

Ashcroft Signs Sales-Tax Boost

By Jim Mosley

Post-Dispatch Jefferson City Bureau
JEFFERSON CITY — Missourians will begin paying higher sales taxes

"Missouri stood at the crossroads," Ashcroft said as he signed the tax plan. "We could have chosen to

Education Officials Relieved To Get Tax Hike

\$478.2 million this year for four-year colleges. The lower amount takes into account the 3 percent that the government will withhold from the

an area, the first question they ask is about the availability of education," Vickrey said. "They want a trained work force and a mechanism to make sure they have an educated work force for the future, not only for fac-

The Legislature Does Its Duty

When they have real work to do and little time in which to do it, Missouri lawmakers can produce. The special session convened July 5 to bridge a revenue gap of \$160 million is a case in

creased reliance on the sales tax to bail government out of its revenue commitments, whether this be at the state

Faculty reacts to tax increase with concern

By JOHN HEDGECOTH
Missourian staff writer

Administration officials and faculty members at the University of Missouri-Columbia welcomed the \$160 million tax increase signed by Gov. Ashcroft Tuesday, though few expect the state to start a trend of giving the school more money.

"This is a bill to avoid budget

system President C. Peter Magrath praised legislators for passing the tax bill, and called it "absolutely necessary to the health of higher education" in the state.

Associate Vice President for Academic Affairs Richard Wallace said, "It would have been exceedingly difficult to operate in coming

A tax increase has spared the University's 1990 budget the ax. (Page 1.) Meanwhile, two Systemwide committees are planning for tomorrow based on markedly different views of the fiscal future. (Page 2.)



Travel tips for employees on University business. Page 8.



One curator's perspective on extension, state funding. Pages 6-7.

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Faculty receive awards for teaching, research. Pages 4-5.

Legislative action lets budget planning proceed

6 percent average pay increases effective Sept. 1

General Assembly passage of a sales and corporate tax increase should secure the University of Missouri System's \$433 million operating budget for fiscal 1990, which began July 1. The University faced a \$23 million cut unless taxes were raised to cover more than \$150 million in refunds the state owes federal pensioners.

The action clears the way for faculty and staff salary increases averaging 6 percent effective Sept. 1, the beginning of the University's salary year. Authorization for all spending increases was put on hold by the Board of Curators until the revenue shortfall dispute was settled. The tax increase plan was passed by both chambers of the General Assembly July 11 and signed by Gov. John Ashcroft the

'This represents what can be done when we all work together for what we know are high purposes.'

same day, concluding a special session that began July 5.

"I want to personally applaud Gov. Ashcroft, Speaker Griffin of the House, President Pro-Tem Mathewson of the Senate, the members of the joint committee and all the members of the General Assembly who supported and enacted this legislation," President C. Peter Magrath said. "Their actions are absolutely necessary to the health of higher education in our state and to keeping the University of Missouri System intact. This accomplishment represents an excellent example of what can be done in our state and for our state when we all work together for what we know are high purposes."

Magrath says he also appreciates — and thanks — faculty,

staff, students, alumni and retirees who encouraged legislators to find a solution to the state's temporary budget shortfall. "Everyone's effort was helpful," Magrath said.

The temporary tax increase calls for a two-year graduated corporate income tax beginning Jan. 1 and a nine-month, one-fifth cent sales tax increase beginning Oct. 1. The current state sales tax is 4.225 percent.

The corporate income tax rate increases to 6.5 percent from 5 percent for corporations with taxable income of more than \$335,000. Corporations with taxable income between \$100,000 and \$335,000 will pay 6 percent. Corporations with income under \$100,000 will continue to pay the 5 percent rate.

News in Brief

Kellogg grant funds new youth initiative

A new University Extension program, the Missouri Youth Initiative, will help Missouri communities deal with threats to their young people from poverty, drug or alcohol abuse, teen pregnancy and stress. The project is funded by a \$3.6 million grant from the W.K. Kellogg Foundation of Battle Creek, Mich.



The grant is the largest ever awarded by a private foundation to a division of the University of Missouri System and the largest ever given by Kellogg for projects focused solely on youths.

The Missouri Youth Initiative will proceed at local and state levels, says Gail Imig, UM System associate vice president for academic affairs-University Extension.

At the local level, six Missouri communities will be chosen as demonstration sites for an intensive four-year pilot project.

A University Extension staff member will serve as local program manager, building community support and linking the community to the resources of the universities and state agencies.

At the state level, a faculty member will be named project director. The director will be assisted by advisory committees that will link the university, state and local participants in planning and local application.

University teams will be organized to work with state agencies and local communities to offer research, program development and evaluation. Faculty also will provide training for local staff

and volunteers and for other faculty and state agency personnel.

Big 8 schools form new organization for academic ties

The creation of the Association of Big Eight Universities was announced late last month by UM System President C. Peter Magrath and UMC Chancellor Haskell Monroe. The organization is designed to promote cooperative education projects among Big Eight institutions by combining each institution's academic strengths.

Magrath said the new organization will focus the public's attention on the academic talents within Big Eight universities instead of the talents associated with the schools' athletic programs.

"For too long the Big Eight universities have been identified in the public mind with athletics. But academics is our primary mission," Magrath said. "Putting together an Association of Big Eight Universities has long been an objective of mine, and I am enthusiastic that all of our eight universities — covering six states — will be even more closely aligned. This will help our academic mission regionally and nationally. And it will strengthen and intensify our collaborative efforts and programs."

Monroe said the universities in the new association all play a similar role. "We are all public universities, and we are the predominant institutions of higher education in our respective states. Our unification will strengthen each university and increase the viability of the entire Midwest."

Magrath and Monroe met with other Big Eight presidents and chancellors in Kansas City where the organization was conceived. Jon Wefald, president of Kansas State University, was elected chairman of the association's board of directors.

The association will take the place of the Mid-America State

Universities Association, which since 1960 has coordinated a limited number of joint activities. These have included sponsorship of visits by foreign scholars, support for lecture tours by faculty experts in member schools and shared use of specialized facilities by students.

The new association plans to search for a full-time executive director, who will be responsible for developing cooperative programs and seeking financial support for new activities. Wefald believes the office will be established on one of the Big Eight campuses and that it might be in operation by the end of 1989.

Managing records now System job; CIT role expands

Effective July 1, the University's records management unit, part of UMC's Printing Services, was transferred to the University System's Computing and Information Technology office.

Chuck Shomper, UM System assistant vice president for computing and information technology, says the move is purely an administrative one. The transfer should not change the logistics or procedures involved in the records management service.

