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Self Study Report

University of Missouri-St. Louis

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Self Study

R E P O R T

Prepared for
The Commission on Institutions of Higher
Education of the North Central Association
of Colleges and Schools

University
of Missouri
St. Louis

P R E F A C E

Planning for the Self Study began in February 1997 when the Chancellor appointed the Self Study Coordinator. After a review of the Handbook of Accreditation and recent self studies of other institutions, we decided to form our Self Study around the five criteria. Five criterion-based committees were established, in addition to the Steering Committee. The University Senate established an *ad hoc* Reaccreditation Committee. The chair of the Senate committee served on the Steering Committee, and members from the Senate committee served on each of the criterion committees. The chair of each of the criterion committees was a member of the Steering Committee. The Steering Committee also had a student member, an alumni member, and a member of the Chancellor's Council. This overall plan was presented to Dr. Mary Breslin, our North Central Association liaison, at a meeting at NCA headquarters in April 1997.

The North Central annual meeting in April 1997 provided an opportunity to review Self Study plans produced by a variety of universities. Although we ended up developing our own plan for the Self Study document, we borrowed ideas freely. The portion of our document that shows the most influence of another specific study is in the format of the unit report sections in Chapter 4 (Criterion 3). This format was based extensively on that used by the University of Wisconsin - Madison. The unit reports were written over the summer of 1997 and then vetted by the area faculty in the fall of 1997. Also in the fall of 1997, the criterion committees established the format and structure of the other chapters and assigned writing tasks.

Beginning in the spring of 1998, the Steering Committee met weekly to review and revise the most recent drafts of material received from the criterion committee chairs. The Steering Committee completed the writing and revising of the Self Study in September 1998, and the draft was circulated widely on campus as well as being posted on the campus Web for review by all faculty, staff, and students. In October meetings were held with the deans, chairs, division leaders, or area coordinators in each school and college. Also, open meetings were held for all faculty on both the north and south campuses of the University. Following these meetings and the incorporation of the suggestions from this broad spectrum of the campus, the chair of the Steering Committee met with the Chancellor, the Vice Chancellors and the Deputy to the Chancellor for a line-by-line review of the Self Study. The revised document coming out of this meeting was forwarded to Dr. Breslin for her comments.

An initial word on nomenclature and a few definitions are appropriate. The University of Missouri-St. Louis is one of four universities in the University of Missouri System. In this Self Study, when we refer to the "University," we mean the University of Missouri-St. Louis. When we refer to the "System," we mean the broader corporate entity of the University of Missouri System. When we refer to "professional schools," we mean the following schools and colleges: School of Business, School of Education, Barnes College of Nursing, and School of Optometry. Faculty who are tenured or on tenure-track appointments at the levels of instructor through full professor are "regular" faculty. Faculty who are lecturers, librarians, research associates, postdoctoral fellows, visiting professors, clinical professors, or research professors are "nonregular" faculty. "Ranked faculty" are those faculty holding appointments as assistant, associate, or full professor, whether they are regular or nonregular faculty. Finally, recurring funding is referred to as "rate," whereas nonrecurring funding is referred to as "cost." In some cases cost dollars are appropriated to a given unit each year and come to be treated by those units as rate dollars.

Supporting material not included in the Self Study is referenced in the text as "(RR: format number title)," where format can be Web, File, or Shelf, number is the Self Study database acquisition number, and title is the document title or URL. Material identified as File or Shelf format will be found in the Resource Room adjacent to the Site Visit Team Conference Room or the Resource Room at the Site Visit Team hotel. The University conducts five-year reviews of all units. The latest copy of the five-year review for each unit will be in the Resource Room. This fact is not repeated in each unit's contribution to this Self Study.

Members of the Steering Committee are:

Karl Beeler, Associate Vice Chancellor for Student Affairs
Ruth Bryant, Chancellor's Council Representative
Tracy Carpenter, Student Representative
Ellie Chapman, Senior Lecturer, Department of English, Editor
Robert Dalgleish, Associate Dean of the Graduate School
    and Director of the Office of Research Administation
James Krueger, Vice Chancellor for Managerial
    and Technological Services
Deborah Larson, University Senate Representative
Marjorie McFarland, Alumni Representative
Everette Nance, Dean of the Evening College
Kathy Osborn, Vice Chancellor for University Relations
Thomas McPhail, Chair of the Department of Communication
Martin Sage, Interim Dean of the College of Arts and Sciences
Reinhard Schuster, Vice Chancellor for Administrative Services
Douglas Wartzok, Dean of the Graduate School
    and Associate Vice Chancellor for Research, Chair

T A B L E   O F   C O N T E N T S

CHAPTER ONE

Introduction

University of Missouri
St. Louis

Introduction

The University of Missouri-St. Louis was founded in 1963 when the University of Missouri acquired the Normandy Residence Center from the Normandy School District. It initially operated under the accreditation of the University of Missouri-Columbia, obtaining independent accreditation for baccalaureate degrees in 1968 and for selected graduate degrees in 1972. Full accreditation was continued after site visits in 1978 and 1989.

Ten years ago, the North Central Accreditation site visitors noted that the University of Missouri-St. Louis was a "still developing campus" (RR: Shelf 67, 1989 Site Visit Report). While it still has more programs to add, and high goals to achieve, to fulfill its land-grant mission to the St. Louis region and the state, the University has made significant strides in development over the past ten years. These improvements will be covered in detail later in this document, but a few of them should be highlighted here.

The 1999 site visit occurs at a time when the University is very much engaged in strategic planning. New deans in the School of Business Administration, School of Education, Barnes College of Nursing, and Pierre Laclede Honors College, as well as new Vice Chancellors for Academic Affairs and Student Affairs, have each led their respective units in a strategic planning process which will assure focused and thoughtful development of these academic units into the next decade. Copies of each of these strategic plans are in the Resource Room (RR: File 68, Business Strategic Plan; File 69, Education Strategic Plan; File 70, Nursing Strategic Plan; File 71, Honors Strategic Plan; File 72, Academic Affairs Strategic Plan). The University is searching for new deans in the College of Arts and Sciences and the School of Optometry. It is expected that subsequent to these hires, the units will also develop new strategic plans.

The range of academic programs has been enhanced through the addition of 6 undergraduate certificates, 7 bachelor's degree programs, 11 graduate certificates, 6 master's degree programs, and 7 Ph.D. programs. The University has been able to develop them because, by and large, the human resources in the form of a talented and capable faculty were already in place. As the site visit team noted ten years ago, the quality of the faculty is one of the University's greatest strengths. Increased fees and reserves were used for most of the other new program expenses with the exception of graduate student support, which is currently being addressed through Mission Enhancement.

Within the last few years the state has provided additional funding to the campus for two major initiatives: Mission Enhancement and the Endowed Professors Program. The first program is designed to enhance the University's unique responsibility in the state for research and doctoral education while simultaneously improving its core mission of educating undergraduate students with a particular Mission Enhancement emphasis on its Honors College. Mission Enhancement is in the first year of a four- to five-year program (File 74, Campus Mission Enhancement Plan – Overall; File 75, Campus Mission Enhancement Plan – Year 1; File 76, Campus Mission Enhancement Plan – Year 2). In the first year, the University's base budget was increased by $1.3 million (2.8 percent increase in state appropriations base), with a total increase of $9 million requested over the course of the Mission Enhancement program. These increases are in addition to inflationary increases.

The Endowed Professors Program has allowed the University, using state funds, to expand greatly its goal of building partnerships with many civic and cultural organizations in the region. If a donor provides $550,000, the System will match that amount, thereby generating $1,100,000 for the University's endowment. The University commits to hire a new faculty member, in the area specified by the donor, with the endowment income used for program initiatives such as graduate student support, equipment, teaching, research, and outreach activities. Through this program, the University has developed partnerships with almost all the major cultural institutions in the region, with other academic institutions, and with some civic organizations. A major focus of many of these partnerships has been the improvement of pre-collegiate education, particularly science education. This partnership program has become a national model, and something quite beyond what was envisioned when the System proposed the Endowed Professors Program.

The University has recognized that educational fees and state support will never be sufficient to meet the goals of its mission. External support for the University has increased substantially. Private giving has been stimulated by the Endowed Professors Program, but has expanded well beyond that program. One of the most significant gifts to the University occurred when the Board of Direction of the St. Louis Mercantile Library Association voted to join the University. The Mercantile is the first library established west of the Mississippi River, and the

addition of its extensive holdings in Americana and rail-road and inland waterway history, as well as its collection of fine art, has greatly enhanced the resources of the University.

Faculty and staff have been active in obtaining external funding for instructional, public service, and research projects. Total annual external grant and contract funding has more than tripled in the past ten years.

The University engaged in a five-year System process of increased fees and reallocations which addressed a number of structural issues such as faculty salaries, reserves for maintenance and repair, libraries, and scholarships. In addition to the System-mandated five-year plan, the University reallocated funds to improve the campus computing enterprise. These initiatives addressed a number of the concerns raised by the Site Visit Team in 1989. The University's response to these and the other concerns of the Site Visit Team is presented in greater detail below.

Response to concerns expressed by 1989 Site Visit Team

The University took very seriously the concerns identified by the 1989 Site Visit team and responded to them as follows:

1. Faculty salaries were too low, but the campus had not used the appropriate comparisons in order to document quantitatively the extent to which they were too low.

In FY98 average UM-St. Louis faculty salaries by rank were the following:

Professor	$69,700
Associate Professor	$52,900
Assistant Professor	$44,600
Instructor	$43,500
Lecturer	$27,240

The Urban-13 were used as a comparison group. The average faculty salaries, excluding UM-St. Louis faculty from the mean, were the following:

Professor	$71,400
Associate Professor	$54,000
Assistant Professor	$44,500
Instructor	$34,900

At the higher ranks UM-St. Louis is slightly below the average (2.4 percent for professors and 2.0 percent for associate professors), while it is right at the average for assistant professors and exceeds the average by 24.6 percent for instructors. Note that UM-St. Louis has few faculty (12) holding the rank of instructor. Most of the faculty (135) not in tenure-track appointments are appointed as lecturers. The weighted mean salary for instructors and lecturers is $28,269, which is 19 percent below the Urban-13 average for instructors. Given the uncertain nomenclature distinctions between instructors (reported) and lecturers (nonreported), it is difficult to make comparisons with the peer group. One possible explanation for the lower salaries at the full-professor level is that UM-St. Louis faculty may have fewer years in that rank on average than faculty in the comparison universities. When compared with the FY88 data at the time of the last Site Visit, the University has made significant progress toward reaching the average salaries of the Urban-13 comparison group. In FY88 full professors were 6.6 percent below the Urban-13 average (now 2.4 percent below), associate professors 8.8 percent below (now 2.0 percent below), and assistant professors 1.7 percent below (now equal).

The improvement over the past decade was due primarily to a University of Missouri System Five-Year Plan which highlighted an initiative to increase faculty salaries to reach the median of the AAU public universities. Progress toward this goal was achieved through an early retirement program and major reallocation within the University. Also contributing to increased faculty salaries was the requirement that the mean faculty salary increase (all faculty salaries are merit-based) in recent years be as much as 0.9 percent greater than the amount provided by the System with the additional amount coming from reallocation either from unfilled faculty lines or from expense and equipment budgets. These reallocations have reduced the expense and equipment budgets of all units, with a particular impact on the smaller units which were less likely to have unfilled positions from which to reallocate resources.

2. *The number of African-American faculty was too small for a metropolitan university seeking to increase its enrollment of African-American students.*

At the time of the site visit in 1988, there were only nine African-American tenure-track or tenured faculty. Through proactive recruiting and a program which adds additional funded tenure-track faculty lines to departments successful in recruiting African-American faculty, the number of African-American faculty members holding tenure or tenure-track appointments has increased to 28, or 9 percent. This is still not as high as the percentage of African-American students in the student body, or as high as the campus desires. The programs which are in place, and have been successful in the past, will be continued. Although not a specifically highlighted concern of the Site Visit Team, the University nevertheless is proud of the increased number of females at all levels. Over the past decade, the number of female full professors increased by 288 percent, the number of female associate professors by 184 percent, and the number of female assistant professors by 190 percent.

3. *The number of awards and amount of external funding in general, and for research in particular, were much too low for a university with UM-St. Louis' attainments and mission.*

In the past decade, the campus has tripled its total external grant and contract funding from $5.3 million to $16 million per year. The amount of this funding for research has increased from $1.9 million to $4.2 million per year. The University of Missouri System ranks near the bottom of the public AAU institutions in terms of external funding, although the University has a strong program of internal research funding, both at the System level and at the University level. The System provided over $4 million in competitively awarded internal research funds last year, and the University provided over $350,000. In addition, the University provides faculty with research fellowships through the Center for International Studies and the Public Policy Research Centers.

The System has adopted several strategies to increase the University of Missouri market share of funding, particularly federal funding. The Endowed Professorship program and the Mission Enhancement requests are two programs which include increased external funding among their primary goals. Because the Endowed Professorship program acquires a large portion of its focus from the external donors, the areas in which UM-St. Louis has hired endowed professors are not so likely to produce significant increases in external funding as was originally envisioned. Mission Enhancement funds will be directed more effectively toward hiring new faculty and supporting programs that will result in increased external funding. The System has hired a Washington, D.C., firm to assist in identifying potential sources of funding for all universities in the System. The System President has hired a new special assistant for federal affairs to work with the Washington firm and with faculty on all four campuses in a new effort to increase federal funding.

4. *Library funding, particularly for journals, was inadequate.*

Library funding was a second of the goals of the early retirement and reallocation program noted under item 1. In a time when collections budgets have declined in many academic libraries, UM-St. Louis has almost doubled its annual expenditures for materials. In FY1988, approximately $843,000 was spent on collections; in the last three fiscal years expenditures have averaged $1,430,941. In addition to traditional print and a broad range of new electronic resources purchased by the University, faculty and students have access to a vast array of electronic databases provided by additional legislative funding for a Systemwide library technology plan. The campus Libraries also maintain a full (95 percent) government documents depository program, which brings in more than 23,000 items each year. The strictly "on-site" collections are augmented by a constantly updated and well-used library Web site, which makes Web-based resources both available and accessible. As the external

consultant indicated in the most-recent five-year review of the Libraries, UM-St. Louis faculty and students have access to a level of information resources unavailable in most academic libraries of this size. This access has been significantly enhanced in the past year through two actions. The Libraries have adopted a common electronic catalog with the University of Missouri campuses, Saint Louis University, and Washington University. This common catalog allows faculty and students direct access to more than 8.7 million items. The second action was the recent agreement with *Lexis-Nexis,* which will bring the full-text on-line journal holdings to an additional 12,000 items. These are complemented by the 2,300 full-text titles.

The recent affiliation of the St. Louis Mercantile Library Association with UM-St. Louis Libraries *(see Libraries, Chapter 4)* brings to the University a broad collection of primary and secondary research material related to various American Studies subjects. The Mercantile Library was founded in 1846 and is the oldest library west of the Mississippi River. Noteworthy among its collections are the Barriger Railroad Collection and the Pott Waterways Collection. The Barriger Collection focuses on American railroad history and is one of the largest in the United States, containing more than 40,000 books in addition to primary manuscript documents and photographs. The Pott Waterways Collection focuses on U.S. river and inland waterways history, containing more than 2,500 books and a large pictorial and photographic collection which doubles the overall item count.

5. *The campus had no long-term plan for academic computing.*

So much has changed in the past decade that a specific response to the details of the concerns of the last site visit team, or a recital of various interim plans which evolved in response to this concern, would not be enlightening. The campus now has a plan. All faculty and many staff are part of this plan, which puts a new computer on each desk every four years. Units are allowed to upgrade beyond the standard desktop computer provided, but the standard unit is powerful enough to run all but the most specialized software. The campus is in the process of upgrading from a 10 Mbs Ethernet to a 100 Mbs Ethernet. A bank of 240 56 Kbs modems means that students and faculty can obtain off-campus access to University computing resources quickly and reliably. Many specialized library resources and databases are available to computers with University IP addresses, and students and faculty dialing in through the modem bank

acquire a University IP address so that the resources available to them are the same as those available on campus. The University has six Student Open Laboratories with 370 desktop systems supporting Windows 95, Windows NT, Macintosh, and Unix-based computing. The University has eight Advanced Technology Classrooms with a media-enhanced instructor station, high-quality sound and projection systems, and networked workstations for all students; and two Media Enhanced Classrooms which provide everything in the Advanced Technology Classrooms except for the networked student stations.

6. *The campus should be further along in internationalizing its curriculum and its noncurricular student experiences.*

Since the last review, the University has focused substantial attention and resources on its international agenda. The School of Business Administration established a Global Awareness Requirement for all B.S. degree candidates and developed the Business Internship Program in London and an undergraduate certificate program in international business. The School of Education established a Global Ecology course requirement for all elementary education majors. In addition, the University now offers an undergraduate certificate in Africana Studies and a Graduate Certificate Program in International Studies.

Through the Joint Center for East Asian Studies, with Washington University, the first two years of Chinese, Japanese, and Korean language courses are now available on campus, and students can take advanced language courses on the Washington University campus while remaining enrolled at UM-St. Louis. Courses in modern Greek language are now available through an endowed professorship in Greek studies. Additional international studies courses will be available through the endowed professorships in Chinese and Irish studies. The newly developed visiting international professors program, funded by Mission Enhancement, will bring a distinguished scholar to campus each semester and further enrich the international course offerings.

Study-abroad and student-exchange programs have expanded since the last review. The University has developed a study-abroad infrastructure to promote and help students plan study-abroad experiences. The number of experiences sponsored by the University has increased from 3 to more than 70. Student participation in international experiences, only occasional at the last

review, reached 56 in AY1997-98. The number of participants should grow further with additional study-abroad scholarships funded by Mission Enhancement and developing programs for students in Nursing and Education.

To provide significant noncurricular experiences, the Center for International Studies sponsors student participation in local and national international affairs conferences. Also, the Center annually presents more than 24 events on international issues and encourages student participation.

The most significant noncurricular change has been creation of a Universitywide Office of International Student Services (OISS), which coordinates and provides services for international students, including inquiries, admissions, orientation, nonacademic advising, and social activities. Also, OISS directs campus international student recruitment, provides immigration services for the campus community of scholars and students, and is responsible for operating the campus International House, a recreational and meeting facility for international students and others interested in meeting them. OISS sponsors social and informational activities to enable USA students and faculty to interact with international students.

7. In selecting a new Graduate Dean, the campus should appoint a dean who will use both persuasion, and, where necessary, the prerogatives of the office to safeguard academic quality at the graduate level by returning actions to the respective faculties for reconsideration, or even vetoing appointments or actions adverse to the quality of graduate programs.

A new graduate dean was appointed in 1991. He has exercised the full authority of the office, including many of the actions recommended by the Site Visit Team, to maintain the quality and integrity of graduate programs. All actions by graduate programs are recommendations to the Graduate School and do not become official actions until approved by the dean. Preliminary copies of dissertation proposals as well as dissertations must be approved by the Graduate School, and are approved only after careful review. All graduate committee appointments are made by the Graduate School. Further, the dean of the Graduate School prepares independent recommendations on appointments to the Doctoral Faculty of the University System and on recommendations for tenure and promotion.

8. Annual maintenance funding should be increased from 1.4 percent to 2 percent of the capital replacement value of the physical plant.

This was recognized as a problem not only on the St. Louis campus but throughout the System. Again, a goal of the early retirement and resource reallocation program of the Curators was to have sufficient money in the University's base budget to cover maintenance and repair of the physical plant. The System and its consultants determined that the necessary amount was 1.5 percent. Because this amount is now available in the base budget and thus not subject to special annual appropriations of the legislature, the 1.5 percent provides a stable, continuing source of funding for maintenance and repair. Although this percentage is somewhat less than that suggested by the Site Visit Team, it is a level consistent with professional advice the System received, and operationally it appears to be an adequate level, particularly considering that the extensive amount of new construction on campus has resulted in reducing the average age of the buildings on campus and thus their near-term maintenance and repair requirements.

9. UM-St. Louis does not have an appropriate annual budget for equipment and equipment replacement.

Along with the program dedicating 1.5 percent of capital replacement value to maintenance and repair, the Board of Curators adopted a policy starting in FY1997 whereby at least 10 percent of the cost of current equipment must be spent annually on preventive maintenance, routine repair, major repair, and replacement. The campus has been meeting that mandate, initially, with major expenses in the desktop computer program. After that program reaches a plateau, more of the maintenance, repair, and replacement funding will be directed to maintenance and repair. Until that time, funds available for maintenance and repair of scientific teaching equipment are somewhat less than ideal.

10. A number of competitive graduate assistant stipends should be provided as part of the initial funding for any new doctoral programs.

Graduate student support has not been competitive at UM-St. Louis. For many programs, support has been sufficient to meet market demands because the students come from the St. Louis area and the University is not competing nationally. For graduate programs that compete nationally, marginally competitive stipends have

been provided. The net cost of education for graduate teaching assistants (GTAs) and graduate research assistants (GRAs) (stipend less remaining tuition and fees paid by the student) in FY1998 was $8,963 and $8,748, respectively. These amounts are not competitive with most universities in most programs. The University has taken, and is taking, a number of steps to address this problem. It has begun a phase-in of educational fee remissions for GTAs and GRAs. Currently any GTA or GRA with at least a 0.25 FTE appointment receives a fellowship to cover the differential between resident and nonresident educational fees. Furthermore, GTAs and GRAs with 0.50 FTE appointments receive a fellowship equivalent to 50 percent of the resident educational fees. Some of these enhancements have been funded under the first year of Mission Enhancement, and it has been proposed to increase incrementally the tuition fellowship to 100 percent for both GTAs and GRAs through succeeding years of Mission Enhancement funding. More money in Mission Enhancement is going for graduate student support than for any other activity. Also, each graduate program that is receiving funding through Mission Enhancement is required to use $13,000 ($12,000 stipend plus benefits) of each $50,000 received to fund one graduate assistantship.

11. *Academic advising needs improving.*

As the Site Team noted, UM-St. Louis is by no means alone in having students dissatisfied with advising. In 1994 the University received Title III funding under the Strengthening Institutions program specifically addressed to the problem of student advising. This funding, combined with additional funding and strong commitments from the University, allowed the campus to upgrade hardware and software for all academic advisers so that they can register students in the advising offices in the schools and colleges. The degree audit system (DARS) software, the course equivalency database, and the individual student records have all been recoded to produce accurate degree audit reports. DARS reports are now distributed by the Office of Admissions to all newly admitted transfer students upon their acceptance to the University. This report shows transfer students how previous work relates to required general education requirements. Beginning with Winter 1999 registration, the Registrar will send an updated DARS report to all students in preparation for their academic advising for the subsequent semester.

In the spring of 1998, the vice chancellors for Academic Affairs and Student Affairs brought in a nationally recognized consultant to review several academic advising issues, including alternative organizational models, current policy and procedures, space allocation, student-adviser staffing ratios, technological needs, and adviser training. A campus working group associated with the Enrollment Management Task Force is now reviewing this report and making final recommendations on improvements in advising services and new student orientation.

In March 1998, the initial assignment of new student advising was shifted from the College of Arts and Sciences to the college or school in which the student plans to major. The University also plans to establish a new academic advising unit in the new Student Center which will open in 2000 and provide for truly "one-stop shopping" for all student-related services, including advising, financial aid, registration, and the bookstore. The director of the Student Advising Center has been recently appointed and will commence work with a campus advising committee to establish an appropriate mission, goals, and staffing structure. Placing a cross-campus pool of academic advisers in the Student Advising Center will allow the workload to be balanced across unit advisers, thereby decreasing wait time for students. Response to this concern is still a work in progress, but definite progress has been made and a plan is in place to fully respond to this concern with the new Student Center.

New programs added since last self study

The campus now offers 45 undergraduate, 26 master's, and 11 academic doctoral programs and the professional Doctor of Optometry (O.D.) degree. In addition, the campus has authorization to offer the professional Doctor of Nursing (N.D.) degree, but has not activated that program. Since the last Self Study in 1989, the following certificates, emphasis areas, and degree programs have been added, changed, or deleted:

Undergraduate Certificate Programs

Added:

- Africana Studies Certificate
- Biotechnology
- Conservation Biology
- Labor Studies
- Non-Profit Organization, Management and Leadership
- Trauma Studies

Undergraduate Degree Programs

Added:

- B.F.A. in Studio Art - Cooperative with St. Louis Community College with emphasis areas in Drawing, General Fine Arts, Graphic Design, Painting, Photography, Printmaking
- B.H.S. in Health Sciences with emphasis areas in Clinical Laboratory Science and Cytotechnology
- B.S.C.I.E. in Civil Engineering - Cooperative with Washington University with emphasis areas in Construction Engineering and Environmental Engineering Science
- B.S.E.E. in Electrical Engineering - Cooperative with Washington University
- B.S.M.E. in Mechanical Engineering - Cooperative with Washington University
- B.S. Acc. replaced the Accounting emphasis area in the B.S.B.A.
- B.S.M.I.S. replaced the M.I.S. emphasis area in the B.S.B.A.
- Computational Mathematics emphasis area for B.S. in Mathematics
- International Business and Logistics and Operations Management emphasis areas for the B.S.B.A. degree
- Medical Physics emphasis area for B.S. in Physics
- Pre-licensure track for the B.S.N.

Changed:

- Administration of Justice to Criminology and Criminal Justice
- Speech Communication to Communication
- Emphasis area in Music B.M. from Music Management to Elective Studies in Business

Deleted:

- Geophysics emphasis area in B.S. in Physics
- Management Science emphasis area in B.S.B.A. in Business Administration
- Theatre emphasis area in B.A. in Communication
- Four emphasis areas in Administration of Justice when program renamed Criminology and Criminal Justice

Graduate Certificate Programs

Added:

- Biotechnology
- Business Administration
- Gerontology
- Gerontological Social Work
- Human Resource Management
- Information Resources Management
- International Studies
- Management Information Systems
- Managerial Economics
- Marketing Management
- Nonprofit Organizational Management and Leadership
- Psychology-Clinical Respecialization
- Taxation
- Tropical Biology and Conservation
- Women's and Gender Studies

Graduate Degree Programs:

Added:

- M.A. and Ph.D. in Criminology and Criminal Justice
- M.F.A. in Creative Writing
- M.M.E. in Music Education
- M.S.N. in Nursing (cooperative with UMKC)
- M.S. and Ph.D. in Physiological Optics
- M.S.W. in Social Work (cooperative with UMC and UMKC)
- Ph.D. in Applied Mathematics

- Ph.D. in Biology with emphasis areas in Environmental Studies and Plant Systematics
- Ph.D. in Education (cooperative with UMC and UMKC)
- Ph.D. in Nursing (cooperative with UMC and UMKC)
- Ph.D. in Physics (cooperative with UM-Rolla)
- Emphasis areas in Biotechnology, Conservation Biology, Evolution, Population Biology, and Tropical Biology for M.S. in Biology
- Emphasis areas in Public Sector Human Resource Management, Public Policy Analysis, Public Policy Processes, Health Policy, and Nonprofit Organization Management for Master's of Public Policy Administration
- Emphasis area in Taxation for M.Acc. in Accounting
- Emphasis areas in Business Economics, General Economics for M.A. in Economics
- Emphasis areas in Biochemistry and Molecular Biology and Biotechnology for Ph.D. in Biology
- Emphasis area in Biochemistry for M.S. in Chemistry and Ph.D. in Chemistry

Changed:

- Emphasis area in Psychology Ph.D. from Applied Psychology to Industrial and Organizational Psychology

CHAPTER TWO

Criterion 1

The university has clear and publicly stated purposes which are consistent with its mission and appropriate to its organization as an institution of higher education.

Mission Statement

The University of Missouri-St. Louis is the land-grant research institution committed to meeting the diverse needs in the state's largest metropolitan community. It educates traditional and nontraditional students in undergraduate, graduate, and professional programs so that they may provide leadership in health professions, liberal and fine arts, science and technology, and metropolitan affairs such as business, education, and public policy. University research advances knowledge in all areas, and through outreach and public service, assists in solving, in particular, problems of the St. Louis region.

Academic programs are enriched through advanced technologies and partnerships that link the University of Missouri-St. Louis to institutions and businesses locally, regionally, nationally, and internationally. Its special commitment to partnership provides UM-St. Louis with a leadership responsibility among public educational and cultural institutions in improving the region's quality of life, while its relations with two- and four-year colleges and universities in the St. Louis region promote seamless educational opportunities.

The University of Missouri-St. Louis is one of four universities in the University of Missouri System. These four universities are the only publicly supported universities in the state that offer doctoral education and have a land-grant research and extension mission. At both the undergraduate and graduate level, the University enrolls a diverse group of students, many of whom are nontraditional students and students who are the first in their families to attend college. The University is located in the state's major metropolitan area, which looks to the University to be a partner in many civic endeavors ranging from culture to elementary education to economic development. As the University has grown and matured, many aspects of its mission have been enhanced, but the initial commitment to providing an affordable, high-quality education has remained unchanged.

Goals

Goal 1 - Maintaining high-quality, affordable undergraduate education.

Undergraduate education was the focus of the University at its founding in 1963. Undergraduate education was enhanced with the addition of graduate programs beginning in 1968 and was further enriched with establishment of the Center for International Studies in 1968 and the founding of the Honors College in 1989. As is true of almost all of the most distinguished research universities, the undergraduate program is still the core of the University and the home to the majority of the students. Since the last site visit, the Missouri Coordinating Board for Higher Education required each post-baccalaureate institution to establish an admissions policy that was highly selective, selective, moderately selective, or open admissions. All universities in the University of Missouri System chose the selective designation, which matches the abilities of the students with the high standards of the academic program while maintaining access for first-generation college students. To help enhance the participation of under-represented groups, the University engages in a number of proactive precollegiate programs.

Goal 2 - Enhancing and expanding nationally competitive graduate education for the St. Louis region.

The University recognizes its primary mission of serving the greater St. Louis metropolitan region, and within that mission, seeks to provide a broad range of graduate and professional education programs. It has been a continuing principle that the University should offer graduate education in all areas in which it has a qualified faculty and in which there is a need within the community. The University further believes that it can best meet the needs of the St. Louis metropolitan region by ensuring that the graduate programs it selects to develop are ones that are distinguished enough to attract students from across the nation and around the world.

Goal 3 - Contributing to the economic development of the St. Louis region.

St. Louis is typical of many major urban centers in the United States in that it is moving from a reliance on manufacturing to high technology and science, particularly biotechnology and health sciences, on the one hand, and information-based service industries on the other. The land-grant mission in the 21st century will require universities to bring resources to bear on economic development, particularly in high technology.

Just as the rural land-grant universities of the 20th century focused on agriculture, the metropolitan land-grant universities of the 21st century will have a responsibility to assist in the revitalization of the metropolitan centers of the country by taking university research and development into the marketplace through workforce education, technology licensing, and establishment of spin-off companies. The greatest technology transfer in which the University engages is the education of the next generation of workers, managers, and researchers. The University has graduated over 55,000 students, of whom 80 percent remain in the St. Louis region. The University also has one of the largest continuing education programs in the nation for inservice education. This program enrolled more than 93,000 participants last year. The University is the host organization for the St. Louis Regional Office of the Mid-America Manufacturing Technology Center, a National Institute of Standards and Technology-supported program to provide assistance to the over 3,000 small- to medium-sized manufacturers in the St. Louis region. The University is also a sponsor of the Center for Emerging Technologies, a high-technology incubation center. In addition, the Public Policy Research Centers at the University, and the faculty associated with them, provide research and analysis for many governmental bodies and other organizations in the metropolitan region and the state. The recently established Center for Molecular Electronics has state-of-the-art microscopy equipment available to help industries solve problems and understand interactions at the molecular and atomic levels.

Goal 4 - *Building partnerships with educational and cultural institutions in the St. Louis region.*

The University has become a national leader in the development of partnerships between the University and other cultural and educational institutions in the St Louis region. Partnerships for Progress was the title of the five-year planning document developed in 1986. However, it was not until the past five years that partnerships really flourished under the leadership of the current Chancellor. A major factor in bringing these concepts to fruition was the congruence of the goals of the University, the establishment of an endowed professorship program funded by the legislature in association with the University and private donors, and the vision of a local philanthropist, E. Desmond Lee. Primarily through Mr. Lee's support, the University has established numerous partnerships with local cultural and educational institutions whereby faculty holding endowed professorships spend half of

their time in academic teaching and research and the other half in working with the Science Center, the Zoo, the Symphony, the Art Museum, the History Museum, the Missouri Botanical Garden, or other institutions, depending upon the terms of the endowed professorship. One additional noteworthy partnership, already mentioned, is that whereby the Mercantile Library became a part of the University of Missouri-St. Louis. In addition to its world-renowned collections in rail and waterway transportation, this partnership endowed two additional professorships. These professorships, along with the collections of the Mercantile Library, will form the core of a planned Center for Transportation Studies. A new Chair in Public Policy will coordinate the efforts of the Public Policy Research Centers and public policy expertise at Washington University and Saint Louis University to enhance the resources currently available to governmental bodies and public organizations in the region.

Goal 5 - *Providing access to higher education through distance learning and educational centers.*

Since the last site visit, the University has established baccalaureate completion centers in St. Charles and Jefferson counties. Each Residence Center is associated with a regional community college. These centers confirm the University's commitment to access. Both centers are located in counties where the proportion of citizens who have gone to college is lower than in other parts of the state with better access to higher education. Early data show that these centers have been successful in bringing baccalaureate education to more people, and have not merely changed the commuting patterns of individuals already attending a four-year college.

The University uses a variety of telecommunications technologies to augment its delivery of educational resources. The Nursing College collaborates with sister UM campuses at Kansas City and Columbia on degree programs offered via interactive video. Other academic units use video technologies to team teach with counterparts at other campuses, and the video network is used to offer a complement of credit instruction at the St. Charles County and Jefferson County education centers. Other technologies used in course delivery include cable television and the Internet. The School of Business has added an on-line option to its M.B.A. program. This option, designed for working professionals, is referred to throughout the Self Study as the "Professional M.B.A. On-Line." It is currently offered through a combination of on-campus instruction and Internet instruction.

Although telecommunications technologies play an increasing role in the delivery of educational resources at UM-St. Louis, the University recognizes the limitations of technology and is conscientious in balancing the needs for student access against the need to uphold and maintain traditional academic standards and to provide adequate student support services.

As briefly described here, the University's Mission Statement is not only a true reflection of the goals of the institution but also an accurate statement of how the institution is conducting its daily business. The Mission Statement was revised in 1997 as a part of the Mission Enhancement program. Each state-supported institution of higher education in Missouri has engaged in mission refinement and enhancement in a process through which additional funding from the state has flowed to those institutions which have better defined their core mission. All four campuses of the University of Missouri agreed that their broadly stated mission was research, graduate and professional education, and outreach and extension. The University of Missouri-St. Louis took those broad statements and formulated the mission statement presented at the beginning of this chapter, a statement which with its freshness and currency accurately and succinctly describes the University.

Goal 6 - Becoming a Carnegie Research II University

An important goal of the University not specifically mentioned in the Mission Statement is that of achieving Carnegie Research II Classification or its equivalent, should the Carnegie Foundation revise its classification scheme. Such a goal is a natural outgrowth of the enhanced research and graduate education emphases of the entire University of Missouri System. The University is continuing to add doctoral programs in areas in which it has the necessary program strength and in which there is a need for access to affordable doctoral education in the metropolitan region. These areas of program growth will provide the number of doctoral degrees required for Research II status.

The System has established a goal of significantly increasing its market share of available federal funds. A review of recent funding history shows that the largest gains have been at the three newer campuses. Thus the goals of the System and the St. Louis campus point in the same direction, that of enhancing external funding for research. The University recognizes that increasing external funding in a competitive market will not be

easy, but it has made a commitment that a major fraction of the new money the University might receive through Mission Enhancement will go to supporting graduate students. Additional faculty lines, moreover, will go to some of the units with strong doctoral programs. This internal investment in graduate programs has been selected as the best way to enhance the ability of the University to obtain external funding.

Criterion 2

**The institution has effectively organized
the human, financial, and physical
resources necessary to accomplish
its purposes.**

Introduction

This chapter provides evidence that the University of Missouri-St. Louis has effectively organized the human, financial, and physical resources necessary to accomplish its purposes. A description of various governance and organizational structures is followed by sections on human resources, physical resources, and financial resources.

Governance and Organizational Structures

Coordinating Board for Higher Education

Before the University of Missouri System and UM-St. Louis governance and organizational structures are described, it is important to consider the Missouri Coordinating Board for Higher Education (CBHE). The CBHE (RR: Web 194, http://www.mocbhe.gov) was authorized by amendment to the Missouri Constitution in 1972. Coordinating Board members are appointed from each congressional district by the Governor and confirmed by the Senate. The board members serve six-year terms, and no more than five of the nine members can be affiliated with the same political party.

Coordinating Board members as of July 1, 1998, are as follows:

B. Ray Henry, Chair, Hillsboro
Connie J. Campbell, Vice Chair, Kansas City
John F. Bass, Secretary, St. Louis
Marie Carmichael, Springfield
Bryan Cook, Clayton
Lynn M. Ewing Jr., Nevada
Mary K. Findley, Poplar Bluff
Jim Summers Jr., St. Joseph
Mary Joan Wood, Cairo

Kala M. Stroup was appointed in September 1995 as the Coordinating Board for Higher Education's chief executive officer. As commissioner, Dr. Stroup is head of the Missouri Department of Higher Education, with 13 public four-year colleges and universities, 16 public two-year community colleges, 26 independent colleges and universities, and 110 proprietary schools. The functions of the Department of Higher Education include:

• Statewide planning for postsecondary education.

• Evaluation of student and institutional performance.

• Identification of the statewide needs for higher education; development of effective and economical specialization among institutions.

• Submission of a unified budget request for public higher education to the General Assembly.

• Review and enhancements of institutional missions.

• Approval of new degree programs offered at the public colleges and universities.

In addition, the department administers a variety of student financial aid programs and the proprietary school certification program.

Although CBHE submits budget requests for all public higher education institutions in Missouri, the University of Missouri System also submits its own budget requests to the General Assembly.

University of Missouri Board of Curators

Much of the information found in this section and in the University of Missouri System Administration and University of Missouri-St. Louis Governance sections can be found in the University of Missouri-St. Louis *Faculty Handbook.* (RR: Shelf 77, Faculty Handbook). This document is also available on the Web (RR: Web 182, http://www.umsl.edu/services/academic/table.htm).

The University of Missouri is a constitutionally created entity. The governance of the University of Missouri System rests with a Board of Curators, composed of nine persons appointed by the Governor and confirmed by the state Senate. Each member of the board is appointed for a six-year term. Anyone appointed must be a citizen of the United States and a resident of Missouri two years immediately before appointment. Not more than five curators can belong to one political party, and only one person can be appointed to the board from any one congressional district.

Board members as of January 1, 1998, are as follows:

Theodore C. Beckett, President, Kansas City
Paul T. Combs, Vice President, Kennett
Adam B. Fischer, Sedalia
Mary S. Gillespie, Des Peres
Fred L. Hall Jr., Springfield
Malaika B. Horne, St. Louis
John A. Mathes, Sunset Hills
Paul J. Steele, Chillicothe
Hugh E. Stephenson Jr., Columbia
Student Representative: Sarah Welch, UM-St. Louis

University of Missouri System Administration

Reporting directly to the Board of Curators is the University President, Manuel T. Pacheco, who assumed his position August 1, 1997. Also reporting directly to the Board of Curators, but with dotted-line reporting relationships to the President, are the General Counsel and the Secretary to the Board.

As of September 1, 1998, the following positions report directly to the President:

Chancellor, University of Missouri-Columbia
Chancellor, University of Missouri - Kansas City
Chancellor, University of Missouri - Rolla
Chancellor, University of Missouri - St. Louis
Executive Vice President for Outreach and Director of
    Cooperative Education
Vice President for Academic Affairs
Vice President for Administration and Finance
Vice President for Information Systems
Assistant to President for Governmental Relations
Director of University Relations

The President of the University of Missouri System serves as the chief executive and academic officer of the four-campus System. At regular meetings of the Board, the President reports on the progress, conditions, and needs of the University System and recommends measures needed to promote the institution's interests. The President has the right to preside at any meeting of a campus faculty, to vote at all meetings of the campus faculty or any divisional faculty, and to appoint all System committees, unless otherwise provided for by the Board of Curators. Moreover, the President delegates authority for specific programs and functions to the campus Chancellors or his Vice Presidents or other designated individuals.

University of Missouri-St. Louis

The Chancellor of the University of Missouri-St. Louis is appointed by the Board of Curators based on the recommendation of the President. Blanche M. Touhill served as Interim Chancellor starting in July 1990 and was appointed Chancellor in April 1991.

Executive Order No. 1 states that ... "The Chancellors of the campuses are the chief academic and administrative officers charged with providing academic leadership and management on their campuses. The primary duty of the Chancellors is to strive to attain excellence of programs and offerings within the resources available to the campuses. The Chancellors will ensure that student services

and support are provided to create appropriate learning environments, and the Chancellors are also responsible for campus advancement programs and private fund raising. In addition to their campus responsibilities, the Chancellors serve as general officers to advise the President on all matters affecting the University of Missouri."

As chief academic and administrative officer, the Chancellor is responsible for making recommendations to the President on the needs of the campus, for keeping the President informed of campus developments, and for carrying out such additional duties as the President and the Board may delegate or assign.

