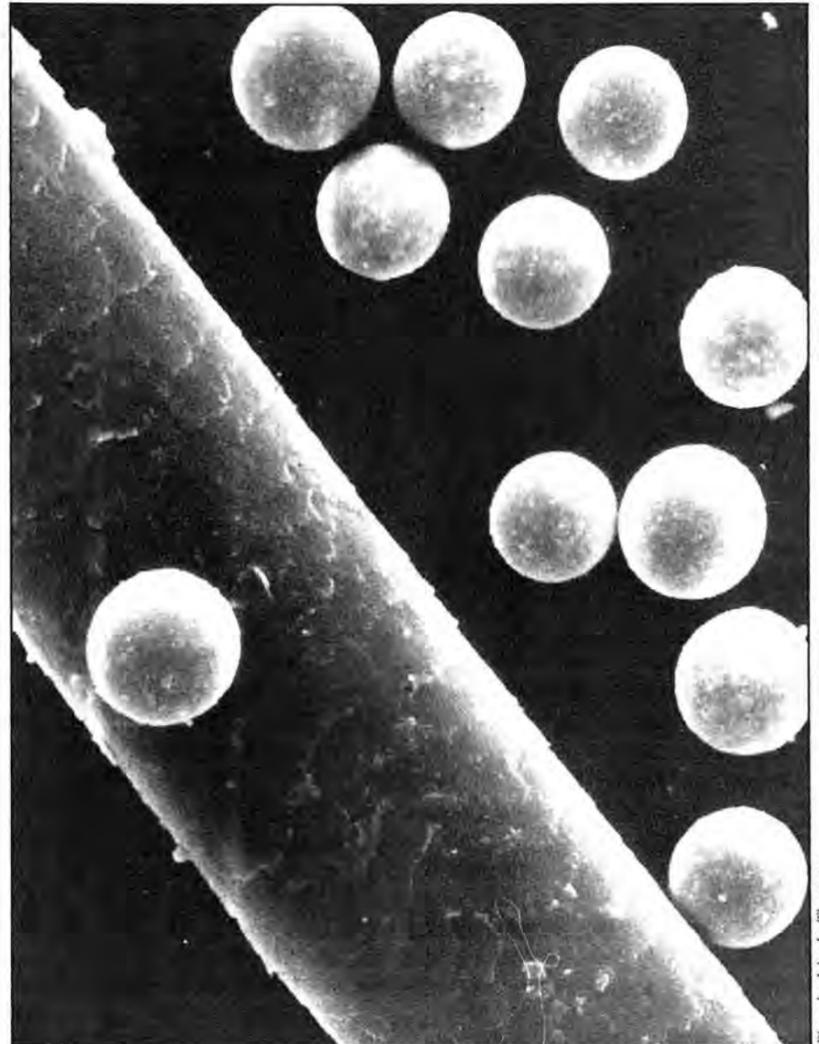


Photo by John L. Thompson

A human hair, enlarged 1,000 times, dwarfs glass beads developed by Delbert E. Day. The beads were irradiated at the University of Missouri Research Reactor and used in experimental treatment of liver cancer.

Canadian experiments. In fact, patients with previous pain or nausea lost these symptoms after treatment with the beads.

In the United States, the Federal Drug Administration recently approved experimental tests by Theragenics on volunteers. The tests are currently in progress at the University of Michigan, according to Day.

Although it is too early to make

any predictions, Day is hopeful that additional uses can be found for this method of delivering radioactivity into affected organs.

"If physicians conclude that high doses of high radioactivity can be delivered to cancerous cells with little or no damage to surrounding tissue, they might be able to spare patients the discomforts associated with present treatments," Day says.

King's tenure at UM press leaves history of excellence and service

When Ed King leaves the University of Missouri Press this month to become design and production manager at the University of North Carolina Press, he will leave behind a legacy of creativity, production and quality.

After 19 years with the press, 14 of them as director, King is returning to his home country to do what he loves best — design and produce

books of tremendous graphic and topical quality, a tradition he has maintained at Missouri.

"Our mission at the press is simply to disseminate scholarly knowledge," King says. "Most of our books deal with the humanities, and the staff and I work hard at both acquisition of good manuscripts and production of good books. Good books attract other good books. We publish

30 to 35 titles a year. When I first arrived we were publishing about 12 titles a year."

The growth of the press is the major change King has seen in his tenure, although under his leadership, the University Press has become the only university press out of 100 that is totally computerized in its editing and handling of manuscripts.

