

DeFunis de novo

Another reverse-discrimination case may be wending toward a more helpful judicial clarification than that produced by *DeFunis*.

An unsuccessful applicant to the medical school at the University of California at Davis, claiming reverse discrimination, has won his

case in the Santa Rosa Superior Court. University of California attorneys reportedly plan to appeal the decision that the quota system for minority admissions is unconstitutional because it discriminates against whites.

UM libraries offering new service to researchers

The problem of keeping up to date has likely been the cause of many an academian's restless nights. Or perhaps one grows resigned to the problem—it's inevitable that you just can't keep up.

But a major new library reference service available on all four campuses may make the job of keeping up a little less frustrating for some disciplines.

The University has "tied in" to the University of Georgia's computerized literature search service which retrieves bibliographic information for users. UM users can now confer with a UM reference librarian—in either main campus or branch libraries—to formulate a profile of the specific information the user wishes to receive. The profile is then mailed to the Georgia system. Search results—in standard bibliographic citation form—are mailed back to the user in printout 8½-x-11 sheets. Abstracts or printouts on 4-x-6 cards are also available.

These customized bibliographies are available either for current-awareness or retrospective purposes. The first keeps the user up to date on published articles. (Sometimes the current-awareness user is even ahead of the game, since the data base receives the tape version well ahead of a bibliographic citation appearing in a printed index.) The Georgia center keeps the user's current-awareness profile, and as the data-base updates are received, the computer matches new items with previous output sent to the user. Thus, duplication is eliminated.

Faculty can choose how often they wish to receive a current-awareness update. Depending on the data base involved, tape updates arrive at the Georgia center weekly, every two weeks or monthly.

Some bases began publication as early as 1962, and since tapes are accumulated, these are all available for retrospective searches. Retro searches at Georgia are done only at regular intervals, so the turn-around time (from UM campus to Georgia and back) could be as much as two weeks. However, information begins to "trickle" back two or three days after the request is received.

Previously, the only computerized information index UM had available was the medical schools' MEDLINE, which is being retained.

Data bases of current-awareness and retrospective searches and associated costs are found elsewhere on this page. Users can pay for the service with personal funds, IDO (departmental E & E) or grant monies. The U-wide Library Resources Committee recommended at its April 9 meeting that graduate deans consider some form of University support on the assumption that the institution, as well as the user, derives benefit from the service.

UM reference librarians from Columbia and Kansas City participated in a week-long training course conducted by UGa consultants on the retrieval system. Short staffing and last-minute problems at the Rolla and St. Louis campus libraries prevented research librarians from those campuses from participating in the training sessions. However, UMR and UMSL librarians will receive training as soon as possible. In the meantime, users on those campuses should contact their campus library directors to arrange for service through Kansas City or Columbia.

Interested faculty, students or other potential users of the data-base search service should contact the reference librarians on their campus.

—Margaret Kraeuchi



UM librarians midway through a cram course in the workings of the University of Georgia's computerized literature search service, which is now available at UM. The service is used by numerous governmental agencies and private organizations and by several universities.

CURRENT-AWARENESS SEARCHES

Data Base	Frequency of Update	Charge to UM per Profile per Issue
Biological Abstracts (BA)	Semimonthly	\$ 7
BioResearch Index (BRI)	Monthly	7
Chemical Abstracts-Condensates (CA)*	Weekly	7
Bibliography of Agriculture (CAIN)	Monthly	10
Engineering Index (COMPENDEX)**	Monthly	10
Current Index to Journals in Education (CIJE)**	Quarterly	10
Bibliography & Index in Geology (GEO.REF, AGI)	Monthly	10
Government Report Announcements (GRA, USGRDR)**	Semimonthly	5
Science Abstracts (INSPEC)**	Semimonthly	5
Nuclear Science Abstracts (NSA)	Semimonthly	5
Psychological Abstracts**	Bimonthly	10
Research in Education (RIE)**	Quarterly	10
Sociological Abstracts	Quarterly	10

*Odd-numbered or even-numbered issues only may be specified.

**Abstracts available.

RETROSPECTIVE SEARCHES

Data Base	No. Vols. per Year	Charge to UM per Profile per Volume
Biological Abstracts (BA) 1969-	2	\$ 40
Bibliography of North American Geology** 1961-1968	1	35
BioResearch Index (BRI) 1969-	1	80
CA-Condensates—Even Issues, July 1968 (Vol. 69)-	2	40
CA-Condensates—Odd Issues, July 1968 (Vol. 69)-	2	40
CAIN 1970-(The file prior to 1970 is treated as one volume.)	1	70
CBAC** 1965-1971	2	35
Chemical Titles 1962-1968	1	70
CIJE** 1969-	1	35
Current Information In Engineering (CIE), EE only, 1968-1969	1	35
COMPENDEX** 1969-	1	100
Geophysical Abstracts** 1966-1970	1	35
GEO.REF** 1968-	1	100
GRA (formerly USGRDR)** 1970-	1	70
NSA June 1966-Dec. 1972, 1973-	1	70
Psychological Abstracts**	2	35
RIE** 1969-(The file prior to 1969 is treated as one volume.)	1	35
Sociological Abstracts 1963 (Vol. 11)-1971 (Vol. 19)	1	50

**Abstracts available.

Library planning report

A report on long-range library planning, a decision on charges for a new data-base search service and determination of its own future working structure comprised the major activities of the University-wide Library Resources Committee April 9 in Columbia.

Mark Gormley, on leave from the UMSL library directorship to perform the long-range planning study, has been charged with reviewing the state of the art, assisting in technological developments in library management and possible relationships to other University activities and suggesting an organization and structure to continue library planning at UM.

Gormley surveyed for the committee the various forms of electronic technology now being used or likely to be used in libraries of the future. These include data banks established in computers (OCLC, BIBNET, etc.); automated administrative services for such activities as cataloguing, acquisitions, billing; telecommunications for national data-base systems (e.g., Canada and Sweden) and for such activities as direct data and facsimile transmission.

The committee approved charges and general accounting practices for the new data-base search service from the University of Georgia (see story on this page). Wesley Dale, UMKC academic provost, recommended that graduate deans attempt to find some way of permitting some University funds to be used for the service.