"Procuring records or storing them remains the same," Shomper says. "Wayne Duncan is in charge of records management, and people who have worked with him and his staff in the past will continue to do so."

Records management, Duncan says, is involved in managing the business records of the University. Much of the unit's work involves retrieving and microfilming records, such as student and budgetary records plus 35,000 cubic feet of physical specimens and other historical and current items. Records come from throughout the University System.

The 1989-90 budget includes \$4.6 million in internal reallocation.

The House approved the measure 105-51. The Senate followed suit 26-4.

The University's budget for 1989-90 comes from \$287 million in state funding and \$146 million in non-state funding. The budget includes \$4.6 million in internal reallocation.

The University will put \$8.6 million, 3 percent of the state's portion of the budget, in reserve to cover statutory withholding. The state may release all or part of the withheld funds if state revenues permit.

The budget includes \$206.5 million for UMC; \$89.6 million for UMKC; \$49.6 million for UMR; \$53.4 million for UMSL; \$1.3 million for research; and \$19.4 million for University Extension.

Most of the \$34 million increase in the fiscal 1990 budget will go toward faculty and staff compensation — \$16 million for a 6 percent average salary and wage increase and another \$4.1 million to fund increases in staff benefits. The total compensation package will increase 6.5 percent.

Committees begin work to advise president

University President C. Peter Magrath has appointed two special committees to advise him on major challenges facing the University.

The State Revenue Planning Group, informally called the Option 2 committee, is chaired by UMKC Chancellor George Russell. Its mandate is to develop a strategy to generate the increased state funding necessary to fulfill the board's five-year financial plan. This strategy will be in harmony with Missourians for Higher Education, the statewide coalition of higher education institutions working for a tax increase. The University System has been heavily engaged in the MHE effort.

UMR Chancellor Martin Jischke chairs the Option 3 Planning Group, which will develop a strategy for outlining types of major program restructuring, student fee increases and other measures that will be required beginning as early as July 1990 if the state does not move forward with a revenue initiative sufficient to meet the needs of the University.

The two committees were formed after Magrath outlined to the curators at a special April meeting three options for the

future: 1) maintaining all current programs within the existing budget, 2) seeking increased financial support from the state or 3) mandating major restructuring of the University, tuition increases and other steps if prospects for additional state support are not significantly improved by next summer. Option 1, the status quo option, was rejected by curators.

Options for the Future

The Option 3 committee will recommend a process to assure that the president's report to the board reflects a realistic, practical and effective statement of actions that will be taken by the University if the five-year financial plan is not funded.

Members of the Option 3 committee are Tom Jones, deputy to the chancellor, UMSL; Jim McGill, UM System vice president for administrative affairs; William Maltby, chairman of history,

UMSL; Henry Mitchell, associate vice chancellor for academic affairs, UMKC; Roger Mitchell, dean of agriculture, UMC; UMC Chancellor Haskell Monroe; Ron Powers, assistant vice president for academic affairs—University Extension; Neil Smith, vice chancellor for administrative services, UMR; and Richard Wallace, UM System vice president for academic affairs.

Members of the State Revenue Planning Group are UMSL Chancellor Marguerite Barnett; Gerald Brouder, deputy chancellor, UMC; Robert Davis, dean of engineering, UMR; Jim Doyle, professor of philosophy, UMSL; Gail Imig, associate vice president for academic affairs—University Extension; David Lendt, director, UM System University Relations; David Leuthold, professor of political science, UMC; Mike Mardikes, director, public affairs, UMKC; Don Phares, special assistant to the chancellor, UMSL; and Norman Seay, assistant to the chancellor for minority affairs, UMSL.

The first meeting of the State Revenue Planning Group was July 7 on the UMKC campus. Spokespersons for the four campuses and University Extension

discussed their top priority needs in preparation for devising strategies to increase state support.

The group was advised that Missourians' primary interests are related to economic improvements — more jobs, economic development, greater competitiveness and a better educated work force — all of which are influenced by higher education. It was also suggested that Missourians are concerned about future access to higher education for their children and grandchildren.

Court rules for University

The Columbia Daily Tribune unsuccessfully sued the University this month to open to the public a July 13 meeting of the Option 3 Planning Group.

Boone County Circuit Court Judge Gene Hamilton agreed with University Counsel Bob Ross that the committee's meeting was not subject to the Missouri Open Meetings and Records Law.

The Missouri law states that all meetings of governmental bodies are open to the public. All meetings of the Board of Curators and committees appointed by curators are subject to provisions of the law. Ross successfully argued that the Option 3 group was appointed by and will report to Magrath — not curators — and therefore is not subject to the law.

CBHE voices need to help higher ed seek funds

Two committees of the Missouri Coordinating Board for Higher Education have expressed the need for coordinating board members to serve as advocates for increased state funding for higher education.

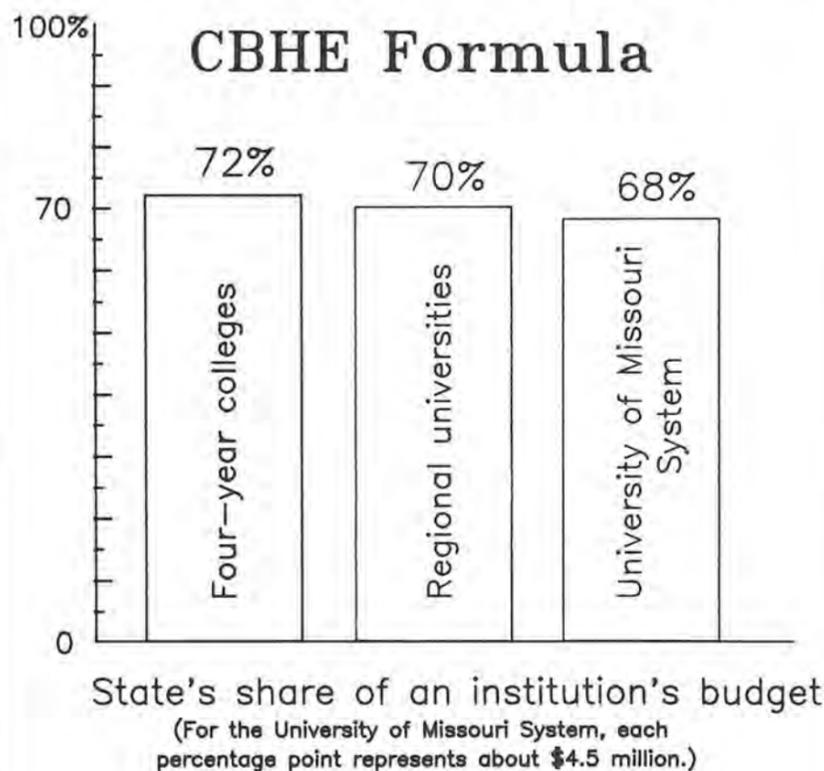
The CBHE traditionally bases the recommendations it makes to the state for funding public colleges and universities on estimates of what increase the state can afford. Both committees expressed a desire to change current practices, and the Task Force on Funding Formula suggested future CBHE recommendations be based on the proven needs of higher education.