The Chancellor is assisted in managing the campus by her Vice Chancellors and other designated individuals. The five Vice Chancellors have responsibility for specific programs and functions. These positions are listed on the administrative organizational chart (see Figure 3-1).

In addition to the five Vice Chancellors, the following staff positions report directly to the Chancellor:

Deputy to the Chancellor
Assistant to the Chancellor, Public Affairs
Director of the Office of Equal Opportunity

Vice Chancellor for Academic Affairs

The Vice Chancellor for Academic Affairs is responsible for all academic functions of the University and reports directly to the Chancellor. All academic deans and directors report to the Vice Chancellor. The Vice Chancellor is responsible for all academic programs, including the review of existing programs and the development and implementation of new programs. The Vice Chancellor, working with the academic officers, establishes the budgets for all academic units and is responsible for ongoing academic planning. The Vice Chancellor advises the Chancellor on matters of tenure and promotion.

Vice Chancellor for Administrative Services

The Vice Chancellor for Administrative Services is charged with the primary responsibility of providing an environment conducive to the personal development of all who come to the UM-St. Louis campus. In this effort, the Division of Administrative Services helps to support the broader mission of the campus, which is to meet the diverse needs to the community through teaching, research, and public service.

Figure 3-1

UNIVERSITY OF MISSOURI-ST. LOUIS
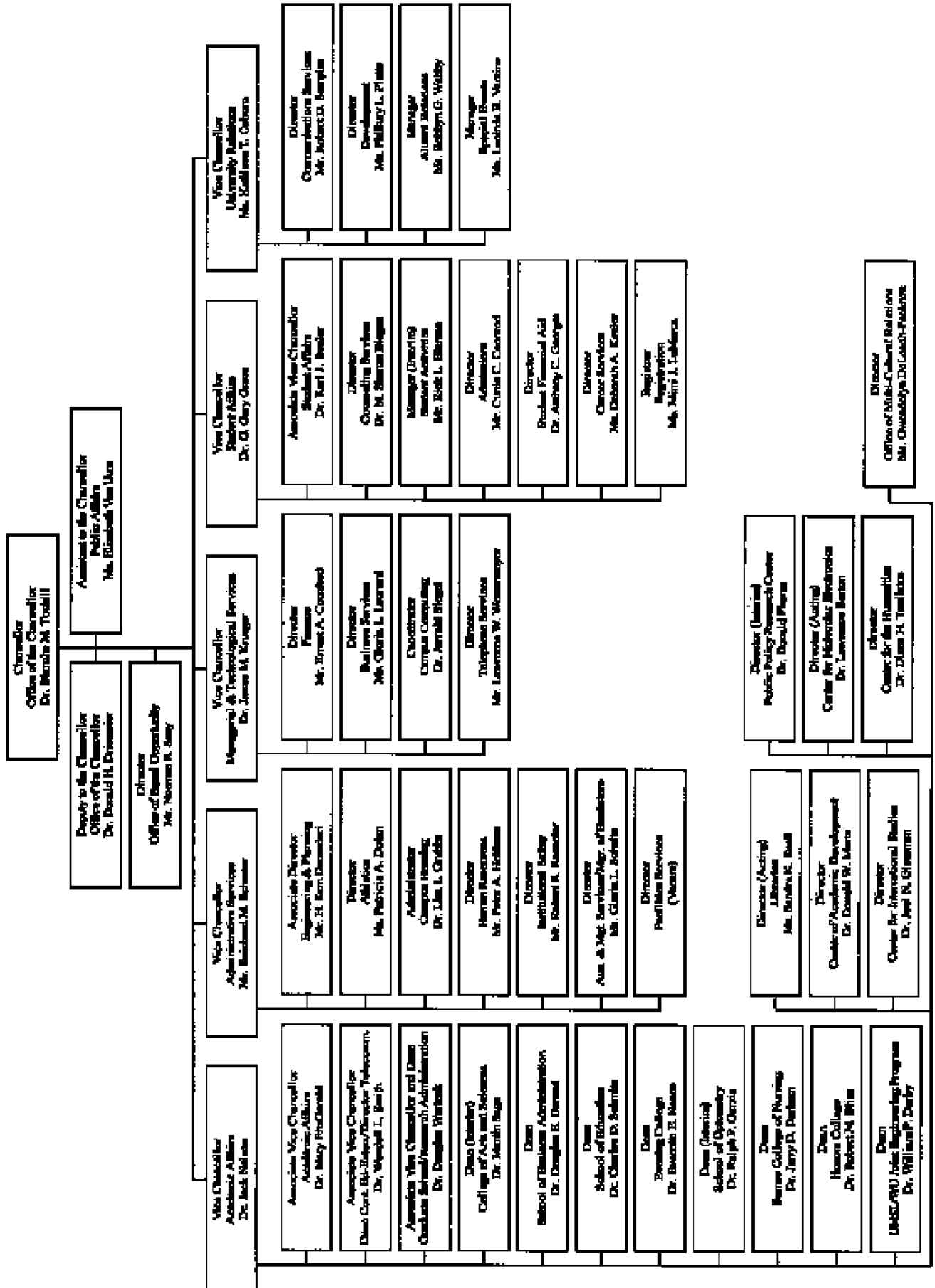
Vice Chancellor for Managerial and Technological Services

The Vice Chancellor for Managerial and Technological Services oversees activities in the areas of finance, business services, planning and budgeting, and institutional research, and has overall responsibilities for campus computing and telephone services.

Vice Chancellor for Student Affairs

The Vice Chancellor for Student Affairs oversees the Division of Student Affairs, whose mission is to attract and select a high-quality, culturally diverse student body consistent with the mission of the University; to assist students in their pursuit of educational and career goals; and to retain them through graduation. In addition, staff of the Division of Student Affairs work in collaborative efforts with faculty and in partnerships in the larger St. Louis metropolitan region to provide students a variety of opportunities for formal and informal learning experiences.

Vice Chancellor for University Relations

The Vice Chancellor for University Relations is responsible for increasing private financial support for the University, increasing the national and local awareness of its programs and its people, and increasing and focusing the involvement of community leaders, alumni, and other constituent groups on behalf of the University.

Governance

At UM-St. Louis, several groups are involved in governance of the campus. These include the Chancellor and her administration, the faculty, the Senate, and the Graduate Council.

As chief academic and administrative officer for the campus, the Chancellor is responsible for campus operations. The Chancellor consults not only with those reporting directly to her but also with the Chancellor's Cabinet, which includes in addition to those reporting directly to her, the chair of the Senate, the president of the Staff Association, the president of the Student Government Association, the coordinator of Multicultural Affairs, the Associate Vice Chancellor for Academic Affairs, and the Associate Vice Chancellor for Research. In addition, the Chancellor has established a number of standing and *ad hoc* committees to advise her. Moreover, the Chancellor works with the representatives of the other governance units in formulating policy, program recommendations, and resource allocations.

Faculty

The faculty consists of the President, the Chancellor, all persons with regular full-time academic appointments, and others elected by the faculty.

The faculty, together with appropriate administrative officers, has the responsibility for recommending and implementing educational policy, particularly in the areas of curriculum, degree requirements, methods of instruction, research, requirements for admission, student affairs, and faculty status. The faculty may make recommendations to the Chancellor concerning general policy matters affecting the University. Where appropriate, the faculty delegates its responsibility to separate schools or colleges, or such other parallel units as are created from time to time, to the Faculty Council, and to the University Senate.

The faculty meets at least twice each year and at such additional times as the President, Chancellor, or faculty determine. Upon written request of 25 members of the faculty, the Chancellor will call a meeting within two weeks.

Senate

The Senate consists of the President; the Chancellor; the Vice Chancellors, deans or equivalent of schools, colleges, and such parallel units as are created from time to time; the dean of Continuing Education-Extension; the director of Libraries; the presiding officer of the Faculty Council; the president of the Student Government Association; 75 members elected by the faculty; and up to 25 members elected by the student body. Nonvoting members include administrative staff designated by the Chancellor, the president of the Staff Association, and members designated by any academic department not otherwise represented by a faculty senator.

Elected faculty members of the Senate serve three-year terms, with 25 members being elected by the faculty each year. Elected student members of the Senate serve a term of one year and are elected by the student body each year. Any elected member of the Senate can be reelected. The term of office of all senators begins on the first day of August following the election.

The Senate has the responsibility to exercise those functions of the faculty not reserved by the faculty as a body or specifically delegated to the Faculty Council. The Senate also has the responsibility to exercise those functions of the student body which have been delegated by the Student Government Association.

The Senate meets regularly each month during the academic year or in special meetings as called by the Executive Committee of the Senate. The Executive Committee will call a special meeting of the Senate on request of the Chancellor or of any five members of the Senate.

Standing committees of the Senate are:

Appointments, Tenure, and Promotion
Assessment of Educational Outcomes
Budget and Planning
Bylaws and Rules
Committee on Committees
Computing
Curriculum and Instruction
Executive Committee
Faculty Teaching and Service Awards
Grievances
International Relations
Physical Facilities and General Services
Recruitment, Admissions, Retention, and
    Student Financial Aid
Research
Research Misconduct
Student Affairs
Student Publications
University Libraries
University Relations
Video and Instructional Technology

The Senate establishes *ad hoc* committees as needed. An example is the *Ad Hoc* Committee on Reaccreditation.

Graduate Council

The Graduate Council consists of 15 members of the Graduate Faculty. Representation is apportioned to professional schools and divisions of the College of Arts and Sciences in accord with the number of full-time Graduate Faculty members in each school and division. Each professional school and division containing Graduate Faculty has at least one representative. The dean of the Graduate School chairs the Graduate Council.

The Graduate Council proposes changes to the Rules and Regulations of the Graduate Faculty and submits such changes to the Graduate Faculty for their approval. The Graduate Council also reviews and approves all graduate curriculum matters such as new degree programs, changes to degree programs, and new or revised courses. The Council evaluates applications and selects winners for the Universitywide graduate student fellowships.

Intercampus Faculty Council

The Intercampus Faculty Council is a group of 12 faculty members, three from each of the four UM campuses, who meet regularly with the President and vice presidents of the University of Missouri. Each campus determines the procedures for selecting its own Intercampus Faculty Council representatives.

Two of the three campus representatives on the Intercampus Faculty Council are elected by the University of Missouri-St. Louis faculty to serve for three-year staggered terms so that no more than one of the two elected members will be replaced or reelected in any year. The Senate chairperson serves as an ex-officio member of the Intercampus Faculty Council. Campus representatives to the Council select one of the elected members to serve as a nonvoting member of the Executive Committee of the Senate.

The Intercampus Faculty Council is an important source of direct communication between the System President and the faculty. Topics of discussion include the System budget, retirement and benefits, pending legislation, intercampus cooperation, and various other issues.

Faculty Council

The Faculty Council, as the standing representative body of the faculty, formulates and promulgates faculty views on matters of concern to the faculty and serves as a locus of advocacy of these views to University officials and others when appropriate. It also informs the faculty of actions or contemplated actions of University officials or others of concern to faculty members.

Regular members of the Faculty Council are elected departmental representatives, who serve for two years. Half of the representatives are elected in even-numbered years, and the other half in odd-numbered years. Each department has one representative member for each 10 faculty or fraction thereof in its FTE.

Student Government Association

The student body of the University of Missouri-St. Louis consists of all persons who are officially enrolled as full-time or part-time students at the University of Missouri-St. Louis. The student body has the responsibility to participate in recommending and implementing educational policy, particularly in the areas of academic and student affairs. The student body may, through its official

representatives, make recommendations to the Vice Chancellor for Student Affairs or the Chancellor concerning general policy matters affecting the University of Missouri-St. Louis.

In addition to being represented on the Senate, the students have their own governing organization. The Student Government Association is the governing body of the students. The purpose of the Student Government Association, as described in its constitution, is "to provide for greater student participation in the general administration and government of . . . (UM-St. Louis) and to promote the general welfare of the academic community." The Student Government Association is "designed to work toward full student participation in all aspects of University life, University affairs, and policy making, and to carry out the philosophy that all students be encouraged to govern themselves and be responsible for their government. In addition, the Association shall work with the faculty and administration toward the objective of creating and maintaining an institution of increasing services to the students, alumni, the metropolitan community, and the state."

The legislative body, known as the Assembly, consists of elected and organizational representatives. There is one elected representative for every 500 students, or fraction thereof greater than one-half, in the following schools and colleges: Arts and Sciences, Business Administration, Education, Evening College, Graduate School, Nursing, Optometry, and any school or college to be established in the future at UM-St. Louis. Each recognized organization is allowed one representative to the Assembly. All terms are for one academic year.

The meetings, officers, and governing organization of the student body are determined by the student body itself through its adopted constitution and by-laws, subject only to the approval of the Vice Chancellor of Student Affairs and the Chancellor.

Staff Association

All administrative, service, and support staff of the University of Missouri-St. Louis who have a full-time equivalence of 75 percent or more are considered members of the Staff Association except those employees having other campus representation. All members have full voting rights in the Staff Association.

The purposes of the Staff Association are to foster a spirit of unity and cooperation among all employees of UM-St. Louis, to consider methods and means by which employment conditions may be improved and the operating efficiency of UM-St. Louis increased, to receive and consider matters concerning working conditions of membership, to make such recommendations that it deems appropriate, and to provide a means of communicating problems of mutual concern between the Staff Association and UM-St. Louis administration.

Human Resources

Faculty

The quality of the faculty defines the quality of the institution. UM-St. Louis has been fortunate to attract a very high-quality faculty. The potential of the University to be a vibrant and contributing part of a major metropolitan region has attracted many energetic and enterprising faculty. The University has also had the good fortune to be hiring at times when there has been an abundant supply of very talented graduates wanting to combine the highest-quality academic research with an energetic engagement in practical applications of this research to the major issues facing the metropolitan centers of America. A complete set of faculty CVs are in the Resource Room (RR: File 78, Faculty CVs). The full-time faculty has increased in number by 20 percent during the past ten years. A 3 percent decline in male faculty is coupled with a 67 percent increase in female faculty. African-American faculty has more than tripled while other minorities more than doubled. Together these groups make up about 14 percent of the faculty (see Table 3-1). The relative mix of academic ranks is nearly the same as in 1987; the largest group continues to be associate professors (see Table 3-2). The number of tenured faculty rose by 7 percent. More than half (55 percent) of the faculty received their highest degree from an AAU institution, and 71 percent of all full-time faculty (96 percent of the regular faculty) have doctoral degrees. Part-time faculty is approximately equal in headcount to the full-time faculty but contribute only 23 percent of the overall FTE (full-time equivalency). The number of graduate teaching or research assistants has risen 28 percent since 1987 (see Table 3-3).

The University is committed to providing opportunities for all faculty to remain at the forefront of their disciplines. In addition to the traditional sabbatical leaves, the University provides research leaves, developmental leaves, and course reductions to enable faculty to devote more time to research. A variety of internal programs fund these research and developmental opportunities.

Students

The overall on-campus enrollment is essentially the same as it was ten years ago. The decline in lower-level undergraduates is offset by an increase in seniors and graduate students. The 25 percent increase in master's-degree students is the most significant. Female and minorities student representations are increasing, while the full-time versus part-time mixture has remained the same (see Table 3-4).

Staff

Although the faculty and students are the heart of any higher educational institution, UM-St. Louis could not operate without its loyal and dedicated staff. The full-time staff has increased in number by 27 percent during the past ten years. African-American staff increased by 29 percent and other minorities increased by 36 percent (Table 3-1). Together these groups make up about 27 percent of the staff. The number of employees in all occupational categories rose except service/maintenance. Other professionals (support/service) more than doubled during the past ten years and are the largest staff group (see Table 3-1). About 28 percent of the staff work part-time, a 3 percent increase since 1987. Sixty-eight percent of these employees are in the clerical/secretarial and service/maintenance areas (see Table 3-2).

There are several reasons why the increase in full-time staff (27 percent) has exceeded that in full-time faculty (20 percent). New support positions have been added in virtually every segment of the campus. For example: Anthropology, Biology, Chemistry, Criminology, Psychology, and Social Work have increased staff; new academic advisers have been added in Arts and Sciences; staff has increased in Gerontology, International Studies, and Public Policy Research Centers, and the Barnes School of Nursing; and Extension has added staff in the Center for Economic Education, the School of Education, and the Non-Profit Leadership and Management Program.

New initiatives have been undertaken, such as the Mercantile Library, the Degree Audit Unit, International Student Services, and Multi-Cultural Relations, supported by General Operating funds, and the Children's Advocacy Center, Title III programs, and MAMTC, supported by external grants and contracts. These new initiatives have required additional support positions. To better serve students, support has been enhanced in Admissions and Student Financial Aid. Additional Computing staff has been hired to support the campus investment in technology infrastructure. Also, the University has not been immune to the increasing reporting requirements of federal and state governments and governmental agencies such as the Coordinating Board for Higher Education.

Table 3-1 – Full-Time Employees
As of 10/31 of each year

African-American by gender (M - male, F - female)

Occupation	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Regular Faculty	1	5	6	6	7	13	11	7	18	12	13	25	15	13	28
Non-regular Faculty	2	3	5	3	3	6	5	4	9	2	8	10	1	6	7
Executive/Administrative and Managerial	4	5	9	8	7	15	7	9	16	5	5	10	4	9	13
Other Professionals (Support/Service)	5	14	19	6	19	25	6	27	33	7	27	34	9	32	41
Technical and Paraprofessional	0	3	3	2	4	6	2	5	7	2	6	8	2	6	8
Clerical and Secretarial	0	50	50	0	72	72	2	63	65	4	74	78	7	73	80
Skilled Crafts	3	0	3	5	0	5	5	0	5	5	1	6	3	1	4
Service/Maintenance	39	28	67	44	29	73	35	19	54	28	20	48	27	22	49
Total	54	108	162	74	143	217	73	134	207	65	154	219	68	162	230

Caucasian by gender

Occupation	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Regular Faculty	224	61	285	206	72	278	187	78	265	191	84	275	183	84	267
Non-regular Faculty	50	64	114	61	76	137	56	82	138	49	112	161	57	115	172
Executive/Administrative and Managerial	58	19	77	45	37	82	51	42	93	60	48	108	66	47	113
Other Professionals (Support/Service)	29	58	87	42	81	123	37	87	124	78	101	179	83	113	196
Technical and Paraprofessional	19	14	33	20	16	36	24	12	36	20	10	30	21	10	31
Clerical and Secretarial	5	151	156	6	149	155	5	126	131	9	139	148	10	126	136
Skilled Crafts	39	3	42	31	3	34	32	3	35	35	3	38	43	3	46
Service/Maintenance	38	13	51	34	13	47	34	11	45	34	15	49	34	15	49
Total	462	393	855	445	447	892	426	441	867	476	512	988	497	515	1012

Other by gender

Occupation	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Regular Faculty	7	2	9	10	3	13	19	4	23	17	3	20	17	3	20
Non-regular Faculty	6	3	9	13	3	16	14	10	24	13	8	21	9	10	19
Executive/Administrative and Managerial	0	1	1	0	0	0	3	1	4	2	2	4	2	1	3
Other Professionals (Support/Service)	0	1	1	1	2	3	2	1	3	2	2	4	2	2	4
Technical and Paraprofessional	1	1	2	1	0	1	1	0	1	1	2	3	1	2	3
Clerical and Secretarial	1	7	8	1	7	8	0	6	6	0	7	7	0	6	6
Skilled Crafts	1	0	1	1	0	1	2	0	2	2	0	2	2	0	2
Service/Maintenance	1	0	1	1	0	1	1	0	1	0	0	0	0	1	1
Total	17	15	32	28	15	43	42	22	64	37	24	61	33	25	58

All by gender

Occupation	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Regular Faculty	232	68	300	222	82	304	217	89	306	220	100	320	215	100	315
Non-regular Faculty	58	70	128	77	84	161	75	96	171	64	128	192	67	131	198
Executive/Administrative and Managerial	62	35	97	53	44	97	61	52	113	67	55	122	72	57	129
Other Professionals (Support/Service)	34	73	107	49	102	151	45	115	160	87	130	217	94	149	243
Technical and Paraprofessional	20	18	38	23	20	43	27	17	44	23	18	41	24	18	42
Clerical and Secretarial	6	206	214	7	228	235	7	195	209	13	220	233	17	205	222
Skilled Crafts	43	3	46	37	3	40	39	3	42	42	4	46	48	4	52
Service/Maintenance	78	41	119	79	42	121	70	30	100	62	35	97	61	38	99
Total	533	516	1049	547	605	1152	541	597	1138	578	690	1268	596	702	1300

Table 3-2 – Full-Time Instructional Faculty

As of 10/31 of each year

African-American by gender (M - male, F - female)

Academic Rank	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Professor	0	0	0	0	0	0	0	0	0	1	1	2	2	1	3
Associate Professor	1	2	3	1	3	4	2	4	6	4	4	8	4	4	8
Assistant Professor	0	3	3	5	4	9	9	3	12	7	11	18	9	11	20
Other	2	3	5	3	5	8	5	4	9	2	5	7	1	3	4
Total	3	8	11	9	12	21	16	11	27	14	21	35	16	19	35

Caucasian by gender

Academic Rank	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Professor	83	8	91	69	11	80	72	12	84	86	18	104	89	21	110
Associate Professor	88	28	116	91	27	118	71	28	99	72	45	117	70	51	121
Assistant Professor	60	26	86	56	36	92	50	45	95	41	51	92	35	44	79
Other	43	63	106	51	74	125	50	75	125	41	82	123	46	83	129
Total	274	125	399	267	148	415	243	160	403	240	196	436	240	199	439

Other by gender

Academic Rank	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Professor	2	0	2	2	0	2	3	0	3	2	1	3	2	1	3
Associate Professor	1	1	2	2	1	3	4	2	6	6	1	7	10	2	12
Assistant Professor	7	1	8	10	2	12	15	4	19	13	3	16	8	2	10
Other	3	3	6	9	3	12	11	8	19	9	6	15	6	8	14
Total	13	5	18	23	6	29	33	14	47	30	11	41	26	13	39

All by gender

Academic Rank	1987 M	F	Tot	1990 M	F	Tot	1993 M	F	Tot	1996 M	F	Tot	1997 M	F	Tot
Professor	85	8	93	71	11	82	75	12	87	89	20	109	93	23	116
Associate Professor	90	31	121	94	31	125	77	34	111	82	30	132	84	57	141
Assistant Professor	67	30	97	71	42	113	74	52	126	61	65	126	52	57	109
Other	48	69	117	63	82	145	66	87	153	52	93	145	53	94	147
Total	290	138	428	299	166	465	292	185	477	284	228	512	282	231	513

Source: IPEDS-S

Table 3-3 – All Employees
As of 10/31 of each year

Headcount (FT - full-time, PT - part-time, TOT - total)

Occupation	1987 FT	1987 PT	1987 TOT	1990 FT	1990 PT	1990 TOT	1993 FT	1993 PT	1993 TOT	1996 FT	1996 PT	1996 TOT	1997 FT	1997 PT	1997 TOT
Faculty	428	313	741	465	497	962	477	472	949	512	505	1017	513	527	1040
Teaching/Research Assistants	0	137	137	0	155	155	0	175	175	0	167	167	0	175	175
Executive/Administrative and Managerial	97	5	102	97	7	104	113	2	115	122	7	129	129	8	137
Other Professionals (Support/Service)	107	25	132	151	69	220	160	92	252	217	42	259	243	49	292
Technical and Paraprofessional	38	17	55	43	21	64	44	18	62	41	33	74	42	40	82
Clerical and Secretarial	214	157	371	235	132	367	202	133	335	233	123	356	222	123	345
Skilled Crafts	46	4	50	40	6	46	42	3	45	46	0	46	52	0	52
Service/Maintenance	119	84	203	121	80	201	100	66	166	97	82	179	99	80	179
Total	1049	742	1791	1152	967	2119	1138	961	2099	1268	959	2227	1300	1002	2302

Table 3-4 – Comparative On-Campus Student Demographics

	1987	1997	1987-1997 Change
Headcount	11,876	11,858	-18
FTE	7,514	7,422	-92
Average ACT	20	22	2
Average HSR*	78	64	-14
Average Age of Students	27 yrs	27 yrs	-
Enrollment by Class:			
Freshmen	1,995	1,346	-649
Sophomores	1,726	1,363	-363
Juniors	2,422	2,373	-49
Seniors	3,674	4,210	536
Graduate:			
MA	1,694	2,117	423
Ph.D. or Ed.D.	218	281	63
Professional	141	168	27
Gender:			
Male	44%	39%	-5%
Female	56%	61%	5%
Ethnic:			
Caucasian	87%	77%	-10%
African-American	9%	13%	4%
Other	4%	10%	6%
Full-Time vs. Part-Time:			
Full-Time	45%	45%	0%
Part-Time	55%	55%	0%
Percent of Total Enrollment by Class			
Freshmen	17%	11%	-6%
Sophomores	15%	12%	-3%
Juniors	20%	20%	0%
Seniors	31%	36%	5%
MA	14%	18%	4%
Ph.D. or Ed.D.	2%	2%	0%
Professional	1%	1%	0%
	100%	100%	

* HSR - High School Rank Percentile

Physical Resources

The 284-acre main campus combines the best features of traditional residential colleges and more modern urban universities. The red brick exteriors of most buildings recall the history of the city and provide a common architectural motif that joins contemporary architectural steel and glass to older buildings. The rolling hills are landscaped with trees and flowers whose changing colors link the cycle of the academic year to the changing seasons

In addition to the 51 major structures, whose replacement cost is estimated at $240 million, are parking garages, a lake, and athletic fields. A main state thoroughfare separates the land into the north campus and the south campus.

There are 1,510 rooms dedicated to academic programs. Of these, 21.5 percent are allocated for instruction (classrooms, laboratories, and clinic facilities) and 8.3 percent are used for research (laboratories, animal quarters, and greenhouses). Libraries account for 14.9 percent of the space, and offices (faculty, staff, and administrators) use 27.4 percent. The remaining space is for student noninstructional areas (athletic facilities, food service, lounges, bookstore, and recreational areas) and other miscellaneous uses, such as computer services, media production, day care, and assembly halls.

Development of the University's Master Plan

In 1992 Sasaki Associates Inc. were hired to coordinate the Master Plan for the University. They were asked to address the following critical issues:

- Adequacy of current physical facilities.
- Priorities for campus expansion.
- Appropriate location of student housing.
- Establishment of a stronger link between north and south campuses.
- Vehicular circulation and parking.

Sasaki delivered their report in August 1993 (RR: Shelf 79, Master Plan Report), and it has served as a guideline for campus expansion since that date.

Property Purchases under the Master Plan

Funds to pursue the objectives of the Master Plan were provided by a bond issue passed by the voters of Missouri in August 1994. The campus portion of that statewide initiative was $15 million. The Missouri legislature allocated an additional $5 million for this purpose in a subsequent legislative session.

Property acquisition following the current Master Plan began in the third quarter of 1994. The Master Plan outlined a general timetable for the properties considered of strategic importance. Areas adjacent to the campus were considered crucial to both the physical and the academic development of the campus. Areas in the near proximity of the campus were deemed strategic to develop University-related research, teaching, or service activities and to serve as a "buffer." To date, the University has expended in excess of $15 million in property acquisitions. In the five years since the plan was accepted, it has acquired approximately 75 percent of the land recommended by the Master Plan. The most noteworthy purchases have been converted into residence halls, classrooms, an education park providing space for various local and state agencies involved in elementary and secondary education, and all the classrooms, offices, and conference rooms for the Barnes College of Nursing. Space shortages are being addressed in the new University Center and Performing Arts Center.

Future Capital Projects

In the second quarter of 1998, the campus embarked upon a $100 million Capital Improvement Program. The program is consistent with the Master Plan.

The existing utility, road, and parking infrastructure is in need of major renovation, replacement, or relocation. The campus currently maintains over five miles of primary and service roads, seven miles of sidewalks and paths, and more than 5,000 parking spaces, of which 50 percent are located in garages. In June the campus began construction of a new 664-car garage and a one-quarter mile realignment of West Drive. Eventually, all of the four existing garages, along with some surface parking spaces, will be replaced by new 50-year garage structures with an estimated total capacity of 2,900 parking spaces.

Students have approved and bonds have been issued for a new 172,000 square-foot University Center. This center will become the focal point on campus for all student activity. The University Center will include the traditional amenities of a student center but will also include admissions, advising, and registration. The center will provide ample space for meetings, receptions, and other appropriate social gatherings.

The Performing Arts Building is currently being designed, with approximately 90 percent of the funding secured. This state-of-the-art facility will be used by students involved in music, the arts, and communications as a laboratory to hone their skills and develop their talents. This building, with a 1,650-seat performance hall and a 300-seat chamber music and theater performance space, has been designed to serve both academic programs and community events. The main auditorium size was selected to provide a performance venue not currently available in the St. Louis region. In addition to University functions, it will attract productions of national theater companies that previously have not had an appropriately sized theater in which to give performances. The campus partnerships with the St. Louis Symphony, the Muny Opera, and others will ensure that students, faculty, and staff are exposed to the arts in a manner and place not currently available in the community.

Financial Resources

Most of the information in this section was taken from The University of Missouri System Fiscal Year 1999 Operating Budget (RR: Shelf 80, UM System FY1998 Operating Budget).

The FY1999 Current Funds revenue budget for the University of Missouri-St. Louis totals $134 million. General operating funds constitute 66.5 percent of the total; designated funds, 18.1 percent; and restricted funds, 15.4 percent. The distribution of revenue by source appears in Figure 3-2. Student fees contribute 41.6 percent of Current Funds revenue, the highest proportion of any campus in the UM System. State appropriations is the second largest source of revenue, contributing 34.3 percent of the total, followed by gifts, grants, and contracts, which make up 13.6 percent of the total revenue budget.

Figure 3-2
University of Missouri-St. Louis
Current Funds Revenue Budget
FY1999
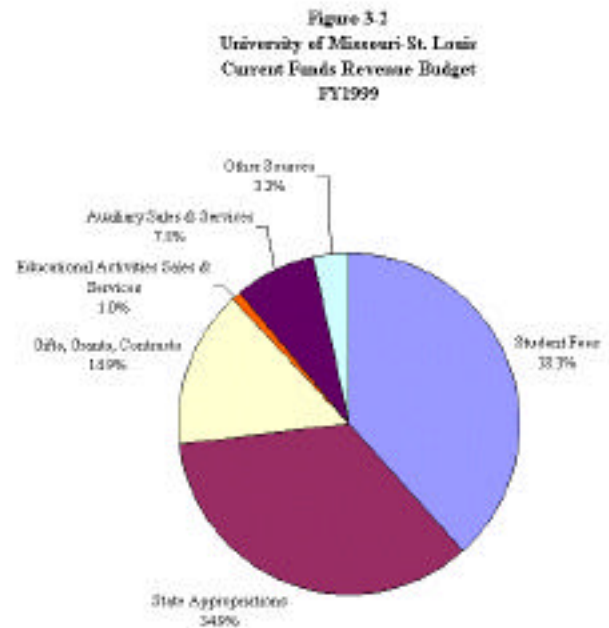
The distribution of Current Funds expenditures by program classification appears in Figure 3-3. Educational and general expenditures and transfers account for 90.4 percent of the total FY1997-98 Current Funds expenditures budget. Expenditures for primary programs (instruction, research, and public service) constitute 53.6 percent of the total Current Funds expenditure budget. The distribution of the Current Funds expenditures budget for University of Missouri-St. Louis is very similar to that of the University of Missouri-Kansas City, and typical of urban doctoral-level institutions.

Figure 3-3
University of Missouri-St. Louis
Current Funds Expenditures Budget
FY1999
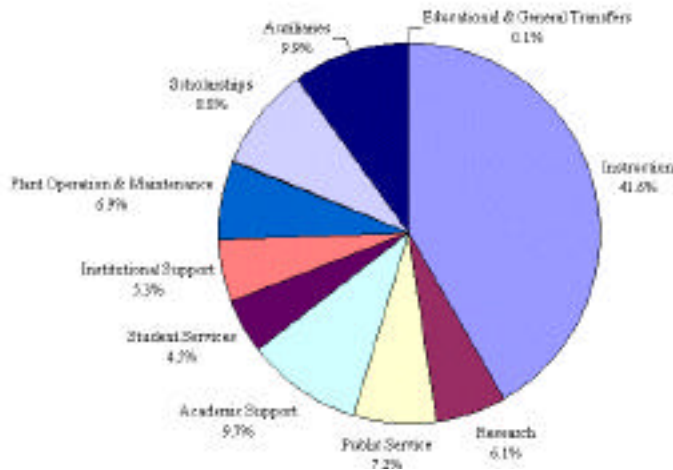
Figure 3-4
University of Missouri-St. Louis
General Operating Budget by Program Classification
FY1999
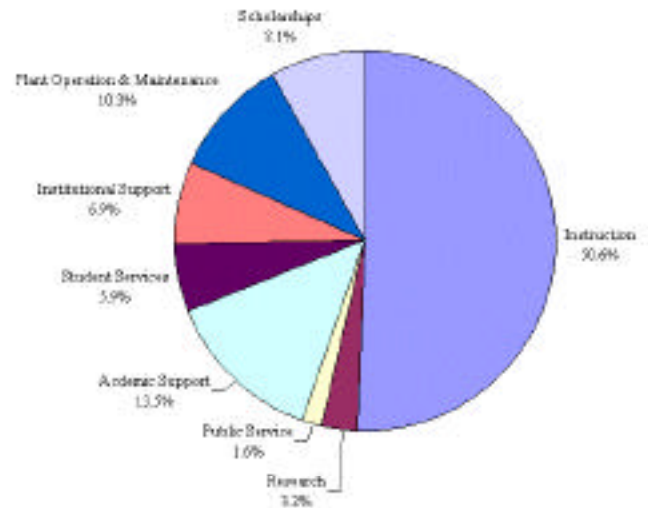
The recurring (rate) general operating budget for the University of Missouri-St. Louis totaled $86.8 million for FY1998. The distribution of the budget by type of expenditure, as defined by program classification, appears in Figure 3-4. As indicated, 54.5 percent of general operating funds are budgeted in the primary programs of instruction, research, and public service. The general operating budget does not include the budgets for continuing education and off-campus instruction; by administrative directive, these activities are accounted for in designated funds and are managed as self-supporting activities.

The recurring general operating budget by object of expense appears in Figure 3-5. Personal services expenditures make up 70.5 percent of the general operating budget.

In the future, the entire University of Missouri System will benefit from the CBHE initiative titled Mission Enhancement. Specifically, University of Missouri-St. Louis originally requested $9.0 million. For FY1999, University of Missouri-St. Louis received an increase in its general operating funds of $1.3 million and has requested $3.0 million for FY2000.

Figure 3-5
University of Missouri-St. Louis
General Operating Budget by Object of Expense
FY1999

CHAPTER FOUR

Criterion 3

The institution is accomplishing its educational and other purposes.

Introduction

In this chapter, the University provides evidence it is accomplishing its full mission of education, research, and service. The evidence shows that the University is offering appropriate educational programs at the undergraduate and graduate levels. These programs are clearly defined, coherent, and intellectually rigorous. In many instances, they are also aimed at providing community enrichment as well as education needed for students to obtain jobs or advance in their various careers. To facilitate its educational mission, the University now has 22 endowed professorships which clearly enrich the teaching and learning environment as well as promote world-class research activities.

The academic programs of the campus are carried out by 11 academic units. The aim of these units is to promote the primary mission of the institution: that is, to educate its students and to provide the necessary infrastructure and support to reach its educational and research goals. The units are the College of Arts and Sciences, the Barnes College of Nursing, the School of Business Administration, the School of Education, the Evening College, the School of Engineering, the Pierre Laclede Honors College, the School of Optometry, the Graduate School and Office of Research Administration, the Division of Continuing Education and Extension, and the Libraries. In addition, there are 19 centers, which are detailed later in this chapter. Supporting the academic mission are Student Affairs, Managerial and Technological Services, University Relations, and Administrative Services.

Since the last NCA Review, major changes include addition of a Joint Program in Engineering; expansion of the Pierre Laclede Honors College from a primarily part-time to now a primarily full-time student cohort; expansion of the nursing program to include the Barnes College of Nursing; offering of course work at two Residence Centers, one at St. Charles Community College, the other at Jefferson College; and addition of the Mercantile Library collection to University Libraries. Other changes are detailed in the following report from each of the academic and support units.

College of Arts and Sciences

Mission

The College of Arts and Sciences is the largest academic unit and thus plays a central role in executing each of the University's three missions: teaching, research, and service. The College is responsible for achieving the University's goal that "all baccalaureate graduates . . . should have a sound intellectual foundation in the liberal arts and sciences." It provides the general education for all preprofessional students with a particular emphasis on writing. Beyond this, it offers baccalaureate degrees in each of its 18 departments, master's degrees in 11 units, and doctoral degrees in 8.

In addition to transmitting existing knowledge, the College produces new knowledge. College faculty conduct an extensive array of basic and applied research and, within the fine arts, develop and execute creative works. The total number of grants and published articles indicate that approximately 80 percent of the research at UM-St. Louis is generated within the College. The products of this research both enhance the University's teaching and contribute to society's well-being.

The College is a leader in applying the land-grant mission to an urban community. It conducts applied research on urban issues, provides a wide array of noncredit programs in all its disciplines, and extends credit courses to those unable to come to the campus during normal teaching times. In executing its service roles, the College works closely with UM-St. Louis Continuing Education-Extension and with UM Cooperative Extension.

Operating Principles

The College dean invites collegial input from College faculty for all major decision making. The principal avenues for this input are the standing elected committees of the College.

The Policy Committee is composed of all 18 department chairs, the director of the Institute for Women's and Gender Studies, and the associate deans. It meets regularly with the dean to discuss initiatives advocated by the dean or by one of the representatives on the committee and to discuss policy issues within the College. Guests from the campus administration are regularly invited to the Policy Committee meetings to keep the College well informed and to provide avenues for feedback on day-to-day operations to campus service and support organizations.

The College is committed to short- and long-term planning of new programs, budgets, and capital improvements. The Planning Committee works with the dean to develop a five-year College plan that is revised annually through input from the department chairs and the director of the Institute for Women's and Gender Studies. The needs of the College are grouped under three categories: new programs, expanded programs, and support for professional education. These needs are reviewed annually with interviews between the Committee and each department chair.

The Curriculum Committee provides a forum for faculty discussion and deliberation about curricular development within the College. The Outreach Committee advises the dean and the College about matters of outreach activities, and the Academic Advising and Scholarships and Awards Committees provide opportunities for faculty and student recommendations on, respectively, College policies about grading and advising and nominees for national and UM-St. Louis scholarships.

The Committees report to the College faculty, and recommendations are made to the dean. All members are elected after recommendation from the College Committee on Committees.

In addition to the standing committees, *ad hoc* committees are appointed by the dean to provide collegial discussion of College issues and to solicit recommendations from faculty members. The most important of these are the Promotion and Tenure Committee and the Advising Coordinators Committee.

Decision making for day-to-day operations is decentralized as much as possible to the department chairs and director. The dean and the dean's staff provide supervisory guidance and policy for management of personnel and budgets at the department level. Regular reports are provided to the dean about the management of personnel and budgets both from the departments and from campus administrative units.

The associate dean for academic affairs shares in the responsibilities of the day-to-day administration of the College. This position is typically occupied by a tenured faculty member.

The assistant to the dean is responsible for the daily budgeting and personnel administration in the College and develops and monitors the necessary management information systems. This position is typically held by someone with a baccalaureate degree.

The associate dean for advising is responsible for the academic advising for all undeclared majors, for maintaining student records, and for dealing with all student concerns in the College. The associate dean for Continuing Education-Extension develops and administers the College's applied research programs, noncredit instruction, and off-campus and off-schedule credit instruction. These two positions are usually occupied by professionals with at least one graduate degree and extensive experience in their fields.

The organizational chart (Figure 4-1) indicates the ongoing division of responsibilities within the College. In the last ten years, the staff in the dean's office has been reduced by 11 percent to accommodate budgetary constraints in the College. From a dean, two half-time associate deans, and an assistant dean for advising in 1988, the dean's office moved in 1989-90 to a dean, an associate dean, and an associate dean for advising, to, in 1996-97, a dean, a half-time associate dean, and an associate dean for advising.

Figure 4-1
College of Arts and Sciences Organizational Chart
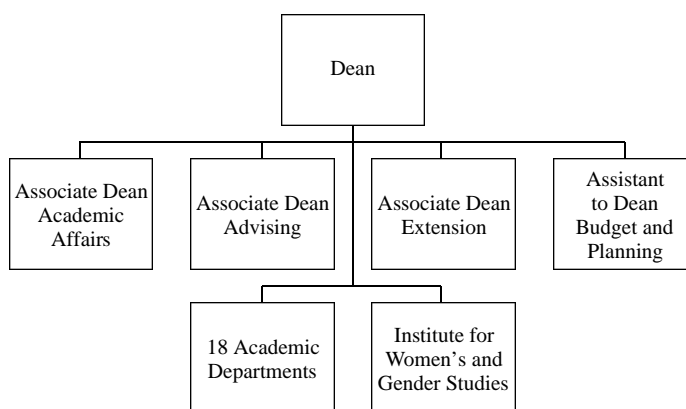
The College has faculty with joint academic appointments in the School of Education, the School of Nursing, and the School of Business Administration. These faculty link the College of Arts and Sciences with the professional schools, and they offer courses that provide St. Louis students with the links between a strong liberal arts education and professional training.