Because of limitations on time of individual committee members, the committee decided to operate as a policy-setting body rather than as working task force group. It will receive recommendations from an internal group comprised of the four campus librarians and Dr. Craig Moore and Dr. Ardath Emmons on matters closely related to the operations and services of the UM library system. Where no committee members have expertise in areas on which knowledge is needed, outside consultants will be employed to gather information and make recommendations to the committee.

At the next meeting of the committee, on Friday, May 16, the four library directors, Dr. Moore and Dr. Emmons will prepare recommendations on which of the multiple tasks facing the committee are suitable for internal activity and which should go to consultants.

Survey of doctorates

About 4,000 members of minority groups received doctoral degrees (excluding medical and professional) in the 1972-73 academic year at American universities, but only 37 per cent were U.S. citizens, according to the Commission on Human Resources of the National Research Council.

Minority members awarded doctorates included 975 blacks, 2,430 Orientals, 350 Latins and 150 American Indians. Of the total, 1,470 were U.S. citizens, 1,160 were non-U.S. citizens but held immigration visas and the rest were non-U.S. citizens holding other types of visas.

In a study of doctorate-level scientists and engineers in the 1973 labor force, researchers found approximately 1,860 blacks, 11,000 Orientals, 1,400 Latins, 100 American Indians and 300 members of other minority groups. About 28 per cent of those surveyed were native U.S. citizens.

UM Press publishes two books

The UM Press has published two new books — a collection of short stories and a study of the fiction of V. S. Naipaul.

The former, *A Dream With No Stump Roots in It: Stories*, is by David Huddle, an assistant professor of English at the University of Vermont. The Naipaul

study, by Robert K. Morris, is entitled *Paradoxes of Order: Some Perspectives on the Fiction of V. S. Naipaul*. They are priced at \$6.50 and \$5 respectively, and are available from booksellers and from the UM Press, 107 Swallow Hall, Columbia.

Business school honored

The UMSL School of Business Administration has received one of five distinguished service awards presented this year by the National Association of Black Accountants, Inc.

Elbert Walton, UMSL instructor in accounting, accepted the award on behalf of the school at an

awards dinner in Los Angeles. Walton, a member of NABA's board of directors, is president of the organization's St. Louis chapter.

Knocking research

Sen. William Proxmire caused some raised eyebrows when he recently reported that researchers at Michigan State University were awarded more than \$342,000 by the federal government for a study that will ask students where, when and with whom they had premarital sex. He also cited a \$350,000 study whose principal findings was that 48 per cent of the American people believed in the devil, another costing more than \$15,000 to finance research into how to integrate hitchhiking into the transportation system, and some \$112,000 for a study of the climate in Africa during the ice age.

These revelations are not only grist for the nation's humor mills, evoking hints of what Will Rogers frequently said about Congress and the government, but they are fodder for countless editorials. Nevertheless, it's probably well to keep in mind what *Journal* reporter Arlen Large wrote on this page some five months ago — that while there have been some abuses, some critics of the studies have regularly sacrificed accuracy for entertainment value.

Thus while it was widely reported that the federal government had financed a \$6,000 study of Polish bisexual frogs, the project was intended to test a relatively new method of distinguishing between one species of animal and another. That \$70,000 spent supposedly to study the smell of perspiration given off by Australian aborigines was really spent in hopes of finding useful tips on heat adaptation for U.S. servicemen headed for the equator.

Of course these and other research projects should not automatically be immune from criticism. On the basis of the sketchy information we have about the Michigan State study, we tend to agree with Senator Proxmire that it raises serious questions about invasion of privacy and if it is needed at all it should be paid for by private rather than tax money. But we would caution against the tendency to view research as wasteful unless it has immediate application or can be translated into new products.

Where these research grants are most vulnerable, it seems to us, is where many federal grants are awarded without adequate safeguards and more money is given than is actually needed. Moreover, he charged that the advisory panels that review National Science Foundation programs and projects are packed with representatives from the "academic oligarchy" of the large universities that so often get the grants. Actually, there is a certain justification for this cozy relationship involving "academic oligarchies," since they tend to be the schools that have the facilities and scientists to carry out the research. Still, such practices invite academic inbreeding and discourage scientific diversity.

The larger point, though, is that abuses in research programs tend to be symptomatic of a much larger problem — the careless way in which Congress and federal agencies toss money around. It's well to worry about the funds spent on questionable research projects, but we wish more congressional watchdogs would keep a closer eye on the vast sums flowing from the Treasury for such purposes, for example, as public service jobs. The research projects can nickle and dime us to death, and eventually they all add up, but what really hurts is the huge overhead from dubious billion-dollar social or economic programs that rarely encounter opposition on Capitol Hill.

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Professional boom predicted

The number of professionals in the American work force will increase in coming years, in spite of slowing population growth and lower post-secondary enrollments, according to Dr. G. Lester Anderson, director of the Center for the Study of Higher

Education at Penn State. "Even as a steady rate of population and college enrollments is reached," he said, "an increasing demand for professional workers is projected."

"New professions will undoubtedly emerge and will become a vital force in

NSF defends basic research

In response to criticism of its support of certain research projects, the National Science Foundation has issued a "position statement" regarding basic research. Following is an excerpt:

"...Basic scientific research projects are aimed at increasing our knowledge and understanding of man and his universe. No research can be applied to the solution of problems — whether they are social, economic, physical or biological — without the bedrock of knowledge provided by basic research. Yesterday's basic research underpins today's problem-oriented research.

"Fundamental scientific research is a critical factor in determining our ability and readiness to meet the problems of the unforeseeable future. No one can tell at this time what all — or even the most important — problems of society will eventually turn out to be. But we can be sure that many of them will be inextricably tied to a deeper understanding of ourselves and our environment. Our future problem-solving capability will depend significantly on the depth and breadth of our scientific knowledge.

"Because they exist today, however, we know that major problems in the relationships between people and nations create a pressing need for a better understanding of human behavior. Recently, particular attention has been directed to NSF-supported projects investigating emotion and interpersonal attraction. These subjects are important areas of everyday human behavior. They are involved in almost all relationships between humans in all cultures. Looked at in the broad sense, they are involved in human relationships ranging from those of the family and work to international relations. We cannot hope to improve such relationships and alleviate problems, however, without new knowledge growing out of basic research."