"The CBHE should take an advocacy position for higher education by recommending (to the General Assembly) slightly more than may be available as a means of demonstrating need," CBHE member John Koffman said.

"I don't think there's any question Missouri needs to spend more on higher education," CBHE President Avis Tucker said during a meeting of the Task Force on Higher Education Funding. "I think we can, and should, be greater advocates for higher education." Tucker is a former member of the UM System Board of Curators.

CBHE member David Macoubrie agreed with Tucker's observation. "I think it's important to sound the horn for education and not sound the death knell. We have a great product, and I think we can sell it." And, according to CBHE member David Haggard, that sale could be made to Missouri voters as a joint venture of colleges, universities and the CBHE.

University of Missouri System President C. Peter Magrath told task force members any successful



informational campaign would have to contain simple, specific messages that show what additional resources will do for the state.

"We need to lay out to the people what we do for the state and what we can do with increased funding based upon our existing success stories," Magrath said. "We also have a real problem with maintenance and repair. We just haven't been able to address our facilities needs as we should. We should say to the people in a straight-forward manner that we have needs that, if not met, will affect our ability to help the state advance in the future."

The CBHE Task Force on Funding Formula recommended that public hearings be held on how state dollars are distributed to

public colleges and universities. UM System officials contend the current formula benefits regional universities and colleges to the detriment of the UM System.

"I welcome public hearings on this matter. The CBHE distribution plan disadvantages the University of Missouri System; I think the record shows that very clearly," Magrath said. "But I want to make this point — we do not wish the other institutions to be hurt. The issue is adequate funding for higher education."

The CBHE formula determines what percentage of an institution's budget should come from state funding. The percentage for the UM System is lowest, at 68 percent, among all state-supported schools. (See chart)

The importance of internal communication with faculty, staff members, students and parents was stressed. It was suggested that efforts be made early in the new academic year to advise members of the University System "family" of the situation and of tentative plans for pursuing additional funding.

Faculty and staff interested in knowing more about the work of the committees or the University's efforts to seek additional state support are encouraged to submit questions or suggestions to *Spectrum* or to any of the committee members.

Faculty advisory group meets

The president and various advisers met July 19 with the recently appointed Faculty Advisory Committee to Increase Funding for the University of Missouri System.

Gary Passmore, political consultant to Missourians for Higher Education, and Jim Snider, assistant to the president for state governmental relations, suggested that the 1989 session of the General Assembly was successful in bringing elements of Missouri higher education together and in establishing higher education as a major statewide issue. The successful special session was a "good experience," according to Passmore, because it showed that bipartisan support for higher education could be attained without negative political results.

The role of faculty leaders in seeking increased funding was described as "critical," especially in expanding internal communications and in informing others of the benefits available to Missouri through adequate funding of higher education.

Economic development, academic affairs

University announces two System-level appointments

An associate vice president for academic affairs and a director of economic development have been named to positions with the University System.

Mark Burkholder, a UMSL history professor, is the new associate vice president. Richard Finholt, who is now executive director of research park development for the University of Florida, will assume duties Aug. 1 as special assistant for economic development and executive director of the Missouri Research Park.

Burkholder joined the UMSL faculty in 1970. His new position consolidates the roles of assistant vice president and senior faculty adviser, reducing the number of administrators in academic affairs from five to four. Burkholder joins Arvarh Strickland, a UMC professor, and Gail Imig, director of University Extension, as one of three associate vice presidents for academic affairs.

Vice President for Academic Affairs Richard Wallace said Burkholder will be involved in all aspects of the office, including direction of the Missouri Research Assistance Act program, the Weldon Spring awards program and the Office of Patents and Licensing. Burkholder succeeds Nancy Marlin, assistant vice president for academic affairs, who is leaving for a position at the University of Northern Iowa.

Burkholder is no newcomer to the Office of Academic Affairs or to administrative duties. He served one year as a faculty associate in the office under then-Vice President for Academic Affairs Mel George and six years as an associate or assistant dean of the College of Arts and Sciences at UMSL. Also, for the past year Burkholder has served as chairman of the UMSL Senate.

Burkholder received his B.A. from Muskingum College, his M.A. from the University of Oregon and his Ph.D. from Duke



Burkholder

University. He has done extensive research in Colonial Spanish American history and is widely published in that field.

Finholt will promote the Missouri Research Park in St. Charles County, assist in developing the University System's research parks in Kansas City and Columbia and act as a liaison with the Missouri Department of Economic Development, according to Vice President for Administrative Affairs James McGill. Also, Finholt will maintain communications with the business incubators affiliated with the University System's four campuses.



Finholt

Finholt earned master's and Ph.D. degrees in American literature from Northern Illinois University and a B.A. degree in English literature from the University of Illinois. Concurrent with his assignment at the University of Florida, he has been acting executive director of the Genesis Foundation — an incubator for technology-intensive startup companies. From 1984 to 1987, he was coordinator for The Ohio State University Research Park.

Finholt succeeds Duane Stucky, who left for a position with Michigan Technological University in October 1988.

Supporter speaks on value of University

Editor's note: Bert Berkley serves as chairman of the board of the Tension Envelope Corp. in Kansas City, Mo. He is an active supporter of UMKC and on June 6 received the UMKC Chancellor's Medal. Reprinted here are excerpts of his acceptance speech that relate to a need for more public investment in higher education.

By Bert Berkley

Thank you very much for this honor. I am deeply moved. It means a great deal to me.

When I reflect on civic activities here, my conclusion is that we are fortunate. I see that we do a good job of supporting health and welfare and cultural organizations — through good times and bad, we have supported the United Way, the health and welfare agencies involved and many other agencies that for one reason or another are not under the United Way umbrella. Culturally, we are most fortunate to have organizations such as ballet, opera, a symphony orchestra, the Nelson-Atkins Museum of Art, the Kansas City Art Institute and the Missouri Repertory Theater.