The College also has cooperative agreements with professional schools so that students may be pre-enrolled in professional schools during the term of their enrollment in the College. These agreements are in practice with the School of Architecture at Washington University, the School of Optometry at UM-St. Louis, and Schools of Law and Dentistry at UM-Kansas City.

The College is proud of its strong liberal arts curriculum. Departments of the College provide the courses for a two-year, broadly based general education requirement for all bachelor's degree graduates of UM-St. Louis. The University participates in the CBHE Transfer Agreement whereby students who have completed a general education core in another Missouri institution of higher education are allowed to count this equivalent to the University's general education. In addition, the College faculty teach a junior-level writing requirement, added to reinforce the College's commitment to improving the writing abilities of University graduates.

Three years ago, the College linked itself in another way to the St. Louis Community College system, particularly the Florissant Valley campus, when it began its Bachelor of Fine Arts degree in Studio Art. The program allows students to take their first two years at Florissant Valley and the final two years at UM-St. Louis. However, students can spend all four years in the College of Arts and Sciences at UM-St. Louis.

The College continues to plan for additional programs linking it to the St. Louis region. A recently approved master's degree in Social Work, a proposed new cooperative M.A. in Philosophy with Saint Louis University, and a proposed cooperative Ph.D. in History with Washington University are particularly promising.

Vision

The College's planning process employs a five-year framework, is updated annually, and takes place within the University and System planning efforts. Planning emphasizes faculty participation and close links with budget allocations.

In addition to maintaining its ongoing strengths, the College wishes to advance these principal emphases during the next five years:

A. The enhancement or addition of undergraduate programs in:

• Computer Science, Mathematics, Actuarial Science
• Communication program and laboratories
• Writing
• English Education
• Biotechnology Certificate/Laboratory
• Criminology and Criminal Justice
• Art, Art History, and Art Education (The B.F.A. is a newly established program)
• Spanish section additions

• Institute for Women's and Gender Studies
• Economics Resource Project
• Psychology
• Music Performance
• Archaeology

B. The enhancement or addition of these graduate programs:

• Ph.D. in Psychology
• Eminence in Political Science
• Tropical Ecology
• Ph.D. in Applied Mathematics, and Master's in Computer Science
• Ph.D. and Master's in Criminology and Criminal Justice
• Cooperative Ph.D. in History (proposed)
• Biochemistry
• Master's in Social Work (recently approved)
• M.F.A. in Creative Writing
• Center for Trauma Recovery
• Cooperative M.A. in Philosophy (proposed)
• Ph.D. in Computer Science (in planning)
• Psychology: Industrial/Health/Social Cognition Enhancement
• Master's in Communication (proposed)
• Chemistry programs
• Cooperative Ph.D. in Sociology (in planning)
• Master's in Second Language Acquisition (in planning)
• Graduate Certificate in Telecommunications
• Graduate Certificate in Behavioral Neuroscience (in planning)
• Applied M.A. in Sociology

C. Other emphases to be advanced include:

• Full graduate assistant fee waiver program for doctoral students
• Center for Human Origin and Cultural Diversity
• Improving economic literacy
• Expanding Gallery 210
• Increasing Biology staff

Situational Analysis

Resources

Staffing

The permanently funded positions in the College departments consist of 87 FTE professors, 79 FTE associate professors, 54 FTE assistant professors, 1 FTE instructor, and 37 FTE lecturers; the total ranked faculty totals 220 FTE. There are 49 FTE graduate teaching assistants, 11 Graduate Research Assistants, and 52 FTE support staff. The College staff consists of 5 FTE administrative people

in the dean's office, 9 in advising, and 5 in continuing education-extension. These positions are supplemented with additional positions funded from nonrecurring funding. Certain departments or units, such as computer science, communication, and English, use such additional positions every year.

The quality of the faculty within the College of Arts and Sciences is one of the University's strengths. This may be documented in various ways. The list of institutions from which the faculty obtained their doctoral degrees is distinguished and diverse. Universities that have provided five or more faculty are listed in Table 4-1.

In addition, 64 other major universities in the United States and 9 universities from outside the country are represented by the College faculty.

The University of Missouri Presidential Research Awards and the Curators' Award for Scholarly Excellence are bestowed annually from a list of nominees composed of one in each category per campus. In three out of the last five years College faculty members have received these awards. The College also has been well represented by faculty recipients of the Chancellor's Awards for Excellence in Teaching, Research, and Service. The quality is also shown by the faculty's mobility and by their achievements. The latter are listed in a later section.

Early retirements as a result of the University's budgetary situation over the past eight years have created openings for a new generation of researchers. During the past decade, the now-mature scholars in their fifties who helped begin the University of Missouri-St. Louis in their twenties have set about recruiting this next generation, providing the College with a suitable blend of creative talents.

Budget

The major source of the College's budget is the general operating budget of the University.

A summary of the College budget is shown in Figure 4-2. It includes money that was transferred from the Evening College in past years and therefore represents a commitment to provide teaching in the evening as well as the day. It does not include money from gift accounts or money from grants and contracts. Salaries and Wages increases have been constant, while Expense and Equipment has shown rapid recent growth.

Table 4-1 – College of Arts and Sciences Faculty Ph.D. Schools

University of Wisconsin	17
Washington University	12
University of Michigan	12
Harvard University	10
Indiana University	9
University of California-Berkeley	9
University of California-Los Angeles	9
Purdue University	7
Yale University	5
Northwestern University	6
Columbia University	5
University of Chicago	6
Ohio State University	5

The College budget is not static but subject to reallocations each year. In good financial times, as positions are vacated, they revert to a pool to be reallocated by the Dean, following advice of the elected Planning Committee of the faculty. The Planning Committee conducts hearings at which each departmental chairperson makes a presentation. The dean follows the advice of this committee very closely. Normally, positions have been returned to departments on a timely basis when the department's recommendation on tenure was negative. Positions reverted to a College pool to be reallocated when a department's recommendation was positive but tenure was ultimately denied. During the past five years, however, money from vacated positions has been used to meet operating expenses of the College, thereby delaying the return of positions to departments and perhaps adversely affecting the rigor of tenure evaluation in the departments.

Space

Space allocation to units within the College totals 250,012 square feet. The College has benefited in the past decade by the addition of the new science and computer center buildings and the acquisition of the Cardinal Newman College, which houses the studio art faculty offices and faculty and student studios and work spaces. The planned performing arts building will also benefit the College, providing additional performance space.

Concerns regarding space are beginning to develop in the science complex, from which the Psychology Department must be moved to make space available for the biochemistry and biotechnology programs. A number of other

space problems have become evident. Examples include space for the departments housed on the fifth floor of Lucas Hall and space for advisers in the College office on the third floor of Lucas Hall.

Equipment

In spite of funds provided by the central administration for start-up and for matching on equipment grants, replacing outdated equipment and providing competitive start-up funding remains a challenge for all the College, and for the science departments in particular. The University policy of spending ten percent of the current cost of equipment each year for repair, replacement, and upgrade helps to address this matter. Also helping in the long term is a new policy whereby an amount equivalent to 42 percent of the Facilities and Administration funds received on external grants and contracts awarded to each of the science departments is placed in a special account to fund equipment matches and start-up expenses of that department. Some departments have also received gift funds which have been used to purchase new equipment.

Educational Programs and Curriculum

The College of Arts and Sciences matches the strength of its faculty to the needs of the St. Louis community. Advanced Credit programs are offered in cooperation with area high schools. In the Advanced Credit program, high school students receive college credit for college-level courses taught by their high school instructors, who must have at least a master's degree, under the curricular supervision and guidance of University faculty. The College also offers a Dual Enrollment program whereby high school seniors can take college courses taught by University faculty for which they receive college credit. Certificates and minors provide additional program packages to complement degree programs. Certificates offer courses for degree-seeking students as well as students who have a degree, and the minor prepares UM-St. Louis degree-seeking students for the complexities of an urban environment. Ten undergraduate and six graduate certificates and six minors focus upon components of the strong liberal arts education within the College.

Figure 4-2 – College of Arts and Sciences Budget
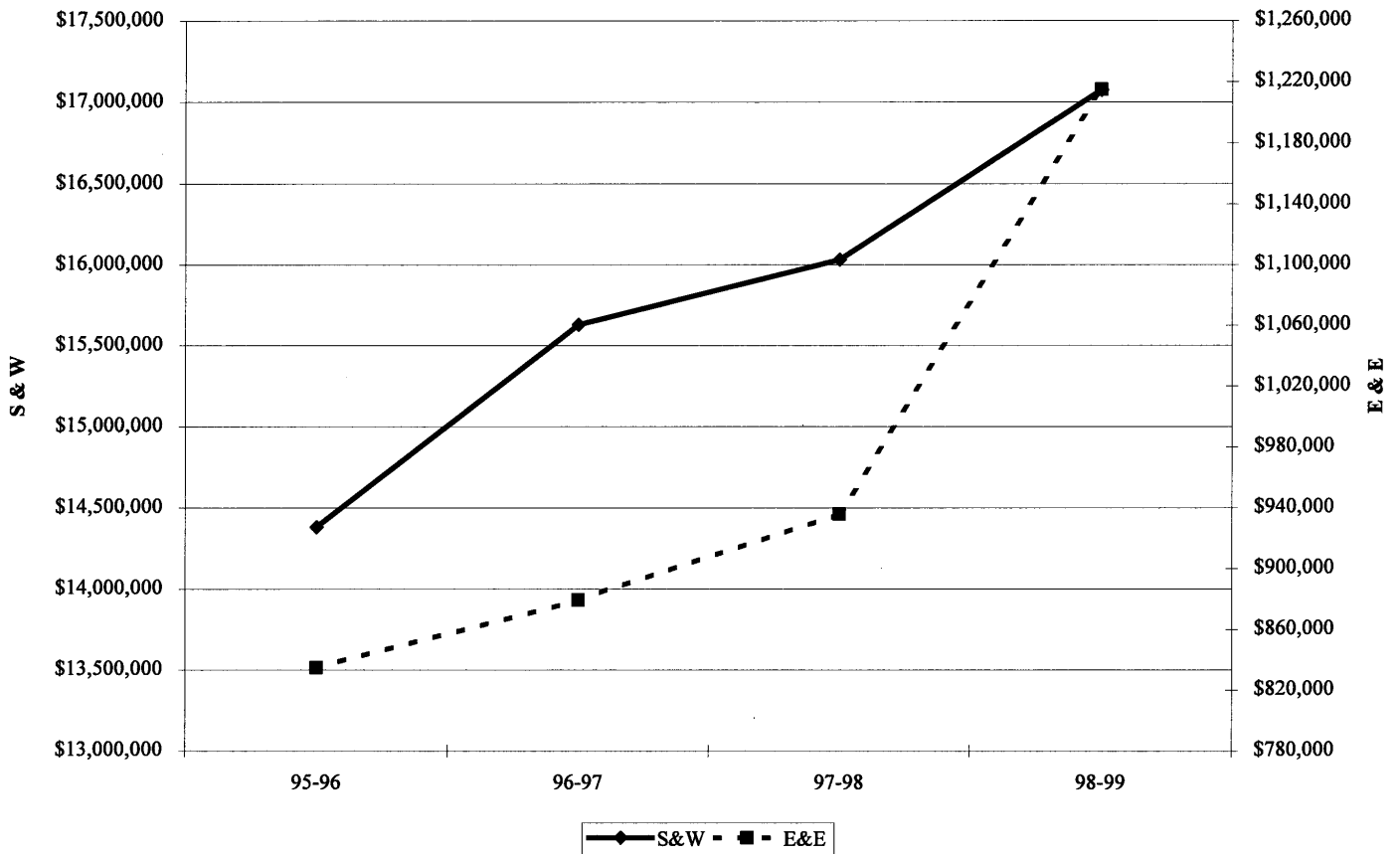
Summaries of graduates by undergraduate major and by level of degree are presented in Tables 4-2 and 4-3.

Table 4-2 – Three-Year Summary of Percentage of Undergraduate Degrees by Major Field of Study

	% (includes day and evening degrees)		
Major Field	1995-96	1996-97	1997-98
Anthropology	0.5	1.7	2.7
Art	1.1	0.8	1.8
Biology	9.2	9.5	9.4
Chemistry	3.2	3.5	1.9
Communication	15.7	18.3	15.2
Criminology and Criminal Justice	17.6	15.9	12.5
Economics	3.6	2.3	2.5
English	5.5	6.0	7.7
Foreign Languages and Literature	1.5	3.3	2.1
History	2.1	3.6	3.0
Mathematics and Computer Science	5.8	5.9	4.8
Music	1.0	1.4	1.5
Philosophy	1.5	1.1	1.2
Physics	1.0	0.6	0.4
Political Science	5.2	4.8	4.6
Psychology	15.3	12.6	16.2
Social Work	9.2	7.5	9.5
Sociology	1.1	1.5	2.8
Totals	100%	100%	100%

Table 4-3 – Three-Year Summary of Graduates by Level

Year	Baccalaureate[1]	M.A./M.S.[2]	Ph.D.[2]	Total
1996	619	111	14	744
1997	666	92	22	780
1998	671	123	25	819

[1] Includes day and evening graduates.
[2] Programs in the Graduate School.

Faculty

Teaching

The College of Arts and Sciences is proud of the quality of teaching by its faculty. Faculty within the College have won prestigious teaching awards for their special achievements. These awards include the Amoco Good Teaching Award, the Governor's Award for Excellence in Teaching, the President's Outstanding Teacher Award, and the Chancellor's Award for Excellence in Teaching.

The College faculty are especially involved in teaching general education courses for all undergraduate degree programs at UM-St. Louis. This general education involves a broad spectrum of courses across the three divisions of the College. Three courses in the humanities, three in the social sciences, and three in the natural sciences or mathematics are required for all baccalaureate degree programs, with minimal requirements in mathematics, writing, and (for all B.A. degrees) foreign languages. In addition, the College has a cultural diversity requirement. Courses that satisfy this requirement present material independent of a particular culture's interactions with European cultures.

Extending the College to the St. Louis community is an important part of its mission. Through its Continuing Education-Outreach division, the College offers advanced credit and noncredit courses to students in secondary schools. Through the Center for Economic Education and the Gateway Writing Project, the College works with many elementary and secondary teachers and hundreds of their students to improve instruction in economics and writing. The Center for Human Origin and Cultural Diversity brings students from the fifth through the twelfth grades to campus for hands-on activities in anthropology and archaeology to learn about the human origins, human variation, and the positive aspects of diversity. The Engelmann Institute brings highly selected high school students to campus during the academic year for advanced training in science, and during the summer to conduct research projects in the laboratories of scientists at the University. These projects are subsets of the faculty member's ongoing research and sometimes have led to the student's participation in publications.

The College offers extensive noncredit programs in writing, communication, and microcomputing both directly to individuals and through corporations to their employees.

College faculty have also been involved in the formation and development of the UM-St. Louis Center for the Humanities. Faculty in philosophy, music, art, English, history, and political science have organized special conferences and seminars through the center as well as participated with colleagues in other departments in the Monday Noon Lecture series, a program that attracts community participation.

Research

The College faculty maintain a steady output of high-quality publications and creative performances (Table 4-4). During FY1998, the faculty received $5,195,671 in external grants and contracts. The latest full year had slightly more than 2.3 refereed publications/performances for each in-rank faculty member. Among the academic publishers of books written by College faculty during the past three years are Cambridge University Press, Oxford University Press,

University of Chicago Press, and University of Texas Press. Publications also appear in numerous other first-rank presses and journals. During the past 10 years, the faculty have published in almost every top journal. Further information is presented in the College's annual report (RR: File 81, A&S Annual Reports, previous three years).

Table 4-4 – College of Arts and Sciences Scholarly Productivity

	1995-96	1996-97	1997-98
Books Published	15	25	29
Chapters in Books Published	64	44	57
Articles Published	198	222	230
Abstracts Published	55	66	100
Reports/Translations Published	11	8	6
Reviews Published	45	60	34
Creative Performances	134	139	206
Other – journals edited, exhibits produced, invited papers, etc.	72	86	90

The editorial offices of several major journals are located in the College and these journals are edited by College faculty. Examples include the *American Journal of Physics, Biotropica, Criminology Sociological Quarterly,* and *Urban Affairs Review.*

Individual faculty members have won numerous awards for their research and creative presentations. Most impressively, faculty in the College have been given either the President's Research Award, the Chancellor's Award for Research and Creativity, or both in three of the last four years.

Service

The College enriches the community's cultural and intellectual life through its many partnerships with St. Louis institutions. The Art Department with the St. Louis Art Museum, the Music Department with the St. Louis Symphony and Opera Theatre, the Biology Department with the Missouri Botanical Garden and the St. Louis Zoo, and the History Department with the Missouri Historical Society are only the best known of these.

In addition to these programmatic efforts, individual faculty are encouraged to engage in professional service. The National Association of Land-Grant Colleges and Universities guidelines on evaluating professional service are used to assess these activities in making salary adjustments. With this expression of the land-grant mission, College faculty regularly use their professional talent and skill in a wide range of activities.

Identity Gap

The gap between the College's current situation and its vision of the future is related to the insufficiency of available resources. Plans for new programs, enhancement of existing programs, and pursuit of new initiatives have been interrupted by reallocations. Until this year, reallocations for the five-year plan, salary increases, and a desktop computer program eroded the resource base upon which planning depended. Short-term solutions to immediate areas of concern, such as staffing of communication courses and writing courses, have been provided by nonrecurring funding from the Chancellor's office.

Strategic Directions

The College of Arts and Sciences is gradually changing in a number of ways as it undergoes a variety of transitions. Implementation of strategic planning at the System level, including plans to achieve Research II status, will enhance the research mission of the College, and a heightened awareness of student needs has resulted in some new programs, especially graduate programs, and the expansion of others.

An early retirement program at the beginning of the five-year plan reduced the number of senior faculty. The number of those eligible for retirement has again started to increase. These coming retirements will provide an opportunity for realigning teaching and research specialties to support new programs and program changes.

Assessment has resulted in changes at both the departmental and College levels. Specific curricular changes are initiated on a continuing basis by departments, and proposals for new programs and expansion of existing programs have been justified by assessment activities that have identified areas of increased enrollments. For example, the building housing the B.F.A. program is being expanded, and the communication, criminology, and psychology programs have received additional positions and part-time faculty. The lack of financial flexibility due to reallocations has retarded the response to these staffing needs and has kept the positions on nonrecurring funding.

The College will continue to accomplish its purposes with an ongoing review of general education and with the guidance of the campus strategic plan and mandates of the Coordinating Board for Higher Education. For the short-term, nonrecurring funding will be needed regularly.

Performance Benchmarks

Benchmarks to determine progress in specific activity and program strategies are best set at the departmental level. This is the format of the campus strategic plan, and the experiences of departments with comparable institutions often provide useful information in determining benchmarks. The reports of individual departments containing specific performance benchmarks and Mission Enhancement statements are on file in the resource room (RR: File 82, A&S Departmental Reports, previous three years). General education is a concern for the whole College. Benchmarks in this area are set by student performances on standardized examinations and by CBHE expectations in general education.

School of Business Administration

Mission

The following mission statement was developed and approved by the faculty in 1994:

The mission of the School of Business Administration at the University of Missouri-St. Louis reflects the traditional academic activities of teaching, research, and service. Within the resource and strategic constraints placed on the School by the University of Missouri-St. Louis and the University of Missouri System, the School seeks to:

- Provide students with a high-quality business education that prepares them to become productive contributors and leaders in both private and public sector organizations.
- Conduct research, the results of which extend and expand existing levels of knowledge and understanding relating to the operation, administration, and social responsibilities of enterprises in both the private and public sectors.
- Serve the university, the citizens of Missouri, and the St. Louis business community through useful outreach programs and through effective interactions with the School's faculty and staff.

The teaching and research components of this mission are given equal emphasis, and each is given greater emphasis than the service component. This assignment of priorities reflects a recognition that the School's primary stakeholders are its students and alumni, the employers of its graduates, its research colleagues in the business "academy," and the business "consumers" of its research results.

In fulfilling its mission, the School strives to satisfy the following needs:

- That students receive a challenging educational experience that results in an advanced set of knowledge and skills and an enhanced capacity for critical thought and expression which, as alumni, they will find sufficient to foster success in management careers and organizational settings consistent with the demands of tomorrow's world.
- That employers find the School's graduates to be responsible individuals who understand both established and emerging developments in their fields of study, who are capable of contributing significantly to organizational objectives and performance, and who

have the ability to maintain their expertise as new developments occur in their fields of study.

- That colleagues in academe and the business community see the dissemination of research results from the School as being timely and as contributing to the understanding, analysis, and resolution of the pressing issues and problems that are part of today's dynamic business environment.
- That the residents of St. Louis and the state of Missouri recognize that the School is creating a pool of talented managers and future business leaders who have the ability to enhance the quality of life and to contribute to the economic growth and development of the region.

However, it must also be recognized that to the extent that the School fulfills its mission, the needs of additional stakeholders also are satisfied. The St. Louis business community (beyond, but also including, those who employ the School's graduates) will see the importance and value of constructive interactions (e.g., consultation, partnership programs, fund-raising efforts, etc.) with the School of Business Administration and other UM-St. Louis faculty, and the University administration will recognize the importance the School has for the University. In total, by fulfilling its mission, the School of Business Administration will be recognized by its multiple stakeholders as an outstanding value in business education and as a productive member of the academic community.

Operating Principles

The School of Business Administration was established in 1967. Although it is not departmentalized, the School's faculty is divided into six "areas" — Accounting, Finance, Business Law and Communications, Marketing, Management and Organizational Behavior, and Management Science and Information Systems. Each of these is under the charge of a faculty "coordinator" who reports to the dean of the School. In addition, the School maintains an applied research center — the Center for Business and Industrial Studies — and a Continuing Education and Outreach Office (funded jointly by the School and the campus Continuing Education and Outreach Office). Each of these is headed by a part-time director who reports to the dean of the School. The dean is also supported by two part-time associate deans. All of the above are full-time tenured faculty members. The School's internal administrative and key faculty committee structure is shown in Figure 4-3.

The School currently employs 36 full-time tenure-track faculty members, all but one of whom hold doctorate degrees. This number includes School administrators and is five fewer than were in place in Fall 1993. It also employs 16 full-time "nonregular" faculty members, all of whom possess at least a master's or doctor of jurisprudence degree — the same number as were employed in

Figure 4-3 – School of Business Administration Organizational Chart
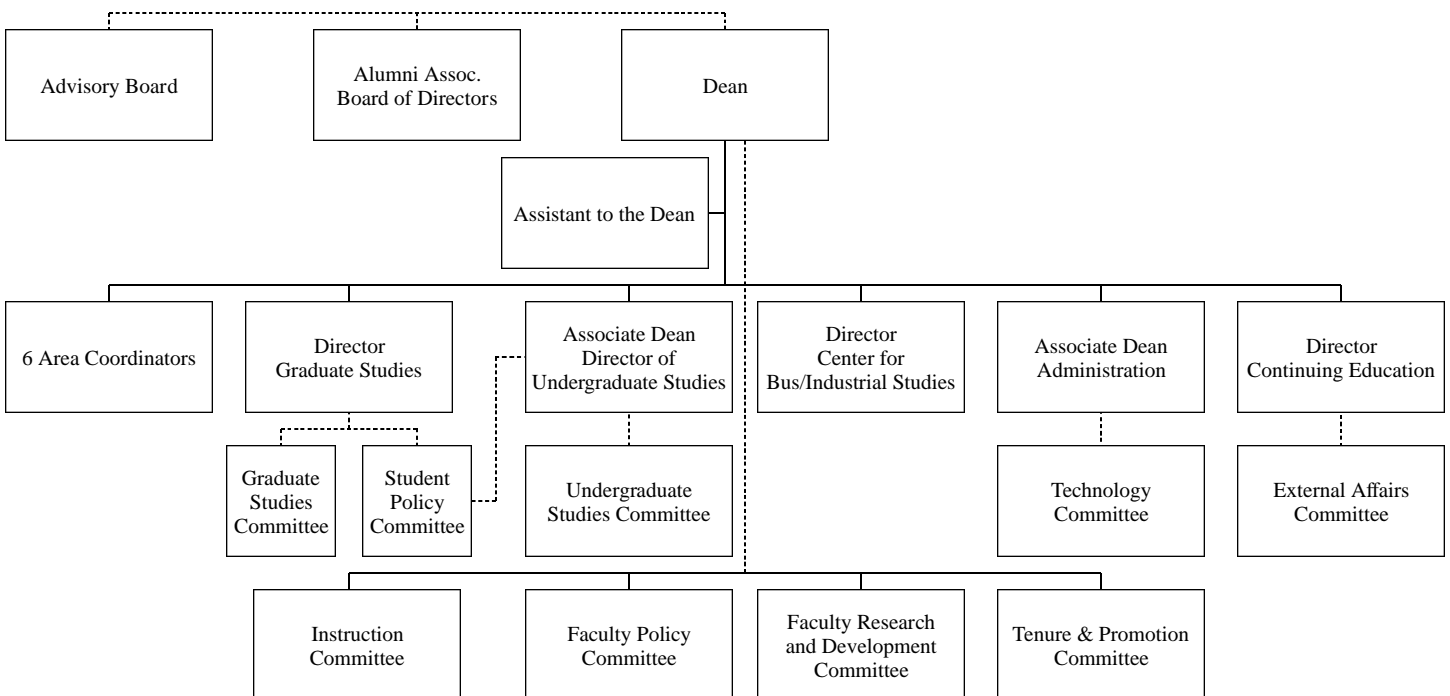
Fall 1993 ("nonregular" faculty have annual appoint-ments and are not eligible for tenure). Thirty-five part-time faculty teach from one to three courses per semester. All of these hold at least a master's or doctor of jurispru-dence degree.

Faculty are heavily involved in the administration of the School's programs. Seven permanent faculty committees meet regularly during the school year:

- Faculty Policy Committee. Meets with the dean and is concerned with budgetary matters and general school policies.
- Graduate Studies Committee. Provides oversight for the School's graduate programs.
- Undergraduate Studies Committee. Provides oversight for the School's undergraduate programs.
- Faculty Research and Development Committee. Concerned with matters involving the School's research and faculty professional development.
- External Affairs Committee. Concerned with matters involving development and outreach programs and activities.
- Instruction Committee. Concerned with matters involv-ing the nurturing of excellent teaching.
- Technology Committee. Concerned with the effective use of information technology in support of the School's faculty and programs.

In addition, *ad hoc* faculty committees are sometimes established to deal with special concerns.

Degree Programs

Undergraduate Programs

The primary undergraduate degree program offered by the School is the Bachelor of Science in Business Administration (BSBA). Students may elect an emphasis in any functional area: finance, international studies (made available in the past year), logistics and operations management, marketing, management information sys-tems, or management and organizational behavior. In the past year a second undergraduate degree program, the Bachelor of Science in Accounting (BSA), has been started (replacing what was formerly an emphasis in accounting). The programs are upper-division offerings with most of the students having transfer credits from other institutions of higher education, often a community college. Table 4-5 indicates the number of graduates of these programs in each of the last three school years.

Table 4-5 – School of Business Bachelor's Degree Program Graduates

Emphasis Area	1995-1996	1996-1997	1997-1998
Accounting	121	95	99
Finance	42	39	70
Marketing	110	127	105
Management and Organizational Behavior	104	103	84
Management Information Science	34	29	31
Management Science (now Logistics)	7	9	3
General	63	50	42
Total	481	452	434

Graduate Programs

The School also offers three master's degree programs — the Master of Business Administration (M.B.A.), which is being offered in two formats, the traditional program and a new Internet-enhanced program, Master of Accounting (M.Acc.), and Master of Science in Management Information Systems (M.S.M.I.S.). These programs serve primarily part-time students, and most courses are offered on weekday evenings. Table 4-6 shows the number of graduates from these programs in the past three years.

Table 4-6 – School of Business Master's Degree Program Graduates

Degree	1995-1996	1996-1997	1997-1998
M.B.A.	53	63	53
M.S. in M.I.S.	19	15	10
M.Acc.	17	9	6
Total	89	87	69

Besides these degree programs, the School has recently begun to offer six 18-hour certificate programs designed to provide specialized study in the areas of human resource management, marketing management, taxation, business administration, information resource manage-ment, and telecommunications.

Accreditation

Both the undergraduate and graduate business programs are fully accredited by AACSB (The International Association for Management Education). The School was reviewed for reaccreditation in 1995 (RR: File 83, Business AASCB Accreditation Report), at which time its accreditation was renewed for a ten-year period. The undergraduate and graduate accounting programs were newly accredited in 1995 (RR: File 84, Accounting AASCB Accreditation Report) under separate standards established by the AACSB.

Other Program Information

At present all of the School's graduate degree programs are offered only on the main campus. However, since the Fall 1994 term, the University has been offering a small number of sophomore- and junior-level courses at the Residence Centers in adjoining St. Charles and Jefferson counties. The School is currently offering five courses a year at each of these locations.

After an extended period of declines, enrollments have been increasing slowly over the past two years. Through careful management of sections offered, average class sizes have increased in the current year to a level of approximately 30 students per class.

Faculty Research

Faculty publications for the past three years are summarized in Table 4-7.

Table 4-7 – School of Business Faculty Scholarly Productivity

	1995-96	1996-97	1997-98
No. of Books Published	-	5	2
No. of Articles Published .	31	29	27
No. of other Publications (proceedings papers, technical papers, etc.)	7	6	3
No. of Papers Presented at Professional Meetings	27	22	22
No. of Tenure Track Faculty	39	36	35

Vision

Goals

It is the goal of the School of Business Administration to become the region's premier public school of business administration. By achieving that goal, the School simultaneously will fulfill its mission to educate traditional and nontraditional students of the metropolitan area and to continue its role as a key provider of business leaders for sustained economic development of the region.

To reach its goal, the School emphasizes a balance of teaching, research, and service to its constituents. Furthermore, it is increasing its interaction with the business community and will strengthen the global awareness of its students to prepare them for expanded international business roles.

Directions

Certain aspects of the School of Business remain constant. For example, there is keen interest in maintaining AACSB accreditation. Additionally, the School's strength in computing technology has been shown through the growth of its Master of Science in Management Information Systems program. The accounting program also is very strong. The faculty is committed to maintaining the strength of these programs.

The School needs to continue addressing its enrollment loss of the past several years. Enrollment results for the past four reporting periods (Spring, Summer, and Fall 1997, and Spring 1998) have been positive, with enrollment increases of .5 percent, 1.2 percent, 4.4 percent, and 13.5 percent, respectively. Through the Professional M.B.A. On-Line option and several new program initiatives (e.g., new minors in all business disciplines, a new certificate in Telecommunications), it is the School's goal to continue this improved enrollment trend.

The School's Advisory Board has been revitalized, and it is actively engaged in a strategic planning effort that will be completed in the fall of 1998 (RR: File 68, Business Strategic Plan). The School recently filled an endowed chair in Chinese Business Studies jointly with the Center for International Studies as part of internationalizing its curriculum.

To help raise its profile in the region, the School has acquired a new development officer and a new information officer. They will work to improve the public awareness of the School's strengths and thereby increase enrollments and community support.

Strengths and Concerns

The School of Business Administration's strengths are many. First, it has a very capable faculty with research productivity that rivals more established institutions in the metropolitan area. As a result, the faculty strongly values scholarship. Second, the School enjoys a solid reputation in several areas, particularly accounting and management information systems. Third, the metropolitan area provides a rich source of students and active business opportunities. Fourth, the alumni of the School are reaching career success that provides opportunities for support not present during the earlier years of the School. Finally, University administration is supportive and encouraging to efforts and successes of the School, thus providing an atmosphere for continued success.

The concerns for the School focus largely on past enrollment declines. As enrollments continue to improve, these concerns are diminishing, and the new program initiatives should help ensure that improvements continue.

After completion of the strategic planning efforts in Fall 1998, revisions of the undergraduate and graduate curricula will take place. Successful revision of these curricula will serve as the foundation for future growth and stability of the unit.

Successful implementation of the Professional M.B.A. On-Line option is an area of high interest for the School. This distance-learning initiative holds much promise for the unit, and enrollments in it will be carefully monitored for learning effectiveness, size, and budgetary contribution. It helps address the enrollment concern of recent years.

The role of the School of Business Administration in campus Research II efforts continues to be a concern. A perceived lack of opportunities and success at securing external funding from appropriate sources will continue to occupy the attention of the School's faculty and administrators. The establishment of a new center in Transportation Studies may help the School contribute more directly to the Research II mission.

Change

Over the past several years, several changes have occurred in the School. The faculty has witnessed a decline in student credit hours, although recently these have shown an upward trend. The School has continued its use and support of technology. This is especially true for distance learning using video and Internet delivery. The Professional M.B.A. On-Line option and new M.I.S. and finance programs bring added opportunities to students. Recruitment of an endowed professor in international business will help internationalize the curriculum and enrich the offerings to students. Through the revitalized Advisory Board, involvement with the business community is increasing.

The changes in the School should cause several transitions for faculty. Faculty members are increasing their involvement with the business community through interaction with the Advisory Board. The completion of the School's strategic plan will serve as a catalyst to focus future activity of the School. Under the leadership of the holder of the endowed chair, international teaching and research opportunities should increase. To date, activities

of this nature have begun to increase the self-awareness of faculty members of their role and the School's profile in the business community. They have increased their efforts to market existing programs as well as to raise the profile of members of the School by more actively soliciting media coverage for their efforts. The effectiveness of this activity is expected to grow. Overall, faculty members' professional self-expectations should grow as a result of these initiatives.

Monitoring Programs and Assessment

Curriculum Planning and Revisions

In the rapidly evolving business world, the School strives to meet the ever-changing educational needs and to serve unsatisfied markets by monitoring and revising its curriculum.

At the graduate level, the Graduate Studies Committee is central to the curriculum planning and monitoring process. It has taken an active role in updating existing courses and considering the impact of changes in the curriculum. The development of the graduate certificate programs and the offering of Internet-enhanced courses are recent examples of results of this process.

At the undergraduate level, the Undergraduate Studies Committee, with oversight responsibilities by the Director of Undergraduate Studies, plays an important role in planning and monitoring the curriculum and its effectiveness. Initiatives may originate within a specific discipline, which brings its recommendations through the committee, or the committee itself may bring forth initiatives to be approved by the faculty. The new emphasis area in International Business and the change in the Management Science emphasis to Logistics and Operations Management are recent examples of this process.

Monitoring Teaching Effectiveness

All graduate and undergraduate students assess faculty teaching effectiveness through an evaluation instrument required of each class each semester. The evaluation instrument was developed by the Instruction Committee and ratified by the School's faculty. The instrument consists of questions about both the course and the instructor. The form also provides the student with the opportunity to comment on the course and/or the instructor in an open-ended and unstructured fashion. A copy of the evaluation instrument is on file in the Resource Room (RR: File 86, Business Course Evaluation Form).

The tabulated results are provided to the instructor, the area coordinator, and the dean. Currently, only the instructor sees the open-ended comments provided by the students. Further, summary data comparing a given course/instructor with other courses with faculty in the area and with all courses taught in the School are prepared for the area coordinator and the dean. This information is used for tenure and promotion decisions as well as for annual salary decisions.

Assessment Involving Other Stakeholders

As part of an assessment by various stakeholder groups, questionnaires have been developed for completion by graduating seniors, alumni, and the business community which hires the School's graduates (RR: File 87, Business Graduating Senior Survey; File 88, Business Alumni Survey; File 89, Business Employer Survey). The instrument, which is completed by graduating seniors, is administered as part of the major field assessment process. The questionnaire's objective is to determine the students' satisfaction with various aspects of the School's operations, from academic advisement to hiring opportunities. The questionnaire for graduating seniors is administered each semester. On a less-frequent basis, every three years, alumni are surveyed to determine how effectively the undergraduate program in business has prepared them for their business careers. Alumni are also contacted to evaluate faculty of the School of Business Administration who are candidates for promotion and/or tenure. Finally, at five-year intervals, surveys are sent to members of the business community who hire the School's graduates to determine how alumni are performing and how "positioned" they are to advance in their organizations.

Administrative Effectiveness

Administrative effectiveness can best be addressed by describing the processes by which students progress through the School's programs. Academic advisement of graduate and undergraduate students is conducted by a staff of full-time professional advisers — six full-time and two half-time. These advisers are for day and evening students to assure that they are making satisfactory progress towards their degrees. The faculty visit with students regarding career opportunities and other questions students may have about a given discipline. A student's academic file is updated regularly, and students are encouraged to see an adviser regularly. Advisement of undergraduate students is further assisted by implementation of the Degree Audit Report System (DARS).

The directors of undergraduate studies and graduate programs, as *ex officio,* nonvoting members of the Undergraduate and Graduate Studies Committees, described in an earlier paragraph, regularly meet with those groups to keep them informed. The academic advising staff of the School have the additional responsibility of ensuring that the graduation requirements established by the faculty are being fulfilled. This unit also works closely with the College of Arts and Sciences, the Evening College, and the Graduate School.

Strategic Directions

The School recently implemented a Professional M.B.A. On-Line option. The value of this M.B.A. option is embodied in its contemporary educational delivery and format. The goal is to maintain the School's high level of quality and address the needs of managers and executives who cannot attend classes regularly. The Professional M.B.A. On-Line is a 23-month program that meets one weekend a month. Somewhat more than half of the course will be in a lecture format by full-time faculty. The remainder of the course relies on collaborative methods available on the Internet.

Faculty members will prepare for intensive on-campus sessions by providing students with texts, written notes, handouts, and class materials. By carefully considering the goals and objectives of a course and concentrating on its essential components, the learning occurring in face-to-face interaction can be maximized. Cohort groups formed for this program become an important component for intellectual, networking, and professional development purposes. The cohort itself adds to the quality of the students' learning experience through enhanced identification and commitment to the program.

At the undergraduate level, the School has established specialized minors in each academic discipline. Many students outside the School of Business Administration would like to take course work in the School and receive some official designation for doing so. The minor in general business, as well as minors in each discipline, will satisfy a large demand for such programs, make UM-St. Louis more attractive to students seeking degrees outside business, and generate additional business students. The minors will also be available to students inside the School, with the restriction that students cannot minor in general business or a field in which they are earning a major or emphasis.

Additionally at the undergraduate level, the University approved the B.S. in M.I.S. degree. This program will replace the existing M.I.S. emphasis within the B.S.B.A. degree. M.I.S. is one of the most rapidly evolving and expanding areas of academic study. The rise of the discipline has paralleled rapid growth in development and use of information technology in both the public and private sectors. Demand in the marketplace for graduates with M.I.S. training is booming. Enrollments in courses in the program have increased dramatically. The change to an independent degree will give the program greater prominence and place it on the same level as at other universities.

Performance Benchmarks

In response to continuous curriculum monitoring and feedback from assessment activities, progress has been made in accomplishing the strategic directions and goals which the School has outlined above. Progress has been made in addressing the most pressing goal of the School (i.e., ending the enrollment loss of the past several years). The School has experienced program growth for the last four semesters. This trend is expected to continue, especially given the new program initiatives being implemented and the strategic planning efforts that are under way.

Benchmarks

The following areas provide benchmarks to judge the progress of the School toward meeting its objectives. The surveys from both undergraduate and graduate students show that they are satisfied with the overall program quality, teaching, and emphasis on the real world. The scores on the nationally normed Major Field Exam in Business from ETS have been consistently above the norm. Additionally, students graduating from the School's programs have little difficulty with job placement and receive salaries comparable to national averages.

School of Education

Mission

The University of Missouri-St. Louis 21st Century School of Education will be a national leader in educational research and scholarship that support educational professionals within an expanding, collaborative community. The School is committed to advancing the quality of teaching and learning as it serves a dynamic, diverse, and technologically advanced community. As members of a research institution, School of Education faculty are committed to improving teaching and learning through their research and extending the results of their research to educators throughout the state, nation, and world.

The School of Education is changing as technology changes the way education and work are conducted. Students of any age have greater access to sources of information and can take advantage of expanded communication with educational institutions and leaders. Future teachers must be prepared to capitalize upon the available technology in their classrooms and present teachers must have access to professional development in technology.

Partnering also is coming to the forefront as the means by which institutions achieve complex goals and share limited resources. Educational institutions of the future must work with a variety of other institutions and organizations to provide high-quality teaching and learning. This is certainly true in regard to teacher preparation. Future teachers can no longer be adequately prepared by spending all their undergraduate years on a University campus, with only occasional visits to the schools. Rather, they must spend increasing amounts of time in the schools working with both University supervisors and teachers.

Operating Principles

The School of Education is organized into four divisions: Teaching and Learning; Counseling; Educational Psychology, Research, and Evaluation; and Educational Leadership and Policy Studies. The director of Professional Development Schools coordinates the partnership programs with professional development schools in surrounding school districts (Figure 4-4). Reports prepared by individual units are in the Resource Room (RR: File 90, Education Division Reports).

The School of Education's teacher preparation programs are approved by the Missouri Department of Elementary and Secondary Education (DESE) and the National Council for Accreditation of Teacher Education (NCATE) (RR: File 91, NCATE Accreditation Report). The School offers bachelor's degrees in Elementary Education, Early Childhood Education, Physical Education, Special Education, and Secondary Education. Missouri teacher certification accompanies the bachelor's degree. Assessment studies over the years have revealed that students would be better served if they could have access to discipline-specific advising in their program of study as soon as they entered the University of Missouri-St. Louis.