Security Office cautions travelers

A UM faculty member attending a conference in a foreign country not long ago was asked by a fellow scientist, a native of that country, to take a manuscript back to the United States for him.

The UM professor, aware of the risk involved, politely declined. Had he succumbed to the temptation to comply with this seemingly innocent request, he might have found himself in serious trouble.

Business, technical and industrial information-gathering is just as commonplace as the political-military variety. Persons associated with academic institutions, therefore, are often approached by foreign agents or others intent upon obtaining or transmitting information.

The University Industrial Security Office suggests the following precautions:

- Remain with a group as much as possible.
 - View with suspicion any excessively friendly person who insists on buying drinks, dinners, gifts, etc.
 - Leave your travel schedule with someone and have that person check your location every day or two. If you fail to reach a specified destination within 24 hours of your expected arrival time, inquiries should be initiated through the Department of State.
 - Avoid private conversations in secluded areas and be suspicious of invitations to private dinner parties and tours. If you do agree to a meeting with someone, try to arrange the time and place yourself and, if possible, do so only at the last minute.
 - Do not carry out of a country in written or recorded form anything that was not a handout at a conference or meeting.
- A faculty member with security clearance who plans to travel in a Communist country or to attend an international scientific, technical, engineering or professional conference held abroad is required by University and federal regulations to file travel plans 30 days in advance and to be briefed by a University security officer. Security officers in Columbia are Kent Shelton, Ralph Franklin and Tony Lampe, and, in Rolla, Neil Smith. Faculty members not having security clearance are not required to attend briefings, but they are advised to do so.

UM checking animal facilities

Members of the Animal Resources Advisory Committee, who this week made their annual evaluation visit to animal facilities at UMR, plan to visit facilities on the other campuses over the next six weeks, according to Dr. Keith L. Kraner, director of Animal Resources.

The committee's schedule: UMKC, April 28; UMSL and the Missouri Institute of Psychiatry, May 2; U-wide facilities, May 27; UMC, May 27-29.

The visits are made to ensure that researchers are following federal guidelines on the treatment of animals. HEW requires that the University inspect and report on animal facilities at least once a year.



Dr. Primm

Dr. Primm receives award

Dr. J. Neal Primm, UMSL professor of history, this week received the University's Thomas Jefferson Award, which is presented annually to the member of the University community who "best exemplifies the principles and ideals of Thomas Jefferson."

The award, consisting of a citation and interest from a \$10,000 gift from the Robert Earl McConnell Foundation, was presented by UMSL Chancellor Arnold B. Grobman. Dr. Primm was chosen by a University committee from a list of candidates from all campuses.

The 57-year-old professor joined the UMSL faculty in 1965 and served as chairman of the history department from 1966 through 1970. A former president of Hiram College in Ohio, he has also served as director of the Western Historical Manuscripts Collection and as a member of the UMC history faculty.

He is the author of two books (*The American Experience and Economic Policy in Missouri, 1820-1960*) and coauthor of a third.

Job market tightens

Job offers to candidates for bachelor's degrees are running 2 per cent below the volume of last year, according to the College Placement Council.

Staff study to proceed

The U-wide study of administrative and professional staff positions, delayed since January, is expected to begin soon, according to W. D. Poore, personnel director.

"A review of various alternatives has been completed," Poore said Monday, "and the University Cabinet has

directed that this first phase of the study include administrative and professional positions, excluding those with joint academic titles. Approximately 450 job titles will be included, representing 1,400 individual positions. The remaining positions would be reviewed as funds

become available."

Poore said plans were being worked out for meetings with all administrative-professional employees to discuss the details of the study and to answer questions. He said the meetings would probably be scheduled for the week of April 27.

Harvard to raise tuition

Annual tuition at the Harvard Medical School will increase next year by 15 per cent—to \$3,750. Dormitory rent will also increase by 15 per cent from the present \$790.

Controversial program to be dropped

Northwest Missouri State University has finally decided to drop its controversial "external-degree" program in insurance salesmanship, which has been offered in cooperation with a Denver-based proprietary school.

Robert P. Foster, Northwest Missouri's president, has consistently defended the program's quality, but he said it grew so fast that the university was "not able to control it properly."

Vacancies

The following professional and administrative vacancies were listed as of April 10:

UMKC — None.

UMR — None.

UMSL — Bookstore manager; sr. personnel assistant.

UMC — Research specialist; library assistant; counselor; personnel officer.

MEDICAL CENTER, COLUMBIA — Manager of safety and security; head nurse; staff nurse I; staff nurse II (3).

Spectrum

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UNIVERSITY OF MISSOURI

Confronting fundamental questions

As we approach the end of the academic year, or the beginning of a new fiscal year (one's perspective turns on the task at hand), four longer-range questions continue to influence our future:

1. Education for whom?
2. Education for what?
3. Who pays?
4. Who controls?

These questions are not likely to be answered in the immediate future. In fact, the answers tend to change with the era. And perhaps there never will be complete, right answers.

The perceived answers for the particular time, however, influence our professional lives and institutional role.

Education for whom?

Traditionally, we've thought of college for the young. Even graduate education ranks have been filled mostly by young people. The public tends to equate college with youth. Until the post-World War II period, the young in college also were mostly of the affluent, and they attended, for the most part, private institutions. In 1950, about 75 per cent of the enrollment was in private schools.

Today, about 75 per cent of the enrollment is in public institutions. Some 45 per cent of the high school seniors are going on to post-secondary education, taking in much more than the affluent, obviously. Minority enrollment has increased more than proportionately. These are trends I applaud and believe should be encouraged. Public institutions in particular ought to be providing opportunities, regardless of personal or family financial status.

The extent to which social and economic barriers to higher education may be further lowered in the immediate future is uncertain. But even if we assume that about the same proportion of the traditional college-age population continues to enroll, which means a leveling off around 1980 in numbers, what about the non-traditional age group? What about enrichment? What about maintaining currency with new developments in professions?

Education for what?

During the Nixon administration, federal support for research and graduate education began to be directed toward mission-oriented projects—applied in contrast to basic research. Federal largesse began to flow more broadly (if less deeply) to more institutions of higher education, and not so much to the major research universities. The philosophy of supporting the student rather than the institution came into vogue.

The Ford administration seems to be following similar channels in financial support. President Ford also has talked of more emphasis on practical, job-oriented education and preparation.