Millions upon millions of dollars are raised to support these various entities. Certainly there are a number of large givers, but our strength is that so many give and identify with the organization.

It is essential that all of us continue to support our important health and welfare and cultural organizations. We also have a responsibility to support this University. It may be that our responsibility to a better Kansas City requires us to do as much or more for UMKC than for any other organization.

You may ask why. As a businessman, I can tell you in a

world which is becoming more sophisticated, the educational level needed to compete must be upgraded, and this urban university is capable of carrying out that mission. In our businesses or professions, we are going to need more knowledgeable, more capable people; a university is the well from which people will be drawn.

Strong economic development in this state will create more tax dollars for education. Education and economic development go hand in glove.

In this country we face a manpower crisis because of the scarcity of graduate level programs in science and technology. (The chancellor) proposed an Institute of Science and Technology at UMKC which will offer graduate programs in several disciplines. Money will be needed from the state legislature and from this community. We must rise to the occasion.

So where do we go from here? If UMKC is to do these things which it is capable of doing, more

money is needed. Dollars come primarily from the legislature and then must be blessed by the governor. Like every other state, Missouri has fiscal problems; but the facts are that Missouri is one of the lowest tax states in the nation. The conventional wisdom is that low taxes bring more new businesses into the state. If that were true, we should be deluged. We are not.

Companies want to be in a state where first rate services are available. Services in Missouri leave something to be desired, and we suffer because of it. In particular, we suffer because education does not get enough money. Among the 50 states, in dollars spent per capita on higher education, Missouri is 48th. Yet, Missouri ranks 23rd in per capita income. How can we give our students what they deserve in a sophisticated, competitive society if we don't give the University of Missouri System the money that is needed?

The facts are we can't. With everything going for us in this University, if we don't get additional monies, our momentum will slow and slow and slow.

The problem is that the legislature and the governor haven't enough money in the state coffers. Two ways we can increase the amount of tax money available are by bringing new business into the state and by having our present businesses grow. Money is needed for economic development. This brings about the classic problem of educators wanting money for their cause and those interested in economic development wanting it for theirs. The legislature is torn. The governor is torn. The facts are that additional monies must be appropriated for education and for



Berkley

economic development.

Strong economic development in this state will create more tax dollars for education. Education and economic development go hand in glove.

The voice of the people can make a difference, and yours is a very important voice. After the special session, let it be known that education remains a priority item with you and that you want to see a change in the amount of money spent per capita on higher education so that at least we are approximately 25th among the states, rather than 48th.

The future of the University can be bright. We have the leadership, we have high-quality teaching professionals, we have competent staff and we have community support. UMKC is the envy of every other urban university in the country because of our close ties with the community. We are a shining example, we are proud of this University, and with your continued involvement in this community and with this University, we look forward to the future with confidence.

Jordan joins ranks of Curators' Professors

Thomas E. Jordan, an international scholar on infancy and early child development and the interim director of the UMSL Parents as Teachers National Center, was named Curators' Professor of child development at a recent meeting of the UM System Board of Curators.



Jordan

The professorship is reserved for outstanding scholars who are recognized by colleagues as leaders in their fields.

Jordan joins three other Curators' Professors at UMSL — Jacob J. Leventhal, Eugene P. Meehan and James Neal Primm, professor emeritus.

Jordan, dean of the Graduate School and associate vice chancellor for academic affairs from 1974 until 1988, has taught at UMSL since 1968. His book, "The Mentally Retarded," is in its fourth edition. His most recent book, published in 1987, is "Victorian Childhood: Themes and Variations." He has published 26 books and monographs as well as 124 articles and papers.

Curators' Professorships are reserved for outstanding scholars who are recognized by colleagues as leaders in their fields.

In 1980 he received the Starkey Prize, awarded by the Royal Society of Health-London, for his monograph, "A Persistent Problem in Mental Health — Delayed Mental Development: A Prospective Study." The monograph reports data from the St. Louis Baby Study. In it Jordan analyzes the verbal and non-verbal development of nearly 350 St. Louis children from birth to age eight. This study was part of a larger one on the relationship of stress to the social adjustment, physical development and learning

ability of children from birth to maturity.

In 1975-76, Jordan was chosen the Mid-America State Universities Association honor lecturer. In 1984 he received a British Council-Fulbright Award for research-related travel.

In addition to his academic credentials, Jordan has had

extensive administrative experience. He has served as director of the Center for Teacher Education at Tulane University, chairman of the Department of Special Education at Southern Illinois University-Carbondale and director of research at the Central Midwest Regional Educational Laboratory. At UMSL

he was elected chairman of the University Senate in 1972. In 1974 he became dean of the Graduate School and associate vice chancellor for academic affairs.

Jordan received his bachelor's and master's degrees from Indiana State University and his Ed.D. degree from Indiana University.

Researchers receive MRAA funds; \$5.4 million awarded since 1983

UM System researchers have received \$538,595 to support 28 projects intended to enhance employment opportunities, stimulate economic development and encourage private investment in Missouri.

Since the MRAA program began in 1983, UM System researchers have been awarded \$5.4 million.

The money is part of a state program established by the Missouri Research Assistance Act to support research efforts that could have positive economic impact. The state awards can be used to defray only one-third of the direct expenses of any approved project. Researchers must seek the remaining two-thirds from private sources. However, if the private source is classified as a small business, the MRAA award can cover two-thirds of a project's cost.

Assistant Vice President for Academic Affairs Nancy Marlin says MRAA is an ideal cooperative effort among the state, industries providing funds and University faculty doing the research companies need. "This is an example of how the University, through its research, works to help meet the needs of the state."

Since the program began in 1983, UM System researchers have been awarded \$5.4 million. Researchers have generated more than \$11 million in matching funds from outside sources.

The University's Board of Curators functions as the MRAA approving board for proposals from all doctoral granting institutions in the state.

Projects approved in this funding cycle, including one project from Washington University:

- \$16,526 to Sema Alptekin, engineering management, UMR, "Development of Computer Integrated Manufacturing Environment for Small Businesses."

- \$7,972 to Stephen H. Anderson, agronomy, UMC, "Reducing Soil Compaction Effects

on Soybean Water Use Efficiency and Production."

- \$4,000 to Wayne C. Bailey, entomology, UMC, "Insect Impact on the Establishment, Growth, and Longevity of No-Till Alfalfa."

- \$5,000 to Robert W. Blanchar, agronomy, UMC, "Assessment of Chlorine Accumulation in High Yield Soybean Cultivars in Missouri."

- \$12,833 to Frank D. Blum, chemistry, UMR, "Molecular Modelling and Motion of Polymers and Small Molecules Attached to Solid Surfaces."