Consequently, students may now enter the School of Education for advising as early as the freshmen year. However, formal admission to the teacher education program can occur only after the student has completed a minimum of 60 semester hours of course work and the other criteria required for formal admission. In 1998 the School had approximately 1,300 students pursuing teacher education.

Consistent with its mission, the School of Education supports many educational professionals in the St. Louis metropolitan region with graduate programs and graduate courses leading to advanced certifications. Approximately

Figure 4-4 – School of Education Organizational Chart
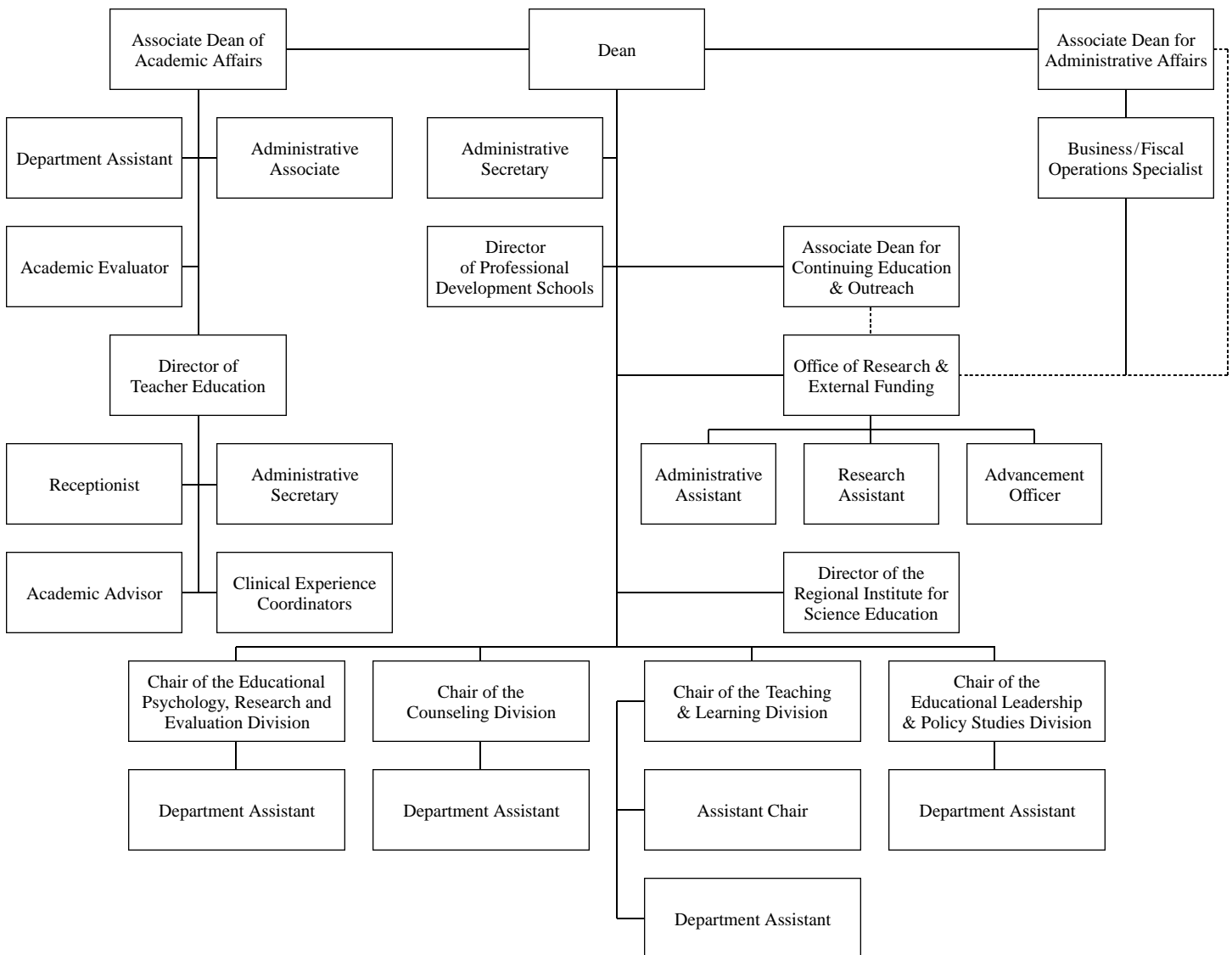
25 percent of teacher certification students (200-300 students) are post-baccalaureate students not enrolled in a degree program. These students are advised by the School's advisers and are recommended for certification by the University.

Somewhat less than half of the master's degree students on this campus are in the School of Education. There are five Master of Education programs in the School of Education. They are Elementary Education, Secondary Education, Special Education, Counseling, and Educational Administration. Counseling is a 48-hour program, while the others are 32-hour programs. At least half of any student's program must be at the 400-, graduate-only level. The remainder can be 300-level courses that are taken by graduate students or upper-division undergraduate students. Last year there were 943 students in the five M.Ed. programs.

The Doctor of Education degree has two major emphasis areas: Learning and Instruction, and Behavior and Development. An advisory committee, chaired by the student's adviser, approves each student's specific program of study. There are approximately 100 doctoral students at various stages of study.

A Doctor of Philosophy in Education degree has just been approved for the campus. This degree program has three emphasis areas: Teaching-Learning Processes, Counseling and Educational Psychology, and Metropolitan Leadership and Policy Analysis in Education. The first students entered the program in August 1998. The faculty are discussing various means of sharing resources for doctoral students with the faculties of the University of Missouri-Columbia and University of Missouri-Kansas City.

The School of Education works closely with the College of Arts and Sciences. The faculty who have joint appointments in the two units play a prominent role in the secondary education programs and advise students. Many Arts and Sciences faculty members serve on doctoral dissertation committees, as do faculty from the Barnes College of Nursing. The School of Education and the College of Arts and Sciences also collaborate in the Center for Human Origin and Cultural Diversity to promote knowledge and appreciation of diverse cultures.

Vision

The goals of the School of Education are

- To improve the quality of education and enhance the quality of life through education.

- To provide equal access to, and diversity in, teacher preparation and professional development.
- To provide opportunities for area educators to undertake advanced, graduate study to fulfill personal goals and fill the needs of area educational institutions and agencies.
- To achieve flexibility, stability, and balance among education, research, and public service programs.
- To provide and model effective, research-based instructional procedures and technologies.

These goals have been influenced by the University strategic plans in placing a greater emphasis on doctoral programs and research, a greater emphasis on use of technology, and a renewed emphasis on diversity within its student, staff, and faculty bodies.

These goals have been shaped by assessments that include annual NCATE reports, annual reports to the Vice Chancellor of Academic Affairs, accreditation self-studies and reviews (Department of Elementary and Secondary Education and NCATE), and a recent University of Missouri Five-Year Review and Self-Study (RR: File 92, Education Latest Five-Year Self Study). Specifically, the goal of providing and modeling effective instructional strategies and technologies arose from new standards for the preparation and professional development of educators.

Situational Analysis

Last year, the School of Education awarded more B.S.Ed. degrees and certified more elementary teachers than any other institution in the state. It certified the third-largest number of secondary teachers and the second-largest number of educators overall (counselors and administrators as well as teachers).

Faculty members have extensive publication and grant-writing records despite a 9-credit-hour-per-semester teaching load and programs that include a doctoral degree. They have just completed a strategic planning process in which they have identified themes to guide creation of the 21st Century School of Education (RR: File 69, Education Strategic Plan). This plan for reform and renewal will allow the School of Education to stay in the forefront of teacher preparation and development programs.

Areas of concern for the School of Education are all related to resources. The number of students in its programs is much larger than ideal for the number of full-time faculty available. These programs have been staffed

in recent years by a full-time faculty whose number has fluctuated around 50, while the number of adjuncts hired to supplement the full-time faculty has risen to as many as 70 per semester. The Office of Research Administration provides extensive information on available grant and contract opportunities as well as grant writing workshops, grant writers, and grant editors, but the faculty in the School need additional grant writing assistance from writers with specific knowledge about education issues. Most education graduate students are employed in education and are unable to take advantage of the Graduate School Fellowships and Dissertation Fellowships which require full-time enrollment. Additional support is needed for those students who could take off a year for full-time study and research.

Assessment is ongoing at several levels. See Chapter 5 for assessment of student learning and changes made in response to such assessment. Students regularly assess their courses (RR: File 94, Education Course Evaluation Form), and the information gathered is available as each faculty member is reviewed annually.

Faculty are given the opportunity to evaluate administrators in the School of Education, and this information is fed back to individuals by the dean. The dean also evaluates administrators in the annual review process.

Division chairs assemble a recommendation for the dean regarding merit pay increments for individual faculty members, based on their annual report. Activities reviewed include scholarly accomplishments, teaching performance, and service to the University and professional organizations. Merit pay increments reflect an individual's productivity.

Faculty are reviewed annually regarding progress toward tenure and/or promotion until achieving the rank of full professor. Feedback is considered especially important at three years and is extensive.

Table 4-8 – School of Education Graduates,Publications, and Funding

Graduates	Fall 96 – Summer 97	Fall 97 – Summer 98
Undergraduate	. 321	305
Graduate	328	320
Faculty Publications	1996-1997	1997-1998
Articles	133	114
Books	19	26
Chapters	3	12
Monographs	2	5
External Funding	FY1997	FY1998
Amount	$1,302,118	$1,229,147

The number of graduates, faculty publications, and amount of external funding for the School of Education are presented in Table 4-8.

Identity Gap

The major gaps between the School's vision and its current situation are a shortage of full-time faculty positions and a 9-credit-hour-per-semester teaching load for all faculty at the professorial ranks. To prepare more educational leaders with doctoral degrees and to increase research efforts, both in terms of publications and external funding, faculty need reduced teaching loads and more professional support. Mentoring doctoral students requires much time, and being on the cutting edge of a field requires travel to national and international conferences. To meet its teaching requirements, the School should hire additional faculty.

The addition of endowed professors closes the gap between the School's vision and its current situation in some specialization areas, especially science education. Most areas of study continue to need more faculty. Faculty staffing patterns have not always matched enrollment patterns in degree programs, especially at the graduate level.

Strategic Directions

The School of Education is changing in both organizational structure and program. Departments have been reorganized into four divisions for better program focus. Flattening the heirarchical structure will help the School to respond and change more quickly, as assessments indicate.

The recently approved Ph.D. in Education program will increase the emphasis on preparation of doctoral-level education leaders who are capable of identifying new methods and practices in teaching and learning. An increased number of graduate assistants will allow some doctoral students to study full time and to be more fully immersed in research programs. With the arrival of three endowed professors in science education, the School has set ambitious goals in science education: to coordinate and support science education enhancement efforts through innovative teacher education and professional development opportunities; to collaborate with school districts to ensure that K-12 students have access to high-quality science and technology experiences and opportunities; to build partnerships to support systemic change; to foster advocacy for science education; to disseminate information related to improving science education; and to become an internationally recognized center for the preparation of doctoral-level science educators.

Initial preparation of teachers will become more field-based and involve more school faculty. Within courses and programs, greater emphasis will be placed on what future teachers know and can do rather than mere completion of assignments and courses. Graduate study, too, will become more field-based. For example, faculty are moving to increase practicum hours for counseling students and to design unique internship experiences for education administrators. More extensive research internship experiences will be added to the doctoral programs.

The School is establishing a state-of-the-art Technology and Learning Center to prepare future teachers and assist practicing teachers. The center provides a model classroom environment for hands-on practice in managing new methods of teaching through the use and aid of new technologies. It also houses research projects which develop new technology-enhanced teaching methods to engage students from disadvantaged backgrounds, create programs that connect school classrooms to the workplace, and develop innovative ways to create technologically advanced learning environments. The opening of the new Center in Fall 1999 will coincide with the arrival on campus of the new Endowed Professor in Technology and Learning. A branch of Campus Computing services and the Instructional Technology Center has been located in the south campus complex with facilities that include a distance-learning classroom.

The School is moving to provide educational opportunities for students who live too far from campus to commute regularly. The elementary education degree program is now available at two outreach centers, with some of the courses being taught via interactive video/audio and some being taught by faculty on-site. A needs analysis being conducted in the geographic areas south of the metropolitan region will determine what graduate programs might be needed by area teachers.

Many of these changes are prompted not so much by past assessments as by announced changes in how education programs will be assessed. For example, the Missouri Department of Elementary and Secondary Education soon will use performance-based assessments to certify students and to accredit teacher-preparation institutions. The National Council for Accreditation of Teacher Education also will use performance-based assessments to accredit institutions. The dean has appointed a task force to implement performance-based assessment in the teacher-preparation program. The assessment of educational leaders at the advanced (graduate) level also is moving from an assessment-center approach to more field-based performance assessments. A task force has prepared a plan for reforming the School's educational leadership program to align it with this transition and to establish the Metropolitan Academy for Education Executives, a partnership in the preparation and continuing education of administrators in schools and higher education institutions. Through the Academy, the School of Education will serve the need for administrators in urban and metropolitan PreK-12 school systems and institutions of higher education.

Performance Benchmarks

• Increase the number of doctoral graduates from the present average of approximately 7 to 18-21 graduates per year and increase external funding from approximately $1,000,000 per year to $3,000,000 per year by the 2002-03 academic year to demonstrate an increased emphasis on doctoral programs and research.

• Maintain accreditation by the National Council on Accreditation of Teacher Education and the Missouri Department of Elementary and Secondary Education to demonstrate that the school is reforming its educator-preparation programs to be more field-based and collaborative.

• Use the Technology and Learning Center, which will be built by Fall 1999, to model innovative uses of technology in classrooms and to increase the number of distance learning courses offered from 3 to 9 by the 2002-03 academic year to demonstrate the School's resolve to be a School of Education for the 21st Century.

• Reform programs to be more field-based and to include state-of-the-art technology to lead to even higher survey scores and better performance on performance-based assessments.

• Implement performance-based assessment to demonstrate that graduates are prepared for their roles in educational systems.

University of Missouri-St. Louis/ Washington University Joint Undergraduate Engineering Program

Mission

Under a formal agreement between the University of Missouri-St. Louis and Washington University, the Joint Undergraduate Engineering Program was established in 1992. The mission of the Joint Undergraduate Engineering Program is to offer high-quality undergraduate engineering degree programs to place-bound students who would not be able to leave the St. Louis area to pursue an engineering degree. These students tend to be older than traditional students and are more likely to be women and minorities and to have substantial family responsibilities. The mission of the program is consistent with the University's mission to provide high-quality education that will enhance the occupational and professional careers of citizens in the entire region, including minorities and the economically disadvantaged. The program is also consistent with the University's mission to provide a well-trained, sophisticated work force for the St. Louis area; because they are place-bound, most graduates will remain in the St. Louis area. The partnership continues Washington University's strong tradition of working with a diversity of institutions in education, government, and the private sector; it is also a way for Washington University to share its campus, resources, and personnel with the citizens of Missouri. The unique combination of reinforcing and complementary characteristics of the two partner institutions is also an important mechanism for meeting the mission. The close proximity of the two campuses, only about 15 minutes apart by automobile, allows students convenient access to the faculty members, staff, and full range of facilities and services provided by both institutions.

Program Description

The Joint Program offers Bachelor of Science degrees in Civil, Electrical, and Mechanical Engineering and a Minor in Environmental Engineering Science. For reasons due principally to the limited availability of undergraduate engineering courses in the evening and the high cost of academic fees to earn an engineering degree at one of the private universities in the St. Louis region, the option to pursue engineering as a major was not seen as viable by many nontraditional students until the Joint Program was established.

Curriculum

Students take their pre-engineering course work in mathematics, physics, chemistry, humanities, and social science, and selected elementary engineering subjects at UM-St. Louis (or at area community colleges). Both day and evening classes are offered, allowing students to complete their pre-engineering course requirements on either a full- or part-time basis.

The program is dedicated to admitting students who can demonstrate a strong likelihood of success in a demanding engineering curriculum. One indication of success in engineering coursework is to have completed the pre-engineering curriculum with a cumulative GPA of 2.75, out of a possible 4.00, over all technical courses. Assessing that likelihood for students whose educational backgrounds often span more than a decade can be a challenge; each student is considered individually. Admission to the upper division is granted jointly by UM-St. Louis and Washington University. Students pursue their engineering education by taking the remaining half of their degree programs, consisting of upper-level engineering courses and laboratories, on the campus of Washington University. Washington University engineering faculty members teach these courses in the evenings and on Saturday.

A parallel cooperative education program, administered by the UM-St. Louis Career Planning and Placement Office, is available to students taking upper-division courses. Students are employed in engineering positions at a variety of local technology-based business and industries, including the following:

Ameren/UE (Union Electric)	Jefferson Smurfit
Anheuser-Busch	LaBarge Products
Associated Equipment	Leonard's Metal
AT&T	McCarthy
The Boeing Company (McDonnell Douglas)	Metropolitan St. Louis Sewer District
Concrete Coring Company	Minnesota Mining and Manufacturing (3M)
Contico Manufacturing	Monsanto
Emerson Electric	Morrison-Knudsen
Emerson Motor	O'Brien & Gere
Fru-Con Engineering	Oak Ridge National Laboratory
General Motors	St. Louis County Water Company
GTE Government Services	Sverdrup Corporation
Hunter Engineering	U.S. Army Corps of Engineers
Hussmann Corporation	Watlow Electric
Invacare Healthcare	Westec Barrier Technologies

This allows upper-division students, who may have been employed in nonengineering-related jobs when they began their studies, to "jump start" their engineering careers by working part-time (20-30 hours per week) during the day in an engineering-related position and completing their engineering coursework in the evenings and on Saturdays. The upper-division requirements can be completed in as little as four years, with year-round class attendance, in this format. Thus students in the Joint Program can complete their engineering degrees as quickly as six years past high school graduation, only one year longer than in a traditional cooperative education program.

All majors must complete the pre-engineering requirements (which include satisfying the UM-St. Louis general education requirements). A total of 65 semester hours is required to satisfy the pre-engineering requirements. In the upper division, all degree candidates must complete the core engineering requirements in addition to their major requirements in civil engineering (CE), electrical engineering (EE), or mechanical engineering (ME). Core requirements total 27 semester hours for EE and ME majors and 21 semester hours for CE majors.

The remaining upper-level courses consist of the required and elective courses in the major to satisfy the appropriate degree requirements. CE majors need 51 additional semester hours for a total of 137 semester hours for the degree, ME majors need 47 additional hours for a total of 139 semester hours, and EE majors need 39 hours additional hours for a total of 131 semester hours.

Administrative Structure

From the beginning, an important goal of the Joint Program was to minimize the difficulty for students of having to deal with two universities routinely. The goal was to make students feel they were part of a seamless degree program.

The overall responsibility for the Joint Program is under the direction of a dean and associate dean at UM-St. Louis. The dean is also a faculty member and associate dean for Continuing Education in the School of Engineering and Applied Science at Washington University, and the associate dean is also a faculty member at UM-St. Louis. They are responsible for overseeing student services to all engineering students, implementing the pre-engineering program at UM-St. Louis, and coordinating the upper-division program at Washington University.

Joint Program directors, who are engineering faculty members assigned to this part-time position by the chairs of the three departments at Washington University, are responsible for coordinating and implementing the upper-division degree programs. These duties include advising students, scheduling classes, faculty assignments, and the day-to-day interface with the other program directors and administrative personnel. In addition, the Division of Continuing Education in the School of Engineering and Applied Science at Washington University provides centralized student support for all upper-division students. All academic matters are the responsibility of the department chairs at Washington University in conjunction with the dean and associate dean of the Joint Program. Much of this responsibility is delegated to the three program directors, but those matters requiring approval of the faculty (such as curriculum changes) follow a formal approval procedure at UM-St. Louis.

Pre-engineering student experiences are no different from those of any other student attending UM-St. Louis on either a full- or part-time basis. At least once each semester they meet with one of the pre-engineering advisers to review their programs of study, obtain approvals, or discuss any issues as required. Once a student is accepted into the upper-division, he or she is assigned to the appropriate program director at Washington University who serves as the student's adviser for the remainder of the program. Students meet with their engineering advisers at Washington University each semester to obtain approval to register for their courses and to discuss any problems or issues as required during the semester. Of course, they can continue to use all student services and resources at UM-St. Louis in addition to those available to them at Washington University. In essence, they experience the benefits of student status at both universities.

Student Population

At the beginning of the Fall 1997 semester, a total of 340 students were enrolled in the Joint Program — 194 students (57 percent) taking pre-engineering courses at UM-St. Louis and 146 (43 percent) taking upper-level courses at Washington University. The average age of the students is about 28. Nineteen percent of the students are women. Approximately 23 percent of the students are under-represented minorities; almost 17 percent are African Americans and 6 percent are other minorities (Asian Americans are considered an under-represented minority at UM-St. Louis). These figures compare to a national average undergraduate engineering enrollment (for Fall 1996) of 23 percent for under-represented minorities and 7 percent for African Americans.

Enrollment Growth

The Joint Program has experienced significant growth, as shown in Figure 4-5, which plots the total number of students enrolled in pre-engineering and upper-level course work during each Fall Semester from 1993 through 1997. Enrollments have grown by more than 209 percent since Fall 1993.

Enrollment growth is expected to be approximately 8 percent per year for the next several years, with total enrollment reaching an equilibrium level of about 575-600 students soon after the 2004-05 academic year.

Performance Benchmarks

The overall retention rate in the Joint Program can be used as a general measure of success and can also compared with similar rates at Washington University as well as at the other System campuses, as the data are made available. The findings will be evaluated in light of the reality that nontraditional students are much more likely than traditional students to "stop-out," i.e., take a break in enrollment due to financial, family or other pressures. The traditional student who enrolls each semester until the degree requirements are completed is rare. In Winter 1997, 86 percent of the students enrolled in Fall 1995 had graduated, were pursuing their degrees, or planning to return.

The ability of the program to recruit and retain minorities and women will also continue to be used as a measure of success. Comparisons will be made with Washington University, the other System campuses, and other engineering programs nationally, as data availability permits.

Figure 4-5 – Engineering Fall Term Enrollments
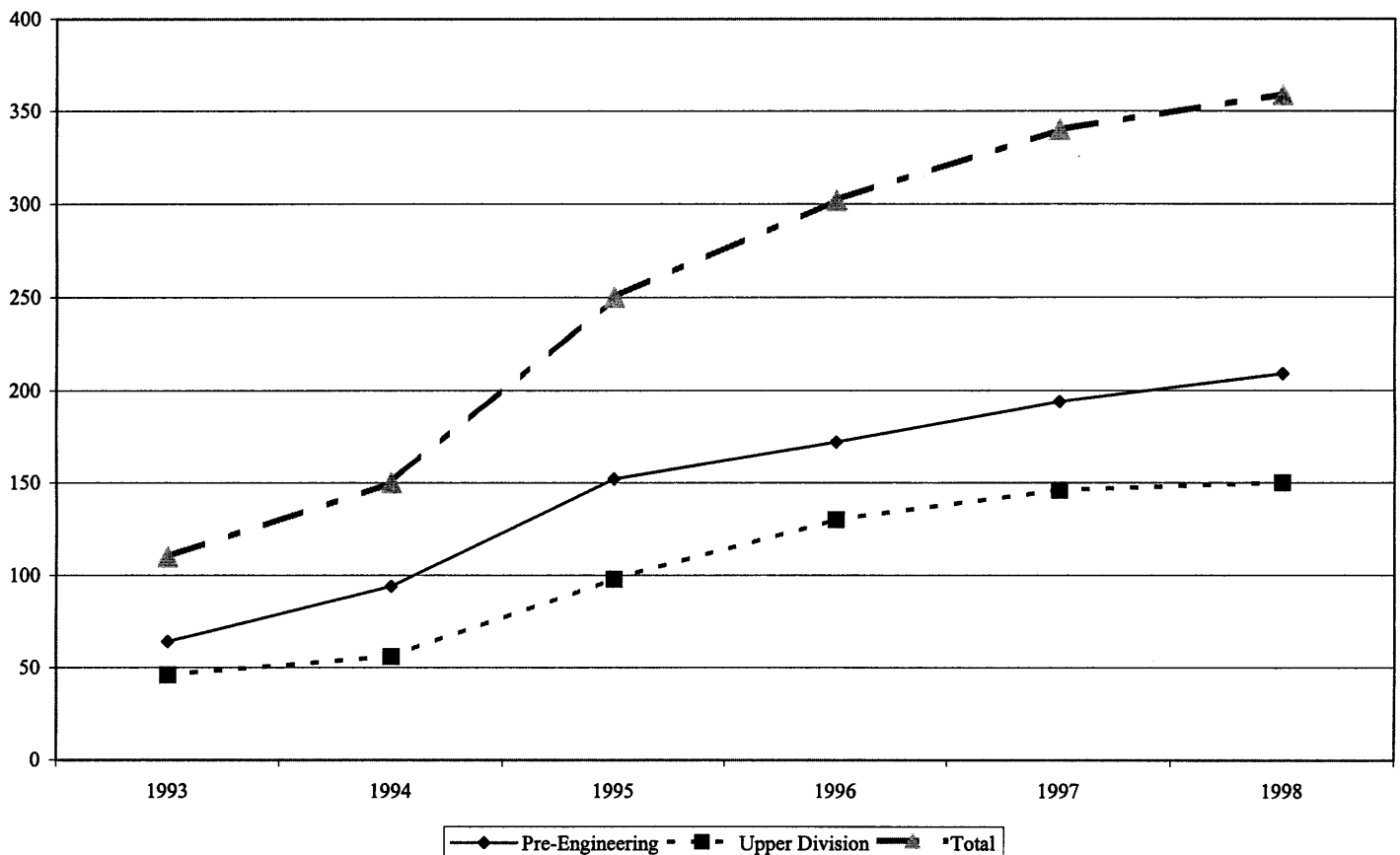
Evening College

Mission

The Evening College, established in 1966, develops appropriate undergraduate credit courses and degree programs for nontraditional students who must attend classes in the evening. The College also provides essential support services for evening programs, students, and faculty. The Evening College is unique in that it offers 28 traditional baccalaureate degree programs that meet the same academic standards as the day programs. Students must satisfy the same degree requirements as their day counterparts. Should the student's work schedule change, the student can switch to day courses without any change in degree or requirements. The quality of instruction is consistent in that the regular faculty teach in the Evening College as part of their assigned teaching load, not on an overload or extra-compensation basis. In addition, a nontraditional degree program, the Bachelor of General Studies, is available for adult students who have educational goals not met by currently offered degrees. Enrollment in the Evening College is approximately 1,900 students each year.

Operating Principles

The Evening College administration consists of a dean, an associate dean, a manager of business and fiscal operations, one senior academic adviser, one full-time academic adviser, and three part-time advisers (Figure 4-6).

As the College developed, funds were allocated to various schools and departments to support full-time faculty positions for evening instruction. Departments or schools assumed an obligation to assign the appropriate FTE regular faculty to teach evening courses. Those arrangements ensure continuity in the commitment of regular faculty to evening programs. The budgeted FTE faculty currently totals 44.86. During Fall 1996, 52 percent of all sections were taught by regular faculty. Approximately 27 percent were taught by associate or full professors.

Vision

The Evening College continues to strive to serve nontraditional students in the most efficient way. The hours of operation make it possible for working adults to obtain academic advising and pursue degree programs in the

Figure 4-6 – Evening College Organizational Chart
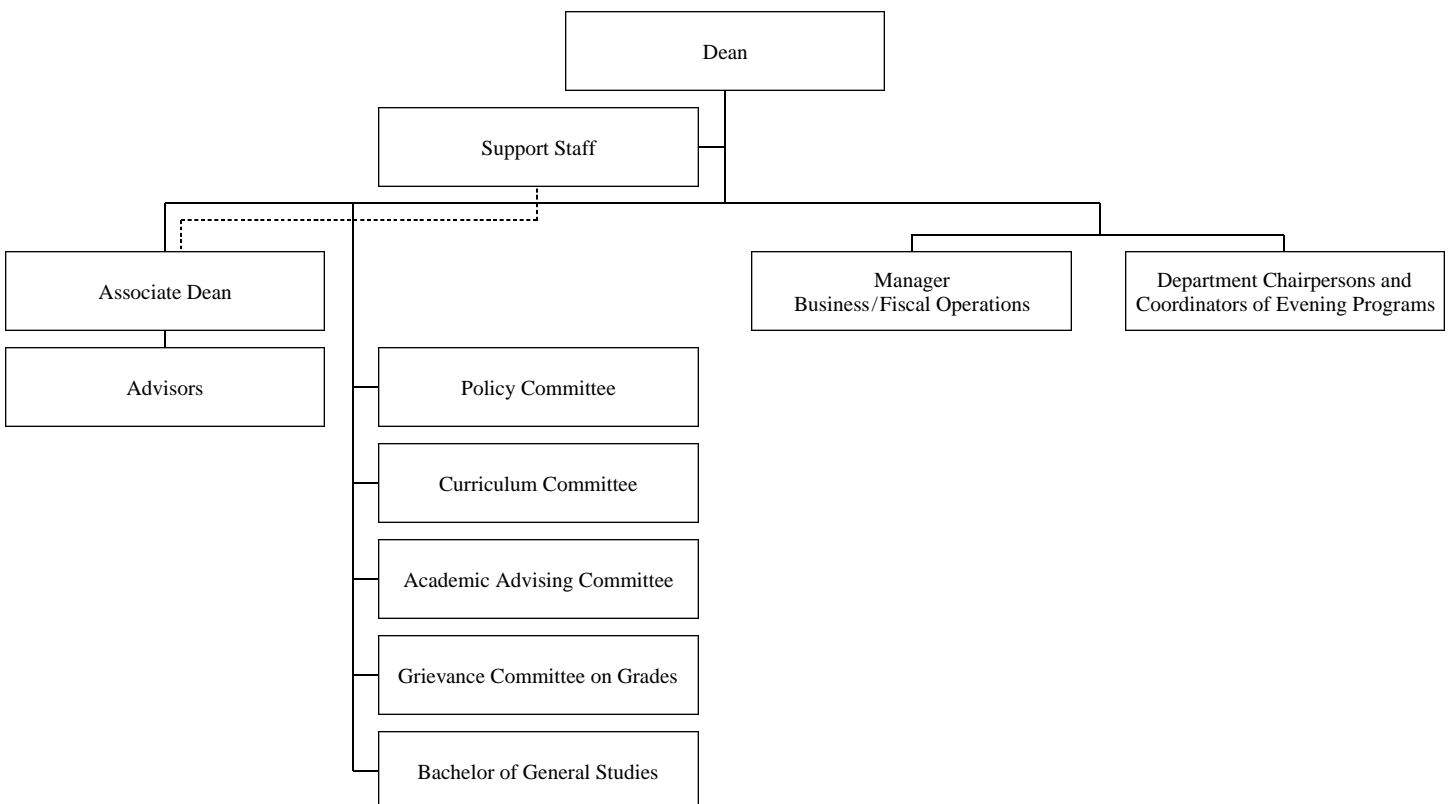
evening. The utilization of technology will increase the level of service to these students. Telephone registration, Degree Audit Reporting System (DARS), fax, and e-mail are examples of the changing delivery systems that are improving efficiency and productivity. The College has responded to the campus mission by developing a Bachelor of Health Sciences degree program. Additional areas of study in health-related fields are being considered to enhance the University's goal to provide leadership in health-related professions.

Situational Analysis

The Evening College has made significant contributions to the overall mission of the University. The College has increased its advising staff efficiency with the addition of computers through a Title III grant and by initiating the DARS for students. The College has increased the FTE of the advising staff by 0.40. These efforts support the mission of the University to serve nontraditional students and to make resources for the University available to all citizens in Missouri.

The Evening College has averaged 250 graduates per year over the past five years. The results of a Winter 1997 student and alumni survey (RR: File 95, Evening College Student and Alumni Survey) indicated that both faculty and professional advisers in the Evening College were rated above average by students and alumni. Parking and campus lighting were areas of concern for students.

Strategic Directions

The Evening College began offering the Bachelor of Health Sciences in Fall 1998 to accommodate the needs of individuals seeking credentials to enter the allied fields of clinical laboratory science and cytotechnology. This program was approved as a collaborative effort with Jewish Hospital College of Nursing and Allied Health. New areas of study in allied health will be added as additional emphasis options.

Increased student interest in business administration courses will be responded to by increasing the number of these courses which are offered on the weekend as well as during the evening. The College plans to propose an interdisciplinary degree program in Community Education. It is anticipated that this degree will be approved by 2000.

Performance Benchmarks

- A projected enrollment of 55 students for the Bachelor of Health Sciences degree reached the first year, increasing by 15 students each year through the fifth year. Five students will receive the degree the first year, with an additional five each year, reaching an annual total of 25 Health Sciences graduates at the end of the fifth year.

- Overall enrollment of the Evening College increased by 4 percent through the Bachelor of General Studies program by 2002.

Pierre Laclede Honors College

Mission

The primary goal of the Pierre Laclede Honors College (PLHC) is to enrich the educational experiences of its students by providing a challenging curriculum based chiefly on the traditional disciplines of the arts and sciences. With this goal in mind, it admits well-qualified and highly motivated undergraduates who have the potential to act as producers, rather than consumers, of their education. The Honors program encourages students to cultivate their creative capacities through a seminar-based pedagogy where written and spoken arguments are judged not on the status of the producers but on the quality of their ideas and the firmness of their foundation in academic work, critical thought, clear expression, and personal and cultural experience. Thus PLHC seeks to foster an intellectual climate in which democracy, diversity, and meritocracy are fundamental, coequal values and to produce graduates whose liberal education readies them for a lifetime of learning in, and from, a democratic, diverse, and meritocratic society.

From this primary goal spring several others:

• To serve the whole University as a laboratory for educational innovation in terms of delivery, methodology, and subject matter.

• To encourage critical thinking in the University about new departures in the general education requirement.

• To cultivate undergraduates' capacity to undertake independent study and supervised research.

• To exploit the University's location by offering the city as a subject for study, a resource for study, and a source of cultural enrichment.

• To reinforce the University's international studies and national student exchange programs by offering its courses to exchange students and encouraging PLHC students to participate in exchange programs.

• To advance the University of Missouri's urban land-grant mission through offering a high-quality liberal education to a diverse student population and to assist the University's efforts to recruit highly qualified students for all its divisions.

Operating Principles

The Pierre Laclede Honors College (PLHC) was founded in 1989 as an outgrowth of an older Honors Program. It is located a short distance away from the main UM-

St. Louis campuses in the former Incarnate Word Convent. Thus PLHC enjoys the unusual benefit of having its own "campus," including classrooms, social common-room space, a residential wing and floors currently housing about one-third of the student body, a study resources area housing a computer laboratory and a reference library, and an outdoor swimming pool. PLHC has a permanent staff of four (dean, associate dean, lecturer/admissions officer, and department assistant). PLHC depends upon paid student labor for reception purposes and supervising the resources areas. Most admissions work and advising are done by the permanent staff. About 80 percent of PLHC seminars are taught by full-time faculty (whose departments are compensated) and adjunct faculty (who are generally paid directly). The dean, associate dean, and lecturer also teach in PLHC. Teaching loads vary according to the number of students and their course choices in and out of PLHC, but in the last academic session (1997-1998) 38 faculty delivered 45 honors seminars to 265 students. Since January 1990, PLHC has produced over 150 University graduates, a number that will now rapidly expand along with increased enrollments.

The Honors College delivers a four-year and a two-year (for transfer students) curriculum to 298 undergraduates (estimated enrollment for August 1998). Almost all courses are taught in PLHC, and most are developed for Honors students and restricted to them, although PLHC welcomes proposals from departments for crosslisted courses at junior and senior levels. Students spend about one-third of their time taking Honors courses (39 credit hours are required in the four-year program, and in 1999 the minimum will increase from 18 to 21 credit hours in the two-year program). Both programs require at least six credit hours of independent study or supervised research, usually undertaken at junior or senior level. All PLHC students use their Honors courses to meet their general education requirements, and an increasing number use Honors courses to meet major, minor, and certificate requirements. These latter students often, and all students may, take more than the minimum credit-hour requirement in Honors. Other than the two "symposium" courses (Honors 20, required of all freshmen, and Honors 210, required of all junior transfers) and the six-credit independent study/research requirement, all Honors courses are seminar courses limited to between 5 and 15 students.

Honors students major in every division of the University. About 40 percent major in the humanities or social sciences, and 33 percent in the sciences, mathematics, or

computing, and the rest are distributed between business, education, and nursing. In August 1998, PLHC admitted its first engineering students and instituted a seven-year program in Honors and optometry. Students are well-qualified. Entering freshmen in August 1997 averaged 29.15 on the ACT, the 91st percentile in their high school class, and a 3.56 GPA. Most transfer students come from community colleges, where typically they belonged to Phi Theta Kappa (a national honor society) and averaged 3.70 in GPA. Other considerations used in admissions policy are school and extracurricular activities, assessment of recent writing, interview performance, and the desirability of providing all students with the benefits of belonging to and studying with a culturally diverse student body.

Nearly every Honors student in good standing receives scholarship help from PLHC, and most also enjoy scholarship support from the University. The amount of Honors College scholarships is merit-based and awarded according to potential on entry and continued according to post-entry performance. Honors scholarships can be increased given exceptional achievement, and any student may apply for increased funding at the end of each academic year. PLHC scholarship support averaged $1,500 per student in 1997-1998 (a figure which does not include the separately financed Honors College Residential Scholarship, Curators', and other scholarships). Honors College scholarships are renewable for up to five years for entering freshmen and up to three years for entering transfers, as long as the student maintains a GPA of at least 3.20 (the University minimum for graduating with Latin honors) and maintains full-time status in the Honors program. Students who fall below these requirements are normally placed on probation and may lose all or part of their PLHC scholarship funding while on probation. Probationers continue in the Honors program and are counseled on how to improve their work, although typically probation can last for no more than two consecutive semesters. The attrition rate (students excluded from the Honors program for academic reasons) is relatively low, running at about 5 percent.

Given these requirements, it is no surprise that most Honors graduates receive Latin honors. In addition, their completion of the Honors program is specifically recognized at graduation ceremonies and on their official transcripts.

Vision

Enrollment and Scholarships

By 2002-03, the Honors College plans to double its enrollment. In the process, it aims to increase the proportion of minority students to at least 10 percent (from the current 7 percent), to increase the number of students from outside the St. Louis region and outside Missouri, to maintain its current faculty-student ratio, and at least to maintain the quality of its student body as measured by entrance qualifications (see above). It intends to maintain the tradition that all Honors students in good standing should receive some scholarship support directly from PLHC.

Curricular Development

PLHC's main aim is to create a distinctive and progressive school of liberal education in the challenging setting provided by an urban land-grant University. While maintaining its allegiance to traditional definitions of liberalism in education, it needs also to meet the specific needs of its students and to discover ways in which an Honors education can better serve this university as it is and as it develops in the future. Among specific aims are the following:

- To augment its offerings in science and mathematics with a certificate program in science studies and to incorporate the sciences and mathematics in its core courses of Western Traditions (Honors 101) and Critical Analysis (Honors 30).

- To develop curricular concentrations to enable Honors students to structure their Honors education in line with their developing intellectual and/or career interests, for instance in preprofessional studies.

- To establish Honors-based programs that will address the particular needs of PLHC students majoring outside the College of Arts and Sciences (in business, education, engineering, and nursing).

- To deepen and extend the Honors program's ties with the City of St. Louis to foster students' understanding of the city and of its educational and cultural assets.

- To devote a substantial proportion of its scholarship budget to the establishment of programs in undergraduate research, supporting both individual research projects and research seminars.

- To serve its own curricular aims, and the University's, by instituting a program of regular conferences and workshops on the idea of a liberal education and how best to deliver it in both an Honors and general university context.

Situational Analysis

PLHC enjoys the enthusiastic support of University administrators and faculty and is regarded as an asset for all divisions of the University, one which deserves significant budgetary support. The College enjoys a pleasant physical situation and is attractive to applicants who visit the campus. Many faculty enjoy teaching in the Honors program, noting especially the quality of the student body, the small size of Honors seminars, and the general principles and goals of the curriculum. The majority of Honors students endorse the faculty view and are effective ambassadors for the College in its recruitment efforts on and off campus. These are valuable assets, but they need to be cultivated through regular review mechanisms, strengthened through adequate information systems, and there are areas of concern which must be addressed.

Review Mechanisms

Institutional Evaluation and Monitoring

The University oversees PLHC through normal processes of course accreditation, budgetary control and review, the structural responsibility of the dean to the Vice Chancellor for Academic Affairs, and the dean's and associate dean's *ex officio* memberships on appropriate councils and committees. Internal reviews of the Honors program led, in 1991, to appointment of a dean (in place of a director) and, in 1994-1995, to a site visit and evaluation by and outside consultant (RR: File 96, Honors Outside Consultant Report). Another review is planned for 1999-2000.

Evaluation and Monitoring of Students and Courses

Internal evaluations take place within the general requirements of individual freedom, especially freedom of inquiry and freedom of expression for both faculty members and students. To remain in good standing, PLHC students must maintain a 3.2 GPA. The bases of assessment are made clear to students in general terms (attendance, preparation, contribution to discussion, etc.), and each faculty member informs students about the particular assessment standards and rules of his/her course. In addition, PLHC evaluates all courses on a semester-by-semester basis through a student questionnaire. Questionnaires are tabulated by the dean and associate dean and reported to teaching faculty. Where it is desired by either the dean or the faculty member, a more in-depth review of a particular course may be instituted.