We are again—or still—uncertain and of different opinions about the purpose of higher education.

Some states attempt, in effect, to track people into different kinds of post-secondary institutions. Elsewhere there is mostly talk and some action about limiting enrollments in disciplines or professions which have over-produced for the demand. One also hears the argument that the problem is not over-production but under-utilization. The laissez-faire attitude seems most prevalent, partly a reflection of the philosophy that higher education is not for the purpose of matching the job market, and partly an uncertainty about how to plan education for the job market in a free society.

The extremes would seem to be dangerous. Surely we are in trouble if we equate all of higher education with trade schools. Society still needs liberally educated people. Education relates to more than work. Civic leadership, citizen responsibility and personal satisfaction also are products of education—in the long run, perhaps the most important products. Yet there is danger, particularly for the publicly supported institutions, in ignoring the world of work and preparation for that world through post-secondary education. The dichotomy probably is inevitable and what we need to seek and espouse is a rational balance.

Who pays?

The issue of who pays, raised in recent years by the Gulligan philosophy, the Carnegie Commission, the Newman Report, the CED study, etc., has been somewhat overwhelmed by inflation, recently combined with recession.

The basic question remains, however. So does the basic answer, insofar as I am concerned. I subscribe to the philosophy that education is a social benefit and therefore is a social cost. And I believe we have experienced a good cost-benefit ratio.

That is not to say that there is no individual benefit from education, and that there should be no individual financial contribution. Again, we need to seek a rational balance.

But if we continue to believe in merit over money; if we continue to believe that education tends to make people happier, more tolerant and more productive; if we continue to believe in opportunity based on ability, then we must continue to believe that education is a public investment.

Education will not solve all our problems or guarantee our progress, but the prospects for solution and progress without education are dim, indeed.

Who controls?

Control is related to cost. When higher education was largely private and the proportion of the population in higher education was relatively small, few were concerned. Now that higher education is largely public, and publicly supported, and with about half the high school graduates in post-secondary education, the interest is spread.

Not just the trustees, the administrators and the faculty, but also the students, state legislatures and bureaucracies, the federal Congress and bureaucracies, corporate and foundation donors, unions and "public interest" groups lay claims to control and influence.

Many are legitimate claims—probably all, within limits. Those who have money, or its equivalent, invested are difficult to deny.

Volumes have been and are being written on the single question of "who controls?" The essence of it all, I think, is that higher education today—particularly public higher education—is subject to influences and controls from many contributors and claimants. All of us need to understand that, and not feel violated when a singular or narrow interest, however legitimate, is compromised. And I use "compromise" in the best sense of the word.

The objective is the balanced best interests of all the contributor-claimants.

Sincerely,

C. BRICE RATCHFORD
President



Application drop-off reported

The number of students seeking admission to UM professional schools declined last fall for the first time in several years, according to the University Office of Institutional Research.

Applications in 1974 to UM's two law schools totaled 2,537, down 334 from the total received in 1973. The medical schools received 2,444 applications, 888 fewer than in the previous year. And at the UMKC School of Dentistry, to which 1,725 students applied in 1973, the total for 1974 was only 695, in part as a result of changes in the application-review process.

Japanese system criticized

Japan's new minister of education, Michio Nagai, has spoken out against his country's long-standing system of entrance examinations, asserting that they stimulate excessive competition.

Nagai also said that curricula tend to be too challenging, that pupils are required to work too hard, and he announced that he will press for sweeping reforms.

Student expenses climbing

The costs of attending college in 1975-76 will be from 6 to 8 per cent higher than in the current academic year, according to an estimate by the College Scholarship Service.

The largest percentage increase, as indicated by the CSS survey, will be at public colleges, where resident students will pay about 12 per cent more.

CSS's complete report, *Student Expenses at Postsecondary Institutions, 1975-76* is available for \$2.50 (prepaid) from College Board Publication Orders, Box 2815, Princeton, N.J. 08540.

Higher education bookshelf

• *The Annual Guides to Graduate and Undergraduate Study*, edited by Karen C. Hegener (Peterson's Guides, Inc., 228 Alexander St., Princeton, N.J. 08540; \$80 for complete set; single volumes available).

• *Engineering and Technology Degrees, 1974*

(Engineering Manpower Commission of Engineers Joint Council, 345 E. 47th St., New York 10017; \$10).

• *Planning for Planning, Relationships Between Universities and Governments: Guidelines to Process*, by Bernard Trotter, with a foreword by A.W.R. Carrothers (Association of

Universities and Colleges of Canada, 151 Slater, Ottawa K1P 5N1; \$2.50).

• *Education to Meet Present and Future Career Needs* (American Association of State Colleges and Universities, One Dupont Circle, Washington 20036; \$3.25).

• *Youth*, edited by

Robert J. Havighurst and Philip H. Dreyer (University of Chicago Press, 5801 Ellis Ave., Chicago 60637; \$11).

• *Annual Report of the National Science Foundation* (U.S. Government Printing Office, Washington 20402; Stock No. 3800-00198; \$2.35).

UMC researchers study needy families

If needy families made full use of their "human resources" — working to their maximum capacity — at the prevailing minimum wage, how many families would still have inadequate incomes?

From ten to 48 families out of a hundred in various samples still couldn't make ends meet. That is the conclusion of two researchers who did a study of the subject at UMC.

Edward Metzen, chairman of the family economics and management department in the College of Home Economics, and Assistant Professor Sandra Helmick presented their study, "Adjustments in Employment, Earnings and Family Size as Potential Paths Out of Poverty," at a winter meeting of the Industrial Research Association in San Francisco.

Sample families were taken from small towns near the intersections of Missouri, Iowa, Nebraska and Kansas and from low-income sections of four urban communities (one sample entirely black, the others mixed), rural Vermont, rural East Texas (black families) and California migrant labor camps.

Two thousand hours a year were set as full-time employment for an individual not in school or caring for dependent children.

Helmick and Metzen compared the potential effectiveness of several methods of reducing poverty among families in the eight samples. In four of the samples, at least a fourth of the low-income families were already using all "human resources" and were still poor.

The simulation showed the most effective alternative to be supplementing actual wages for observed working hours with additional employment at \$1.60 per hour. But some of the families still would have had sub-standard incomes.

Providing full employment to all those who could work would have had greater impact than guaranteeing the minimum wage.