"We're awfully proud of that," King says. "That has come about primarily in the last three years. There are many large presses out there that are still using blue pencils.

"But the computerization is one of our major accomplishments. It allows us to do better editing. It may not save time, but it's time used more efficiently. A computer can do a spelling check with 98 percent accuracy. Soon we will be inserting computerized typesetting codes on all manuscripts."

King says his primary concern as director has been to see that the staff has the resources to do the job and the atmosphere conducive to quality work. He is intimately involved in the development of some books, including one just recently published entitled "Colorful Missouri" for which he selected 112 photos from 1,200 submissions by 140 Missouri photographers.

He describes his staff of 14 as a

fast-moving, hard-working group of people with high standards, dedicated to an excellence of product.

"I'll miss the staff here," King says. "It's a good staff. The North Carolina staff is bigger. There are 10 people in the design and production department where we have three here."

King is also an accomplished artist and maintains a consulting firm, Hillside Studios, that has completed projects for such groups as the University Press of Kansas, University of Illinois Press and the University Press of New England.

Before coming to Missouri, King served as design and production manager of The Johns Hopkins University Press, the book club production manager for the Kiplinger Book Club in Washington and assistant design and production manager for George Braziller Inc. and the Seven Arts Book Society in New York.

He is active in the American Association of University Presses and last year served as chairman of the Book Design Show Committee during the 50th anniversary of the organization. For more than 25 years the Book Design Show has recognized the best designed books by association members. Missouri, with 34 awards, ranks in the top 10 percent for awards received by member presses. (Continued on page 7.)



Photo by Pat Nichols

Ed King

Fiscal situation requires candor, future planning

by C. Peter Magrath

UM President

During the three and a half years I have been privileged to serve as president of the University, it has been the policy of the Board of Curators to maximize the efficiency and effectiveness of the University both in fiscal and programmatic terms. As a result, a strategic focusing of limited resources is enabling us to strengthen the institution. The University has targeted programs for eminence, academic program priorities have been determined and significant reallocation has occurred among our units — all in keeping with our primary mission as Missouri's only public research university and all in keeping with the land-grant tradition.

More recently, as a result of the board's January planning retreat, we have established groups to develop recommendations for an action agenda for the University for the next few years. This is evidence of our progress and momentum, reflecting the board's superb record of stewardship.

During the years 1985 to 1988, we have made special efforts to inform state, private sector and community leaders of the importance of increased investment in the University, and we have headlined the enormous impact of these investments in the economic advancement of the state.

Missouri is not a poor state. As the third most populous state west of the Mississippi, it has a broad-based economy, diverse commercial and industrial interests, a complex social character and two vibrant metropolitan areas. We are a state with a rich agricultural base, world-class corporations — all rooted in a solid set of Midwestern ethical values and sensibilities. The University of Missouri is a proud institution with a rich heritage.

While we have made progress — progress that should be a source of pride for the board and the entire state — I am sounding an alarm that this University, with all of its strengths and energy, cannot sustain itself for the benefit of Missouri with its current funding level. I would like to share — in unequivocal terms — a statement on the University's financial condition and associated educational quality. Some of what I will share is disturbing, but my responsibilities to the board, to the citizens of the state and to my colleagues within the University require candor and straight talk.

Five-year plan

It is my recommendation that the University seek support for the necessary increase in appropriations to fully achieve its mission. However, within the fiscal and political realities of the state, it is unreasonable to seek the needed resources in one year. Thus, I am recommending that the University's fiscal year 1990 operating budget request be cast in the context of a five-year plan calling for repair of the University's base support for compensation, libraries, academic computing, equipment replacement and maintenance and repair of its facilities. It also recognizes the need for selected program improvements called for in the long-range plan and being further developed as part of the Agenda for Action.

Compensation. Since the late 1970s, the University has struggled to improve salaries. At the beginning of this decade, faculty salaries were within striking distance of the market with a 6.3 percent deficiency. While this deficiency put the University at a disadvantage, it was not a major deterrent to maintaining quality faculty, for salaries were expected to improve. Since then, though, the University's competitive position has eroded — and dramatically so. The deficiency of 6 percent will have widened to 20 percent by next year.

In 1984, the University's plan set reasonable compensation goals: the average of the Big Eight and Big Ten by 1988 and the average of the Big Ten by 1993. Unfortunately, the first of these goals goes unmet. In fact, relative salaries have declined to the point where the average salary for UM associate professors is only \$171 above the average salary for assistant professors in the Big Ten.