Public Information

The Honors College is publicized in general University publications, including the admissions *Viewbook* and the *University Bulletin*. Admissions and financial aid counselors are also kept informed about the Honors College and its program, and a special liaison team has been assigned to the Honors College by the Office for University Development. The Honors College's main vehicle for disseminating information about itself has been its admissions *Viewbook,* major revisions of which were produced in 1993 and 1996 (RR: File 97, Honors *Viewbook*). A further revision will be completed by June 1999.

Identity Gap

To meet its challenging goals in admissions and enrollment, curriculum development, and service to the University and to capitalize on its assets, the Honors College needs above all to ensure that it possesses sufficient administrative and teaching resources and a clear and widely endorsed vision of its ends and means.

While more funding would be welcome and is particularly necessary for development of the Honors College's physical facilities (see below), the current additional provisions in Mission Enhancement must be regarded as generous in relation to other divisions of the University.

The appointment of a lecturer and admissions officer in May 1998 is helping PLHC to meet the administrative burdens implicit in its challenging admissions goals and better to plan delivery its core first-year curriculum. As enrollment increases, further appointments to the Honors College will be sought, whether by internal shared positions or new hires, to reinforce the retention and counseling responsibilities and to ease the demands of providing courses.

PLHC will and should continue to depend primarily on other divisions of the University for courses, curriculum development, and service. To ensure that this is forthcoming, the College must reinvigorate its functional relationships with University faculty, departments, and divisions.

An essential first step is to reiterate and to place before the University community and Honors students PLHC's aims, rules, and functions. This *PLHC Student-Faculty Handbook* (RR: File 98, Honors *Handbook*). will be given to all Honors students and active Honors faculty.

It has been circulated to all deans, all division and department heads, and appropriate administrators in the offices of Academic and Student Affairs.

To ensure adequate scrutiny of this *Handbook* and to ensure that it and the Honors College keep pace both in principle and in practice with developments elsewhere in and outside the University, an Honors College Advisory Board will be established, to consist of representatives of active Honors faculty, Honors students, and appropriate divisions of the University.

Additional funding needs to be secured in several areas, notably for physical plant (on-site computer and reference resources as well as classroom space), residential facilities (necessary to attract greater numbers of freshmen), and scholarship support (especially in the area of undergraduate research). Funding will be sought from within the University of Missouri-St. Louis and the System (as appropriate in conjunction with other divisions of UM-St. Louis), but some funding will have to come from external sources.

Performance Benchmarks

Many performance benchmarks are explicit or implicit in the Mission and Vision sections of this report. Of those which can be quantified, the important ones are:

- To increase enrollment to 600+ by 2002-03, including at least 10 percent minorities, and to maintain current entry qualifications.

- To continue to house on-site at least one-third of the Honors student body.

- To maintain Honors College scholarship support for all students in good standing but to fall to an average level of 20 percent of tuition and fees by 2002-03.

- To keep attrition rates below 10 percent in each identifiable student cohort.

- To maintain Honors curriculum requirements at the current minimums and to deliver them primarily in seminar classes numbering between 5 and 15 students.

- To develop disciplinary, interdisciplinary, or preprofessional concentrations in Honors to enable students to plan their Honors curriculum in advance and over periods of years.

- To develop undergraduate research with the objective of involving at least 50 percent of Honors students in at least three credit hours of funded, supervised research before graduation or participation in at least one undergraduate research seminar in Honors.

Barnes College of Nursing

Mission

The mission of Barnes College of Nursing at the University of Missouri-St. Louis is to improve the health of people through the generation, dissemination, and application of knowledge. Through baccalaureate, master's, and doctoral studies and continuing education programs, the College shapes the future of nursing practice by developing nurse leaders who are dedicated to lifelong learning. These goals of the Barnes College of Nursing are completely congruent with the goals of the University:

Maintaining high-quality, affordable undergraduate nursing education.

- Promote admission practices consistent with selecting well-qualified students from diverse populations in all academic programs.
- Increase the number of tenure-track positions to support instruction in the undergraduate program.
- Facilitate seamless transition to baccalaureate nursing education programs for transfer students.
- Develop a financial plan to sustain an affordable undergraduate program.

Enhancing and expanding nationally competitive graduate nursing education for the St. Louis Region.

- Promote seamless transition of students into graduate programs.
- Increase the size and diversity of the doctoral program applicant pool.
- Develop an environment that is supportive of international students.
- Recruit and retain talented tenure-track faculty with funded programs of research and scholarship.

Contributing to the economic development of the St. Louis region.

- Form partnerships with educational and cultural institutions in the St. Louis metropolitan region.
- Collaborate with BJC Health System to enhance evidence-based, cost-effective nursing practice.
- Explore opportunities for faculty to provide cost-effective health care through faculty practice.
- Provide cost-effective continuing education for the professional nursing community.

Building partnerships with educational and cultural institutions in the St. Louis region.

- Explore opportunities to form partnerships with St. Louis regional cultural institutions to promote the health of the people of St. Louis.
- Explore opportunities to form partnerships that facilitate nursing scholarship.
- Explore opportunities to "showcase" the relationship between health and the arts.
- Build partnerships with early childhood and K-12 institutions to enhance health of school-age children.

Providing access to higher education through distance learning and educational centers.

- Strengthen nursing education opportunities in selected outreach centers.
- Acquire and use technology to enhance and support teaching, learning, scholarship, and services.
- Develop and improve support services for users of existing and emerging technologies.
- Develop an environment that supports distance learners.

Becoming a Carnegie Research II University.

- Increase the number of full-time nursing doctoral students.
- Increase the research productivity of the nursing faculty.
- Build a culture that supports and rewards faculty research and scholarship.

The College of Nursing's mission clearly supports the University's goal of meeting the diverse needs of the metropolitan and outreach communities through the provision of both undergraduate and graduate programs of study designed to meet the health care needs of the region. Ongoing review and revision of the College's academic programs ensure that these programs address changes in health-care delivery and nursing education. The College of Nursing mirrors the University's commitment to partnerships through its strong partnership with BJC Health Care System, as well as collaborative graduate programs offered in conjunction with University of Missouri-Kansas City and University of Missouri-Columbia Schools of Nursing. The College's commitment to advanced technologies is evidenced through its extensive use of interactive telecommunication to provide formal programs of study to outlying communities as well as an increasing use of Internet-based courses. Furthermore, a historic and current commitment to outreach education is a major part of the College's program offerings.

The College of Nursing offers a full complement of professional nursing educational programs. The undergraduate program offers two tracks for learners to earn the baccalaureate nursing degree: a four-year program which is preparatory for professional nurse licensure and an upper-division program designed for the professional registered nurse. The Master of Science in Nursing program emphasizes learners' development of clinical expertise in adult, children, and women's health. Graduate students may focus studies in nursing administration, education, clinical specialization, or primary-care practice. Doctoral studies leading to the Doctor of Philosophy in Nursing address three substantive areas: health promotion and protection, health restoration and support, and health-care systems. The College is also approved to offer the clinical nursing doctorate (ND); however, there are no plans to initiate this option at this time because it is felt that the Doctor of Philosophy program needs to be well-established before initiation of a clinically oriented doctoral option. The College also provides a large Outreach Nursing Education program throughout the eastern third of the state. Outreach studies are limited to the undergraduate upper-division program for the professional nurse and the master's nursing option of primary-care practice with the family. Currently, nursing course work is offered on the University of Missouri-Rolla campus using the interactive telecommunication system and at the two approved University Residence Centers in St. Charles and Jefferson Counties.

Operating Principles

Administrative Structure

The College of Nursing's chief academic and budgetary officer is the dean with the associate dean responsible for the overall coordination of the unit. Individual program directors oversee the needs of specific programs and services. Coordinators have been appointed to meet the day-to-day management of selected areas (Figure 4-7). The Dean's Council, composed of the dean, associate dean, and directors, meets weekly to ensure that the work of the College is carried out in a timely, organized manner. The associate dean reports directly to the dean. Directors are responsible to the associate dean, while coordinators are responsible to the appropriate program director.

Unit Structure and Governance

The By-Laws of the Faculty Association provide the mechanisms for faculty governance and communication. Standing faculty committees function to ensure that appropriate policies are in place for student admission,

Figure 4-7 – Barnes College of Nursing Organizational Chart
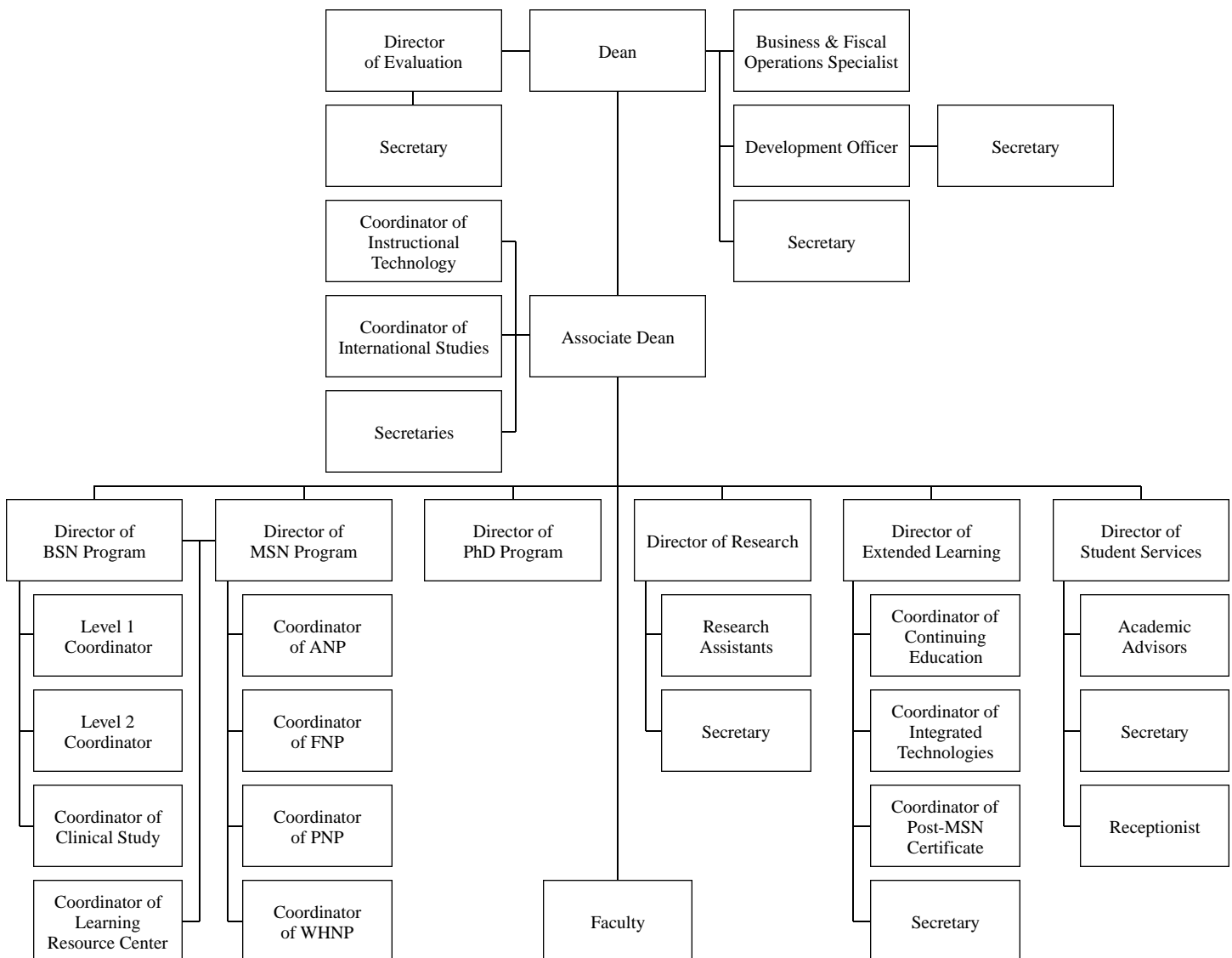
retention, and progression; curricula; library and information systems; faculty affairs; clinical track promotion; and tenure-track promotion and tenure. Voting student representation is encouraged on those committees which address curriculum and student policies. The Faculty Affairs Committee reviews the by-laws periodically to ensure that the roles and responsibilities of faculty governance are clearly defined.

Relationship to Other Academic Units

The dean is a member of the Academic Officers and as such interfaces with the chief academic officers for all units of the University. Full-time faculty holding regular tenured or tenure-track positions actively represent the College of Nursing's positions on standing University Senate committees. Finally, undergraduate and graduate nursing students are encouraged to participate in various University student councils and organizations.

Physical Resources

Faculty and administrative offices are currently housed in the South Campus Administrative Building. Since Fall 1998, all full-time faculty and administrators have had private offices. Adjunct faculty share offices with care taken to assure privacy as needed for interviews and conferences. Staff support is available for both faculty and administrators. Conference rooms are available for faculty and administrative use in the Administrative Building.

Classrooms are primarily located in Seton Center, which is in close proximity to the Administrative Building. Classes are scheduled to make maximum use of the classrooms located in Seton.

Human Resources

During the 1997-98 academic year, the College employed 42 full-time faculty, with 10 identified as tenured or tenure-track "regular" faculty. The remaining 32 faculty hold "nonregular" clinical appointments. Two administrative line positions exist within the College — dean and associate dean. The College includes the Office of Student Services with three full-time advisers in addition to the director. A full-time fiscal analyst works closely with the dean to implement and monitor the College's budget, and a full-time development officer has been employed to increase the College's external support from foundations, alumni, corporations, and individuals. The College also employs five full-time and one part-time secretary.

Fiscal Resources

The College fiscal resources are obtained through three primary sources: educational fees, state support, and external awards. The undergraduate program was added to the University through a merger agreement with BJC Health Care System Inc. in 1994 and has no state monies allocated for its operation. Thus this program is supported through regular and supplemental educational fees. Rate dollars and grant monies account for the support of all other operations within the College.

Vision

During Winter 1998, the College undertook development of a strategic plan based on the overall University plan (RR: File 70, Nursing Strategic Plan).

Relationship to the University's Strategic Plan

The goals of the College are shaped in great part by the University's strategic plan. Efforts to recruit and retain highly qualified faculty and students correlate closely to the University's commitment to "enhance undergraduate programs and services so as to better meet the needs of students and to offer students a richer educational experience" as well as "expand graduate and professional programs, enhance faculty research and creative activity." The University's commitment to increase markedly competitive extramural funding will be realized in part

through development of a nursing research center and addition of senior faculty with established research programs. The College of Nursing is actively involved in the use of advanced technology through its Outreach Program which telecommunicates courses of the upper-division undergraduate program and Master of Science in Nursing family practitioner option to several rural sites in the eastern third of Missouri. Finally, the College of Nursing successfully engages in collaborative graduate program endeavors with the two University of Missouri campuses that also offer nursing programs.

Situational Analysis

Strengths

The College's strengths rest in the breadth of academic programs offered, delivery methods employed, commitment to collaboration, and success of its graduates. The College is the only public institution in the metropolitan area to offer the full complement of professional nursing educational programs. In addition, the success of the College's outreach program demonstrates successful delivery of nursing education to outlying areas in the eastern third of the state and meets the needs of the working professional nurse within the metropolitan area. Collaborative efforts between the College and the Schools of Nursing at Columbia and Kansas City continue at the master's and doctoral levels. Joint grant projects submitted by St. Louis and Kansas City nursing faculty have resulted in federal funding from the U.S. Department of Health and Human Service's Division of Nursing. Finally, graduates of the College are successful in finding employment within the nursing profession.

Aspects Needing Improvement

A major area needing improvement is the number of tenured and tenure-track faculty. Additional senior faculty with established research programs and talented junior faculty with strong research potential are essential. State support of the basic undergraduate program is critical if the College is to support a large, high-quality undergraduate option. Library resources, while adequate for the undergraduate programs, need to be enhanced at the graduate level. Finally, efforts need to be made to improve the undergraduate curriculum to increase the percentage of successful first-time candidates on the professional nurse licensure examination; that percentage is currently 78 percent, while the national norm is 82 percent.

Program Evaluation

The College of Nursing has a comprehensive program evaluation plan that is used to determine areas of strength and concern. Student evaluations of courses and faculty are conducted each semester (RR: File 100, Nursing Course Evaluation Form). Graduate surveys are conducted six months after graduation (RR: File 101, Nursing Graduates Survey). Patterns in student and graduate comments have led to changes in the program of studies as well as in deployment of resources.

The College has taken steps to ensure that high-quality students are admitted to the programs. Enrollment is carefully monitored, with a total of 70 admitted to the basic program, 73 admitted to the BSN completion, 67 admitted to the master's program, and 5 accepted to the Ph.D. program in Fall 1997. Admission profiles show that students exceed the minimum requirements for acceptance.

A total of 144 students received the Bachelor of Science in Nursing in 1997-98, while 46 received the Master of Science in Nursing during the same period. There have been no graduates yet from the doctoral program, which was initiated in Fall 1994, although several students have been advanced to candidacy.

Faculty published 15 manuscripts in 1997-98, all appearing in refereed journals. In addition, four abstracts, one book, and four book chapters were published during the 1997-98 year. Funding efforts reveal that 41 grants were submitted, with 18 successfully funded. The College has established a partnership with the leading health-care provider in the state (BJC Health Care System Inc.) and is exploring other partnership opportunities with other providers in the area. Faculty service to the community is realized through faculty practice and collaboration with area health-care programs.

Identity Gap

The College has revised and implemented an organizational structure that will facilitate meeting the College's mission. Of major concern is the small number of faculty occupying regular positions in relation to the number of nonregular appointments. A comprehensive analysis of faculty resource needs has resulted in reduction in the number of full-time nonregular (clinical) faculty for 1998-99 from 32 to 22. In addition, the College has successfully recruited a nationally known nurse researcher to join the faculty as a full professor in Fall 1998. Efforts need to continue to convert clinical track

positions to tenure-track slots and recruit well-qualified faculty for such positions. It is felt that with the increase in tenured and tenure-track faculty, external funding will improve. Also of concern is the passage rate for first-time candidates on the professional nurse licensure examination. While admission and progression standards have been improved, the desired 90 percent passage will take four or five years to achieve.

Strategic Directions

The arrival of a new dean in Fall 1997 marked the beginning of a concerted effort to advance the College of Nursing in several major areas. The College's Strategic Plan has been reviewed and revised to ensure that the goals of the College can be accomplished. Mission Enhancement monies have been designated for the College and will be used to recruit and retain senior faculty as well as ensure that faculty support is in place for research activities. In addition, evaluation of the overall organization of the College has been undertaken and the evaluation process has been revised. Enrollment in all programs is being carefully monitored to ensure that quality is not compromised. The number of undergraduate courses taught by full-time regular faculty has increased.

Performance Benchmarks

The following benchmarks have been identified as desired accomplishments within the next five years:

- Enrollment will be carefully monitored by regulating admissions to each program over the next five years.
- Basic undergraduate enrollment will be maintained at 350-375 students.
- B.S.N.-Completion will slowly increase to approximately 125-150 actively enrolled.
- M.S.N. enrollment will remain constant at an average of 225-250.
- Ph.D. enrollment will be maintained at 40-50 students actively pursuing studies with a target of 6-8 graduates receiving doctorates each academic year.
- Admission and progression standards will be rigorously enforced, resulting in an increase in overall retention and higher percentage passage on national certification examinations for appropriate groups (professional licensure for basic baccalaureate track will achieve first-time passage rate of 90 percent or better, and certification for master's prepared nurse practitioners will achieve first-time passage rate of 90 percent or better).

- A minimum of 50 percent of the College's full-time faculty will be tenured or on tenure track by 2002.
- External funding will be increased with an average of $750,000 generated by 2002.
- Outreach programs will continue to be provided throughout the eastern third of the state and will be increased by 20 percent by 2000.
- Efforts will concentrate on increasing the availability of programs which use a variety of technologies, with at least 50 percent of the College's courses having significant learning activities completed via the Internet by 2001.
- A coordinator of Continuing Education for the College was hired in 1998. A formal program of noncredit offerings will be operational with a full complement of programs available by 2002.

School of Optometry

Mission

The mission of the University includes graduate and professional education, leadership in the health professions, outreach, and public service. These are the core elements of the mission of the School of Optometry, which is consistent with the overall mission of the campus.

The School of Optometry is a full partner in the campus community. School of Optometry faculty interact and share research opportunities with their colleagues. Its student organization, the American Optometric Student Association, is integrated with the other campus student organizations. The School of Optometry participates in the governance of the campus through its faculty's participation in the campus committee structure and through administrative function. The School supports campus initiatives and programs and shares in the fiduciary health and welfare of the campus. On a practical level, the School provides eye and vision care for the entire campus community.

The School of Optometry is a partner with the Pierre Laclede Honors College in a new seven-year program and continues to support a pre-optometry undergraduate curriculum.

The major goals of the UM-St. Louis School of Optometry are:

- To provide students enrolled in the professional degree program with a high-quality optometric education.
- To offer full-scope primary eye care to the citizens in the community.
- To contribute to the knowledge base in vision science through both basic and clinical research.
- To offer graduate-level education to students interested in a career in vision science research, optometric education, or both.
- To offer faculty the proper environment and resources for their professional growth and development.
- To provide high-quality continuing education for practitioners from the city, state, and region.

For optometry students to become competent primary vision-care practitioners, they must be well-educated in basic health science, vision science, and clinical science. They must be able to perform a complete eye and vision examination, formulate an accurate diagnosis of their

patients' problems, and devise and recommend appropriate treatment options. They must have well-developed communication skills, be capable of relating to and caring for patients of all ages, from all socioeconomic and cultural backgrounds, and appreciate the public-health aspects of vision care. Graduates should have appropriate skills in practice administration. In addition, they should have acquired the desire and ability to remain current technically, scientifically, and clinically to keep pace with a growing and developing profession. Primary-care optometrists must prescribe and fit glasses and contact lenses, treat patients with binocular vision and perceptual-motor anomalies, care for the partially sighted, and diagnose and treat ocular diseases. Primary-care practitioners should make appropriate inter- and intra-professional referrals. Graduates should be sensitive to the necessity of conducting themselves in a professional manner, including placing the needs of their patients ahead of personal considerations.

To accomplish these goals, the School must have a highly qualified faculty possessing the intellectual ability and training necessary to teach effectively, to provide the highest-quality patient care, and to make significant contributions to the literature. Faculty should have a strong commitment to teaching, research, and service consistent with the mission of a program affiliated with a major university.

Objectives

The major objectives of the University of Missouri-St. Louis School of Optometry are to:

- Choose highly proficient and motivated students and, through their participation in a program of academic excellence, graduate highly qualified doctors of optometry.
- Provide the students enrolled with a thorough knowledge of the sciences and humanities so as to enable them to provide high-quality vision care.
- Develop clinical programs that provide high-quality vision care and serve as a secondary referral center and consultant for area vision-care providers.
- Instill in these students professional attitudes and standards concerning the practice of optometry and the delivery of vision care to the public.
- Produce in them a thorough understanding and appreciation of scientific analysis and procedures permitting both the evaluation of basic and clinical research findings and the performance of scientific research.

- Provide the appropriate environment to foster the students' awareness of their role in the health-care delivery system through a consideration of public health issues.
- Foster in the students a desire to participate in post-graduate educational programs in visual science or residencies in clinically applied areas, or both.

Program Description

The School of Optometry has a four-year professional program that leads to the Doctor of Optometry degree. Although not required for admission, almost all students have at least a bachelor's degree. Students must pass national and state licensing examinations to be eligible for optometric practice. The curriculum is similar to other optometric and health professions programs that are heavily science-based the first year, pre-clinical in the second year, clinical and didactic in the third year, and entirely clinical in the fourth year. The fourth year is spent in six externships. Some of these include Veterans' Administration hospitals, Indian Health Service facilities, private optometric and ophthalmological practices, co-management centers, military installations, and other academic institutions. With approval from the director of externships, students may select their preferred externship sites.

The School of Optometry has a residency program that prepares graduates for careers in clinical practice and teaching in specialty areas of practice. The School sponsors three internally based residencies (Family Practice Optometry, Geriatric Optometry, and Cornea and Contact Lenses). The first two are accredited by the Council on Optometric Education (COE). The School also sponsors six external residencies (three Primary Eye Care at the Veterans Administration Medical Center - Kansas City, one Ocular Disease in St. Louis, one Refractive and Ocular Surgery in Chicago, and one Low Vision Rehabilitation residency at the Lighthouse for the Blind in Chicago). The residencies at the Kansas City VA are also accredited by COE.

The School of Optometry has a graduate program in Physiological Optics, offering master's and doctoral degrees. The master of science program provides research-oriented training beyond that offered in the professional program in optometry. The doctor of philosophy program prepares students as research professionals in vision science. The School has one of only five other programs nationally that offer the Physiological Optics degree.

Operating Principles

History

In 1968 the Missouri Optometric Association first recommended that an optometry school be established in Missouri. A committee was appointed for the purpose of achieving this goal. The Missouri Commission on Higher Education undertook a study of the "optometric manpower needs" in the state. A formal report released in June 1970 documented the need for an increase in the number of optometrists in the state. In 1974 the state legislature approved $50,000 for "the planning phase for the opening of a school of Optometry." As a consequence, the University of Missouri-St. Louis submitted a plan leading to the establishment of an optometry school.

In 1977 a House bill was passed providing for establishment of an optometry school at UM-St. Louis. A state appropriation of $200,000 was approved in 1979, and $1.3 million for capitation and start-up funding was obtained from the federal government for the start of the school. On May 12, 1980, the governor signed a bill authorizing the establishment of the school, and it officially came into existence on June 1, 1980.

The first class of 31 students graduated in May 1984. The presence of the School of Optometry as part of a University system adds that dimension to its program, and its placement in a major metropolitan area allows for the training of future doctors of optometry in a diverse patient population base.

Administrative Structure and Governance

The administration of the School consists of a dean, associate dean, director of optometric services, and faculty coordinator of student affairs (Figure 4-8). The dean is responsible for the academic aspects of the program and financial management of the School of Optometry. The director of optometric services is responsible for the orderly operation of all of the School's clinical operations and the professional education of optometry students. The faculty coordinator of student affairs is responsible for student recruitment and retention and registration.

In addition, some faculty have administrative duties in specific areas of the program: the director of residencies, the director of the graduate program, and the director of externships. Clinical administration is further divided on

Figure 4-8 – School of Optometry Organizational Chart
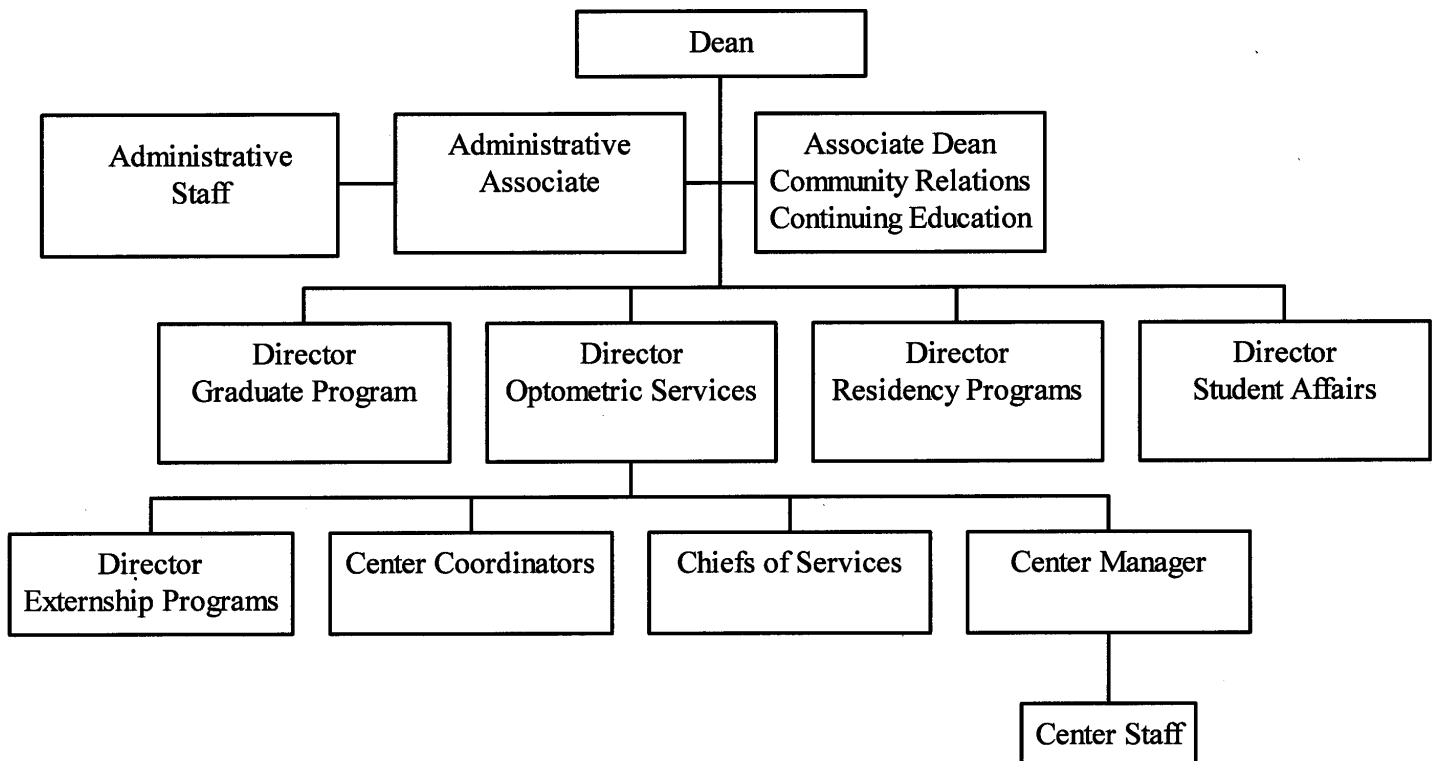
the basis of optometric specialty care: chief of pediatrics/binocular vision services, chief of contact lens services, and chief of low-vision services.

There are 11 faculty committees: Faculty Steering, Curriculum and Instruction, Faculty Search, Library, Budget and Planning, Educational Policy, Clinic Policy, Physical Facilities, Tenure and Promotion, Academic Promotions, and Admissions Committees. The Steering Committee, which is elected by the faculty, serves as a nominating committee for the faculty committee membership. Each committee, after appointment, elects its own chair. The only exception to this is the Tenure and Promotion Committee, which consists of all tenured faculty.

There are two Schoolwide meetings of the entire faculty and staff each academic year. Faculty meetings are held at least monthly. The chairs of the Faculty Steering Committee and the Budget and Planning Committee meet with the Dean monthly.

The School of Optometry has 11 regular faculty and a full-time equivalent faculty of 24, with a similar number of staff. Eight faculty are members of the Doctoral Faculty. The majority of the staff work in the clinical facilities operated by the School. As the only professional program at UM-St. Louis, and without an undergraduate component, the School of Optometry is unique at the UM-St. Louis campus. The School of Optometry is one of only 19 North American schools, and one of 17 members of the Association of Schools and Colleges of Optometry.

Vision

As primary eye-care providers, Doctors of Optometry must be competent to provide traditional optometric services, such as the remediation of optical defects of the eye through appropriate diagnosis and prescription of glasses, contact lenses, and specialized optical aids for the visually impaired; optimization of the visual performance of the individual; and the evaluation and treatment of eye movement and binocular vision anomalies. They must also be able to evaluate the health status of the eye and visual system, recognize and appreciate the ocular signs and symptoms of systemic diseases, and provide treatment of eye diseases. All of these abilities must be reflected in the educational program. The rapid expansion of the scope of optometric practice has placed an added challenge on the curricula of all schools and colleges of optometry. The optometric educational

program not only must encompass the specialized knowledge and technical capabilities necessary for the practice of optometry but also must offer curriculum elements and experience that will enable graduates to be effective in the delivery of eye and vision care in the health-care system structure.

The current goals and the strategic plan of the School of Optometry focus on four major areas, each with plan elements and subgoals:

- Enhance student-related activities and services through heightened awareness of professional responsibilities and opportunities among students and faculty, promotion of a school identity that supports the recruitment of qualified applicants, and an increase in scholarship and financial aid support for students.

- Enhance the professional program through an increase in patient care opportunities for students, initiation of planned replacement of examination room equipment at the clinical locations and pre-clinic, enhancement of classrooms and laboratories, development of critical thinking skills in support of lifelong learning, merger of new technologies with the School's educational and patient-care programs, including continuing education, initiation of a development and fund-raising program, and strengthening of relationships with local (St. Louis Optometric Society), state (Missouri Optometric Association), and national (American Optometric Association, American Academy of Optometry, College of Optometrists in Vision Development, Association for Research in Vision and Ophthalmology, American Public Health Association) organizations.

- Enhance postgraduate education programs through expanded accredited internal and external residency positions and an expanded graduate program.

- Increase grant-writing activity and level of research funded from outside sources through a faculty development program, System Mission Enhancement funds, and research faculty additions.

The strategic plan of UM-St. Louis has several components by which the School of Optometry has been influenced. The desire to enhance undergraduate programs and services has influenced the development and implementation of the School of Optometry-Pierre Laclede Honors College Scholars program, the commitment to continue the 3+4 program with the Department of Biology, and an expansion of the School's participation and involvement with recruitment of pre-optometry undergraduate students.

The University's plan to selectively add and expand graduate and professional programs, enhance faculty research and creative activity, and increase external funding has led to the development of a combined post-graduate clinical fellowship-graduate degree program in optometry, increased recruitment efforts of qualified applicants, continuation of efforts to attract qualified international students for the graduate program, a plan to increase the number of faculty with experience in acquiring external funding for research, and institution and support of a faculty development program in grant writing, including seminars, workshops, and lectures.

In addition, the University's plan to further the land-grant mission by contributing to the economic, social, educational, and cultural development and enrichment of the metropolitan region and the state has led to a plan to expand the community outreach of the School of Optometry, including enhancement of the clinical-care facilities operated or staffed by the School of Optometry, increasing the use of current technology in the practice of optometry, expanding educational programs on the importance of vision care to the community, and developing an interdisciplinary health-care delivery program for citizens of the metropolitan area.

Situational Analysis

The strength of the School of Optometry is its productive, experienced, and professionally recognized faculty, its nationally representative and well-qualified student body, and its dedicated staff. The small class size of the school is an important strength in the recruitment of students. Most of the other schools and colleges are much larger, but many students prefer a smaller environment with much greater opportunity for faculty interaction. Competition for seats in the entering class is competitive, with an average annual applicant-to-seat ratio usually in the range of 7 to 9. The location of the School of Optometry's clinical sites, all within the metropolitan area, offers both students and faculty a diverse patient population. In addition, its participation in community health centers offers multidisciplinary interactions, all invaluable experiences. The extensive externship program provides students the opportunity to visit many different patient-care delivery alternatives, and their choice of sites allows an elective portion of their clinical training.

The School of Optometry faces the same challenges as other health-care providers created by the change from a fee-for-service delivery system to managed care. The potential erosion of patient base, the reductions in reim-bursement rates for services and materials, and the need for an expanded clinic administration and staff infrastructure are concerns. The educational fees required to attend the School of Optometry are among the highest nationally for nonresident students, some of whom have been lost to other schools and colleges. The question of future workforce needs in optometry remains unanswered. Although there is a clear and undeniable trend in the loss of solo private practices, there has been corresponding growth in multiple-practice, interdisciplinary practice, and commercial practice opportunities. At this time, there are sufficient placement opportunities for new graduates.

The School has responded to these challenges by instituting strict financial controls on spending throughout the program, by internally reallocating to enhance productive parts of the program, by becoming members of managed-care-provider panels, by seeking other clinical practice opportunities and patient populations for education of optometry students, by instituting a faculty (and staff) development program to enhance productivity, and in the case of faculty, competitiveness for outside funding opportunities.

The student body for the 1998-99 academic year numbers 173 (42 first year, 44 second and third year, 43 fourth year). For the past two academic years, the School has had entering classes of 44. In the past, these have been 40. In 1998, 38 students graduated. For the 1997-98 academic year, there were 414 applications for 44 positions, and 434 for 1998-99.

As one measure of the quality of the program, graduates from the School of Optometry are almost universally successful in receiving full licensure to practice in the state or province of their choice. Students continue to perform at or above the mean in the nationally administered and normed National Board of Examiners in Optometry sequence of examinations. Existing information shows that almost all of the School's graduates continue to practice optometry.

For the 1997-98 academic year, the 11 (one faculty member was on a one-semester leave) full-time, tenured/tenure-track faculty of the School of Optometry produced 23 refereed publications, 5 book chapters, and 1 published book. They served on 15 editorial or review boards, gave 28 invited presentations, 26 continuing education courses, and 9 public service presentations. They submitted 19 grant applications, of which 15 were funded for a total of $142,846 and 4 are in review.

All members of the School of Optometry administration engage in some aspect of operation of the unit, including teaching courses, teaching in the clinical program, engaging in active research, and serving on committees. This strategy has allowed the administration to be in continued contact with faculty, students, and staff and to understand and meet the needs of those constituencies.

Recent and continued reorganization of the Office of Student Affairs has enhanced services for both students and applicants, particularly in the area of financial aid, an important element for optometry students because of the magnitude of their educational fees. The development of the Website, with information from schedules to faculty e-mail addresses, has greatly aided communication. Services to patients in the clinical program have greatly benefited from a more experienced and better-trained staff, operational organization, and the beginnings of a quality assurance and improvement program.

Physical facilities for the School of Optometry are marginally adequate. The construction of two large new classrooms for the Fall 1998 semester greatly enhanced the learning environment. Space for the on-campus clinic is adequate overall; however, the need to retain medical records for extended periods and increases in the number of records have placed a strain on storage space, which may be alleviated by the intended construction of increased storage space adjoining the new classrooms.

Financial Resources

The budget for the School is derived from three sources: educational fees, clinical revenue, and state appropriations. This funding has remained basically stable within categories, and has increased by about 4% a year over the past two years. In FY1999, $3,683,054 came from educational fees and clinical revenue, and $1,153,761 from state appropriations.

Community Services

The School of Optometry operates three major clinical facilities that serve the public of the metropolitan St. Louis area. One facility is located on the first floor of Marillac Hall on the south campus of UM-St. Louis. The second facility is housed in its own building in the Central West End of the city of St. Louis. The third is a suite of rooms in a facility operated in East St. Louis, Illinois, by the Southern Illinois University at Edwardsville. Combined, these facilities have about 30 primary-care examination rooms and are equipped to provide extended services and testing capabilities.

In addition, the School of Optometry provides vision care in several community health center facilities in the St. Louis area: Family Care Health Center, Comprehensive Health Center, Grace Hill (Cochran), New Life Evangelistic Center (a health-care facility for the homeless), La Clinica, and several nursing homes.

Partnerships

The School of Optometry has significant partnerships with agencies and institutions in the metropolitan St. Louis area. In addition to the direct patient-care activities at the neighborhood health-care facilities listed above, the School provides patient services for reduced fees with the following public organizations: Medicaid of Missouri, Health Care for the Homeless, Lion's Clubs, St. Louis Society for the Blind and Visually Impaired, Normandy School District, St. Louis City School District, Special School District of St. Louis, Jennings School District, Defense Mapping Agency, and Department of Vocational Rehabilitation.

In addition, the School has partnerships with local and national professional organizations and clinical practices. They are Eye Health Care Associates, Midwest Eye Institute, Ophthalmic Education Institute, Optometric Extension Program, Southern Illinois University at Edwardsville, Washington University, St. Louis University, University of Missouri-Columbia, Family Medicine of St. Louis, O'Donnell Eye Institute, Missouri Eye Institute, and Laser Vision Centers. These partnerships are diverse; they include sponsorships and funding of optometry residencies, continuing education, clinical co-management of patients with ocular disease, and professional and postprofessional educational programs.

Strategic Directions

The School of Optometry must change its clinical program from a fee-for-service to a managed-care environment and prepare students to practice optometry in the 21st century. It must raise consciousness in fund raising, external funding, and pursing other revenue sources, including revenue generated from patient-care activities. All of these create a need for greater investment in the clinical infrastructure, including administration, staffing, and operations and the need to enhance quality assurance and improvement programs.

Although the basic mission of training optometrists remains the same, this must be done with the integration of emerging diagnostic technologies and instructional technology.

Another strategic change in the School of Optometry is a need to move in the direction of more interdisciplinary clinical experiences for students. For generations optometrists have practiced in isolation, but changes in the health care system and in the scope of optometric practice make it essential that students' training involve substantial interaction with practitioners in other health care disciplines. While these sorts of outreach programs have become a commonplace of medical education, they are still novel on the UM-St. Louis campus, and that has slowed the implementation of the School initiative.

There must now be an emphasis on the diagnosis and management of ocular disease along with the need to keep the graduates fully versed on the traditional skills, for example, refraction, contact lens fitting, and binocular vision therapy. The School of Optometry must change and keep pace with the evolution of the profession into expanded areas of responsibility.

The School of Optometry has also moved in the direction of enhancement of its graduate program, including plans to expand its doctoral faculty. The number of doctoral students has increased and will continue to increase with greater levels of outside funding to help support those students. A combined clinical residency-graduate degree program has been initiated.

The School has not obtained external funding sufficient to maintain a vigorous research program or to support a viable graduate program. The primary responsibility of the new dean will be to increase external funding for research and graduate education.