- \$17,360 to Jack L. Boone, electrical engineering, UMR, "The Growth and Characterization of Large Diameter, Single Crystal II-VI Compound Semiconductors."

- \$23,161 to Michael S. DeFelice, agronomy extension, UMC, "Integrating Methods of Weed Control for Missouri Field Crop Production."

- \$2,638 to David E. Emerich, biochemistry (agriculture), UMC, "Covalent Phosphate Addition to Proteins as a Mechanism to Regulate Soybean Root Nodule Metabolism."

- \$5,000 to Robert N. Goodman, plant pathology, UMC, "Somaclonal Selection of Chancellor Grape Cells that Exhibit Reduced Sensitivity (Resistance) to the Crown Pathogen *Agrobacterium tumefaciens*."

- \$44,642 to Richard D. Hammer, agronomy, UMC, "Procedures to Assess and Modify Reclaimed Minesoils to Meet Bond Release."

- \$20,266 to Thomas J. Herrick, electrical engineering, UMR, "Development of an Apparatus to Control Infusion-Fluid Temperature During Ophthalmic Surgery."

- \$16,515 to Hildegard Heyman, food science and nutrition, UMC, "Identification of Bitter Components in Bovine Milk Cheese."

- \$25,000 to Eugene L. Iannotti, agricultural engineering, UMC, "Development of Plastics from Corn."

- \$19,599 to Gary S. Johnson, veterinary pathology, UMC, "Molecular Genetics for Diagnosis of Canine von Willebrand's Disease."

- \$7,500 to Edward C. Lawrence, business administration, UMSL, "Managing Problem Loans at Commercial Banks."

- \$11,111 to Shen C. Lee, mechanical and aerospace engineering, UMR, "Improvements to Turbulence Models for Aircraft

Applications."

- \$27,558 to Sudarshan Kumar Loyalka, nuclear engineering, UMC, "Control of Particulate Contaminants in Microfabrication."

- \$56,400 to Robert T. Marshall, food science and nutrition, UMC, "Viable Bacteria as Sources of B-D-Galactosidase in Frozen Desserts."

- \$43,400 to Jose Luis Mendoza and Robert E. Moore, ceramic engineering, UMR, "Development of Hollow-Spherical Aggregates for Insulating Refractory Concretes and Shapes."

- \$31,842 to Roy O. Morris, biochemistry (agriculture), UMC, "Expression and Characterization of Genes Coding for Cytokinin Biosynthesis."

- \$17,820 to Terry L. Niblack, plant pathology, UMC, "Host-Parasite Interactions of Soybean Parasitic Nematodes in North/Central Missouri."

- \$5,556 to William D. Richard, electrical engineering, Washington University, "Development of a Microcomputer Architecture for Transrectal Ultrasonography."

- \$9,103 to Michael J. Rovetto, physiology, UMC, "Inhibitors of Myocardial Fatty Acid Oxidation."

- \$15,000 to David A. Sleper, agronomy, UMC, "Enhancement of Tall Fescue Germplasm for Turf."

- \$31,120 to Richard W. Stephenson, civil engineering, UMR, "Predicting Installation Torque Requirements and Uplift Capacity of Helical Soil Anchors Using Measured Geotechnical Properties of Soil."

- \$9,312 to Nan E. Unklesbay, food science and nutrition, UMC, "Simulation of Deep Fat Frying and Charbroiling: Effects on Fatty Acid Composition and Cholesterol Content of a Comminuted Pork-Soy Hull Food Product."

- \$6,250 to Trygve L. Veum, animal science, UMC, "Threonine and Tryptophan Supplementation of Lysine and Methionine-Fortified Corn-Soybean Meal Basal Diets for Growing and Finishing Pigs."

- \$7,500 to William J. Welsh, chemistry, UMSL, "Computer-Assisted Drug Design of Anticancer and Anti-Pneumocystis Chemotherapeutic Agents."

- \$44,167 to Kim S. Wise, microbiology (medicine), UMC, "Immunochemical Identification and Molecular Cloning of *Mycoplasma Hyopneumoniae* Antigens."

Outstanding teaching honors to three

Faculty from three UM System campuses received this year's \$4,000 Burlington Northern Faculty Achievement Awards for outstanding teaching.

The awards are part of a Burlington Northern grant that has allowed the University to give the awards for the past five years.

Winners of this year's awards are Richard J. Hardy, associate professor of political science at UMC; Lois S. Spatz, professor of English at UMKC; and Paul D. Travers, professor of educational studies at UMSL.

A systemwide committee made the selections on the basis of "unusually significant and meritorious achievement in teaching."



Hardy

Richard Hardy

Hardy's research interests include American government and Missouri government and politics, public policy evaluation methods and political science teaching

Dr. Hardy's mission in life is to clarify government so that people can be more active citizens and participate better in controlling government. He is a believer in democracy.

methods. He came to UMC in 1978 as assistant professor of political science and was promoted to associate professor in 1984. During the 1983-84 academic year, he was a visiting professor in political science at Duke University.

Hardy is the former director of the UMC political science master's of public policy program. He is currently director of the department's undergraduate studies program in which he supervises 550 majors, oversees intensive writing courses and awards undergraduate scholarships.

In 1980 and again in 1988 Hardy organized a mock political convention with 1,600 students participating. Among the visitors to the convention and his classes last year were Gov. John Ashcroft, gubernatorial candidate Betty Hearnese, Sen. John Danforth and presidential candidate George Bush.

A colleague writes: "Dr. Hardy's mission in life is to clarify government so that people in general, through understanding it, can be more active citizens and participate better in controlling government. He is a believer in democracy. Nowhere is this borne out better than in the subset of students with whom he works hardest: the students from the working class or lower-middle class backgrounds, often the students vaguely ill at ease speaking with college professors because they are the first in their family to go to college, the students who need encouragement to see in themselves their own intelligence and analytical abilities."



Spatz

Lois Spatz

Spatz's teaching interests include the Bible as literature, myth and literature, Greek language and Latin grammar. She helped create and teach a cross-disciplinary course in ancient history and with another history department colleague has put together a major and minor concentration in the classics and an innovative series of weekend courses.

Currently Spatz is director of the Department of English's integrated studies in the humanities program. In 1987 she won the Shelby Storck Outstanding Teacher Award at UMKC and in 1988 was nominated for the Council for Advancement and Support of Education Professor of the Year award. In 1981 and 1984, she was awarded University of Missouri System Weldon Spring summer stipends for research.