This graph shows how the gap between the University of Missouri and the Big Ten has widened during this decade. The average salary increase required for a faculty member to be at market is shown in the column on the right.

UM Faculty Salaries Compared to Public Big Ten

	Percent-Off-Market		Dollars-Off-Market
	1979-80	1988-89	
Assistant Professor	3.1%	14.4%	\$ 4,451
Associate Professor	2.3%	18.3%	\$ 6,412
Professor	10.4%	23.9%	\$10,957

Clearly, we must improve salaries for our faculty members, but staff salaries are also considerably below competitive market levels, most strikingly in the metropolitan areas where the deficiency is over 25 percent. This problem leads to rapid staff turnover and difficulty in recruiting.

Salary is not our only compensation problem. It will take a 19 percent increase, or \$5.8 million, in the University's contributions to offer retirement and insurance benefits comparable to the Big Ten institutions. At present, the retirement pay for UM faculty members with 30 years of service is 46 percent of their final salary, compared to 64 percent for the Big Ten institutions.

This graph shows the magnitude of the commitment required to bring faculty compensation (salary and benefits) to market, by rank.

Average Increase to Bring UM Compensation to Public Big Ten

	Salary	Benefits	Total
Assistant Professor	\$ 4,451	\$ 922	\$ 5,373
Associate Professor	\$ 6,412	\$1,000	\$ 7,412
Professor	\$10,957	\$1,186	\$12,143

This graph shows that the total compensation deficiency, including non-faculty personnel, is \$51.4 million.

Compensation Deficiency General Operating Budget University of Missouri

	1988-89 Deficiency
Faculty	\$25.4 million
Admin/Prof	\$10.3 million
Service/Support	\$ 9.9 million
Benefits	\$ 5.8 million
	\$51.4 million

The quality of a university mirrors the quality of its faculty and staff. The talent of our faculty and staff will determine the quality of our teaching, research and service to the state, and so we must successfully

address this compensation problem if we are to achieve our objectives.

Academic supporting resources

Just as highways and bridges provide infrastructure for the state's transportation system, so too there is an infrastructure for learning at a university, consisting of libraries, modern equipment and facilities. This physical infrastructure is critically important for recruiting and retaining high-quality faculty for the University.

The University's libraries, the foundation of the academic infrastructure, have deteriorated from among the better Midwestern university libraries toward the bottom of that group in the last decade. The acquisition of books and periodicals has been substantially cut, thereby restricting faculty and student access to important current information in many fields. The University needs to spend \$6 million more annually to be at competitive levels with comparable universities.

University of Missouri students and faculty lack modern equipment and facilities. Particularly, for a research university, it is essential to replace obsolete equipment and to provide state-of-the-art equipment, in order to

maintain the competitiveness of our students and faculty. For example, students today should have routine access to microcomputing as an integral part of their higher education. In addition, sophisticated computing technology is important to many of the scientific and technological disciplines. To finance the ongoing equipment and computing needs of the University, we should be spending \$25 million more per year than is currently available.

Currently, the University has a backlog of \$140 million in maintenance and repair projects needed to bring its physical plant to modern standards. Even if this logjam of projects were to be completed, the University should be spending at least 1.5 percent of the value of its physical plant annually for ongoing maintenance and repair of its facilities, or \$19.6 million more on a recurring basis.

Agenda for Action. In its

long-range planning, the University has identified areas of strength and opportunities essential to making the University truly competitive with the other first-rate Midwestern public universities. Beyond competitive compensation and academic support infrastructure, a minimum of an additional \$40 million needs to be invested on a recurring basis in specific disciplines selected to strengthen Missouri economically and educationally.

Finally, there is the matter of student access to the University. During the past 10 years, the University has allocated substantially more of its operating budget to financial aid. In part, this shift offsets the loss of

federal financial aid, and, in part, it reflects the policy of the University to provide educational opportunity to those who have the capability but lack the financial resources to attend the University. However, significant gaps remain. An additional \$5 million on a recurring basis is needed for student financial aid, either directly by the University, through the state scholarship programs or via federal aid programs.