Implementation of the minimum wage for all hours actually worked by family members represented in this study would have had only a slight effect on the incidence of poverty for these families.

But even if the members of all low income families in the study earned the minimum wage for all hours potentially available for employment, the incidence of poverty would have remained over a fourth of the families in three rural samples, and between 15 and 20 percent for three urban samples.

The best solution for the large majority of families that contain at least one — and often more — able-bodied working age individuals, Helmick and Metzen conclude, would be a combination of the following programs:

- provision of job opportunities in either the public or private sector
- increasing productivity through job training and skill upgrading opportunities
- adequate day care for children, free or at feasible cost
- transportation
- family planning program

These would not alleviate such financial problems as catastrophic health care costs, retirement, disability of potential earners or family members that do not provide enough employment capacity for adequate family income.

Metzen has represented the "consumer viewpoint" at several conferences during the academic year. At the invitation of President Gerald Ford, he participated in a Washington Pre-Summit Conference on Income Maintenance and Social Services, and was invited to attend the White House Conference that followed.

Earlier, he took part in a dialogue on consumer credit at J. C. Penney headquarters in New York City, and presented his views on national energy policy in Kansas City at the request of John Sawhill, Director of the Federal Energy Administration.

Helmick is serving on the educational board of the Home Economics Research Journal.



Edward Metzen and Sandra Helmick go over computer printouts of sample low income families.

Seventh Annual Stadler Genetics Symposium attracts top scientists

Current problems of genetics research will be topics at the Seventh annual Stadler Genetics Symposium which opens at 12:30 p.m. today at UMC.

The only annual genetics symposium in the world, the gathering normally attracts representatives of 20 or more states. The total for the past six symposia exceeds 1,000.

The symposium opens with registration, followed by open house at all genetics laboratories on the campus between 1 and 2 p.m.

Panel discussions on research are scheduled at 2 p.m., with Hall E. Chargaff of Columbia University, R. B. Helling of the University of Michigan, and N. Sueoka of the University of Colorado concentrating on historical and future aspects of genetic material; Richard Flavell, Cambridge, and A. C. Wilson University of California leading discussions on experimental evolution, and O. L. Gambourg, Saskatoon, Canada, and C. D. Miles, UMC, surveying the frontiers of plant cell genetics. The sessions are scheduled, respectively, at 111 Tucker Hall, 207 Curtis Hall, and 219 Curtis Hall.

Chargaff, A leading

biochemist, will present the formal lecture on "Impact of Biochemistry in Genetics" at 4:30 p.m. at Memorial Union auditorium. A reception will precede the lecture. A smoker is planned in the evening in the Alumni Lounge after the informal dinner.

Lectures will continue, beginning at 8:20 a.m., on the following morning with Helling speaking on "Eukaryotic Genes in Prokaryotic Cells," an area with immense potential for genetic engineering and possible hazards of unwanted genetic transfers; Gambourg, leading international authority in his field, summarizing "New Advances in Somatic Cell Hybridization in Higher Plants;" Flavell, whose laboratory has gained world recognition by developing the line of research on gene evolution established by Prof. E. R. Sears of UMC, will outline the biochemical and cytological organization of polyploid organisms, with special emphasis on bread wheat.

After luncheon, Sueoka will talk on "Chromosome Replication and Gene Expression in *Bacillus Subtilis*"; C. Donald Miles of UMC will summarize his unique

studies on photosynthesis of maize; Wilson, who has developed a quantitative method to measure evolutionary trends, will speak on "Relative Rates of Evolution of Organisms and Genes" and G. B. Johnson of Washington University will speak on the much debated role of neutral mutations in evolution as he summarizes his research on "Enzyme Polymorphism and Adaptation."

The symposium concludes with a banquet at which Dean E. Metter of UMC will speak on "Natural Selection and Adaptive Resemblances."

All sessions, except those noted on the opening day, will be held at Memorial Union Auditorium, with the dinner served at the union with Dean Herbert S. Goldberg, UMC, as master of ceremonies and with Dr. Richard Hills and the Faculty Woodwind Trio providing the music.

The Symposium is sponsored jointly by the agronomy department, Biological Sciences Division, the Agricultural, Arts and Science, Graduate and Medical Divisions and the University Extension Division. All sessions are open to UMC faculty, students and guests.

Summer Session begins June 10

Imaginative new courses and continuation of the two four-week sessions with a concurrent eight-week session will be features of the 1975 summer session at UMC which opens with registration on June 9.

Larry D. Clark, director of the summer sessions instructional program, said that classwork will begin June 10 for the eight-week and the first four-week session. The second four-week session opens July 7, and concludes concurrently with the eight-week term at summer commencement exercises Aug. 1.

Among special features of the summer term:

- An eight-week summer field trip at Chiapas, Mexico, in anthropology.
 - A new eight-week course in political science focusing on an analysis of the political and social ideas of Third World leaders and thinkers.
 - Studies in Tudor literature for both the eight-week session and the two-week modules.
 - An interdisciplinary seminar on developmental disabilities in early childhood.
 - Distinguished scholars in early childhood education offering special education and health and physical education instruction at the first four-week session.
 - A special education course on problems of the adolescent student with learning disabilities during the second four-week session.
- Clark said that approximately 800 courses will be offered for credit during the summer session, and that each of the 15 academic divisions will have course offerings.

Continuing Education serves community and department faculty

"The Division for Continuing Education, as a structure and operating unit, is not important," Walter B. Wright, Dean of Continuing Education and Extension, said. "What is important is the development of a broad range of community outreach that provides extensive involvement of UMKC and its faculty in the affairs of this urban community. That is what the recent reorganization of the continuing education function on this campus is all about. As the reorganization is implemented, the Division for Continuing Education and its personnel no longer will insulate faculties from the community, its organizations and adult citizens with their problems, concerns and educational needs."

UMKC's reorganization of the continuing education and extension function represents a major departure in terms of structure and responsibility from the other three campuses of the University and, in fact, is unique in most respects when compared with the usual organization. As organized across the nation, continuing education and extension divisions usually centralize administration, program and budgetary responsibility for the total institution's continuing education and outreach activity.

The plan, which was approved in April, 1974, for gradual implementation, has moved forward steadily and smoothly and should be largely accomplished by the end of this academic year.