Max Skidmore, dean of the UMKC College of Arts and Sciences, says excellence is a hallmark of Spatz's teaching, noting that her creative insights, breadth of knowledge and concern for her students inspire them to seek new levels of knowledge and achievement.

I have known Professor Spatz for a dozen years, and I am convinced that she is one of the finest teachers I have ever seen.

In Spatz's own description of her English courses, she says, "I try to acquaint students with the context in which the literature developed, the process of its formation and transmission, its impact on the audience or reader and its relevance as literature to our own society and lives."

In supporting Spatz for this award, a colleague stated: "I have known Professor Spatz for a dozen years, and I am convinced that she is one of the finest teachers I have ever seen. She is a *University* teacher, that is to say, a scholar-teacher who not only

I found Dr. Travers to be a genuine 'practice what you preach' person. He is true to his profession in every way. He has become someone I have great respect and admiration for as a mentor.

imparts a heritage of learning and ideas to our students but who is also herself on the cutting edge of scholarship in her field and so conveys the excitement of new information and ideas."



Travers

Paul Travers

Travers is a specialist in historical foundations of education and concentrates a major portion of his teaching efforts on the entry course in teacher education. He believes the first course sets the tone for subsequent professional study.

In 1975 and 1987 he received the Amoco Foundation Good Teaching Award. He also received the Evening College Student Council Award for Outstanding Service in 1977, the Student Life Award in 1983 and the Fourth Annual Award for Service to the Disabled Student.

Travers is a member of the History of Education Society, Phi Delta Kappa and the Council for Basic Education. In his teaching at UMSL, he combines professionalism and a concern for individuals that is exemplified in his work with pre-service teacher education students at the undergraduate level and at the post-degree initial certification level.

Travers uses a textbook he co-authored with an assistant superintendent in the St. Louis school district that is designed to relate theory and practice so that future teachers can see the public school in its proper context. The effect of his teaching is evident in his student evaluations. One student writes: "Coming to UM-St. Louis after three years out of college was frightening to me. I thought education was what I wanted to pursue. I found Dr. Travers to be a genuine 'practice what you preach' person. He is true to his profession in every way. He has become someone I have great respect and admiration for as a mentor. He's a great instructor, a fantastic mentor and a true friend. I hope I can offer the qualities he's shown me to my students someday. I'll feel I've succeeded if this happens!"

Curator salutes extension, discusses state funding

Editor's note: The following excerpts of Peter H. Raven's curator's perspective is part of our continuing series of reprints of curators' presentations at Board of Curators meetings.

First, I'd just like to indicate a personal pleasure in being here in St. Joseph, Missouri. My great, great grandfather, Patrick Breen, having lived 10 years in Keokuk, gathered here in 1846 as part of the Donner party on his way to California where he had a very unfortunate and hungry winter along with the rest of his family. Later on, another member of my mother's family, James Lenhart, who'd wisely run away from home in Pottstown, Pennsylvania, participated in the brief episode known as the Pony Express. And as a native Californian I've always been impressed by the fact that the railroad began in St. Joseph and ended in Sacramento, California. Of course, having spent 10 years on the Stanford faculty, I was well aware of the golden spike that was driven just 120 years ago this year, linking those two cities and providing such an impetus for the development of our nation.

Those are nostalgic facts personally, and this is an area rich in history and crucial to the United States and particularly the opening of the West, but we're not really here to talk about nostalgia. We're here to talk about the way in which land-grant universities do and can serve the needs of this area and this state.

Fundamental to understanding this or any comparable university, a land-grant university is a comprehensive and broad effort that represents a particular kind of compact between the government and the people of that state, and which expresses itself by a variety of services, which include not only education, but also research and extension.

As Gail Imig, our very able director of extension, has emphasized, extension acts as a kind of a facilitator between many elements and many groups of people in this state, but so does the University as a whole. And that's why I consider it of such fundamental importance to keep reminding ourselves that whereas we might love to think about a Princeton or a Dartmouth or a Stanford, their programs are, and can only be, a very narrow and focused part of the wide array of programs that are and must be characteristic of a land-grant university.

And when we try to look at a land-grant university or a land-grant university system, such as ours, and remake it in the image of a private university, we're as much in error as are those who readily criticize a private university for suspending or not offering certain kinds of programs in its drive towards its own particular style and brand of excellence.

Because of where we're meeting, what I would like to do is divide my remarks into two parts — the first part concerned with some of the activities of extension and outreach programs in this part of the state and the

second part to be concerned with the role of the University as a whole and what I take to be appropriate actions and attitudes on our part about that role.

University Extension has been operating for 75 years, never more brilliantly, I think, than at present when, under the direction of an outstanding administrator and under a severe need to hone and focus programs, University Extension is providing exactly the kind of support that people need. Maps we've seen at board meetings indicate that almost all counties of Missouri are falling in population, nowhere more vividly illustrated than by this part of the state. The kind of things that people in this



Raven

part of the state and throughout the rural areas of the state, and in different ways throughout all parts of the state, need are being supplied in very large measure by extension.

Let me give you a few examples. In terms of career options, the rural economy crisis that I've referred to has been particularly severe here. Approximately 25 percent of the families forced out of farming and related businesses have had to look to other employment opportunities. In response to this situation, University Extension has developed an educational program called "Career Options for Rural Missouri Families."

The counseling and career planning staff at the University and community colleges have also been utilized, and I underline that because the role of extension in coordinating efforts of many agencies is exemplary. It is a facilitator; it's not something that needlessly duplicates other state services.

Now let's talk about water quality, which is a serious issue in all agricultural parts of the world because the heavy application of nitrogen fertilizers combined with often improper partial waste disposal facilities have brought levels of nitrates, in many cases, up to unacceptable standards. University Extension, providing leadership in confronting this problem in the northwestern part of our state, has established a water quality resource library in DeKalb County serving the surrounding 12

counties, has held a water quality testing day in Maysville to inform area residents about these problems, which by the way are particularly severe for infants; it's held workshops on pesticide detection and water quality research in cooperation with the State Department of Health, Farm Bureau, Soil Conservation Service and Department of Conservation.

In addition to those efforts in water quality, University Extension has been very active in providing research information in this part of the state. The establishment of a facility in Atchison County for agronomic research and demonstration by the Missouri Agriculture Experiment Station and the College of Agriculture has brought the results of modern research in agriculture right home, brought it right into the areas where it can be used.