Benchmarks

The principal outcome measure for the School is the national board examination, developed, constructed, and administered by the National Board of Examiners in Optometry. The students of the School have traditionally performed at or above the national averages for nearly every NBEO administration since the inception of the School. See Chapter 5 for details on assessment of student learning.

- Graduates will continue to exceed the national averages on percentage of graduates passing all parts of the National Board Examinations on the first attempt.

- Within five years, at least eight students will be enrolled in the Optometry-Honors program.

- Within five years, with the assistance of the Office of Student Affairs, the number of pre-optometry under-graduate students will increase by 50 percent.

- At the end of five years, scholarship disbursements will be increased by 25 percent.

- Within five years, 25 percent of the optometry curriculum will be taught in alternative formats, including problem-based learning.

- Within this time frame, at least 25 percent of optometry courses will be supplemented by electronically supported learning materials.

- Within five years, the amount of externally funded research will increase by 500 percent.

- Within five years, the number of doctoral students will increase by 200 percent.

Graduate School and Office of Research Administration

Mission

Graduate education and research are intimately related. The Graduate School, in association with the Graduate Faculty, is responsible for the quality and integrity of graduate programs, development of new graduate programs, and administration of all graduate degree and certificate programs. The Office of Research Administration (ORA) assists faculty and graduate students in identifying funding sources and submitting successful proposals for external funding. The ORA is also responsible for administration of all grants and contracts and assuring University compliance with sponsors' requirements, federal regulations, and ethical treatment of human and animal subjects. The Graduate School and ORA continuously strive to improve service to the University and region while maintaining a commitment to excellence and quality.

The Graduate School and Office of Research Administration are integral to the mission of the University. Responsibilities for oversight of graduate education support the instructional mission of the University, responsibilities in assisting and coordinating internal and external funding support the research mission, and leadership in economic development supports an essential component of the service mission. As the only public doctoral-granting university in the largest metropolitan area of the state, UM-St. Louis has a particular responsibility to provide affordable doctoral education in all areas in which there exist sufficient faculty strengths, and in which there is sufficient program demand. The University of Missouri System has set a goal of increasing its externally supported research (RR: File 102, System External Funding Enhancement Plan), compared to its peer group of public universities among the American Association of Universities (AAU). UM-St. Louis has also set a goal of achieving Carnegie Research II status. Both of those goals require enhanced activities on the part of all faculty, particularly those in disciplines with a strong potential for external funding, and correspondingly enhanced support of those faculty by the ORA. The extension mission of land-grant universities in the 21st century will be focused on economic development, much as the mission in the 20th century was focused on agriculture. Economic development in the 21st century will be based on knowledge and information, resources that universities are uniquely equipped to provide. Partnerships with local, state, and federal governments and industry for the purposes of economic development are coordinated by the Graduate School and the Office of Research within the research and service missions of the University.

Operating Principles

The Graduate School admits graduate students and monitors their progress. It provides oversight and central administration for all graduate degree programs, in accordance with the Rules and Regulations of the Graduate School (RR: Web 183, http://www.umsl.edu/divisions/graduate/rrbody.html) as adopted by the Graduate Faculty. The Graduate School assists individual units in graduate student recruitment, and administers fellowship funds for Universitywide competitions, Chancellor's Assistantships, and fellowships funded through external funds awarded to the Graduate School. It has oversight for appointment of faculty to the Graduate Faculty and to the Doctoral Faculty. The Graduate School assists individual units in preparing new degree proposals which must be approved by the Graduate Council, University Senate, and Board of Curators before submission to the Coordinating Board for Higher Education.

Interdisciplinary programs in Gerontology and Public Policy Administration report to the Graduate School.

The ORA provides support services to faculty, graduate students, and staff seeking external funds for research, instruction, and service from federal, state, and local government programs, and competitive grants awarded by private foundations. The ORA provides staff support for the University Senate Committee on Research, which advises on the awarding of campus internal grant funds. It also coordinates all Systemwide internal grant activities. It is responsible for all pre- and post-award grant activities, including assisting with proposal development and submission, monitoring proposal activity, and administering grants and contracts. The ORA has responsibility for compliance monitoring for human subjects (RR: File 103, Human Subjects Assurance), animal welfare (RR: File 104, AAALAC Accreditation Report), biosafety, and radiation safety.

The dean of the Graduate School and the Associate Vice Chancellor for Research has overall responsibility for the Graduate School and the ORA. He is the authorized designee for signing research and service grants and contracts for the University on behalf of the Board of Curators. He is responsible for contract and subcontract negotiations with agencies and any internal or external award rebudgeting. The Associate Vice Chancellor for

Research is also the Institutional Official for Assurances filed with the National Institutes of Health, the Office of Protection from Research Risks, and the Department of Agriculture and accrediting agencies for animal welfare. He is the University's Research Integrity Officer. He is the designated campus official for the UM Research Board and is an *ex officio* member of the Senate Committee on Research and Publications, the Institutional Animal Care and Use Committee, the Institutional Review Board on Human Subjects, the Institutional Biosafety Committee, and the Radiation Safety Committee. The ORA provides administrative support for those committees and provides updates on compliance issues to faculty as needed. The dean and Associate Vice Chancellor is assisted by an associate dean of the Graduate School and director of the Office of Research Administration (Figure 4-9).

All faculty holding the rank of associate professor or professor are members of the Graduate Faculty. In addition, faculty at the rank of assistant professor may be appointed to the Graduate Faculty upon recommendation of their department and approval by the Graduate Council. Graduate Faculty can teach graduate courses, serve on, and chair, master's thesis committees or exit-

project committees, and serve on doctoral dissertation committees. Only members of the Doctoral Faculty may chair a doctoral dissertation committee. Appointment to the Doctoral Faculty is a five-year term appointment upon recommendation of the Doctoral Faculty Selection Committee. This committee evaluates applications to determine if a faculty member is personally involved in research to a sufficient extent that she or he can provide adequate guidance to graduate students conducting dissertation research and preparing dissertations. A primary consideration is the recent publication record of the faculty member.

The Graduate School responded to requests from units with graduate programs, and Graduate Admissions was transferred in 1997 from the Office of Admissions and Registration to the Graduate School. This move has integrated Graduate Admissions more fully in the Graduate School and allowed the various units with graduate programs greater influence on the operations of Graduate Admissions. Graduate Admissions established an on-line database providing daily updates of information on all pending applications to each academic unit. Staffing of Graduate Admissions remains the same as it was when it was a part of the Office of Admissions and Registration.

Figure 4-9 – Graduate School and Office of Research Administration Organizational Chart
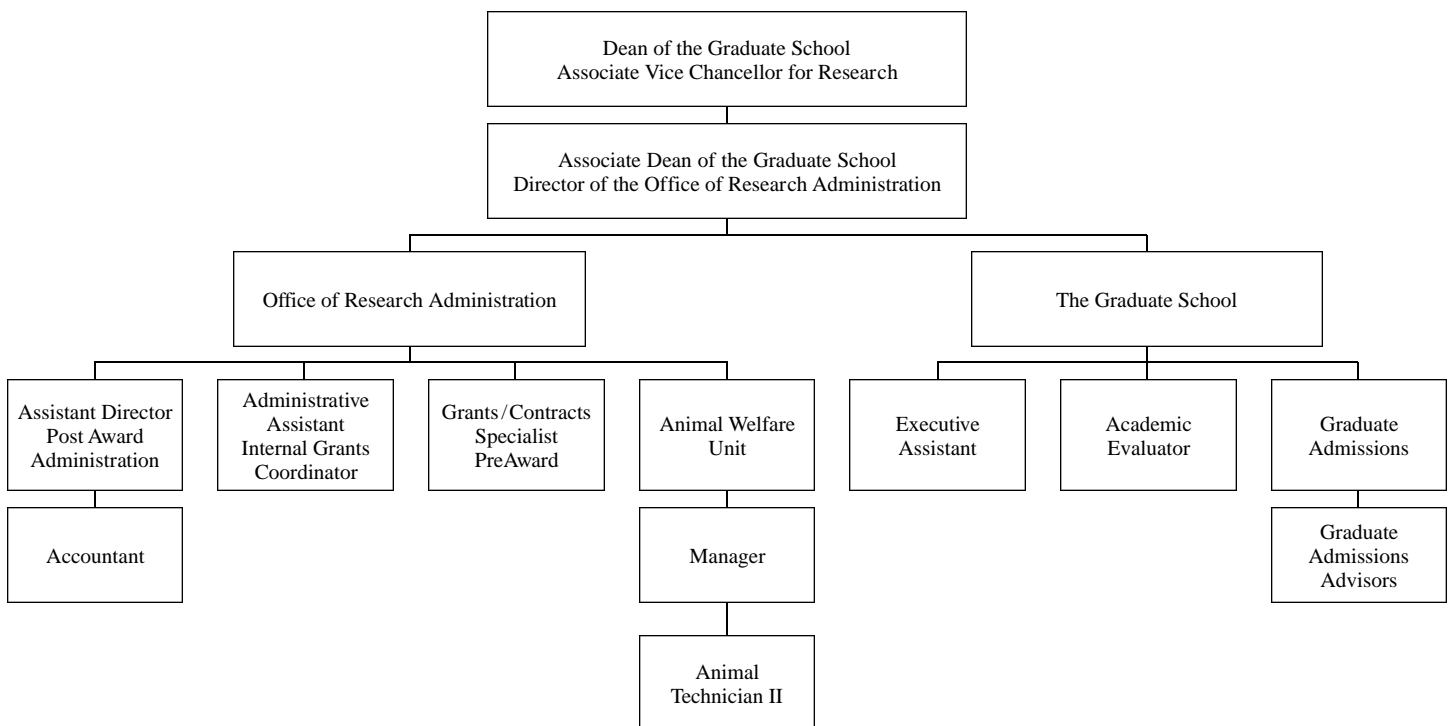
The associate dean and director of the ORA coordinates the activities of the ORA to assist faculty with external and internal grant proposal development and post-award administration. He works directly with faculty to identify funding opportunities and to develop responses to these opportunities. External awards are handled primarily by one individual in the pre-award phase, and by two individuals in post-award administration.

Staffing of the Graduate School has remained constant during a time of modest increase in graduate student enrollment and graduate programs. Staffing in the Office of Research Administration has actually declined from 6.75 FTE at the time of the last self study to 5.25 FTE. During this time, external funding has quadrupled from a little over $4 million to over $16 million. The ORA has been able to provide enhanced support with reduced staff only because of an increasing reliance on electronic administration.

Vision

The goals of the Graduate School and Office of Research Administration are to assist the graduate program units in achieving enhanced enrollment goals, in the range of 4 to 5 percent per year, to assist units wishing to establish or enhance graduate programs with the documentation required to receive approval for these initiatives, and to assist the University in achieving its goal of becoming a Research II institution, requiring an annual growth rate in external funding of 10-12 percent per year.

Situational Analysis

As noted above, the Graduate School and Office of Research Administration now manages four times the external funding of ten years ago, with fewer FTE staff. It also manages six times the amount of internal funding. Rapid movement to electronic administration allowed these increases in workload to be accommodated with reduced personnel. However, with the present methods of grant administration, these efficiencies have pretty well reached an asymptote. The unit needs to implement new grant administration systems whereby the information faculty input into on-line application forms will feed directly into the grants administration database. The goal is never to key in data more than once. The same goal exists in the Graduate School, where students will use on-line application forms and the data they enter will flow into the student information system, as well as into the databases viewed by unit graduate program directors making recommendations on admission.

Within the Graduate School, there is a need for a better database to track students throughout their academic program and to identify early on those students who are not making progress toward a degree. The quality of the graduate program can be enhanced as well by having available data on how many students each faculty member is advising and how well those advisees are progressing in their degree programs.

The Graduate School and Office of Research Administration assesses faculty attitudes toward service and performance through the use of surveys at the time of the five-year review (RR: File 105, Graduate School and ORA Five-Year Review). In between these surveys, staff meet with departments on an individual basis and discuss the services offered and obtain suggestions for improvements. These meetings are usually more fruitful in providing assessment that can be acted upon than are the surveys. Once a year the University Senate Committee on Research makes suggestions on how the internal grant program can be administered more effectively. Unit graduate program directors meet with the dean and associate dean twice a year, as do the chairs of units with graduate programs. These semiannual meetings are a primary source of assessment of the Graduate School. Any member of the Graduate Faculty may suggest to the Rules and Regulations Committee of the Graduate Council changes in the rules and regulations. These changes are considered by the committee which makes recommendations to the Graduate Council. Changes approved by the Graduate Council become effective if they are approved by a majority of the vote of the Graduate Faculty at a semiannual meeting. Graduate students are mailed an exit survey in the month after degree conferral. These surveys are collected by the Graduate School on behalf of the units with graduate programs. The surveys are returned to the units for analysis (see Chapter 5).

The Graduate Faculty of UM-St. Louis have established minimum entrance criteria based on their assessment of what is required to be successful in graduate school. There has been a conscious effort to use a variety of evaluative measures, particularly for nontraditional students. These students often have extensive experience post-baccalaureate degree, and this experience is also considered. The Graduate Faculty feel that the most important criterion is the quality of the graduates, rather than the record they present at the time of enrollment. Much experience demonstrates that mature students often perform well above what would be predicted by their undergraduate records, which are often many years in the past.

The Office of Research Administration has made several changes in the administration of internal grant funds in response to feedback from academic units. First, in an attempt to provide even more encouragement to faculty successful in obtaining external funding, General Operating funds equivalent to 15 percent of the F&A (indirect cost) recovered on a grant or contract are placed in a travel and research assistance account for use by the faculty member who is the Principal Investigator on the award. Additionally, General Operating funds equivalent to 28.3 percent of the recovered F&A are placed in a research assistance account for use by the faculty member's home unit. The ORA has established an extensive tracking system to allow these percentages to be split among PIs and co-PIs, and among multiple departments in the case of joint appointments.

An amount equivalent to 28.8 percent of the received Facilities and Administration cost recovery goes into intramural Research Award and Small Grants programs. In the past two years, these fund have amounted to $350,000 per year. Preference is given to junior faculty for summer salary support, but all faculty are eligible for funding from either program. The Research Award program provides up to $12,500 per award for faculty salary support, graduate student or undergraduate student support, research equipment and supplies, and travel. The Small Grants program awards up to $1,200 per award, primarily for faculty travel to research sites, or to conferences and symposia at which the faculty member is making a presentation. This substantial University internal research support program is supplemented by an even larger System program, the Research Board program, which distributes around $4 million per year in competitive research awards to faculty on all campuses of the System. Some concern has been raised that because the internal research support is so substantial, these programs have undermined their ultimate goal of increasing external funding. Many faculty can fully support their research programs through the available intramural programs without needing to apply for external funds. However, summary evidence shows that faculty have shown consistent improvements in obtaining external funding to enhance their research, even during times of increasing competition for such funds. Figure 4-10 shows the last-five-year patterns in external funding in general, and Figure 4-11 shows these patterns by academic area (RR: File 106, Graduate School and ORA Annual Report).

Figure 4-10 – External Grant and Contract Funding
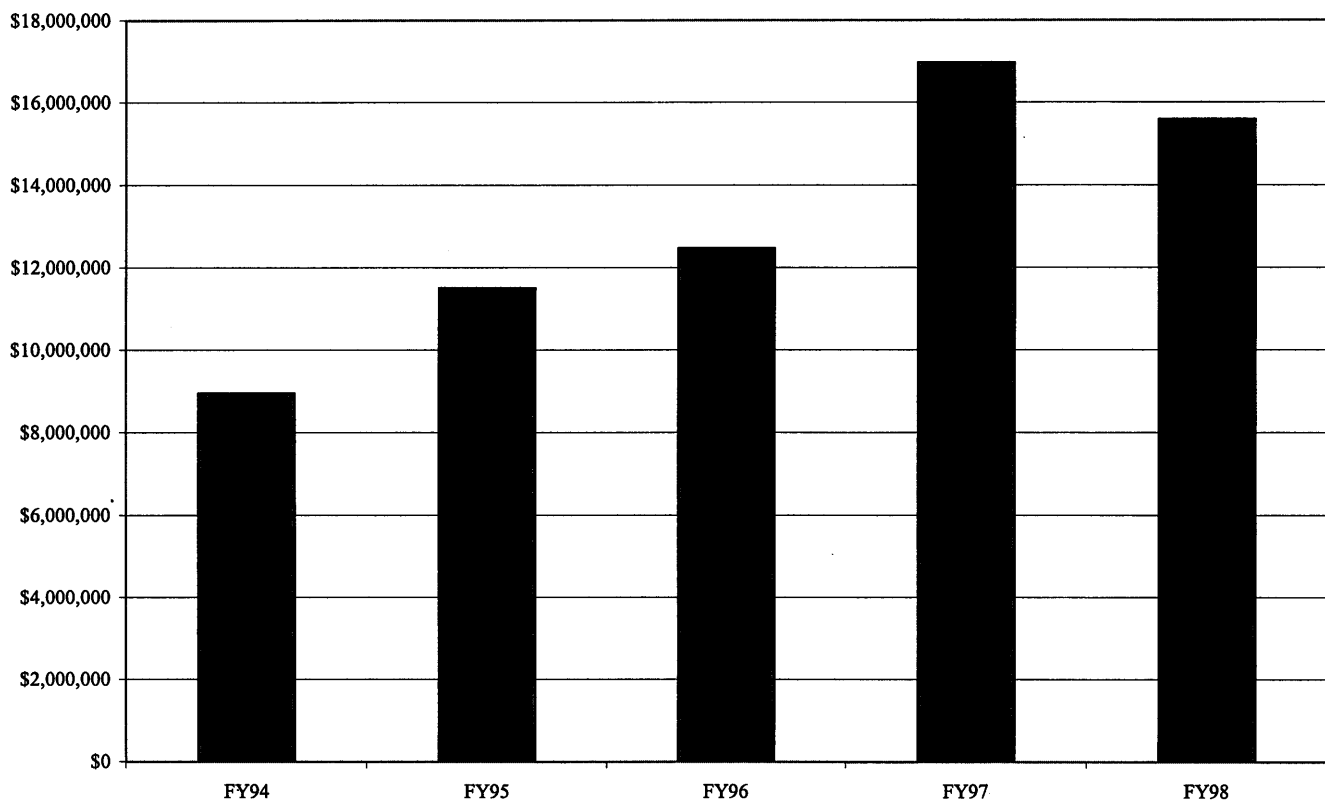
Figure 4-11 – External Grant and Contract Funding by Academic Area
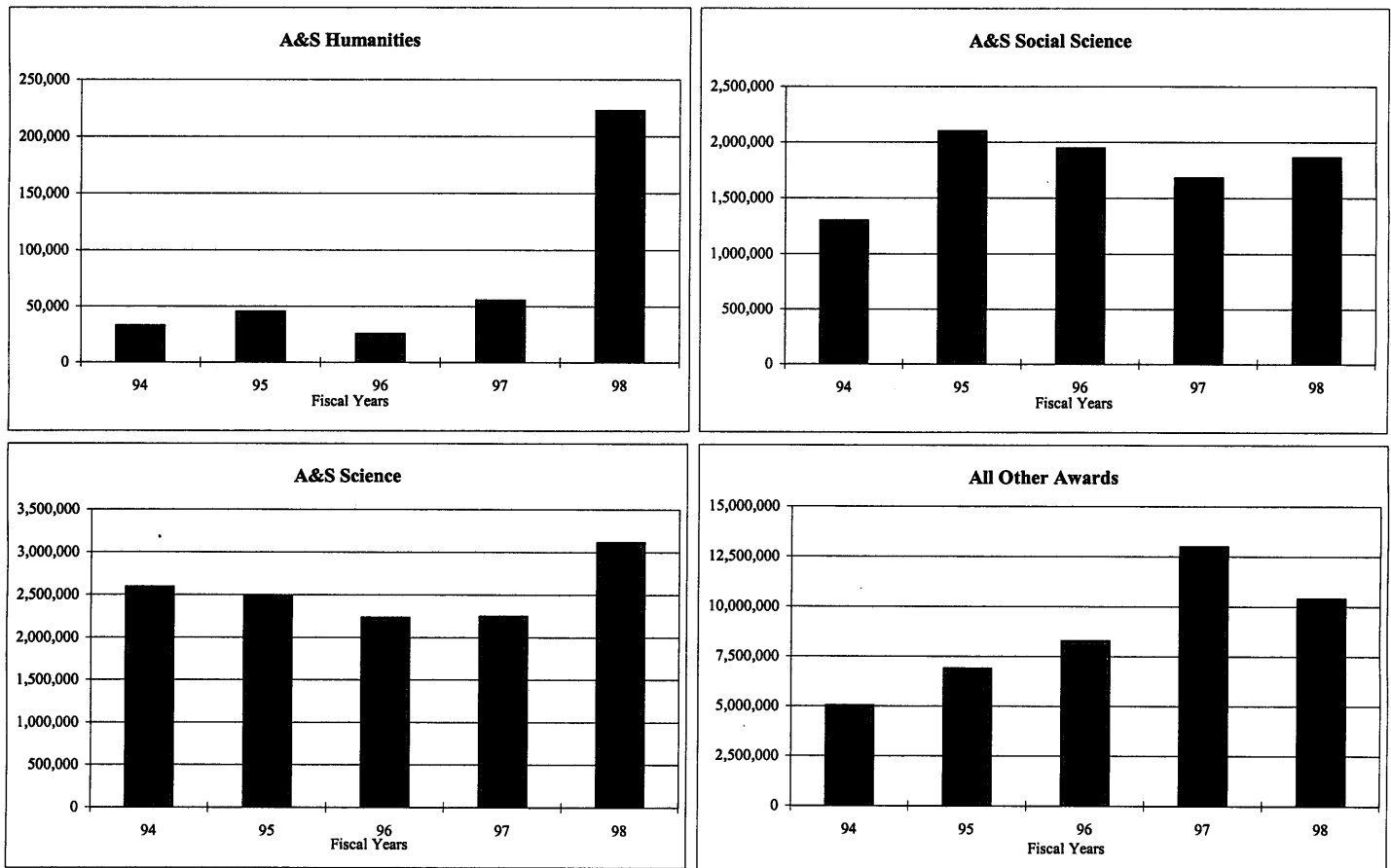
Identity Gap

There is no doubt that the goal of Research II will require substantially enhanced efforts and successes. Several new Ph.D. programs with future graduates have been developed, and these students should add to the necessary Ph.D. production to achieve Doctoral I status in a few years. With the addition of anticipated additional Ph.D. programs in education and history plus the enhanced graduate support available through Mission Enhancement funding, the University should achieve the Ph.D. production to reach Research II. The need to quadruple federal funding is more challenging, but building on a base of good faculty, supplemented by judicious hires, will make this a realistic goal for the next decade.

Strategic Directions

The Graduate School continues to work with individual units, University administration, and System administration to obtain authorization to offer new graduate degrees in those areas in which the University has faculty strengths, and in which there is a need in the St. Louis region.

In 1997-98 each unit reviewed its promotion and tenure guidelines to determine whether they contained appropriate language on how activity in external funding is incorporated in these decisions. These changes will be most noticeable as new faculty are hired. There is now a commitment to provide the resources, e.g., setup funds in science departments and better graduate student support overall, to allow new faculty to demonstrate their full potential for research and external support. In the past, University support has been only adequate, and thus faculty performance has been held to a similar standard. With increased University support, the expectation is that future faculty performance will have to be superior to achieve tenure and promotion.

The largest single component of new funding the University will receive through the Mission Enhancement program is going to graduate student support. This support will

improve graduate student completion rates, make graduate programs more competitive for the best graduate students, and make faculty more competitive for external funding. Also, each graduate program that receives funding through Mission Enhancement is required to set aside $13,000 (salary plus benefits) for a graduate assistantship out of each $50,000 that unit receives in Mission Enhancement funding.

Performance Benchmarks

These changes will allow the University to move toward the Research II goal. The benchmarks for the Graduate School and the Office of Research Administration are those required to reach the Research II goal, i.e., increases in the number of doctoral degrees awarded and the amount of external funds obtained by faculty. These goals translate into benchmarks of increases in doctoral degrees awarded of 5 percent per year and increases of external research funding of 10 percent per year.

Continuing Education and Outreach

Mission

The mission of Continuing Education and Outreach (CE&O) is to facilitate lifelong learning to help improve the quality of life of the residents of the St. Louis metropolitan area and beyond. This is done by offering non-credit programs, off-campus credit courses, contract programs, consultation, and action research, both on the initiative of CE&O and in response to expressed needs. CE&O extends the educational resources of the University of Missouri-St. Louis at times and locations, in formats, and through technologies that best meet the needs of the lifelong learner. The division helps form new linkages with the community by serving audiences not currently served by the university. In doing so, it strives to maintain a mix of public service activities and activities that meet the needs of individuals and organizations.

CE&O, then, is firmly rooted in the mission of the campus through its focus on the land-grant/outreach concept (RR: File 107, System Land Grant Mission Advisory Group Report), making campus academic resources more readily accessible to residents of the region, pioneering and using new electronic technologies for information delivery, helping faculty disseminate their research to a wider audience, linking the campus with new individual and organizational partners, and improving the quality of life of the citizenry. The division is the major outreach component of the campus.

Operating Principles

CE&O administers all of the University's noncredit programs and all off-campus credit courses, conducts action research, administers grants with an outreach component, and conducts in-house and contract training programs for local organizations (RR: File 108, CE&O Annual Reports – Last Three Years).

Through the dean, CE&O reports to the Vice Chancellor for Academic Affairs. The division itself is administratively organized under a "mixed model," centralized in support services and decentralized academically and, to a large degree, budgetarily (Figure 4-12). Jointly reporting to the dean and to the academic deans are staff in the College of Arts and Sciences and the Schools of Business Administration, Education, Nursing, and Optometry, who have primary responsibility for program development, based on the expertise of their faculties, and for associated program and unit budgets. Through these staff, CE&O

Figure 4-12 – Continuing Education and Outreach Organizational Chart
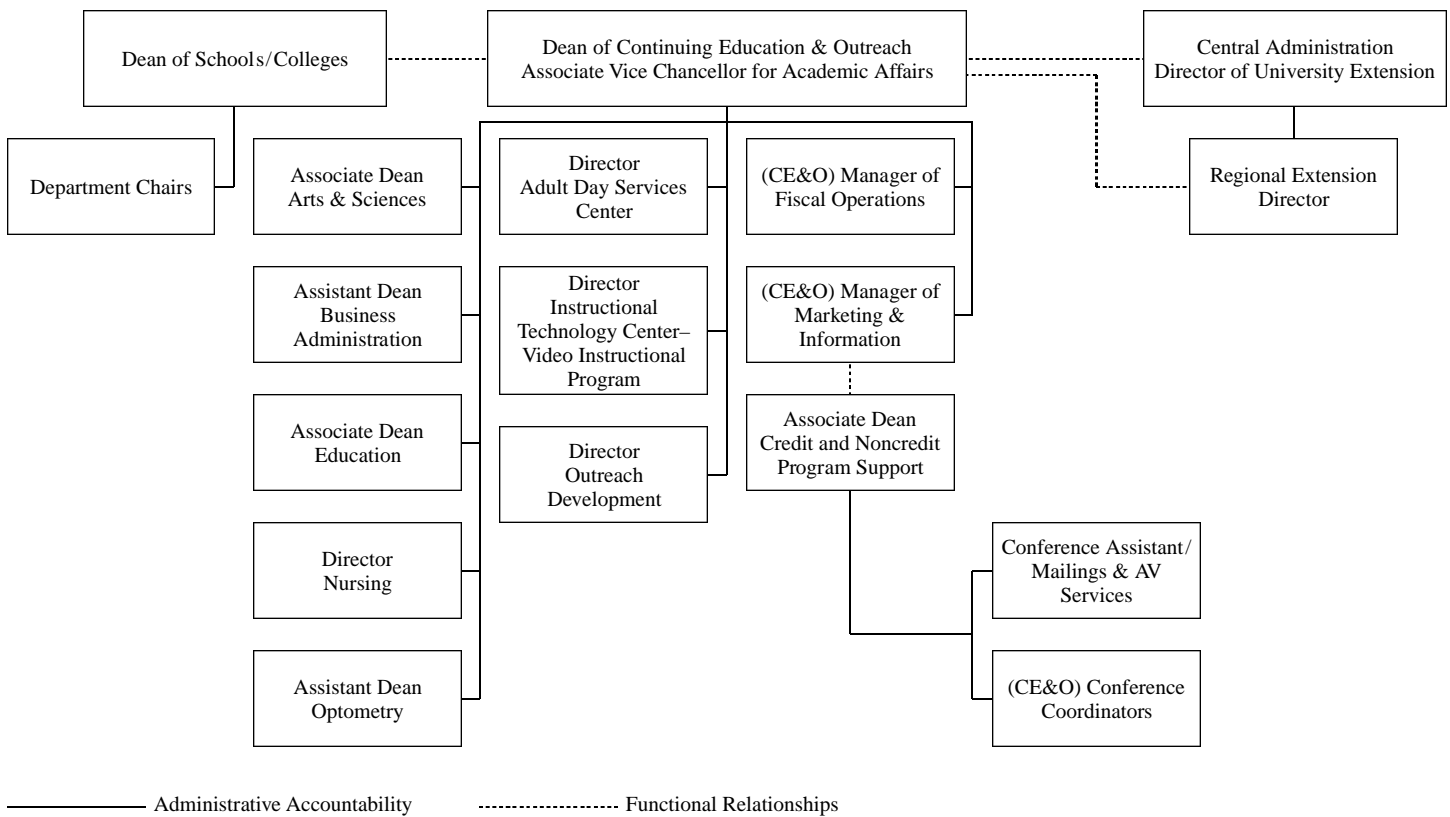
maintains linkages to the academic unit deans and their department chairs or area coordinators to assure the quality of offerings and faculty. As endowed professorships are filled, the division also hopes to involve them in appropriate outreach activities. In addition, CE&O works with several campus centers, enabling them to offer continuing education programs based on their missions and expertise.

The director of the Instructional Technology Center (ITC) reports to the dean as head of that unit's outreach component, the Video Instruction Program. ITC also reports to the dean under his other role as director of telecommunications. The director of Outreach Development also reports to the dean as administrator for the Residence Centers in St. Charles and Jefferson Counties, and the director of the Adult Day Services Center reports as head of that service unit. Finally, the Office of Credit and Noncredit Programs and the Office of Marketing and Information are responsible to the dean for the overall coordination and support services for the division's offerings, along with the operation of the J.C. Penney Conference Center and marketing and information services for those programs.

In addition to programs developed by the UM-St. Louis campus, the division also cooperates with the Rolla campus to offer a series of noncredit engineering programs in St. Louis and with other UM campuses offering programs on the campus. The division also interacts with nearly all of the University's academic and administrative units to assure the provision of administrative, financial, academic, and student-support services.

All credit and noncredit programs offered through CE&O are evaluated by participants, with summaries sent to the program faculty and to the assistant/associate dean or director in the sponsoring academic unit. The results of those evaluations are used to determine instructors in subsequent programs and to evaluate and suggest improvements in the division's support services. Faculty are also routinely asked to evaluate the support services provided for their programs. Trends or problems noted in the performance of individuals or offices are addressed for improvement.

For each of its programs, marketing plans are jointly developed by academic unit administrative staff, marketing staff, program support staff, and, in some cases, program faculty or representatives of the target audience. Registrations are tracked back to one of the planned marketing efforts. The results of this analysis are reviewed and judgments made regarding the relative cost effectiveness of the various methods, and decisions are made regarding their subsequent use or discontinuation. Unsuccessful programs are not repeated unless significant change is made in their content or marketing plan.

The division recognizes the significance of its stewardship of public funds and the fee income and grant and contract dollars it generates. It operates under University policies regarding the handling of, and accounting for, those funds and functions in the most cost-effective manner. The division is subject to ongoing monitoring of its finances by the Offices of Finance and Accounting and is subject to regular audit by UM System administration. In addition, the dean's office monitors the budgets of each of the units. CE&O also evaluates the cost effectiveness of its programs and marketing methods, revising or discontinuing those that are not cost-effective.

CE&O encourages and financially supports staff participation in professional associations and attendance at professional conferences that will enhance their content or continuing education expertise. Division staff also aid the campus through involvement in a wide variety of ongoing and short-term committees and other service opportunities.

In many cases, CE&O still relies on traditional classroom instructional methodologies. As new instructional methodologies have emerged — satellite conferencing, interactive TV, cable TV, CD-ROM, the Internet, fiber optics, and so on — the division has been a leader in using those technologies to deliver programs to distant audiences.

CE&O is evaluated every five years by the Chancellor's Committee on Academic Review (RR: File 109, CE&O Five-Year Review). As part of the CCAR process, the division compares itself with its counterpart Urban 13 institutions to determine its position relative to their levels and types of programs, numbers of students reached, financial success, grant and contract activities, and staffing patterns. These comparisons have helped the division improve its operations and have provided valuable support data for new initiatives, such as the recent establishment of Residence Centers in St. Charles County and Jefferson County.

No national accreditation standards or bodies exist for the specific evaluation and accreditation of continuing education programs or units. To a large extent, then, CE&O relies on the accreditation of the campus and its academic units and programs to assure the highest possible quality in its offerings.

The division does subscribe to the general principles outlined in the University Continuing Education Association's *The Continuing Education Unit: Criteria and Guidelines* and the Council on the Continuing Education Unit's *Principles of Good Practice in Continuing Education.* Both of these national publications offer general guidelines for the planning, implementation, and evaluation of continuing education programs.

An indirect measure of the quality of the division's programs and staff is provided by the number of national awards received. Over the past five years, CE&O has received 13 awards from the University Continuing Education Association and two from the New York Festivals. (Founded in 1957, the New York Festivals has recognized outstanding achievement in nonbroadcast media, honoring excellence in communications media in the industrial and educational area.)

Vision

Much of CE&O's vision is derived from its commitment to the land-grant mission of the University of Missouri, from its past growth and success, from its self-comparison with the Urban 13 institutions, and from the regular internal assessment conducted by the Chancellor's Committee on Academic Review.

The vision for CE&O is one in which all academic units and all faculty accept the outreach mission as integral to their mission in a land-grant institution and in which faculty efforts are rewarded on an equal basis with resident instruction and research. The vision also includes the incorporation of the "learning society" and the information age into the philosophy of the campus, providing a wide variety of educational opportunities to a diverse audience, at times and places and in formats that meet the needs of the learner as well as the institution. Increasingly, the vision includes the incorporation of distance-learning technologies into the delivery of instruction by each unit and, to the extent possible, each faculty member. Finally, the vision includes new approaches to collaborative relationships with University Extension, civic and cultural organizations, business, labor, commu-

nities, and local leaders to identify innovative methods of linking campus resources to the needs of the residents of the metropolitan community and beyond.

The division's goals, then, are:

- To continue to work through the academic units to create greater commitment to the outreach mission of the campus.

- To submit to campus administration recommendations for greater recognition of outreach activities toward faculty tenure and promotion.

- To lead in the expansion of the use of electronic technologies for the delivery of academic resources to distant audiences.

- To continue to serve nontraditional audiences through traditional and nontraditional program offerings at sites and times convenient to those audiences.

- To assist the campus in forming partnerships with various community organizations so as to enhance the campus and to bring community resources into the University's programs.

- To continue and expand public service programming to unserved and undeserved audiences.

Finally, CE&O has supported, and will continue to support, the campus as it develops long-range plans for new academic programs that, in addition to serving "traditional" audiences on campus, will also offer new opportunities for lifelong learning to nontraditional audiences and audiences at a distance.

Situational Analysis

Begun in 1963-64, the "Extension Division" has grown to become one of the largest programs of its type in the country, currently offering nearly 3,000 credit and non-credit programs serving nearly 93,000 participants annually (see sample catalogs and brochures, (RR: File 110, Sample CE&O Catalogs and Brochures)). Over the past three years, CE&O credit and noncredit programs have grown by 31 percent and 15 percent, respectively, and participants in those programs by 16 percent and 12 percent, respectively. Overall, the division's programs have increased by 19 percent and participants by 13 percent. During this same time, 41 grant applications were submitted and 37 grants were awarded or active, totaling $1,305,842.

For nearly 25 years, the University has offered a variety of credit courses at Lindbergh High School in south St. Louis County, most of those offered by the School of

Education at the graduate level. These courses continue to provide convenient access to professional development and personal enrichment opportunities for teachers and other residents of south St. Louis County and Jefferson and Franklin Counties. In June 1995, after numerous studies and an analysis of the 1990 census data showed unmet educational needs in counties adjoining St. Louis, the Board of Curators and the Coordinating Board for Higher Education approved the university's plan to establish Residence Centers in St. Charles and Jefferson Counties and gave formal permission to offer the junior and senior years of degree programs at both sites in the areas identified as having the strongest support: business administration, nursing, and elementary education. (See Chapter 8).

Working with the academic units and the Instructional Technology Center, CE&O has taken a leadership role in offering televised and interactive credit courses to distant audiences, in linking the campus to several countries to explore educational and business opportunities in foreign markets, in packaging curricula in alternative formats such as CD-ROM, and in developing guidelines and faculty assistance for educational programs on the Internet.

The greatest strength of the division is its ties to the academic departments. Departmental involvement and approval assure the quality of CE&O programs and faculty and allow them opportunities to serve audiences not served through more traditional programming. In addition, the division's flexibility allows it to respond quickly to emerging needs and to discontinue programs that have run their course. Creativity in programming and marketing and a customer-service orientation also contribute to meeting needs in the community and helping assure financial success.

As cited in the 1997 self-study, the division continues to struggle with the lack of adequate recognition of its activities toward faculty tenure and promotion, which limits, and sometimes precludes, faculty participation in CE&O programs; administrative and budgetary issues regarding emerging electronic technologies; recent divisional budgetary expectations; and the limited academic program base of the campus in the face of opportunities afforded by the state's largest metropolitan area.

Identity Gap

The adoption of the land-grant philosophy by all academic units and faculty is far from reality, although the division's involvement with departments and faculty continues to grow. Likewise, formal recognition of Outreach

activities continues to be less than desirable. The division and the campus have much to do regarding infrastructure and policy issues related to distance-learning technologies because they are still relatively new to all of higher education. But significant progress has been made, with demonstrable success, over the past few years, and greater integration of technology into instructional delivery seems inevitable. Similarly, many new partners exist in the metropolitan area with resources that would enhance the University's mission and its work, and the division is reaching out to local educational institutions, businesses, and community organizations to help form productive linkages with them. Finally, the work of linking to University Extension has just begun and much work remains in acquainting faculty with their role and scope and opportunities for their involvement in Extension programming and in forming individual relationships that will produce a greater focus of campus resources on traditional Extension audiences.

Strategic Directions

The three most significant forces, then, currently influencing CE&O are electronic technologies, budgetary expectations, and relations with University Extension (Missouri's Cooperative Extension Service).

Telecommunications technologies are increasingly impacting the delivery of the division's educational programs. The University has been on the cutting edge of distance learning since the UM video network was created in 1991. CE&O has led the way in demonstrating and implementing new electronic technologies. The challenges faced by the division, and the University, with respect to these technologies include adequacy of funding, establishment of administrative and reporting lines, adoption by faculty and students, and provision of adequate student services for learners at a distance. In light of the potential in technology, CE&O has requested $300,000 of Mission Enhancement funding for the application of technology to partnerships, which will allow expanded programming at the St. Charles County and Jefferson County sites and provide linkages to St. Louis Community College, East Central Community College, and Mineral Area College.

While funding and administrative issues remain under discussion, the University has taken significant steps to acquaint faculty and students with these new technologies, to train faculty in their potential for enriching instruction, and to provide incentives for their inclusion in the curriculum. Similarly, the division has taken steps to provide support services at off-campus locations that approach those provided on campus - on-site book sales, advising, and registration; book purchase through the Internet; access to computing, where possible, and, in the case of the St. Charles residence center, access to recreational facilities and activities. The division is also exploring on-site advising and counseling via ISDN technology and distant student access to the Degree Audit and Reporting System (DARS). Other services — library access, career/placement services, financial aid information, and fee payment — are currently available through the Internet.

Budgetarily, CE&O is increasingly expected to be self-supporting and to return to the campus a contribution toward the support services it uses. As at other institutions, then, CE&O struggles with the prospect of discontinuing public service programs and programs for audiences unable to pay their full cost.

Within the last several years, new opportunities have materialized to involve campus faculty in the planning and programming efforts of University Extension. Joint projects have demonstrated the potential for Extension/University programming in an urban area and served as the model for Extension's Outreach Development Fund, under which broader joint efforts are now emerging. These activities will provide opportunities for expanded delivery of University resources across the state, and nationally, through the Extension network and may help address concerns regarding CE&O's public service programs. Despite recent awards of funding for several projects, concerns remain in identifying campus and Extension staff with similar interests, attracting faculty to projects in the face of conflicting demands, and breaking down traditional patterns of faculty selection by Extension field staff.

Performance Benchmarks

CE&O will continue to judge itself by:

- Continued growth in continuing education programs that are successful academically and financially.
- Integration of electronic technologies into its programs and assistance to the campus in doing likewise.
- Significant expansion of the involvement of academic units and faculty in Extension programming and audiences.
- Negotiation of greater recognition of faculty outreach efforts toward promotion and tenure.
- Identification of new education needs and new audiences and development of programs that bring them to the campus and its programs.
- Keeping pace with the other Urban 13 institutions in their similar efforts.

Libraries

Mission

The primary mission of the Libraries' is to provide information resources that support the academic mission and long-term goals of the University. This support is provided through the Libraries' diverse and growing collections and services. Prominent among services is the Library staff's active participation in teaching the necessary information retrieval skills that are relevant throughout life.