Financing. How will we obtain a recurring increase of \$147 million in the University's operating funds? Most of the funds to repair the base must be provided by the state; while some private support and reallocation can be expected, the state must step up to the cost of most of these items. Private sources are good candidates for partnerships with the state to finance several agenda for action items, and some reallocation can be accomplished for this purpose, as well. Over five years, I believe we can stretch to raise about 20 percent of the needed increase, if the state can generate its 80 percent. I believe there are opportunities to leverage state and private funds jointly, particularly in partnership arrangements to achieve parts of our agenda for action.

Moving from this five-year perspective, I would like to take a telescopic view of the proposed 1989-90 appropriations request for operations, as well as the capital request for 1989-90.

Fiscal year 1990 request

We project a \$25.3 million increase in the cost of continuing — including a \$16.2 million increase in state appropriations.

Compensation would grow by 6.5 percent under this plan, and library support would increase by 10 percent.

Expense and equipment would rise 5 percent, plus the costs of operating new buildings.

We would seek an additional \$19.4 million in state support to provide 6 percent compensation catch-up and added support for libraries, academic computing and building maintenance and repair.

Finally, in 1990 we will seek \$16.2 million for action agenda efforts. The increase in funds would be 15.3 percent if the request were met fully.

Fiscal year 1990 capital budget request

I am proposing consideration of a capital appropriation request of \$252.5 million.

For maintenance and repair, we are proposing \$73.6 million, the totality of our documented preservation projects.

For new construction and major renovation, we plan to request \$103.2 million for the highest priority projects.

Our capital equipment proposal totals \$20.4 million for major scientific research equipment and for modern technology to support our teaching mission.

Facilities rehabilitation is targeted at \$9.3 million, and the cost of meeting compliance standards is budgeted at \$45.9 million.

This capital request is an essential element in repairing the base of the University and in providing this institution with the teaching and research facilities needed for Missouri's competitive edge.

King (Continued from page 5.)

King's personal list of achievements is impressive. He has received awards for his work from the American Institute of Graphic Arts, the Art Directors Club of New York, AAUP, the Mid-western Annual Book Show and a gold medal from the Liepzig International "Schonste Bucher Aus Aller Welt." He served on the American Geological Institute Publications Advisory Committee, and the AAUP Board of Directors. He has held several one-man shows of his work and is currently working on "The Mischievous Line: A Melange of Aubrey Beardsley Drawings."

When asked what his favorite project has been here at Missouri, King lists "Concrete Mama," a photographic study of life inside the prison at Walla Walla, Wash.

"This was an example of where we took a raw idea based on some photos we had seen at the Pictures of the Year competition and turned it into a full-length book," King says. "It was a tremendous commercial success, and we sold many copies to inmates in the prison. I think the

book had a great impact on the social conditions of prisons. It was a very satisfying book even though the subject matter was somewhat grim."

King plans to turn his efforts back toward design and production and continue his private work as an artist.

King also mentions John Repp's "Views and Viewmakers of Urban America" as a major work the press has done during his tenure. One of the first books the press published was "Wild Mammals of Missouri" by Schwartz and Schwartz, which is in its fifth

edition and still in print.

"An important book for the state was Charles van Ravenswaay's 'The Art and Architecture of the German Settlements in Missouri,'" King says. "Another book we're proud of is 'Westmoreland and Portland Places' by Julius Hunter. And soon to be published is an illustrated history of the University of Missouri by James and Vera Olson."

King says he stayed in Columbia because it was a good place to raise a family and because the press was well-supported by the University administration.

"We have had what we needed within the allowances of conservative legislation," King says.

But now it's time to return to home country and turn his talents full time to book design.

Jay Barton, UM vice president for academic affairs, says: "Ed King has provided the University of Missouri Press with strong leadership and creative ability. We wish him well at the University of North Carolina Press."

Computing provides services but is underfunded

It's not news the world is becoming computerized, and the University is no exception.

The array of services computers provide throughout the University is vast. They don't just crunch numbers, and they aren't just used for word processing. Their role in University operations is pervasive.

"When we talk about computing at the University, we generally consider three functions," says Jim McGill, vice president for administrative affairs. "They are administrative, research and instructional. The last two are collectively referred to as academic computing."

McGill explains direct responsibility for academic computing rests with the individual campuses. Most administrative computing is run at the system-level central computing facility.

Administrative computing at UM supports business functions such as the accounting system, the payroll system and the personnel information system.

But it's much more than that. It includes the student information system, a vast amount of data on student records, financial aid and admissions.

prospective students about the curriculum.

"Beyond those services, the central computing system also supports LUMIN, the automated library system, which is a direct service to students, faculty and staff throughout the University," McGill says.