We're always impressed by the fact that farming and forestry in the tropics is not sustainable, but we're increasingly questioning whether we run our farming and forestry in the United States in a way that's truly sustainable. And as we think about that problem more and more and deplore our loss of topsoil and the pollution of our waters, University Extension, a trusted friend and adviser in every single county throughout this state, will be there to bring the best information available right home to the people.

In weed eradication, in leadership development of various kinds, in helping communities to focus on their own problems like the development of their youth, the kinds of programs that have been discussed in relation to the magnificent Kellogg grant that's just been announced, University Extension has played a really significant and remarkable role here and will continue to do so in the future.

One of the most important things that it does is to bring home the fruits of research in our excellent College of Agriculture which by the way is responding extremely well to the farm crisis and thinking about new ways, new modes, new methods, new crops and all the rest. New varieties of crops are being demonstrated at centers around the state. Right in this area, 53,600 acres of certified soybean seed is produced annually.

Now for the last few minutes of my remarks, I want to start with a lesson from the report of the Missouri Opportunity 2000 Commission, and my text is: "Education is the single most important way in which a state can influence its own future. Missouri has a long history of making low investments in education. The commission" — and this is a commission appointed by Gov. Ashcroft advising the people of the state how they could best serve their own interests in building toward the year 2000 — "the commission finds that the underinvestment in education places the state at considerable risk in the intensely competitive economic development effort. The commission recommends that Missouri find the resources to

invest in the creation of a first-class educational system by the year 2000."

There is an obvious and very great need for skilled workers in the future. All of us are aware of the fact that high school degrees are not going to be adequate for fruitful employment in the future, and even now the salaries of college graduates are 40 percent higher than those of high school graduates. High school graduates are simply not going to be able to do it, and in the increasingly technical world of the future, specialized training in computers and many allied skills are going to be necessary in order for people to occupy those positions.

In the university and college realm alone, massive retirements, resulting from massive employment in the 1950s, are going to create an extraordinary need for trained scientists and engineers by the mid-1990s, and we're going to have to find them and stock our universities with them if we're going to continue to support the economic viability of the state.

One of the important aspects of this equation is that white males entering the labor force in the future are going to be a minority. That in itself gives us a totally direct economic reason for finding, recruiting, training and bringing minorities to our campuses.

What we have is a good university damaged in the early 1980s.

One of the most important things we can do, an absolutely necessary thing for us to undertake as the University of Missouri System, is to automatically regard our current efforts in the minority recruiting field as substandard, hard-driving as they've been, and to look on better, more ingenious and more substantial ways to fully involve the minorities of our state in our programs. It's not a matter of human decency; it's simply a matter of state necessity.

But throughout the state, we're going to have to bring our labor force up to the standards that are needed if we're going to preserve what is now an excellent industrial base in the state of Missouri, if we're really going to be able to provide the people companies with headquarters here need. If we don't find a way to turn out first-class, technically trained graduates in adequate numbers in the future, don't kid yourself that the companies that have their headquarters in St. Louis, in Kansas City and elsewhere around the state are going to be able to recruit thousands of technically proficient graduates in other states and attract them here to Missouri to staff their

Continued on next page

Curator salutes extension, discusses state funding

industries. They're going to find increasing difficulty in staffing those industries, and they're going to start thinking about moving away and the whole thing is going to start cycling right back on us.

We're not a poor state. We're the third most populous state west of the Mississippi River. We have an outstanding industrial base which I submit we're putting at risk by our inadequate funding for our educational system, just as the Missouri 2000 report brings out. We have a good agricultural industry in this state. We have outstanding cultural facilities, and we have an average educational system which has declined fairly substantially in the 1980s as I'll outline in a minute.

Despite the myths about our educational system that are perpetuated, we're below average in almost any category, but we're well above average as a state in wealth, and we're well above average as a state in tuition and fees charged to the students that enroll in our universities and colleges.

What we have here in Missouri is a good public research university that was severely damaged in the early 1980s. In 1980 we were about 6 percent below the average of Big Ten/Big Eight public universities for salaries. In 1982, the University budget went up 0.3 percent. In 1983, the University budget went up 0.7 percent. In 1984, the University budget declined 1.5 percent.

That was the worst sequence of three years that the University of Missouri had suffered since the Great Depression, 50 years earlier. And during the Great Depression, people thought there was a reason for it.

What was the reason for it in the early 1980s? Aside from the obvious lack of federal block funding which has made a number of things possible in a state that constantly worries about and fears taxes, and thus uses the federal block funding to fill in the gaps, the state just couldn't work together to find any way to give adequate increases during those years.

During those same years, in a state like California with a conservative Republican governor, expenditures for the universities were beginning to rise rapidly and have gone up in absolute terms. Faculty salaries have increased rapidly during that same period of time. And that, I submit, represents the competition and the kind of standards that we ought to be thinking about.

Faculty and staff were basically strung along in the early 1980s by telling them that although things were really terrible, somehow we'd get out of this succession of very depressed increases in salary and then things would sort of take a turn for the better. Things have taken somewhat of a turn for the better since 1984, but they haven't taken a good enough turn for the better, and faculty and staff are getting very tired of it.

We no longer really have any excuse. We could regard that as a

time of very great stress on the University, but we can't really logically regard this as a time of very great stress, either on the University or on the state of Missouri.

We should be regarding this as a time of challenge. If we can make it in these years, we will make it, if we can really find ways to strengthen this institution. If we really fail during these years, we'll have nobody to blame but ourselves.

These are some of the most prosperous years that the state of Missouri and the United States have ever confronted. So when we say we don't have adequate resources for the University, we're really saying that we don't have the political and common will to put together the resources that we really do have to support the University.

We're saying we really don't care about the future. We're saying although those industries will not be able to hire skilled people, we just can't get ourselves together to put enough money into the system right now to change that situation. Somehow it's just too difficult. We'd rather keep our own personal advantages now and not worry about the problem.

If the road to improvement does lie in higher education in the state, as the Missouri 2000 report states and as I firmly believe it does, we've got to do something about all of this. As the Board of Curators, we've been keenly aware of the fact and we've tried to do what we could internally. We've reallocated \$24 million during the past three years, for example, thus illustrating one of the ways in which the University is helping itself.

We know that we're responsible for management, and we spend hours in these board meetings worrying about the details of management.

But I submit that we're also responsible for leadership. How much time do we spend in these board meetings worrying about leadership, worrying about representing the University of Missouri not as something striving to make up with one kind of average, but as something that we want to be the best.

We have attracted record private support. We've been deeply mindful of the lesson that the governor has just given us on the partnership between public and private funding. Private support is flowing in at high levels. Research grants and contracts totaled \$41 million in the last fiscal year, the highest level in University history.