Though the specifics of the Libraries' mission are continually refined and changed as campus programs and priorities change, the basic goal continues to be the effective support of the University's commitment to teaching, research, and service. This goal is universally applied to students and faculty in the libraries, at their homes, in their offices, and at distance-education sites.

Specific objectives of the UM-St. Louis Libraries include the following:

- To acquire print, electronic, and multimedia resources to support current and anticipated teaching, research, and other information needs of faculty, students, administrators, and staff.
- To provide access to print indexes and electronic databases which identify relevant resources worldwide in various academic disciplines. Electronic databases will be accessible in the libraries, homes, and offices, and at established distance-learning sites.
- To provide quick access for the campus community to relevant resources anywhere in the world. This will be done through traditional borrowing from other libraries, from commercial document suppliers, or through various forms of electronic access.
- To provide assistance by a motivated and well-qualified staff in accessing collections in libraries throughout the world. Assistance will include, but will not be limited to, providing formal research assistance and instruction at the individual and classroom level, aid in accessing and using print materials and electronic resources, and assistance in evaluating and procuring relevant materials requested by faculty, staff, and students.
- To provide a positive environment conducive to learning and using information resources.
- To anticipate future needs and directions of the campus by engaging in ongoing long-range planning.

• To utilize partnerships and consortium agreements to facilitate access to the best and greatest number of resources at the lowest possible cost.

• To successfully integrate and effectively use the St. Louis Mercantile Library.

Throughout this document it will be shown that these objectives are being met.

Operating Principles

The Thomas Jefferson Library, the largest of the libraries on the campus, houses most of the materials in the sciences, social sciences, and humanities. The Libraries' Administrative Office is located in the Thomas Jefferson Library.

The Ward E. Barnes Education Library, located on the south campus, houses materials primarily in the field of education, including educational administration, elementary education, secondary education, early childhood education, special education, physical education, and counseling. The Health Sciences Library's collections, also on the south campus, contain materials that support the College of Nursing and School of Optometry.

The St. Louis Mercantile Library at the University of Missouri-St. Louis, located in the same building as the Thomas Jefferson Library, primarily focuses on collections related to American history, in particular, the history of the American West, American transportation history, and St. Louis.

The Libraries' staff includes 16 librarians and 50 FTE support staff. All academic librarians, by policy, have a master's degree in library science from an American Library Association (ALA)-accredited institution. Some librarians hold a second subject master's degree. A significant number of the paraprofessional staff have bachelor's degrees, as well as graduate degrees, in specific subject disciplines outside library science. Support staff members may, and do, hold important administrative positions within the Libraries.

Results achieved by the staff far surpass expectations suggested by their number. In their report for the 1991 Libraries' Five-Year Review (RR: File 175, Library Five-Year Review, 1991), the reviewers concluded that "the University Libraries are very well run and provide service well beyond expectations given the current staffing level." In the 1996 Review (RR: File 176, Library Five-

Year Review, 1996) the campus review committee "unanimously concluded that the campus's libraries are doing an outstanding job."

In recent years UM-St. Louis Libraries' staff have been nationally recognized by the Library of Congress, OCLC, and *PC Computing Magazine* for their leadership in using technology to distribute information worldwide. Many have participated in national and local professional associations. Ongoing training of librarians is encouraged, with regular participation by all librarians.

The director of Libraries reports to the Vice Chancellor for Academic Affairs and is a member of the Deans' Council. By participation in this group, the director of Libraries is formally part of the University's process for planning and budgeting. This ensures that the Libraries are aware of, and contribute to, the overall goals of the University.

The director regularly communicates the Libraries' activities, planning, and needs with the Libraries' department heads. This is done informally, as well as through regularly scheduled meetings of the Libraries' Administrative Committee. Department heads meet regularly with their staffs to communicate to them the activities, plans, and needs discussed in the Libraries' Administrative Committee. Staff concerns and input to department heads during these meetings may be passed upward to the Libraries' Administrative Committee meetings. Department meetings are also used to coordinate activities within a department, as well as to communicate information from other Libraries' departments (Figure 4-13).

The University Senate's standing committee on University Libraries serves as the main mechanism by which the broader interests of the campus are directly expressed to the Libraries. Through the Library director, the Libraries communicate to the committee library policies, directions, and decisions. Deliberations and suggestions by the committee also serve to assist the Libraries in achieving the common goals of the University community.

Efficient partnerships founded in new technology expedite the fulfillment of the Libraries' goals of serving their users as effectively as possible. The Libraries formally coordinate activities with the other libraries in the UM-System, as well as other institutions and their libraries (e.g., Washington University and Saint Louis University). This is achieved by meetings of formally instituted direc-

Figure 4-13 – University Libraries Organizational Chart
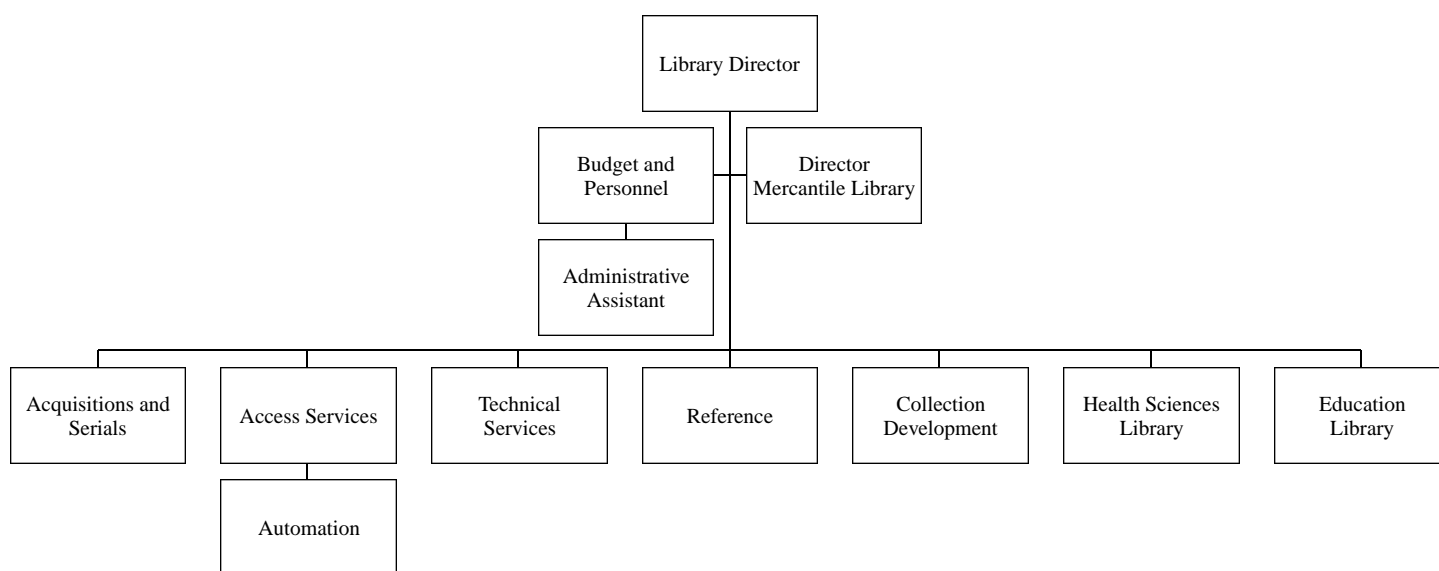
tors'committees and other boards on which the director of Libraries sits. Other staff of the Libraries also participate extensively in committees to represent the Libraries at the planning and operational levels of these consortia. Library participation in these activities can best be seen at the University of Missouri Library Systems Web site (RR: Web 48, http://sequoia.lso.missouri.edu:2200/lso/lso.htm).

Librarians and staff constantly interact with administration, faculty, staff, and students to determine and respond to information needs. Communication of library services is achieved by: the Libraries' newsletter to the faculty (RR: File 108, Library Newsletter for Faculty); an annual publication for students outlining information about the Libraries and their services (RR: File 50, Library Student Paper); other publications such as bibliographies and how-to guides available on the Libraries' Web site (RR: Web 51, http://www.umsl.edu/ services/library), as well as in print (RR: File 52, Library Handouts).

Vision

The continuing goal of the Libraries is to provide needed information and instructional assistance to the UM-St. Louis community within cost-benefit constraints. The Libraries acquire resources with the philosophy that the best resource is one that satisfies a need, independent of its format. Thus high-quality print resources continue to be purchased alongside new on-line resources.

The UM-St. Louis Libraries' users have immediate on-campus access to a collection of nearly 1 million bound volumes, including the recently acquired and significant holdings of the St. Louis Mercantile Library at the University of Missouri-St. Louis. In March 1997, in an exciting move for both institutions, the St. Louis Mercantile Library signed a partnership agreement with the University and moved to the campus in the summer of 1998. The St. Louis Mercantile Library, founded in 1846, is the oldest library west of the Mississippi River. The Mercantile has priceless historical works and many pieces of valuable art and artifacts. It has specialized in serving researchers, locally and nationally.

The Mercantile Library, located on levels one and two of the building also occupied by the Thomas Jefferson Library, increased the holdings of the Libraries in September of 1998 by adding more than 300,000 volumes, 250,000 historical photographs, 10,000,000 news clipping files, 1,000,000 manuscripts, and a variety of historical map and print collections.

The addition of the Mercantile Library is a concrete example of the Libraries' recognition that traditional library holdings are as vital as the latest on-line reference. Whether an information resource is a convenient full-text database or a historic manuscript, the rule remains the same: the best resource is one that satisfies a need, independent of its format.

As campus programs and needs develop, research goals are increasingly being attained by access to electronic information and by obtaining information resources elsewhere which are not owned by the Libraries. One way this is attained is by continually developing more partnerships with other institutions. In conjunction with the natural affiliation with the other libraries within the University of Missouri System, a number of major cooperative efforts are presently complete and in place, or are well along in being completed. Among the partnerships and sharing agreements are:

• MERLIN - Missouri Education and Research Libraries and Information Network

• MIRACL - Missouri Research Consortium of Libraries

• MOBIUS - Consortium of Missouri Academic Libraries

MERLIN, MIRACL, and MOBIUS are best understood as a hierarchy of ever-larger cooperating systems resulting in increasingly convenient availability of an ever-growing body of resources.

MERLIN is a consortium of the libraries of all campuses of the University of Missouri System and the libraries of Saint Louis University. The MERLIN gateway (RR: Web 53, http://merlin.missouri.edu) allows remote electronic access to a new library catalog introduced in May 1996, a growing array of databases, and to the entire text of the Encyclopedia Britannica. Currently 20 different subject databases are available through the MERLIN gateway, with that number steadily increasing.

A growing number of these databases include the full text of many scholarly and popular journals. Recent analysis indicates that there are at least 1,400 periodical titles not held by the Libraries in print format which are available via MERLIN full-text databases. Not reflected in this analysis is the recent addition of *Lexis-Nexis Academic Universe*. On July 1, 1998, the number of available full-text resources increased dramatically with the addition of Universitywide access to *Lexis-Nexis Academic Universe*. This new service adds more than 12,000 full-text resources to which the campus community now has remote access.

MERLIN also permits UM-St. Louis students and faculty full borrowing privileges at Saint Louis University. Borrowing privileges for UM-St. Louis faculty, staff, and students have been available on all other System campuses for many years.

MIRACL, the MIssouri ReseArch Consortium of Libraries, adds Washington University to the libraries of MERLIN. MIRACL uses the MERLIN library catalog as a foundation for expanding and facilitating cooperative access to all libraries on all MIRACL campuses. The MIRACL system allows the users of the MERLIN on-line library catalog and the catalog of Washington University to locate and request books from any library in the MIRACL group. Delivery of materials to the requesting library takes approximately 48 hours.

Since the implementation of MERLIN and MIRACL, UM-St. Louis faculty and students can make immediate use of the combined collections of the MIRACL libraries. UM-St. Louis users now have direct access to 8.7 million bound volumes (Table 4-9).

Table 4-9 – Bound Volumes at MIRACL Institutions

Institution	Number of Bound Volumes (1996)
University of Missouri-St. Louis	953,400
University of Missouri-Columbia	2,730,756
University of Missouri-Kansas City	981,149
University of Missouri-Rolla	235,945
Saint Louis University (St. Louis)	991,138
Washington University (St. Louis)	3,164,136
Total Number of Bound Volumes (1996)	8,728,373

Source: American Library Directory, 1997-98, RR.Bowker: New Providence, ©1997

MOBIUS is a recently formed consortium of all academic libraries in the state. The first and chief goal of MOBIUS is to create a statewide database representing the library holdings of all academic libraries in Missouri. The database will be available to all UM-St. Louis users and will allow them to use the on-line catalog to request that any item from any academic library in the state be delivered to them. Building on currently available MERLIN and MIRACL systems, the request and delivery time via this mechanism will be significantly faster than traditional interlibrary loan.

Situational Analysis

Since the last NCA Review, the Libraries have increased the size of their print collections by 24 percent, and their microform collections by 48 percent (RR: File 54, Library Collections). Including the recent addition of the St. Louis Mercantile Library (300,000 volumes), the Libraries' print collections have increased 85 percent in ten years, almost doubling in size.

As measured by gate counts (number of people entering the libraries) and the number of materials checked out (RR: File 55, Library Gate Count Entrances), the use of materials in the Library has remained relatively constant. These numbers are projected to increase with the addition of the St. Louis Mercantile Library on the campus.

In the current environment, the traditional measures of gate counts and number of materials checked out incompletely indicate the use of library information resources. Statistics that measure the use of electronic resources maintained by the Libraries, as well as requests for items not owned by the Libraries (Interlibrary Loan activity), serve to assist in presenting a more accurate picture of the role of the Libraries today.

Recognizing a 70 percent increase of interlibrary loan activity between the 1989-90 and 1996-97 fiscal years, funds have been increased for the Interlibrary Loan Department. An increase in the number of materials borrowed for UM-St. Louis patrons is matched by a similar increase in items loaned by UM-St. Louis Libraries to other libraries. This indicates successful participation in reciprocal efforts by libraries to provide needed information to their users (RR: File 56, Library InterLibrary Loan Figures). UM-St. Louis faculty and students are not charged for Interlibrary Loan requests; the Libraries absorb the cost of retrieving items as part of their budget.

The University has strongly supported the Libraries in achieving their goals. Since the last NCA Review, special ongoing funds have been annually forwarded to the Libraries; the University has recognized the critical role of the Libraries in the University's mission and has ensured that the Libraries be spared budget cuts necessitated by reallocations caused by fluctuations in student enrollment.

Additionally, University of Missouri Systemwide funding has permitted UM-St. Louis access to many electronic resources not otherwise affordable by the Libraries. Much of the increased availability of electronic resources, as well as technological development within the Libraries, was made possible through System support for technology plans developed by the cooperating Library directors of the four University of Missouri campuses. This centralized funding for shared resources currently exceeds $4 million for all campuses in the System.

In May 1996, LUMIN, the original University of Missouri on-line catalog, was replaced by a state-of-the-art library system produced by Innovative Interfaces Inc.

Cataloging, acquisitions, circulation, and public-searching components, are all integrated. This allows users to check their own circulation activity (and renew books), note the availability of recently received issues of periodicals, and even track the processing status of books which have been purchased. The library catalog contains the holdings for libraries on all campuses of the University of Missouri as well as those at Saint Louis University. The catalog also provides additional access to the catalog of Washington University in St. Louis. It is this technological infrastructure that allows for the previously mentioned "patron-initiated requests" giving faculty, staff, and students at UM-St. Louis convenient access to 8.7 million bound volumes within 48 hours (Table 4-9).

At the time of the last NCA Review, searching of on-line databases by the UM-St. Louis Libraries was offered solely through librarian-mediated sessions using the DIALOG and Bibliographic Retrieval Services (BRS) systems. Today, in addition to many quality print bibliographic indexes, the Libraries provide users direct access to more than 100 electronic databases (RR: File 57, Library Indexes, Abstracts, and Electronic Resources). All databases are accessible from workstations in each of the libraries, with a large number of them accessible outside the Libraries through the Internet. These electronic indexes include a growing number which provide the complete text of articles. The Libraries' databases are provided through various means including networking centrally through the MERLIN gateway, mounting locally in the Libraries on a CD-ROM network, and accessing through various outside commercial providers. Figures indicate that more than 40,000 database sessions took place for UM-St. Louis users in 1996-97, increasing to 75,973 sessions by 1997-98. These figures are considered to be incomplete indications of actual activity, since not all databases can be tracked statistically by session. The relevance of such numbers is open to interpretation, but, at the least, they reliably indicate very large increases in information-seeking by users of the Libraries' electronic resources.

There are more than 2,300 periodical titles providing articles in full-text within databases provided by the Libraries in the previous year text (RR: Web 58, http:// www. umsl.edu/services/library/fulltext/fulltext.html). As stated earlier, these include at least 1,400 unique titles which not available in the UM-St. Louis Libraries in any other format, such as paper or microform.

Interlibrary Loan borrowing activity has increased more than 100 percent within the last decade (RR: File 59, Library InterLibrary Loan Completed Requests). World

Wide Web forms allow users to file Interlibrary Loan requests literally from anywhere in the world (RR: Web 60, http:// www.umsl.edu/~ill). Currently about one-third of all Interlibrary Loan requests are made through these forms on the World Wide Web.

Through increasing numbers of on-line databases and more efficient Interlibrary Loan services, access to a growing array of periodicals has been achieved in a cost-effective manner unattainable by simply increasing the number of print subscriptions. In conjunction with the ability of patrons to request books using the MERLIN on-line library catalog, the Libraries have a sophisticated array of mechanisms by which research needs can be conveniently met both in and outside the Libraries.

In addition to using the Internet as a mechanism for providing access to a large and growing number of library resources for its own patrons, the Libraries have also contributed to the availability of important information resources to others throughout the world. Between 1993 and 1995, the Libraries gained national recognition by providing Internet access to an assortment of important government documents using Gopher software, the predecessor to the World Wide Web (RR: Web 61, Gopher://Gopher.umsl.edu:70/11/library/govdocs). During that recent era, the Library of Congress routinely pointed to the UM-St. Louis Libraries' Gopher site. The journal *PC Computing* printed a map in September 1994 of Gopher sites on the Internet which included "UM-St. Louis – The Libraries" as one of 30 major nodes, along with such institutions as the University of California-Berkeley and the University of Michigan.

While the Libraries' Gopher site remains in place as an archive, the Libraries' Web site is now the primary mechanism for presenting on-line resources (RR: Web 51, http://www.umsl.edu/services/library/). From 287,000 accesses in 1997 to almost 2,000,000 accesses in 1998, an increase of almost 600 percent, the Libraries continue a history of huge increases in access to materials placed on the Internet.

The Libraries' Web site provides general information about the Libraries, an easy table for accessing databases, and compilations of "virtual library" Internet resources. Users can also access World Wide Web forms to submit interlibrary loan requests, ask reference questions, and request that items be placed on reserve. There are full-text government documents, an award-winning Black Studies Web site, statistical datasets, instructional materials, and a variety of resources provided in response to local requests. The Libraries' World Wide Web site

benefits both UM-St. Louis faculty and students doing research at their homes and offices, as well as a growing global audience.

The Libraries also house an excellent collection of contemporary government publications through the Libraries' participation in the U.S. Government's Depository Library Program. The Libraries select 93 percent of all items available through the program (RR: File 62, Library Government Documents). In November 1992 the Office of the Superintendent of Documents inspected UM-St. Louis' depository collection and graded it "an excellent example of a depository collection that is an integral part of the general library collection."

In 1989-90 the Government Documents Unit received a total of four electronic products from the Government Printing Office. Statistics for 1996-97 indicate that almost 2,000 electronic products, mostly CD-ROMs and computer disks, have been processed through the program. Many of the CD-ROMs are accessible on workstations in the Thomas Jefferson Library. Additionally, it is through the electronic editions of various publications in the Depository Library Program that the Libraries have been able to make World Wide Web versions of some of the most heavily used documents available on its Web site (RR: Web 63, http://www.umsl.edu/services/govdocs).

Statistics of the number of reference transactions (discrete interactions with users at the Reference Desk), formal library instruction sessions, and individual research consultations have steadily increased as the Libraries respond to users' needs for more education in doing library-based research in an increasingly complex information environment (RR: File 64, Library Statistics, 1998, Appendix Ixa, Ixb). Added since the last NCA Review is an instruction room in the Thomas Jefferson Library. Any faculty member may request an instruction session which is then tailored to the needs of a specific course.

The instruction room is equipped with a high-end workstation with a projection unit capable of demonstrating all library products, as well as student workstations for hands-on instruction in the multitude of available electronic information. Student workstations have the capability of accessing the Internet for hands-on instruction when appropriate. These sessions stress the use of the best information resource for a particular need. Thus relevant traditional print products continue to be introduced and their use explained. Librarians demonstrate and teach "critical thinking" in instruction sessions.

Forms used for evaluating student and faculty attitudes towards library instruction sessions regularly indicate a high rate of "very satisfied" responses.

In recognition of the need for individual assistance and instruction, the Thomas Jefferson Library began a "Research Consultation Program" in 1986. It provides students and faculty the opportunity to make an appointment with a librarian for a one-on-one session to meet users' specific needs and requirements. The demand for this service has increased dramatically (RR: File 65, Research Consultations). This concept has been refined into a clinic during the two busiest weeks of the semester in order to accommodate as many students as possible in longer one-on-one instruction sessions than would be feasible at the Reference Desk.

Identity Gap

The task of transforming to a complex institution mixing traditional and electronic resources is not unique to this university's Libraries. The institution of the library continues to rely upon the philosophical underpinnings of the profession: to acquire relevant information, to maintain and preserve that information, and to teach and assist others in the use of information. This approach continues to be sound in an increasingly complex information-dominated universe.

The Libraries' users and staff are aware that there is an ever-increasing volume of scholarly material and that their costs are increasing as well. In the Libraries' Five-Year Review in 1992, an outside consultant stated in a very favorable report that "there will never be enough funds to meet faculty expectations for library material." No library can expect to acquire more than a small fraction of recorded knowledge. Since funds to increase the number of held titles by only a small percentage would be prohibitively great, efforts have been made to create partnerships to share information and to provide electronic resources funded centrally through the University of Missouri. As stated above, many of the on-line full-text resources make it possible to provide items that are needed, whenever and wherever they are needed.

At the last NCA Review it was noted that the Libraries had a limited number of periodical titles, approximately 3,000. Despite increasing prices, the number of print titles has remained basically unchanged. However, and as previously noted, within the Libraries and from home and office, the UM-St. Louis community can now access more than 1,400 titles which are not available in the Libraries in print or microform. This number does not include resources in the recently added *Lexis-Nexis Academic Universe.*

The wide array of indexes available to UM-St. Louis users, both in print and electronic form, allows identification of resources not owned by the Libraries, but which may be borrowed. Expenditures to support the increased demands for interlibrary loan, the continued partnerships to share collections with other institutions, funding established to acquire items from commercial providers, and the move to provide full-text materials electronically far surpass the cost-benefit value of even a doubling of the number of periodical titles owned by the Libraries. Library organizations are looking seriously at traditional standards for library excellence based on number of titles or volumes and are positing that the ability to provide access to information resources on demand is a more accurate mechanism for evaluating excellence.

While the Libraries have been spared campus budget cuts and have received access to resources through System-wide, centrally funded projects, financial resources will always continue to be a challenge in achieving excellence. Steep inflationary rises in book and journal prices, a burgeoning number of expenditure possibilities for collections in electronic formats, and increasing demands for library staff services are a reality in all academic library environments. Continuing appraisal of the cost effectiveness of all decisions, such as in acquisitions, distribution of staffing, and selection of material providers, is constantly necessary and is assiduously undertaken in the UM-St. Louis Libraries.

The issue of space, a concern in the last NCA Review evaluation of the Libraries, is a complex one. At the last NCA Review the Library indicated that two new levels would be (and were) added to the Thomas Jefferson Library to address this need. Within the last year, in a historic agreement, the St. Louis Mercantile Library joined the Libraries of the University of Missouri-St. Louis and is now occupying the two floors added since the last NCA Review. It was necessary to remove materials and study areas from those floors to accommodate the Mercantile Library. This apparent loss of space is mitigated by a number of factors. First, space in the library has not been completely removed. Study and reading areas on the two floors occupied by the Mercantile are available for use by faculty, staff, and students. Renovation of the other floors of the Thomas Jefferson Library has further optimized available space. Second, space needed for continued growth of the collection has become less important for two reasons: utilization of off-site storage and acquisition of on-line resources.

The University of Missouri System has just completed a new state-of-the-art central depository, modeled on a similar facility at Harvard University, for storing the less-frequently used materials of the four campus libraries. This allows the Libraries simultaneously to free needed space while retaining access and ownership to materials.

The need for space to house indexes and periodical collections has been lessened by acquiring access to on-line resources. The "space" required by on-line resources obviously does not increase in the same physical sense as printed periodical collections do.

Third and finally, remote access to the Libraries' catalog, indexes, and on-line collections allows more and more researchers to do their work without physically coming to the Libraries. The Libraries have expanded their space to the desktops of their users.

Every library needs more space, and no library will ever have enough. The University Libraries are no exception. The proper question to ask is: Does the library maintain an overall environment conducive to study and research? The answer is yes.

Strategic Directions

The Libraries continue to refine and hone their services and constantly evaluate the direction in which they need to move. Unforeseen change will inevitably occur, both as new possibilities arise and as the University's vision and needs change.

Within this context, the Libraries plan to build on existing strengths in order to fully support the information needs of the campus. This evolution will continue to address the Libraries' mission in the following areas:

- Enhancement and expansion of user-based information with an evolving mix of print-based and electronic resources.
- Integration of information services with academic programs and priorities.
- Access to scholarly information resources, in whatever format they appear and in whatever location they are housed.
- Preservation of existing library collections.
- Provision of adequate physical facilities for study and research.
- Development of resource-sharing technologies and agreements, including resolution of copyright issues.

- Cooperation with other types of organizations and institutions providing information resources to ensure efficient and effective response to a wide variety of information needs.

More and more, the strategic planning for the UM-St. Louis Libraries is done within the context of the strategic planning for larger groups of libraries. Many of the advances achieved for this campus's Libraries in recent years have been possible because of ongoing joint System funding and planning. The UM Libraries successfully completed an initial Five-Year Plan, begun in 1992, and are now in the midst of a second Five-Year Plan (RR: File 177, Library Five-Year Plan, 1993; File 178, Library Five-Year Plan, 1997).

Performance Benchmarks

Assessment of library services is a "hot topic" in the professional literature, precisely because it is such a difficult task. For years the standard reported measures of evaluation have been such quantitative measures as budget and volume count, neither of which necessarily addresses the correct issues: What do users want, and are libraries delivering it effectively?

In the attempt to address the above question, the Libraries have aggressively accumulated a wide array of quantitative and qualitative indicators. Qualitative measures include:

- High evaluations by external reviewers in the Five-Year Reviews of 1992 and 1997.
- Highest student satisfaction with the Libraries on 1995 College Outcome Survey and second only to the greatly enhanced computing services on the 1998 College Outcome Survey.
- Regular exclusion of the Libraries from budget cuts.
- Support of reapportionment of campus funds to the Libraries budget.
- Substantial Systemwide financial support for the Libraries.

Ultimately the success of the Libraries is measured by the satisfaction of the faculty and students with the Libraries' services. This satisfaction has been achieved and indicated in recent years, and the Libraries will seek to continue and increase levels of satisfaction as indicated by so many different measures. Many of the quantitative measures for evaluating the Libraries have been mentioned throughout this report and are included in more detail in the Resource Room documents referenced throughout this text.

Centers

Center for International Studies

From its inception in Fall 1968, the Center for International Studies has promoted a variety of international programs and projects. The center is responsible for promoting international studies across all the disciplines, in all the schools and colleges. The center strives to support faculty research, academic programs, and other projects that contribute to campus efforts to prepare students to assume leadership positions by providing them with the international competence they will need to function in an increasingly interdependent world and global economy.

The center mission is to:

• Promote research in international, cross-cultural, and comparative studies.

• Internationalize the campus and the curriculum through a variety of on- and off-campus programs.

• Educate the community through programs which promote interest in and understanding of international affairs.

The center was assigned a major new responsibility in the last 18 months: operation of the campus Office of International Student Services that directs international student recruitment, admissions, and retention.

The center promotes development of interdisciplinary and multidisciplinary courses, houses the Karakas Family Foundation Alliance for the Advancement of Hellenic Studies and the Joint Center for East Asia Studies of UM-St. Louis and Washington University, and collaborates with the Endowed Professorships in Chinese, Greek, and Irish studies. It conducts seminars, conferences, and programs for campus and community audiences, organizes international business development programs, issues research and policy papers, and administers the undergraduate certificate programs in Africana, East Asian, European, international, international business, and Latin American studies, as well as the Graduate Certificate Program in International Studies. In addition, the center's Community Education Office serves precollegiate educators statewide through the Missouri International Studies Resource Collection and operates a comprehensive global education program. The center administers the campus exchange and study-abroad programs, disseminates information on study, work, and travel abroad, and assists students in locating internationally related internships in St. Louis.

The center's Office for International Student Services coordinates and provides services for international students, including admissions, orientation, nonacademic advising, and social activities. Also, the OISS directs campus international student recruitment, provides immigration services for the campus community of scholars and students, and is responsible for the campus International House, a recreational and meeting facility for international students.

Each year the center appoints faculty as Fellows or Research Associates in the center. Fellows receive direct research support through either a reduction in their teaching load or funds for research expenses. Currently, 17 faculty are appointed from the College of Arts and Sciences, two from the School of Business Administration, and one from the School of Education. Research Associates (37) receive priority consideration for research-related support from the center. In addition, the center supports the Theodore Lentz Post-Doctoral Research Fellow in Peace and Conflict Resolution Studies.

The center continues to lead campus efforts to develop new courses and programs for internationalizing the curriculum, including the undergraduate certificate programs in international studies, the graduate certificate program, the global ecology course requirement for elementary education majors, the global awareness requirement for business majors, and a wide range of study-abroad and student-exchange programs.

In the next few years, the center intends to redouble efforts to increase the number of students, especially Pierre Laclede Honors College students, who study abroad. Efforts will continue to increase study-abroad scholarship funds, and the center will work to develop study-abroad and exchange programs for new constituencies such as nursing, education, and optometry. In addition, the center will work to provide students who do not study abroad with international experiences by organizing courses taught by visiting international faculty, through additional programming in connection with the endowed professorships in international studies, and by increasing the number of international students on campus. (A more detailed report is available in the Resource Room.) (RR: File 120, Complete Center for International Studies Report).

Public Policy Research Centers

The Public Policy Research Centers play a key role in achieving the urban mission of the University through basic and applied public policy research, dissemination of research findings, and provision of service to the

community. The centers' foremost goal is to bring knowledge and research from the University to bear on critical policy issues confronting the region, state, and nation.

The centers' mission is achieved through support of faculty fellows and professional staff. Faculty from ten University departments receive support from the centers to pursue basic research. The nine-member professional staff is responsible for applied research. In the last fiscal year, the centers completed contract work for 23 agencies or University offices with just over $500,000 funded. The centers provide the editorial staff for the *Urban Affairs Review,* the preeminent international journal of urban issues. The *Review* is published six times annually. The North American Institute for Comparative Urban Research operates through the centers' administrative and support staff. (A more detailed report is available in the Resource Room.) (RR: File 121, Complete PPRC Report).

Center for Trauma Recovery

The Center for Trauma Recovery (CTR) is a multidisciplinary center whose purpose is to foster research, teaching, and service in the area of trauma and victimization.

Like most metropolitan areas, St. Louis has identified crime as one of the greatest problems facing its citizens. One of the major focuses of the center has been on assisting victims of crime through research, training, and direct service. However, the center has a greater breadth of scope to trauma more generally, including victims of war, accidents, or natural disasters. The impact of traumatic stress has received increased attention by researchers and community service agencies over the past decade. However, the interactions between researchers, community agencies, and the populations they serve have been very limited nationally. Furthermore, training and education in the delivery of mental health services to traumatized populations has lagged far behind the knowledge that has been accumulated. Nationally, there is currently little available in coursework and training either for clinical services or in research at either the undergraduate or graduate level. UM-St. Louis is one of the few universities to offer courses, standardized fieldwork, and a certificate program on the undergraduate level and specialized therapy and research training on the graduate and postdoctoral levels.

Since 1996, the center has housed five federally funded projects. It houses a clinic that provides assessment and treatment to trauma victims and their families. Therapy is provided by faculty, postdoctoral fellows, and graduate students. The faculty of the center work actively with a number of community-based organizations, including victim assistance agencies, battered women's programs and shelters, and a sexual-assault center. (A more detailed report is available in the Resource Room.) (RR: File 122, Complete Center for Trauma Recovery Report).

International Center for Tropical Ecology

The International Center for Tropical Ecology (ICTE) was established in 1990 in cooperation with the Missouri Botanical Garden to promote research and education in the biology and conservation of tropical ecosystems. Because of the urgent need to understand, conserve, and restore rapidly disappearing habitats in tropical regions, the ICTE strives to facilitate research and train the next generation of scientists who will face the challenge of solving ecological problems in tropical countries. The center has recently identified the following goals and objectives:

- Promote research and graduate education in tropical ecology and systematics and in tropical conservation and sustainable development.
- Nurture partnerships with the Missouri Botanical Garden and the St. Louis Zoo.
- Establish active links with colleagues and institutions in tropical countries that will enhance scientific exchange and promote research.
- Promote multidisciplinary approaches to solving ecological problems in tropical (and temperate) countries.
- Promote undergraduate education in conservation biology, focusing on Missouri and temperate ecosystems.
- Promote an awareness within the St. Louis community of the importance of tropical conservation and the pursuit of environmentally sustainable practices.

The ICTE awards a number of tropical research and internship scholarships. It sponsors speakers who present research seminars to faculty and graduate students on campus. It arranges internships for the Graduate Certificate in Tropical Biology and Conservation. Since summer 1992, 36 graduate students have participated in conservation internships. There has been a strong international component in this special conservation training in both the identity of the interns and the organizations with which they have conducted their internships. Twenty-one students who completed the certificate program were international, representing nine countries: Australia, Costa Rica, Spain, Ecuador, Guatemala, Colombia, Venezuela, Peru, and Brazil. Internships have been conducted in the Federal Republic of Germany, Costa Rica,

Ecuador, Peru, and both locally in St. Louis and nationally in Louisiana, Utah, New York, and Washington, D.C. In total, internships have been conducted with no fewer than 25 organizations, including international nongovernmental conservation groups (e.g., World Wildlife Fund), multinational institutions (e.g., The World Bank), federal agencies (e.g., Smithsonian Institution), and private organizations (e.g., Costa Rica's National Institute of Biodiversity, Missouri Botanical Garden). A number of the graduates of this program have gone on to positions in conservation-related fields.

The ICTE organizes World Ecology Day each year. This day consists of a symposium of expert speakers addressing an environmental theme of major significance and displays by environmental organizations. The ICTE awards the World Ecology Medal each year to an eminent, international leader dedicated to solving environmental problems. Award of the medal draws attention to ecological affairs and increases the visibility of the ICTE and UM-St. Louis. Medal winners include John Denver, Jacques Cousteau, Prince Sadruddin Aga Khan, Paul Ehrlich, President Jose Maria Figures, and Richard Leakey.

The ICTE and the Department of Biology have become established as one of the premier programs in the United States for graduate education in tropical biology. Building on the reputation and credibility of the Missouri Botanical Garden and active research programs in tropical countries by several University faculty, the ICTE has crystallized an identity in this area in a relatively short period of time. (A more detailed report is available in the Resource Room.) (RR: File 123, Complete ICTE Report).

Center for the Humanities

The Center for the Humanities was launched in 1992 and is the only Center for the Humanities in the four-campus System, the region, and the state of Missouri. The center offers a wide range of humanistic interdisciplinary events and functions to students, faculty, and community.

Over the last several years, the center has sponsored a conference titled "What Is a City?" which examines the structure and social environment of cities and their effects on social and cultural diversity. Throughout the academic year the center also sponsors the Monday Noon Cultural Series, which presents a variety of humanistic lectures and musical performances. The center also supports and coordinates the Poetry and Reading Series, which features original contemporary authors reading their works. The center has presented symposiums in

collaboration with the Repertory Theatre of St. Louis, Opera Theatre of St. Louis, Washington University, and the Missouri Historical Society. All the events of the center are free and open to the public. In addition, the center houses and funds the journal *Theory and Society,* a refereed, interdisciplinary journal of social theory and practices, published by Kluwer Academic in The Netherlands.

The Center for the Humanities reports to the Vice Chancellor for Academic Affairs and is supported by that office. The administrative structure consists of a director and an assistant director. There also is a 12-member advisory board representing the humanities departments of the University. The center also seeks external funding, applying for four to five grants per year. The center also relies on internal faculty resources. Many of its faculty are world-renowned experts and offer their expertise at center conferences without honoraria.

Center for Neurodynamics

The Center for Neurodynamics is a research center for interdisciplinary studies in biological physics sponsored by the Department of Defense through the Office of Naval Research. The mission of the center is to pursue basic research on the information-processing and transmission properties of the nervous system. More specifically, the center sponsors studies on chaos, or low-dimensional dynamics, and on random processes, or "noise," as they apply to and mediate information processes in the nervous system. Through collaborations and associateships, the center seeks to extend its research findings into practical areas of medical science and biologically oriented industry.

The major activities currently being carried out within the center include studies of chaos, stochastic resonance, and noise in behavioral and electrophysiological processes in the paddlefish electoreceptors, crayfish photoreceptors, cat and human visual systems, and the human proprioceptive system. The center is funded primarily through external research grants and contracts.

Center for Molecular Electronics

The Center for Molecular Electronics conducts fundamental and applied research at the forefront of molecular electronics and assists St. Louis-area corporations in the development of high-technology products. Molecular electronics is defined as the study of advanced technological materials and devices where knowledge or control at the atomic or molecular level is required. The membership of the center includes physicists, chemists, and

engineers from UM-St. Louis, Washington University, and local high-tech corporations, such as MEMC Electronic Materials, Boeing, and Monsanto.

The major research activities of the center include Molecular Beam Epitaxy of group IV elements, chemical vapor deposition of ultra-hard carbon coatings, high performance polymers, nonlinear optics in organic materials, and defects in single-crystal silicon. The major facilities include high-resolution electron and scanning microscopy, X-ray crystallography laboratory, nuclear magnetic resonance spectroscopy, and computational chemistry. A fuller description of the center's activities can be found on its Web page (RR: Web 184, http://newton. umsl.edu/cme.html).

Center for Business and Industrial Studies

The Center for Business and Industrial Studies was formed in 1982 within the School of Business Administration to encourage a program of applied research appropriate for a university located in the heart of a major metropolitan area. Its mission is to:

• Promote research on topics of direct interest to the business and professional community.

• Undertake interdisciplinary studies in response to requests for proposals from the public and private sectors.

• Involve students with faculty in applied research and consultation.

• Disseminate findings through reports to sponsoring organizations and publications in academic and professional journals.

In the private sector, the center has served firms in financial services, transportation, retailing, manufacturing, and communications. In the public sector, it has served municipal governments, school districts, and various service agencies. Faculty usually undertake center projects with the expectation of plying their talents on meaningful managerial problems while producing results that merit publication in prominent professional and academic journals. In these endeavors, sponsoring organizations obtain creative insights on managerial problems and new uses of information technology and students gain valuable experience in working with faculty in actual business settings.

Examples of completed projects are:

• Development and implementation of computerized systems for bus operations in the metropolitan transit agencies of St. Louis and Cincinnati.

• Development of statistical models for risk management and setting loss reserves for loan and leasing portfolios of major U.S. financial institutions.

• Development of a strategic plan for municipal information systems in the City of St. Louis.

Two national awards have resulted from the center's work (the 1987 Management Innovation Award from the American Public Transit Association for work with the Bi-State metropolitan transit agency and the 1994 Best Application Paper Award from the Decision Sciences Institute, resulting from collaboration with financial institutions).

The Center has no budgetary lines. It engages faculty, staff, students, and other associates only as grant and contracts are acquired for specific projects.

Center for Academic Development

The Center for Academic Development (CAD) is the University's academic support and assessment unit, providing support for the campus missions of teaching, learning, and community service. The academic support services both enhance the acquisition of course content and instill transferable study skills. The primary goal is to help students better succeed in their course work, and so promote their retention through a complete academic program. The assessment component of CAD implements the campus assessment plan and so serves the University's goal of constant improvement of curriculum and instruction, student advisement, and public accountability, by measuring its success in teaching and learning.

Established in 1977, CAD has continually evolved in response to changing states of student preparedness, perceived campus need, and projects assigned by campus administration. For the last few years CAD has had the following structure, with changes as indicated.

Communications Unit: The Writing Lab is a walk-in computerized lab offering tutorial assistance with writing assignments for all students and faculty. The Supplemental Instruction (SI) Program supplements selected courses with an SI leader who assists with the mastery of the course content and reinforces transferable study skills. This program was enhanced as part of the campus' Funding for Results (FFR) initiative in 1996 (see Chapter 6). SI has been designated an Exemplary Educational Program by the U.S. Department of Education. The English-as-a-Second-Language Program (ESL) provides English language courses and assessment

for international students. Also provided is the International Teaching Assistant (ITA) Seminar mandatory for international students who will be teaching on campus. Seminars in Communication Skills for INROADS Students provide, during the Winter semester, enrichment seminars in English and communication skills for high school students in the INROADS/ St. Louis program.