"Results to date are gratifying," Dean Wright said. "While the programs stem from the same base as in the past, the scope of the schools' programs are broadened and responsiveness is increased. Faculty sensitivity to the educational needs of the community is increasing, and they are coming to recognize continuing education as a means for responding to these needs. Early indications support the assumptions and rationale that underpin the proposal for reorganization of the continuing education function at UMKC."

Dean Wright says responsibility for the continuing education function, associated budgets and personnel, has been transferred to the School of Education, the School of Administration and the Conservatory of Music. A search committee has been appointed by the College of Arts and Sciences and soon should be making its recommendations to the dean of that school for an associate dean for continuing education. When the associate dean is selected and appointed, the transfer of responsibility will be completed with the College of Arts and Sciences.

It is planned that the Law School, with its Assistant Dean for Continuing Education, and the Health Sciences, where there is an Assistant Provost

for Continuing Education, will assume program and budgetary responsibilities July 1, 1975.

Dean R. Kenneth Wilcox, associate dean of Continuing Education and Extension in discussing continuing education programs, said that the principal thrust of this campus is in the area of professional education and that other major clientele groups are the community's organizations and its individual citizen, who seeks to improve his social, cultural and economic well being.

Dean Wilcox cited examples of programs indicative of the scope and nature of the University's response to the community. The Medical School's Long Weekend, for example, provides an opportunity for the busy medical practitioner to acquire needed professional continuing education without disrupting his practice.

The College of Arts and Sciences' Department of History provides the student an opportunity to sample and savor the life style of mid-nineteenth century Missouri. Conducted in the 1855 village of Lake Jacomo, the students live in the village for an entire week.

The School of Administration, through its Center for Management Development, involves five suburban cities in this metropolitan complex in a program of management and organization development experiences designed to improve the quality of their management and the delivery of services to their citizens. Concentrating on real-life problems common to the participants, cooperative resolution of their problems is encouraged.

The University's two Outreach Centers, located at 703 Southwest Boulevard and at 31st and Linwood, are having an impact on the lives of the ethnic groups living in those neighborhoods.

Through the School of Education, problems of schools and teachers in the metropolitan area are addressed through a wide range of graduate-level professional courses, usually offered for credit.

The Family Study Center is viewed as a model for bringing together the three major University functions of on-campus teaching, research and off-campus teaching.

While this list of activities is by no means exhaustive, it does indicate the breadth of the current effort.

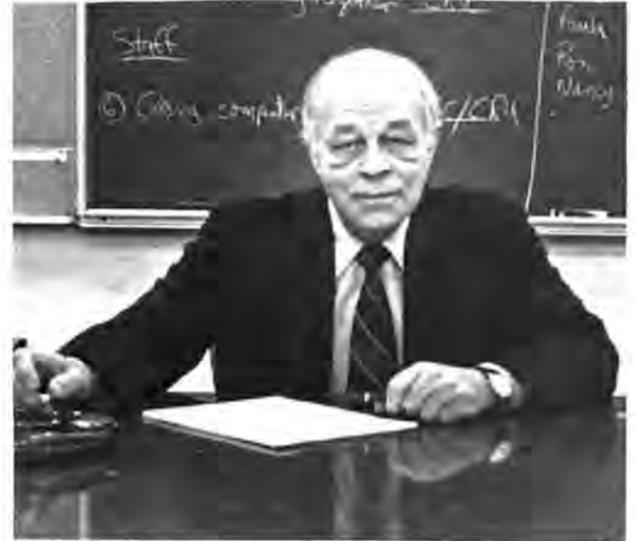
In considering future programmatic directions, Dean Wilcox said, "the University administration must provide a switching capability between the community with its educational needs and the faculty with its knowledge and expertise. The ultimate goal is to integrate a responsive outreach program into the mainstream of University life."

EAC sponsors symposium

Sen. Joseph Montoya (D-N.M.) will be the keynote speaker at a two-day symposium on the educational needs of Mexican-Americans.

He will speak on 5/2 at an 8 p.m. dinner meeting at the KCI Marriott Hotel. The next day, six educators from across the country will participate in lectures and panel discussions.

The event is sponsored by the Ethnic Awareness Center in cooperation with the National Education Task Force de las Raza. Tickets are available by contacting Continuing Education at Ext. 1463.



Dean Walter Wright

Kansas City

Lentz coordinates training programs

Jay Lentz, Personnel training coordinator, is responsible for in-service training programs for all campus administrative service and support staff. Target areas include management, supervisory, clerical, secretarial and technical programs.

One of the more popular activities he helps administer are the management development seminars which increase supervisory skills in communication, motivation, human relations and transactional analysis.

Lentz also has initiated a new program in employee relations currently operating in the Physical Plant and on Hospital Hill. "This program essentially is a team-building effort," he said, "where employees meet once a month with all supervisors and work on practical problems such as performance appraisals, employee records and affirmative action programs."

The office institutes supervisory administrative training programs in affirmative action being conducted for various department directors. "We



Jay Lentz, training coordinator, works on a proposed program.

inform them of the laws and of the university position on affirmative action," he said. "We stress their

Roy Roberts lecturer to visit

Dr. Lewis Coser, distinguished professor of sociology at the State University of New York at Stony Brook, will be on campus 4/22-23 as the next Roy Roberts Visiting Professor.

He will give a free public lecture on Social Structure and Social Conflict, at 8 p.m. Tuesday in Conference Rooms A, B, and C at the

responsibilities as supervisors. We try to increase awareness of attitudes in regard to discrimination and to help implement the program in the employment process."

Lentz said there are several excellent programs, available through his office, of which university full-time employees can take advantage. One such program is the University's educational assistance program whereby any full-time employee can take courses and the university will pay 75 percent of the course fee. Also, non-credit programs offered by Continuing Education may be taken free of charge. "We also have external programs where the office will pay for job-related courses offered by the Jewish Community Center and the Kansas City Vocational Technical Center."

Lentz is always ready to help departments or individuals arrange training seminars or on-the-job training programs by helping schedule consultants or specialists.

"We are here to help with any educational program that is amenable to training," he said. "We do more than merely coordinate programs—we coordinate the professional development of university employees."

Center. He also will confer with students and faculty during his visit.