For every dollar of salary paid to UM System faculty last year, an additional 57 cents was generated in grants and contracts. With adequate support for the basic research facilities and for the staff that they need to carry out their research properly, our researchers could be even more productive in seeking and finding federal support.

Finally, we need to address the question: If the University could gain additional state resources, how would it use them? We've

presented our answer to that in our financial plan which calls for \$147 million beyond inflation over the next five years. We would like the state to provide \$117 million of the increase and the University we'd like to generate \$30 million of the increase.

If we succeed in repairing the base by achieving that funding, we will address the following matters: First, faculty and staff compensation; secondly, libraries; thirdly, academic computing; fourth, equipment replacement; and fifth, preservation of facilities. We've heard enough details in every one of those areas to know how important each of them is, how drastically underfunded and how the University's quality is being eroded in each of those areas.

We also need selected program improvements in urban areas and we need to increase student financial aid, we need to increase minority recruiting, and we need to increase many programs that will extend the validity of the University and deepen its compact with the state.

I've served on this board since 1985 and I've come to understand the critical role that this institution plays in the advancement of

Taxes are very difficult to consider. We are, however, engaged in a fundamentally important struggle to keep our economy healthy.

agriculture, science, technology, health sciences, business, education, every facet of the life of this state. I've also observed very closely the ways in which the University is helping itself through reallocation, private fund raising, administrative and operational efficiency and extremely good competition for federal grants and contracts.

In conclusion, I want to say again that I believe as a board that we have two major obligations. One, which I believe we fulfill extremely well, is in the management of resources. But the second, in which I think we don't perform as well, is in the provision of leadership. Sometimes we confuse those and we act as if providing leadership is managing the resources so hard that the University budget will somehow be increased or be able to do a better job. I think that's a necessary function, but I don't think that that's leadership.

I think that it is absolutely

necessary that we maintain excellent management, but I don't think it's enough. The way in which we really provide the best management for the University is in hiring excellent leaders, widely respected figures in the educational area, like President Magrath, of whose efforts we should all be quite proud. President Magrath, in turn, with our advice and consent has recruited an excellent staff, four outstanding chancellors and two outstanding vice presidents, who would be the pride and joy of any university in this country.

I submit that once we've recruited individuals of that quality, when they give us plans, when they tell us what those plans are, when they provide us with those analyses, that we in turn have an obligation to give them our full confidence and work with them.

But what about our role as curators? As leaders? In our role as leaders, we've got to be an important element in confronting this question: Will our state emerge as a leader in the next century or will its economy simply disintegrate to a lower and lower level? As curators we're only one element in that equation, but we're a very important one. If we provide a kind of positive, optimistic leadership, reflecting our confidence in the faculty, in the staff, in the administration, in the wholeness of the University, in its potential for service to the state, then we can only inspire other state leaders to provide the resources to give Missouri a bright future.

We need that kind of effort in order to recruit and retain first class professors and to assure that our students in this state receive the best possible educational opportunities.

We are confronting a major turning point in the history of this state. I think the figures that we've been presented make that absolutely clear. We face great peril, as the Missouri 2000 report brought out, by simply allowing the whole effort to decline. Taxes, or increased funding from any source, are very difficult to consider. They're very difficult for politicians to consider for obvious reasons. They're very difficult for every one of us to consider.

We are, however, engaged in a fundamentally important struggle with other states and other localities in the country to keep our economy healthy. We have an obligation to address that problem far more directly and efficiently than we have in the past.

It's always easier and more appealing to keep talking about management items than to plan for a successful future for all Missourians. If Missouri reaches the year 2000 at an average or declining situation, we will have nobody to blame but ourselves.

If we succeed in this task, on the other hand, our children and grandchildren will be able to delight in the efforts of our common work, in our ability to understand and in our ability to overcome these difficulties and succeed in making a worthy vision a reality for all the people of this state.

Travel tips: Diners card, taxi fare

Are there any benefits to holding a University Diners Club card? How do I get one?

The University Charge Card System was established to aid University employees who travel on University business. One of the benefits of holding a University Diners Club card is the cash advance system that allows a card holder to receive cash for a trip and

negotiate discounts with hotels, car rental agencies and other organizations. These discounts are passed along to employees on all campuses.

Applications for a Diners card must be completed within individual University departments. They are then forwarded to the campus coordinator for processing. The coordinators for each campus: Libby

contact should be made with campus coordinators for information.

How can I avoid being "taken for a ride" by a cabby in an unfamiliar city?

Before getting into a cab, a person should have an idea what the best route to the destination is and what the fare should be. This



Questions & Answers

repay the amount within 30 days from billing, thus giving employees time to receive reimbursement through travel vouchers. This also allows travel expenses to be incurred without using credit on personal charge cards and enables the employee to keep business expenses separate from personal expenses.

The Diners card is widely accepted for billing when making reservations for room or car rentals. With the Diners card, employees can carry less cash while traveling. The card also provides flexibility in emergency situations. If an employee is involved in an accident in a rented vehicle and the rental agency demands payment, it can be charged to the Diners card. The Office of Risk and Insurance Management then takes over. Also, flight changes can be made using the card.

Consistent use of the Diners card by University travelers provides volume travel information, which enables the University to

Meiderhoff, 325 Jesse Hall, UMC; Gerald Jensen, 317 Scofield Hall, UMKC; Andy Lamar, G-3 Parker Hall, UMR; Bill Moody, 324 Woods Hall, UMSL; Dc001.00 Accounting, UMC Hospital and Clinics; Melody Derendinger, 225 University Hall, UM System.

I tried to use my Diners Club card at a local restaurant and was told it had expired. Why haven't I received a new card?

The Diners Club card will automatically be renewed 30 to 45 days prior to the expiration date as long as the individual is a University employee and there is no delinquent balance due. Be aware that the cards are mailed in plain, unmarked envelopes for security reasons. They are sometimes discarded as junk mail, so recipients should be on the lookout when their cards are due. If a renewal card is not received,

information can be obtained from a hotel clerk, an airport ground transportation desk, or by looking at a map posted at the airport. Clients should talk to the cab driver before entering a cab and ask him or her to estimate the cost.

There are often extra fees for more than one passenger or for luggage handling; cabs should have all fees posted in the traveler's compartment. If a fare seems too high, it may be reported to the local government.

A stranger may also want to inquire about the availability of alternative transportation, such as shuttle buses or public transportation.

Travel questions can be directed to Melody Derendinger in the UM System Office of Purchasing, 225 University Hall, Columbia, (314) 882-2706.

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