According to Chuck Shomper, director, UM computing and information technology, LUMIN is being expanded soon with the phased installation of an enhanced circulation system. Students and faculty can continue to search the holdings of all University libraries by computer; the enhanced system will enable computer users to determine whether library material is checked out or available for borrowing.

McGill says a recent addition to administrative computing is the alumni development system that aids in fund-raising efforts.

In the past four years, even with the expansion of the student information system and the additions of LUMIN and the alumni development system, there has not been an increase in expenses at the central computing facility.

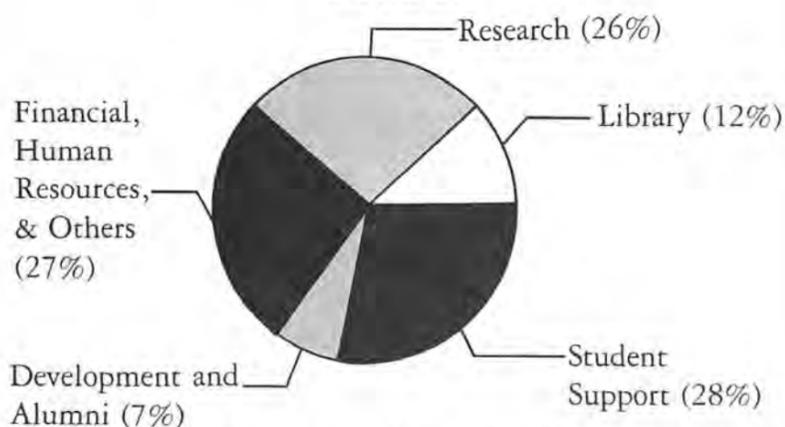
real-time interaction with the computer, such as LUMIN, have increased 100 percent. Most of that growth has been in areas that directly serve faculty and students."

McGill says when people think of academic computing, they generally think of microcomputers and their use by students and faculty for instruction and research. But there is an array of other academic computing services as well.

For instance, the University is tied into several national computing networks, allowing faculty to communicate electronically with their colleagues and to have access to "supercomputers" — very fast machines. In addition, there are minicomputers used by many academic departments for specific research projects, and the use of workstations with high resolution graphics is expanding.

Central Computing Usage

Fiscal 88



"The transcripts of students are on the system," McGill says. "Our financial aid officers have the ability to call up a student's file and complete financial aid counseling. The admissions process is automated. And, we can issue academic progress reports to advisers and counselors and advise

"Over the past four fiscal years, there has actually been a slight decrease in expenditures for the system-level computing," Shomper says. "During that time we have delivered significantly more computing. Total computing has increased 60 percent. On-line services, the

For your benefit

Did the Board of Curators approve a cost of living increase for retirees at its June meeting?

Yes, the board did approve the increase. All retirees receiving benefits on Sept. 1, 1986, will receive a 2.3 percent increase in their retirement pay.

"The University's practice has been, as funding permits, to provide cost of living increases to retirees of two thirds of the salary adjustment for active staff in the applicable salary year or the increase in the consumer price index, in this case 4.3 percent, whichever is smaller," says Mike Paden, director of UM employee benefits. "The estimated funding requirement is \$251,000."

May I designate anything other than a person as a beneficiary of the lump sum death benefit under the retirement, death and disability benefit plan?

Based on amendments made to the plan at the June Board of Curators meeting, you can now designate the beneficiary for payment of lump sum death benefits to be any person, trust or estate. Previously, beneficiaries were limited to spouses, children, descendants of children, parents, siblings or any other person who was claimed as a dependent for federal income tax purposes.

additional cost."

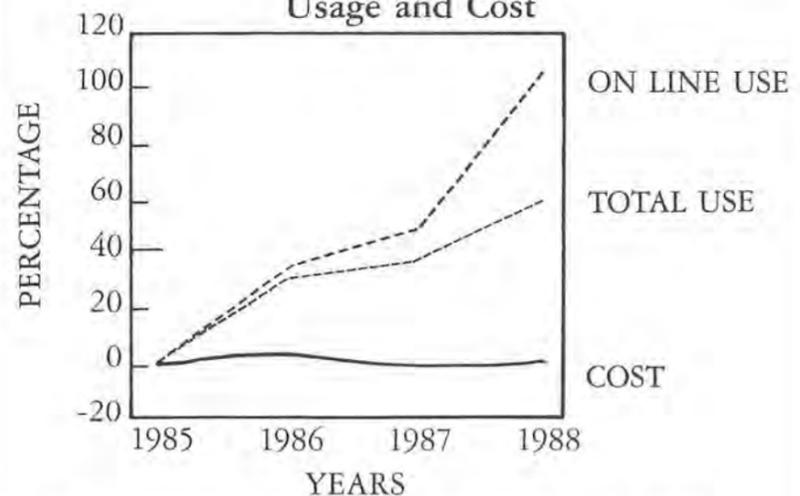
However, McGill and Shomper both agree academic computing is severely underfunded throughout the University.