Dr. Coser is regarded as a central figure in mainstream sociology and has influenced a generation of sociologists and political scientists to ponder the consequences of social conflict. He has written and edited 13 books, including The Functions

of Social Conflict, and has had more than 150 articles published in scholarly journals, books, textbooks and magazines.



New assistant dean named

Dr. Franklin J. Simpson, Jr. (left), has been named assistant dean of students at UMKC.

A former vice president for student affairs at Southern Illinois University in Carbondale, he now has primary responsibility for student services at the Hospital Hill campus which are being expanded to better

meet the needs of students in Medicine, Dentistry, Pharmacy and the Graduate Nursing program.

He will work closely with the directors of student services on the Volker campus to extend their services to Hospital Hill Campus, as well as with students, faculty and administrators in the Health Sciences.

If it's about umr's reactor--ask Elliott

If you want to know anything about UMR's nuclear reactor, the man to see is Alva (better known as "Alvie") Elliott.

He's the reactor supervisor, a senior reactor operator licensed by the Atomic Energy Commission. And he actually helped put the apparatus together.

"You might say the reactor and I grew up together," Elliott says. He had his own radio and television business in Rolla when he was employed in the spring of 1961 to do the electronics work on Missouri's first reactor. When it went "critical" in December of that year, Elliott was the operator.

Not only does Elliott know the facility inside out, he and the reactor staff have scrounged or made all replacement parts. "The company which manufactured the reactor went out of business even before ours was activated, so it has been an 'orphan' from the start," he explains.

In addition to Elliott, two of the staff, Mike Jones and Richard Luckett, are licensed reactor operators. They are also qualified in electronics. Other reactor staff members are Ervin Wentz, laboratory mechanic, and Karen Lane, secretary. The three operators are instructors for Nuclear Engineering 306, Reactor Operation, in which students actually learn to operate the reactor.

Elliott believes that UMR's nuclear engineering students have an advantage in receiving practical as well as theoretical training. "In many universities, they never go near a reactor," he says.

It was decided that the UMR facility, a typical swimming pool reactor, would be used primarily for educational purposes. The



Calendar

April

- 18--Deadline for ordering commencement paraphernalia, information desk, University Center
- Service awards reception, 10 a.m., Mark Twain Room
- Physics colloquium, Dr. Chun C. Lin, 4 p.m., Physics 104
- Chemistry seminar, Dr. Gerald Small, 4:30 pm, Chemistry-Chemical Engineering 125
- SUB Concert, John Biggs Consort, 8 p.m.,

- Centennial Hall
- 19--Arts and Crafts display, University Center
- 20--Junior Olympics, "M" Club, 11:30 am, Jackling Field
- 21--Deadline for agenda items for general faculty meeting and Academic Council meeting, Prof. Ralph Schowalter, M.E. 203
- Concert, UMR instrumental groups, 8 p.m., Mechanical Engineering Auditorium
- 21-25--South Central Missouri Regional Art Exhibit, University Center

- 22--Microprocessor seminar, Dr. James H. Tracey, 3:30 p.m., Electrical Eng. 105
- 24--Physics seminar, undergraduate reports, 4 p.m., Physics 104
- 25--Mathematics colloquium, Dr. John Reeder, 3:45 p.m., Mathematics-Computer Science 209
- 26--Annual MSM-UMR Alumni Association St. Louis section golf tournament and stag.
- 28-May 2--Pre-registration for summer session and fall semester

- Art Exhibit, Art 30 students, University Center
- 29--General faculty meeting 4 p.m., Mechanical Engineering Auditorium
- 30--Grade sheets sent to departments
- May 1--Academic Council meeting, 1:30 p.m., Humanities-Social Sciences G-5
- Sigma Xi banquet, Dr. Michael Fox, 6:30 p.m., Centennial Hall
- 2--Last day for dropping a course or withdrawal, 3 p.m., Parker Hall

supervisor says that it is ideally constructed for instruction. "You can see everything--nothing is hidden or enclosed," he points out. Research effort is also limited to educational projects.

Although the reactor is used for instruction by the nuclear engineering department, Elliott stresses that it is a campus--not a departmental--facility. Currently about 20 research projects from several departments use it. Most of the research is activation analysis work in which nuclear particles are used to make a material radioactive and it is analyzed to determine its composition. However, projects are doubled up, and when the reactor is on, many different samples can be irradiated at the same time. It is in operation about 85 per cent of a 40-hour week.

According to Elliott, research on the moon rocks is the most interesting he has done. This included not only the UMR project directed by Dr. Oliver Manuel, but also work for Washington University and the National Aeronautics and Space Administration. In the past few years, the reactor staff has also put out 10 or 12 publications and papers, mostly on improved methods of operation and new applications.

Approximately 2500 people visit the facility annually, mostly students from high schools or other colleges that do not have reactors. Elliott feels that these visits have important educational value.

"A lot of people are scared of a reactor, and I think it is strictly fear of the unknown. After they see the reactor and it is explained to them, they lose their fear," Elliott says. He himself has never had any qualms about working there. "Most people don't realize that we live with radioactivity. In just one X-ray, you get more radioactivity than I have gotten since the reactor was built."

The reactor supervisor has an example he likes to tell people who are afraid the reactor will blow up. (Actually, in case of any malfunction, it would simply stop operating).

"Sure there is danger," he draws. "Maybe a nuclear submarine will fly over and drop his anchor on us and squash our reactor building. The chances of an explosion are about the same!"

In his spare time, Elliott relaxes with a long-time hobby, ham radio. He likes to camp and fish, and now that the five Elliott children are married and away from home, he and his wife like to take their 19-foot travel trailer on extended vacation trips. They have gone all over Mexico and Canada in the past, but the gasoline situation keeps them closer to home these days.

After 14 years, Elliott still finds his job "exciting, never boring." "This is still a new field," he says. "There's always something new and different--new applications, new AEC regulations to learn and comply with. And there's always someone wanting to try something that hasn't been tried before."

All in all, it's a challenge. And that's what UMR's nuclear reactor supervisor likes.

Sigma Xi banquet

Sigma Xi, the Scientific Research Society of North America, will hold its annual banquet Thursday, May 1, 6:30 p.m., Centennial Hall. Banquet speaker is Dr. Michael Fox of St. Louis and his topic is "Understanding Animal and Man." Dr. Fox has written three books--"The Behavior of Wolves, Dogs and Related Canids," "Understanding Your Dog" and "Understanding Your Cat." He has made at least two appearances on Johnny Carson's "Tonight" show.