"We're spending only a half to a third Universitywide on academic computing that ought to be spent," McGill says. "We are woefully behind. A presentation to the Board of Curators at its July meeting outlined our situation and some of our concerns. We must address the funding problem for academic computing."

"We're spending about \$10 million a year on academic computing," Shomper says. "We think that number will have to at least double to get us up to the same level as our peer institutions. And that's only the operating side. We will also

Central Computing

Usage and Cost



Some research computing is available through the central computing system at substantial cost discounts.

"Researchers who use the system when it is relatively idle — such as evenings, nights and weekends — can do a great deal of computer work for a 90 percent discount or, in some cases, for free," Shomper says. "It's a tremendous benefit to the University that these faculty members are able to get their work done at virtually no

have to invest much more on the capital side. For instance, we need to approximately triple the number of microcomputers available to students and faculty."

McGill says the planning for the improvement of academic computing is under way at each of the campuses. It is expected these plans will be knit together and form the basis for the request for additional funding as part of the University's five-year plan to increase state appropriations.

Lichtenegger *(Continued from page 3.)*

governor or the legislature allow this to be just an honorarium position."

In what spare time he has, Lichtenegger says he and his family enjoy snow skiing, water sports, fishing and hunting. And through experiences with his son, Brent, Lichtenegger has received first-hand some of the benefits of University programming.

Brent has learning disabilities. After years of taking him to specialists, after countless testings and diagnoses, Lichtenegger had been told Brent would never succeed in school.

"Essentially we were told to just write the situation off," Lichtenegger says. "Others told us he might grow out of it, but we knew better."

Through a conversation with Curator Jeanne Epple, Lichtenegger learned of the Child Study Clinic in the UMC College of Education. He took Brent to the clinic for testing.

"One of the happiest moments in my life in the last three years must have been when Dr. Busch sat across the table from me and told me that he thought the clinic could help my son," Lichtenegger says. "If it were not

for the clinic, we would probably be living in another state — wherever we could have received help for Brent.

"But because of the excellent



work of Dr. Busch and the clinic staff, Brent now has an opportunity in life, at least to finish elementary school and perhaps high school. He will never be able to go to the University, but there are schools for students with learning disabilities, and he can at least be prepared for life.

"The clinic is something we should be very proud of and thankful for. If you don't have a child with these problems, you don't ever think about it. But Brent's improvement has been phenomenal, and although he is not out of the woods yet, he is certainly a grade level or two above where he would have been without the clinic's intervention."

Although Lichtenegger's term on the board has been a shorter one than usual, he feels it's been rewarding and stimulating. The diversity of the board is what he believes gives it its effectiveness.

"There is a perception I think, both in the state and at the University, and I might think this myself if I were not on the board, that everyone gets together and votes yes on everything," he says. "I can assure you this board, although fully supporting Peter Magrath, advises, suggests and engages the administration in every major policy decision that is made. You will see it in the discussions and often in the votes.

"We're not all alike, and I think that's healthy."

MRAA steering committee seeks proposals for research projects

The Missouri Research Assistance Act steering committee is seeking proposals for applied and research projects for the next round of competition for Missouri Research Assistance Act funding.

The act was enacted in 1983 to help fund research and applied projects that enhance employment opportunities, stimulate economic development and encourage private investment in the state. One-third of the direct costs of approved projects will be provided

through state funds; the remaining two-thirds requires matching funds from industry or other non-government sources. If a small business contributes the matching portion, two-thirds of the direct project costs will be provided by MRAA.

Proposals are due in the office of the vice president for academic affairs by Sept. 15. Proposals must be processed through campus grant offices and endorsed by the chancellor or vice president. Interested faculty members

should contact campus grants offices for information concerning campus deadlines, format for submission and complete Research Assistance Act guidelines.

Further information is available from Nancy A. Marlin, assistant vice president for academic affairs, (314) 882-6396.

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