Tickets are \$4.25 each and are available until April 21 from Dr. Albert E. Bolon, nuclear engineering.

Pop bottle rip off

Between November and March there has been a loss of 4,848 returnable pop bottles from Pepsi-Cola machines located in several buildings on campus. Also reported is the loss of approximately 60 wooden cases. Due to the magnitude of this pilferage, the distributors of all soda are considering use of non-returnable containers. This will increase the cost of soft drink products and could present a disposal problem. Present costs are 20 cents per 10-ounce bottle. An increase of 5 cents per bottle is anticipated if non-returnable containers are used.

In order to avoid an increase in product price, faculty, staff and students are asked to report information regarding theft of bottles and cases to the University Police department. The department also requests that everyone be more conscientious about returning empty bottles to the racks provided.

Final chemistry seminar

Final chemistry seminar of the semester will be conducted by Dr. Gerald Small, professor of chemistry at Iowa State University, Friday, April 18, at 4:30 p.m. in Chemistry-Chemical Engineering 125. His topic is "Vibronic Interactions in the Lower Excited Singlet States of Azulene and the Azazulenes." Refreshments will be served at 4 p.m.

Final ph.d. examination

Final Ph.D. examination for Mahmoud Davarpanah, electrical engineering, is scheduled for Friday, April 18, 3:30 pm, Materials Research 201.

Rolla

Physics undergraduate seminar

Several undergraduate students will present papers based upon their research at a physics seminar Thursday, April 24, 4 p.m., Physics 104. Winner of the competition will be awarded the annual H.O. Fuller award.

Chamber groups' concert

Members of the UMR flute quartet, woodwind trio and brass choir will present a program of contemporary music Monday, April 21, 8 p.m., Mechanical Engineering Auditorium. The program will last approximately one hour. It is free and is open to the public.

Mathematics colloquium

John Reeder, assistant professor of mathematics at the University of Missouri - Columbia, will lecture at a mathematics colloquium Friday, April 25, 3:45 p.m., Mathematics-Computer Science 209. His topic is "The Initial Value Problem for Surface Waves Under Gravity." Refreshments will be served at 3:30 p.m.

Student art display

Work by the nine students of Art 30, Advanced Drawing Class, will be on display in the University Center April 28 through May 2. Each student will exhibit the best of his or her work done in class and one outside class assignment.

New hours

The office of student financial aids, Parker Hall 106, is now open from 9 a.m. to noon on Saturday.

For thoughtful bosses

National Secretary's Week is April 21-25 and National Secretary's Day is Wednesday, April 23. A word to the wise.....

UMSL child care program: experience in learning



Saint Louis

Since January, the halls of the Christ Memorial Baptist Church building have been filled with the sounds of children working and playing.

For three months ago, the University Child Care Center, under the direction of UMSL, began service at the church at 206 Emerling. The center, previously operated by a group from the UMSL Women's Center, was established to provide care and learning opportunities for preschool children of students, faculty, staff and members of the St. Louis community.

According to Dr. Doris Stumpe, director of the Preschool Program Development Project and acting director of the child care center, about 70 children are currently enrolled, with an average daily attendance of about 35. Applications for part-time and full-time care of children are still being accepted and the church has indicated that more space will be available for expansion if needed. Current facilities include four classrooms, an office and a gymnasium.

"We are definitely pleased with the progress of the center and the quality of the teachers," Dr. Stumpe said. "With the increased number of families that have two parents working, there is a real need for child care programs that give a child every opportunity to develop."

Children are divided into groups by ages. The infants and toddlers are cared for by Rosalyn Kleinberg and Karen Grega, while the children ages 18 months to 3 years are taught by Debbie Burleson. Kathy Bowie is in charge of the 3-to-5-year-olds. All are certified preschool teachers.

In addition to the four teachers, UMSL sophomore Kathy Means works with the children as part of the University Year for Action program. She coordinates the physical development activities, such as rhythms, games, tumbling, etc.

Another UYA student, Tom Cox, is in charge of the center's financial matters, accounting and fee structure. Two work-study students assist in maintenance and clerical work.

"Beginning next fall, I expect very large involvement on the part of students in early childhood," Dr. Stumpe said. UMSL education students may work at the center as part of their practicum or pre-student teaching experience. Students in other areas of study will also have the opportunity to participate in center activities.

At the center, all children are encouraged to get involved in activities that result in learning. The emphasis, even with the youngest children, is on the need for meaningful experiences.

"We're showing that day care is child development, even at the very youngest stage," Dr. Stumpe said. "We encourage interaction with teachers and the other children. The skills that are developed here are prerequisite skills that lead to future learning."

Children are provided with experiences in cooperation and sharing, self-reliance, language development, pre-mathematics and science, aesthetic expression and physical coordination. Plans call for an emphasis on creativity (dance, music, art) in the summer.

"A child care program cannot replace a child's family and home experiences," Dr. Stumpe said, "but when the child can't be with the family because they're busy with work or school, then what he's doing should be as productive and valuable as possible."



Upcoming lectures

Internationally respected astronomer Dr. Elizabeth Roemer and McAlpin Professor of Photography at Princeton University Dr. Peter Bunnell will be on campus April 24 and 25.

Dr. Roemer, professor of astronomy at the Lunar and Planetary Laboratory of the University of Arizona, will speak on "Unseen Companions" Thurs-

day, April 24, at 3 p.m. in 120 Benton.

Dr. Bunnell will talk about "The Importance of Photography in the Pursuit of Knowledge" Friday, April 25, at 11:40 a.m. in 100 Lucas.

AOJ - history symposium April 22

Professor Joel Samaha of the University of Minnesota will discuss "Criminal Justice in Elizabethan England" at the second joint administration of justice-history department symposium on Tuesday, April 22. It begins at noon in room 215 SSBE. Faculty, staff and students are cordially invited to attend.

Dr. Samaha is an associate professor of history and chairman of the department of criminal justice studies at Minnesota.

Also on the program, serving as discussants, will be Dr. Charles P. Korr, associate professor of history; and David Smith, assistant professor, and Noel Criscuola, instructor, both in the administration of justice department.