Mathematics Unit: The Math Lab is a walk-in lab offering tutorial services for math found in courses in mathematics, business, economics, physics, and more. Computers with relevant software are also available. The pre-Collegiate Algebra Workshops provide noncredit, lecture or independent study courses in Beginning and Intermediate Algebra preparing students for college-level mathematics. Seminars in Math Skills for INROADS students provide, during the Winter semester, enrichment seminars in mathematics for high school students in the INROADS/St. Louis program. Math Placement Test Review Sessions provide reviews of pre-college level mathematics on one Saturday or two weekday evenings for a $25 fee.

Campus Assessment: Campus Assessment implements the Campus Assessment Plan, assists with surveys as directed by the Missouri Coordinating Board for Higher Education (CBHE), and assists students in preparing for, and administers, certain tests such as the Academic Profile II Test which is given to all freshmen and graduating seniors, the CBASE Test which is given to Education majors as a condition for teacher certification, and Major Fields Tests, which are required of graduating seniors. This unit also administers the Residual ACT and Math Placement tests as necessary for admission, and a variety of specialized exams given as a courtesy to the community. A Drop-In Test Center was opened in the summer of 1998. This center is a controlled environment with appropriate equipment to accommodate student testing needs on an individual basis. Services include computerized testing and facilities for students with disabilities. This unit also coordinates student, alumni, and employer surveys as mandated by CBHE. As a service to the community, the unit offers ACT-SAT Preparation Workshops to approximately 200 high school students per year, including INROADS/St. Louis participants.

Other programs: The Orientation/Study Skills Workshops are one-hour non-credit workshops open to all students and mandatory for students admitted on a trial basis. CAD administers a tutor referral list as part of its Internet home page. Students are sought and certified to tutor in various campus courses. CAD provides funding for

student assistants in the Foreign Language Lab. Two CAD programs were recently reassigned to the Center for Multicultural Relations. These programs are the Student Support Services Program (SSSP), which provides academic and personal advising and seminars on skills, cultural, and personal enrichment for minority students; and the African American Scholars Program (AASP), which provides academic and personal advising, freshmen seminars, and career planning and application assistance for African-American students on scholarships.

Since its inception in 1977, CAD has evolved from a unit providing mostly remedial services to a unit whose services are, with the exception of the Pre-Collegiate Math Workshops, completely nonremedial. The English-as-a-Second-Language Program (ESL), created by CAD in 1994, has grown each year. The ESL program serves international students matriculating under the Center for International Studies.

One measure of CAD's strength is the large number of students who voluntarily and repeatedly use the offered academic support services. In academic year 1997-98, 4,203 students used these services. This number does not include the approximately 4,000 students who were tested under Campus Assessment. Similar figures have been recorded for the previous two years (RR: File 124, CAD Use Figures). Other measures of CAD's strength are studies on the effectiveness of specific CAD programs. Studies were done in WS97 and WS98 on the effectiveness of Supplemental Instruction (SI) and the Orientation/ Study Skills Workshops. For SI, both studies showed that as a group, students participating in SI had a higher percentage of A's and B's, a lower percentage of D's, F's, and W's, and a higher grade point average than the group of non-SI students. The studies of the Orientation/Study Skills Workshops showed that student success (GPA≥2.0) corresponds directly with the number of times the student attended the workshops. Those attending nine or more times succeed at a higher rate. (A more detailed report is available in the Resource Room.) (RR: File 125, Complete CAD Report).

Center for Entrepreneurship and Economic Education

The Center for Entrepreneurship and Economic Education was established in 1978. Its mission is to increase the quantity and improve the quality of economics taught in K-12 classrooms. The center is a unit of the division of Continuing Education-Outreach in the College of Arts and Sciences. Its academic base is the Department of Economics.

The center is part of a network of approximately 50 councils and 2,570 centers located at colleges and universities throughout the United States. It is affiliated with the Missouri Council on Economic Education and the National Council on Economic Education, nonprofit organizations created to increase economic literacy in the United States.

The center adheres to the philosophy and mission of the national network. Center personnel have implemented economic education through a variety of approaches: preservice teacher education, inservice teacher education, conferences, workshops, curriculum consultations with schools and school districts, instructional materials development, and maintenance of an economic education resource center. Many of these programs are possible because of strong partnerships with community businesses and organizations. Center personnel are also engaged in a variety of professional activities. (A more detailed report is available in the Resource Room.) (RR: File 126, Complete Center for Entrepreneurship and Economic Education Report).

Instructional Technology Center

The Instructional Technology Center (ITC) provides media and technical support and expertise to the University. The center supports activities that require traditional audiovisual, video, telecommunications, and multimedia technologies. The center's staff works closely with faculty and staff to use current facilities and develop new capabilities in response to the University's needs, providing training and development as needed. In its operations, the center adheres to international technical standards, as well as those developed by the System.

The ITC responsibilities have developed into five functional areas: audiovisual support, telecommunications and distance learning, video production, multimedia development, and the Video Instructional Program.

Audiovisual Support

The main responsibility of this section is for equipment distribution on the north and south campuses. All requests for equipment are filled if requested 24 hours in advance and if the equipment is available, and approximately 95 percent of same-day requests are also honored.

Telecommunications and Distance Learning

Services include distance learning (interactive video), satellite services, and an on-campus cable television network.

Approximately 12 years ago, the University of Missouri video network was installed to link the University's four campuses; since then, numerous other sites have been built across the state. Interactive sites available to the University are located at UM campuses at St. Louis, Columbia, Rolla, and Kansas City; Telecommunications Community Resource Centers (TCRCs), including Popular Bluff, Portageville, Camdenton, and Mexico (other TCRCs are planned); UM-St. Louis Residence Centers at St. Charles County Community College and Jefferson College; St. Louis Public Schools; SIU-Edwardsville; the Cooperating School Districts; and St. Louis Community College.

The video classrooms at the ITC are designed to accommodate full interactivity between sites. The interactive system is voice-activated. When a student at a remote site speaks, he or she will be heard at all locations. At the same time, the teacher will see the student on the incoming monitor in the local classroom. Monitors in the front of the room are used to display media used by the instructor on site or the incoming video from remote locations. All video classroom activities are monitored by a control-room operator who switches between cameras and media as needed.

The St. Louis campus has become the most productive provider of courses among the four-campus System. In the past year, ITC supported over 1,500 hours of interactive video programs. Credit courses originating from the St. Louis campus included nursing, education, physics, and business. During the past five years, the Instructional Technology Center has produced programs that have connected interactively, using two-way audio and video, with Japan, Portugal, Mexico, Canada, and Ireland.

In 1997, the center installed a PictureTel Live200 desktop videoconferencing system. This system is used for worldwide dial-up conferencing via ISDN.

ITC provides downlink services (both C and Ku band) for recording and live viewing in campus classrooms. Satellite uplink services are available as needed by renting an uplink truck.

The I-Net is an internal cable network that interconnects all buildings and most classrooms on campus. All St. Louis television stations and many educational and cultural stations are available for classroom utilization and special programs.

Video Production

In the past few years there have been several major advancements in ITC's production equipment with the addition of a computer-based character generator, studio lighting, teleprompter equipment, computer-based non-linear editing equipment for post-production, and computer-based graphics. Services include studio and remote video production, video editing, tape duplication, live satellite uplinks, and video recording of classes and special events. In 1995, using grant funds provided by the St. Louis County Cable Commission, the center purchased a remote production van. This van is available for use by other educational institutions in the St. Louis region but is maintained by ITC engineers and is housed on the UM-St. Louis campus. Over the past few years, the center has produced a significant number of programs for state and worldwide distribution, including "Rebuilding America, Missouri Telecommunication Community Resource Centers," Ambassador Takakazu Kuriyama's visit to the UM-St. Louis campus, and the Chinese version of the 30th Anniversary Partners for the Future. Other special purpose programs produced by the Center in the past have included the eight-hour, award-winning, flood recovery program titled "Getting Missouri Back to Business." "STD Update" was the largest program in the history of ITC productions, with an audience of more than 5,000 participants at more than 300 sites from Puerto Rico to Alaska.

Multimedia Development

The Multimedia Lab was established in 1994 to provide long-term technical and creative support for multimedia development. Services include instructional design consultations, assistance in development of applications, 35mm slide and color transparency production, color scanning, 35mm slide and film scanning, optical character recognition, Web page development, and CD-ROM mastering.

Video Instructional Program

The Video Instructional Program (VIP) was started approximately ten years ago to provide an alternative method for students to obtain University credit courses and was particularly aimed at students who, for one reason or another, are homebound. VIP classes are obtained either from national producers such as the Adult Learning Service of the Public Broadcasting System or have been produced by the Instructional Technology Center. The courses are scheduled by the ITC for delivery via cable on the Higher Education

Channel or by videotape checkout through the libraries or the Video Instructional Program Office.

The center expects demands for multimedia and distance-learning support to increase. These demands will require additional equipment and expanded facilities for faculty development. The convergence of voice, data, and video technologies will require the center to work closely with other technical departments on campus, especially Computing and Telephone Services. (A more detailed report is available in the Resource Room.) (RR: File 127, Complete ITC Report).

Southwestern Bell TeleCommunity Center at the University of Missouri-St. Louis

The Southwestern Bell TeleCommunity Center opened in December 1996 as a first-of-its-kind interactive telecommunications facility open not only to the campus community but to the larger St. Louis community. The center grew out of a partnership between the University and Southwestern Bell Corporation. It offers on-line computer laboratories and teleconferencing facilities to individuals, small businesses, and organizations whose access to information technology has been limited.

The center's free introductory classes include introductions to a variety of computer programs, how to use the Internet, and how to conduct research on the computer. Two computer laboratories are used for classes and general use by the public. The center also contains a 50-seat auditorium and 12-seat meeting room with state-of-the-art teleconferencing equipment. For the cost of a long-distance phone call, users can meet with potential customers in Oregon, or discuss community safety programs with a similar neighborhood in Washington, D.C., or meet the newest grandchild in Nebraska.

Center for Human Origin and Cultural Diversity

The Center for Human Origin and Cultural Diversity (CHOCD) is a joint program of the Department of Anthropology in the College of Arts and Sciences and the School of Education. CHOCD is committed to preparing young people for positive roles in a global society by empowering them with the knowledge of their origin and with the conceptual skills needed to understand their common heritage. It is committed to providing educators with the tools necessary to incorporate these skills into the educational process. Center activities revolve around two learning labs: a human origin lab with focus on the common African origin of humankind, the biological basis of human life, and the origin and

adaptability of biological diversity; an African cultures lab with focus on the diversity of cultures across the continent in Africa and the range of lifeways from subsistence farmers in villages to globalized life in urban centers. The first goal of the center is to provide age-appropriate state-of-the-art knowledge from current research, so that the knowledge acquired by a second grader will be consistent with latest advances in the allied fields that study human origin and diversity, though learned at an elementary level of abstraction. Learning activities of the Center are geared to students in the second through twelfth grades. At the Center, class groups of 10 to 60 students engage in hands-on earth science activities, participate in time line of earth history activities, and study human variation and the geography of human origin and variation. They have access to a collection of fossil skull casts and to authentic household implements and musical instruments from diverse cultures throughout Africa. Along with learning about the positive (adaptive) aspects of diversity, the students also have scientific and mathematical skills reinforced through mathematics-based interpretation and classification of fossils.

The center also runs four two-week summer camps for students aged 11 to 15; a summer course for teachers to instruct them in new strategies for integrating scientific and mathematical content into instructional programs with activities in anthropology and archaeology; diversity training for school teachers that emphasizes the basic knowledge grounded in current research; a lab experience program for ninth graders funded by NSF during the school year and a companion NSF-funded summer science camp for middle school children with the Normandy School District; and a special human origin and diversity program for incarcerated high-school-age girls.

Center for Multicultural Relations

The Office of Multicultural Relations provides academic, social, and cultural support to students of color. It promotes a more pluralistic campus through strategic planning and program efforts. The Office of Multicultural Relations supports the University's goal of academic success for all students. Cognizant of the unique challenges facing its minority population, Multicultural Relations works to enhance and promote the academic success of these students. One of the ultimate goals of Multicultural Relations and Academic Affairs is to provide understanding among all diverse groups, thus creating a more harmonious campus environment.

In cooperation with other units, the office provides a link to such services as tutoring, academic counseling, seminars on test taking, student orientation, and graduate workshops. Each semester, a calendar of upcoming events and seminars is specifically designed with this student population in mind. The calendar of events includes topics such as "Guaranteed 4.0 Learning System," Student Dialogue Brown Bag Series (dialogue with administration and faculty), midterm workshops, and student dialogue on race relations. (A more detailed report is available in the Resource Room.) (RR: File 128, Complete Center for Multicultural Relations Report).

Adult Day Services Center

The Adult Day Services Center is a health-care program for adults who need supervision and rehabilitation during the daytime. It also provides relief for caregivers from the burden of caregiving. The center also serves as a clinical site for students interested in learning how to care for older adults. People interested in starting an adult day-care center also receive assistance at the center through individualized educational experiences.

Services at the Adult Day Services Center include nursing care, physical therapy, social services, therapeutic recreation, and socialization. A Special Care Unit was started in September 1993 to accommodate participants needing closer supervision and more individualized care. Intergenerational activities are planned with grade school and high school students from the St. Louis area who are doing community service projects.

The Adult Day Services Center has been an integral part of the University since July 1985. Funding has come from many sources, including Medicaid, Mid-East Area Agency on Aging (MEAAA), private pay, and private and corporate donations. The University contributes approximately 9 percent of the revenue of the center, while the rest is generated through other sources. The center has operated in the black financially since its inception.

University Child Development Center

The University Child Development Center is a campus-based child-care center serving UM-St. Louis and surrounding communities. Its purposes are to provide high-quality child and parent programs, to promote staff development and teacher training, and to serve as a site for child study or research and practical experiences for UM-St. Louis students and faculty. The center provides full-day and half-day care for children whose ages range

from six weeks to five years. The University Child Development Center relies upon tuition paid by parents to fund its operations. It operates as a part of the School of Education.

The center operates with three main objectives:

• To provide high-quality programs for children and parents.

• To provide staff development and training.

• To provide child study, practicum, and research opportunities to University of Missouri students and faculty.

The University Child Development Center serves as a model demonstration site for early childhood curriculum. The School of Education, School of Nursing, Psychology Department, and Missouri Baptist College have placed students to work and learn within the Center.

Children's Advocacy Center

The Children's Advocacy Center is the headquarters of Children's Advocacy Services of Greater St. Louis. Its mission is to improve the community's response to child sexual abuse in St. Louis. This is accomplished through service, training, and research. The goals of the agency are:

• Coordinating the investigative and medical/nursing component which reduces the traumatization of children.

• Offering sexually abused children and their nonoffending caretakers immediate support and appropriate intervention to address their psychological and emotional needs.

• Identifying and implementing scholarly research which will measurable improve response to child sexual abuse.

• Reducing the incidence of child sexual abuse through increased public education and parental support.

• Educating and training people working with child sexual abuse victims to understand and effectively respond to the unique needs of child victims.

In its first year of operation, approximately 477 referrals received attention or services, 14 students benefited from supervised learning and practical experience with these children, and many other students were trained in workshops, symposia, and national conferences.

Center for Emerging Technologies

The Center for Emerging Technologies is a joint effort of the University, the City of St. Louis, and the State of Missouri. The University provides the administrative staff and structure for the Center. The City provides the incubator building out of which the center operates, and the State provides support for the programmatic activities of the center. The mission of the Center is to lead that part of the regional technology-based economic development strategy that focuses on new and early-stage technology enterprises, especially fast-growth companies in advanced technologies.

The center creates an environment, including programs, services, and facilities, that stimulates and enhances innovation and technology-based enterprise development. Through strengthening the processes of commercializing innovative technologies and forming new and successful technology-based enterprises, it creates economic value and enhances employment opportunities in the region. The center's incubator facility provides an enriched environment that includes advanced telecommunications, wet labs, shared office support services, conference and training facilities, and opportunities for stimulation interaction among entrepreneurs.

The center has three focuses for its activities. The first is the incubation, technology development, and business development for emerging technology businesses. The second is actively identifying potential entrepreneurs and latent technologies in the universities or corporations that have commercialization potential and working to catalyze the information of new enterprises based on those technologies. The third is selectively cultivating one or more large-scale technology initiatives that enhance an existing industry strength, in partnership between the regional universities and industry to attract major new sources of funding and to gain regional competitive advantage.

Mid-America Manufacturing Technology Center – St. Louis Regional Office

The Mid-America Manufacturing Technology Center (MAMTC) is supported entirely through federal and state grants and contracts. All St. Louis Regional Office employees are University employees. MAMTC offers consulting and follow-up work to both fledgling and successful manufacturers that need assistance with a range of challenges that include quality control, information systems, marketing, sales promotion, process planning, product design, or team building. The St. Louis region is home to more than 3,000 small- to medium-sized (fewer than 500 employees) manufacturers. St. Louis regional firms account for 38.4 percent of all manufacturing jobs in Missouri, and represent 16.3 percent of all jobs in the St. Louis region.

Each MAMTC field engineer and project director has both the appropriate degree and practical manufacturing experience. Each field engineer and project director is responsible for identifying prospective customers, contacting and visiting plants, analyzing the technical and business status of each customer, offering solutions, providing hands-on consulting services (either on his or her own, or drawing on the expertise of others), and staying in contact with the client manufacturer to ensure satisfaction with the project. Each also devotes time to working with community groups, such as chambers of commerce, economic development organizations, and professional organizations to contact additional manufacturers and resources.

Sue Shear Institute for Women in Public Life

The Institute for Women in Public Life was established to assist women in developing the interest and skills needed to succeed as full participants within government, serving in elected or appointed office or as employed policymakers. Although women make up a majority of the population, voters, and current college graduates, they are minority participants at every level of public policy leadership. Some of the barriers to women's participation result from traditional institutional thinking, and some are an outgrowth of women's inexperience in the field and lack of awareness of opportunities available. The goal of the Institute is to help women break down both external and internal barriers to their assuming rights and responsibilities of a representative democracy.

To achieve this goal, the Institute includes the following elements in its activities:

- Tracking the participation of women at various levels of government.
- Increasing the presence of women appointees on boards and commissions.
- Providing leadership training for college women.
- Increasing the number of women employed in policy making positions in government.
- Encouraging women to seek public office.

Student Affairs

Mission

The title of the Division of Student Affairs suggests a set of daily activities that belies its actual mission. Student Affairs staff members work with multiple constituencies, including students, faculty, parents, families of students, administrative staff, counselors, deans, academic advisers, program coordinators, student service staff in other divisions, community leaders, community agencies, local citizens, and legislators. The work of the division encompasses numerous dimensions of the individual and collective experiences of students.

In keeping with the UM-St. Louis mission statement, Student Affairs focuses on the diverse needs of traditional and nontraditional students alike. Through the use of advanced technologies and partnerships with local high schools, colleges, and universities, Student Affairs promotes seamless educational opportunities. Student Affairs also supports the institutional mission by awarding student financial aid, scheduling classes, enrolling students, encoding degree requirements, promoting the use of degree audits for academic advising purposes, tracking students' progress toward their educational goals, preparing early warning lists of students in academic jeopardy, tracking rates of retention and graduation, providing training in the use of the student information systems, and providing data for institutional research and federal reporting.

The current mission statement of the Division of Student Affairs (1995) is as follows:

"Our mission is to provide quality programs and services that complement the academic experience and to provide opportunities that enhance the development of our students.

- We recognize the worth and dignity of all students and their diverse needs.
- We believe students who are broadly educated will make a contribution to society.
- We serve our customers in an ethical, effective, and friendly manner.
- We work as partners with the campus and the community."

The purpose of the Division of Student Affairs has changed somewhat in the past ten years. Its stated mission, operational goals, leadership, organizational structure, programmatic emphases, and funding mechanisms have changed in accordance with social change

and institutional priorities. For example, there is currently a strong emphasis on enrollment management, driven by higher admissions requirements, moderate shifts in program offerings, uneven student demand for available classroom seats, changing demographics, intense market competition for high-quality students, and increased instructional costs. The Chancellor has placed with the Division of Student Affairs additional responsibility for enrolling more (and better prepared) students and has placed new emphasis on developing a campus community where learning is promoted and retention can be increased.

Operating Principles

The Division of Student Affairs is headed by a Vice Chancellor who is a member of the Chancellor's senior staff. The Vice Chancellor has extensive experience applying an administrative paradigm known as "enrollment management" to influence the size and characteristics of the student body. He co-chairs, together with the Vice Chancellor for Academic Affairs, a Universitywide Enrollment Management Task Force. This model is intended to ensure that policy decisions affecting enrollment are informed by converging academic and administrative perspectives as well as viewpoints and practical matters related to faculty and student profiles.

Student Affairs is currently composed of the following departments and services with administrative heads: Admissions, Financial Aid, Registrar, Degree Audit, Student Advising Services, Career Services, Counseling Services, Student Activities, Women's Center/Orientation, Disability Access Services, University Health Services, and Residential Life/Summer Conferences.

In addition, the *Collected Rules and Regulations of the University of Missouri* place within Student Affairs responsibility for administration of non-academic student disciplinary processes and the filing of complaints or grievances possibly related to discrimination.

The organization of the division is shown in Figure 4-14. Detailed departmental organizational charts are in the resource room (RR: File 129, Student Affairs Departmental Organizational Charts).

The Vice Chancellor is assisted by an Associate Vice Chancellor and a small support staff. The Vice Chancellor is an *ex-officio* member of the University Senate, the Senate Committee on Budget and Planning, the Senate Committee on Students Affairs, and the Senate Committee on Recruitment, Admissions, Retention, and Financial Aid. The work of the Division

Figure 4-14 – Student Affairs Organizational Chart
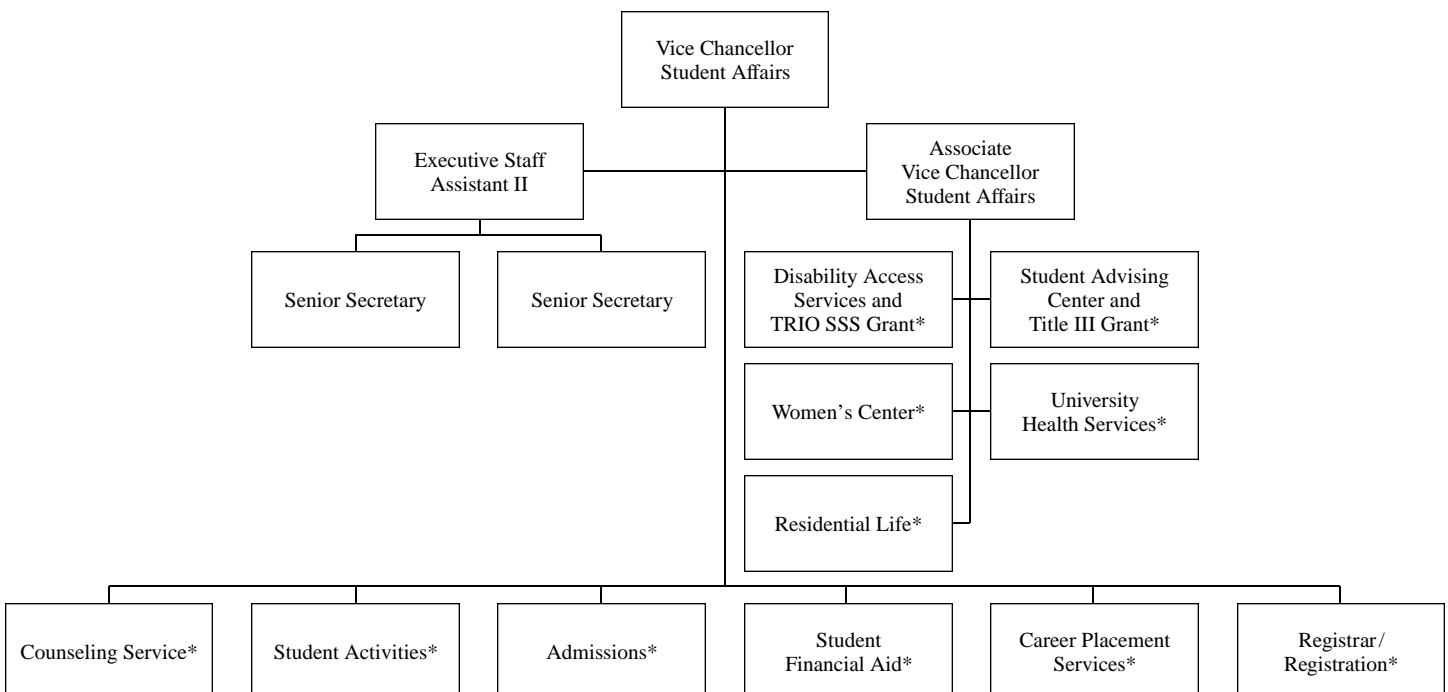
*Detailed organizational charts in the Resource Room.

of Student Affairs is accomplished in partnership or close cooperation with numerous other administrative units, academic support services, and academic units.

The Division of Student Affairs has undergone considerable change since the most recent NCA review. Many of the departments and services that make up the division are new, have been reorganized, or have fundamentally changed the way they work with their multiple constituencies.

Since the previous NCA review the following programs have been transferred out of the Division of Student Affairs:

• In 1994, Admissions, Financial Aid, the Registrar, and Degree Audit were transferred to the Division of Academic Affairs. However, after a successful nationwide search for a new Vice Chancellor for Student Affairs, these departments, with the exception of Graduate Admissions, which was assigned to the Graduate School, were returned to Student Affairs in 1997.

• In 1996, International Student programming was transferred to the Center for International Studies within the Division of Academic Affairs.

• In 1996, the University Center, along with the campus scheduling and food service functions, was transferred to the Division of Administrative Services.

• In 1997, Athletics and Recreation, along with the intramural program, was transferred to the Division of Administrative Services.

Since the previous NCA review, the following new programs have been added to the Division of Student Affairs:

• In 1991, the Department of Residential Life was established; its unit head co-reports to Student Affairs and Administrative Services. At this time, the University's first residential Summer Conference program was also established within Residential Life.

• In 1992, the Division of Student Affairs won a five-year, $250,000 Cooperative Education grant through the U.S. Department of Education for the purpose of increasing the number of opportunities for students to work in meaningful jobs related to their majors while earning their undergraduate degrees.

• In 1994, the Division of Student Affairs won a five-year, $1.3 million Title III Strengthening Institutions Grant through the U.S. Department of Education for

the purpose of improving the delivery of academic programs through the development of computer-assisted enrollment, advising, and retention systems, as well as the improvement of academic and student service advising.

• In 1998, to institutionalize organizational development achieved under the auspices of the Title III grant, the Division established a Center for Student Advising Services. This unit is working with advising and student-service units throughout the University to develop its mission, goals, and strategic objectives, in accordance with a Universitywide commitment to building community and ensuring that students receive well-coordinated advising and retention services.

• In 1997, the Division of Student Affairs won a four-year, $720,000 renewable TRIO grant under the Student Support Services program for the purpose of providing academic support for students with disabilities, particularly those who face additional hurdles due to poverty and status as first-generation college students.

Since the previous NCA review, the following program has been reorganized within the Division of Student Affairs:

• In 1994, acting on the recommendations of a University-wide task force, the student health service was reorganized in terms of mission, funding, oversight, and administration. It is now a nurse practitioner-directed facility dedicated to wellness through care and education. The unit head also teaches and advises in the School of Nursing and oversees clinical experiences for nursing students within the University Health Service.

Vision

The current overarching goals of the Division of Student Affairs are to increase enrollment (including head count, quality, full-time equivalency, and student-credit-hour production), to develop a sense of campus community, to develop staff skills related to the use of technology, and to reorganize to better fulfill its mission. To achieve these goals, the Vice Chancellor has taken the following steps:

• Established a Universitywide Enrollment Management Task Force which is co-chaired by the Vice Chancellor for Academic Affairs.

• Appointed a Retention Team working group to develop intervention strategies and policy changes to enhance student retention and to make recommendations for the development of new student life and involvement activities.

• Established a divisionwide strategic planning process which is likely to result in modifications of the division's mission, goals, and organizational structure. To assist him in this effort, he has appointed a Student Affairs Strategic Planning Committee, which presented its recommendations in Fall 1998 (RR: File 130, Student Affairs Strategic Planning Committee Report).

The anticipated goals of the division in the next several years include continuation of each of the above initiatives, growth in the on-campus residential community, improvement in the coordination of service to students, increased use of technology to support Universitywide decision making, and increased use of technology in work-flow applications.

The Division of Student Affairs is dedicated to using assessment, research, and evaluation for planning, policy, and practice. The goals of the division, especially in the enrollment service units, are tightly coupled with the changes in academic program offerings and are sensitive to related shifts in enrollment, quality, and program inventory. For example, recruitment goals are tied to changes in academic programs, made possible by assessment at the department level. Results of the assessment plan provide excellent information about the perceived quality of the programs themselves and (through measures of student achievement) of the students within them. Such information is useful in answering the questions of prospective students and their parents, identifying areas of particular strength, and developing marketing plans for the recruitment and admission functions.

To shape its operational goals and strategic objectives to be responsive to students, Student Affairs departments distribute user satisfaction surveys at the point of service, conduct or participate in periodic surveys of student needs and satisfaction, and sponsor or co-sponsor *ad hoc* studies of selected aspects of the student experience. In addition, each year Student Affairs participates in the Public Urban Universities Student Affairs Data Exchange, a project established in 1986 by a previous UM-St. Louis Vice Chancellor for Student Affairs and coordinated by John Minter Associates Inc. This project has enabled the division and the University to use comparative information from peer institutions on financial statistics and ratios, enrollments, special studies, degree completions, retention rates, cost centers, and student service salaries.

Examples of surveys in which Student Affairs participates are the ACE-UCLA Entering Freshmen Survey (under the auspices of the Cooperative Institutional Research Program), the ACT College Outcomes Survey of currently enrolled students, and the ACT Alumni Outcomes Survey. In addition, the division receives more comprehensive feedback from Systemwide comparisons of these data from the Coordinating Board for Higher Education or the University System's Office of Planning and Budget. A comprehensive student satisfaction survey was administered for the first in Fall 1998 (RR: File 131, Comprehensive Student Satisfaction Survey).

Examples of *ad hoc* studies in recent years include a survey of student needs conducted with Title III funding and a survey of nonenrolling students, both completed by the University's Public Policy Research Center. Student Affairs conducts numerous analyses of the student information database in response to the requests of Universitywide task forces, committees, and administrative units.

The Data Collection and Analyses working group associated with the Enrollment Management Task Force has begun a project to study the characteristics and behaviors of University students over a period of time, using particular cohorts and a longitudinal perspective. In so doing, it is promoting a new understanding of the nature of the student body, including patterns of attendance and predictors of academic success.

Situational Analysis

Strengths

The quality, commitment, creativity, and flexibility of Student Affairs staff members is outstanding. Many of the unit directors are very active in their fields, serving in major leadership roles at the state, regional, or national level in such professional associations as the National Association of Student Personnel Administrators (NASPA), the American College Personnel Association (ACPA), the Association of College and University Housing Officers (ACUHO), the National Association of Student Financial Aid Administrators (NASFAA), and the American Association of Collegiate Registrars and Admissions Officers (AACRAO).

The Division of Student Affairs is also committed to applying the principles of continuous improvement in its service-delivery areas. Through its work on Title III and Administrative Systems Project initiatives, the division has in the past three years streamlined a number of core processes related to working with students. These include handling inquiries from prospective students, processing applications and transcripts, making admissions decisions,

processing student financial aid, registering for courses, processing wait lists, evaluating transfer credits, and making course-equivalency decisions. One excellent example of the work that has been achieved is that the process of evaluating the transfer work of new students was reduced from several months to less than one week. As a result of this improvement, students and advisers now have timely access to the information they need to make wise decisions about registration and to track degree progress on a semester-by-semester basis.

The division is succeeding in promoting the use of computers and other technology in a multitasking environment to improve the delivery of service.

Areas of concern

The division and the University will be hard-pressed to attract and retain employees with the technical expertise and skills to master the new Web-enabled, computer-based work environment that will evolve in the next few years. In addition, dedicated training programs will be needed to upgrade the technical skills of employees at all levels of the organization. For example, the transition to a PeopleSoft student information system that includes many more functions than the present system will require comprehensive and ongoing staff training and will require some degree of modification of performance expectations.

Of course, changing the general orientation of a management paradigm and the tools used in a computer-assisted work environment while sustaining dedication to students and improving service to students raises questions about the ability of each unit to absorb and embrace significant change. Clearly, Student Affairs should concern itself with recruiting and retaining the best possible staff members as new positions become available and others become obsolete.

Identity Gap

At present, some of the administrative units (particularly Admissions and Financial Aid) are not fully funded, as measured by permanent sources of revenue. In addition, not enough resources have been committed to advertising the excellent academic programs available at UM-St. Louis. The number and amount of scholarships are on the rise, but more such resources are needed to compete with other colleges and universities for the best students. As previously mentioned, there is insufficient training in the use of technical tools for working with students, such as

the student information system. Finally, the division will need to develop gradually a more mature understanding of enrollment management principles and their application in attracting and retaining good students.

Strategic Directions

Enrollment Management

The Division of Student Affairs is deliberately incorporating "enrollment management" as a guide for its purpose, goals, and strategic initiatives. Through the leadership of the Chancellor and the Vice Chancellors for Student and Academic Affairs, the division is gradually formalizing elements of this management model, expanding its longstanding tradition of working across the organization to achieve what is good for students, faculty, and the general health of the University.

Continuous Improvement in a Changing Student Service Environment

In recent years, an emphasis has been placed on improving the management infrastructure for recruiting, enrolling, and advising students. Numerous policies and practices affecting students have been closely reexamined. Considerable time and money have been devoted to reengineering old business processes, developing technological solutions to enrollment, advising, and retention systems, and improving service. Much of this work has been driven by two parallel continuous improvement projects: the University-based Title III Strengthening Institutions Program (1994), made possible by a five-year $1.3 million federal grant, and the System-based Administrative Systems Project (1995). The ASP project is tightly coupled with a multiyear changeover from outdated administrative software to a cutting-edge "enterprisewide" information system which will seek to integrate student, human resources, and financial records and workflow systems.

The improvements being made in Student Affairs as a result of these projects are testimony to a growing recognition that student service providers must be in a position to address the needs of multiple constituents for technology-assisted access to information and services. This trend will surely continue throughout the next ten years.

Increasingly, students who have grown up with access to remarkable databases expect the University to provide accurate, timely, useful information that cuts across all aspects of the college-student experience. They are accustomed to getting answers without hesitation, in an

effective and friendly manner, and they are being courted by dozens of other colleges and universities promising or delivering information and service directly to their homes or rooms, via the Internet.

Campus Community

In 1996, the Chancellor communicated her vision that Student Affairs should be more actively involved in programming and developing campus community. In the months following, she asserted that building community was a major expectation for the division and the University in general. She has stated on numerous occasions that enrollment management and campus community should be Universitywide concerns.

With this directive in mind, the Division of Student Affairs is engaged in a long-term effort to create and sustain a campus environment that reflects a sense of involvement, communication, and well-being. "Community," like "quality," is a difficult term to define and an equally challenging condition to try intentionally to develop. On a campus that is predominantly composed of commuting students, it is always difficult to develop the sense of community that is more naturally enhanced when scholars (both teachers and learners) are in close contact for extended periods of time, out of class as well as in class.

To address the need to develop community, Student Affairs continually tries new approaches and adjusts its programmatic offerings. Recently, it has extended programming to include a larger series of lectures, special events, musical celebrations, volunteer opportunities, movies, meals, and visits to the cultural institutions of St. Louis. Each of the student service units has expanded its outreach activities and is making a special effort to be available to students where they most typically and naturally congregate.

The Vice Chancellor has also made the challenge of building campus community a priority that is reflected in appointments to strategic planning, task force, and fast action committees. At present, the Vice Chancellor has appointed students, faculty, and staff to working groups to:

- Build better channels of communication.
- Address environmental and physical issues that impact on a "welcoming" campus.
- Encourage student-to-student and faculty-to-student mentoring.

Performance Benchmarks

- Increase in enrollment as measured by headcount, quality (composite ACT/class rank score for freshmen, entering GPA for transfers), full-time equivalent, and student credit hours.
- Increase in rates of retention overall and among minority students.
- Decrease in average time-to-degree for entering freshmen and transfer students.
- Increase in average student courseload attempted and completed.
- Increase in number and percentage of students living on campus, as well as those returning the following year.
- Increase in percentage of students finding jobs related to their field.
- Increase in student satisfaction with the basic services offered by each Student Affairs administrative unit.
- Increase in mastery and usage of student information systems by staff members.
- Increase in use of the ADMIT system to track prospective students and influence their decisions to enroll.
- Increase in use of DARS for advising, registration purposes, and graduation checks; increased use of DARS by students; increased use of DARS for course demand analysis.
- 100 percent Participation in Administrative Systems Project; 100 percent participation of staff in PeopleSoft training; 100 percent use of PeopleSoft Student systems in Student Affairs administrative units.
- Increase in number of opportunities for students to participate in student activities and organizations.
- Increase in attendance at special events sponsored by the University Program Board and the Office of Student Activities.
- Increase in number of participants in orientation and student leadership programs.

Managerial and Technological Services

Managerial and Technological Services (MTS) did not exist at the time of the last NCA report. However, its genesis had begun with the appointment of a special assistant to the Chancellor for budgeting, planning, and institutional research. The need for these activities increased as the campus continued to grow in size and complexity in the late 1980s. As a result, the special assistant was promoted to Vice Chancellor. Computing was moved to this unit, followed by Business Services, Finance, and Telephone Services. The name of the unit was changed to MTS to more appropriately reflect all of the activities of the division. An organizational chart for MTS is presented in Figure 4-15. Detailed unit organizational charts are in the Resource Room (RR: File 79, MIS Unit Organizational Charts).

This report is divided into two parts: one deals with managerial activities and units, while the other deals with technological activities and units. More detailed reports for each activity or unit are available in the Resource Room (RR: File 132, MTS Unit Reports).

Managerial Activities and Units: Budget, Planning, and Institutional Research; Business Services; Finance

Mission

MTS personnel are involved in providing the following services and activities: budgeting, planning, and institutional research; purchasing and receiving; accounts payable related to purchases; surplus property disposition; insurance; contractual agreements; maintenance of permanent inventory records; petty cash; coordination of purchase or sale of real estate; accounting; cashiering; and other financial management services. These activities and functions help support the core academic and administrative missions of the University.

Operating Principles

MTS personnel help provide required information and reports for entities ranging from the federal government to internal campus units. In addition, MTS personnel

Figure 4-15 – Managerial & Technological Services Organizational Chart
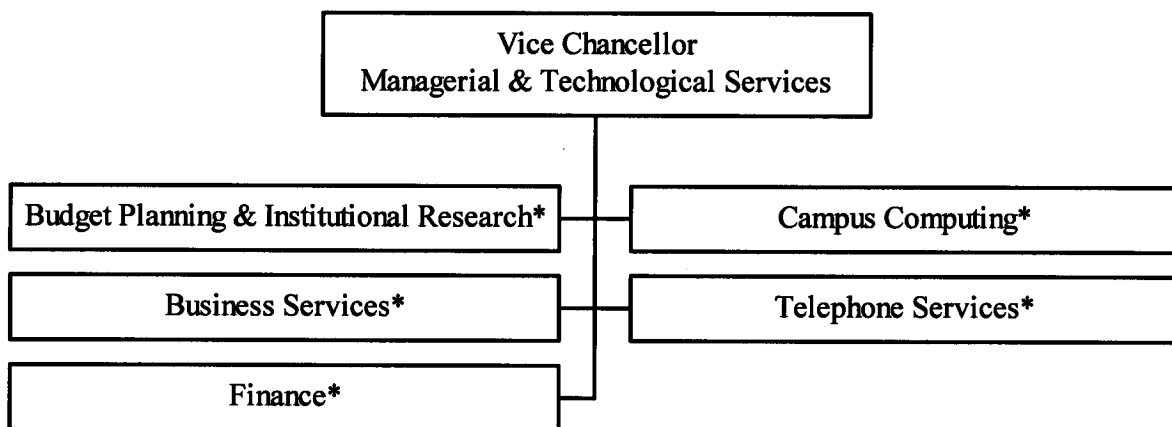
*Detailed organizational charts in the Resource Room

attempt to streamline operations or make other continuous quality improvements. However, sometimes making such improvements is difficult because the University is part of the System. In turn, the System is subject to certain policies and procedures set forth by the Coordinating Board for Higher Education (CBHE). Both the System and CBHE have a history of increasing oversight activities.

One example of a recent improvement relates to the general operating budget. The former procedure required unit managers to build their budgets on a line-item basis. This budgeting basis required unit managers to make salary decisions before the middle of June. Unit managers now budget at the account level. This budgeting basis uncouples salary decisions from the process of recording (booking) the general operating budget. Thus unit managers now have more time to make salary decisions.

The director of Business Services is authorized to sign service contracts, consulting agreements, and miscellaneous contractual agreements for the University on behalf of the Board of Curators. This person has the responsibility to oversee the operations of purchasing and has been delegated the authority to approve purchases up to $500,000. The director disseminates and coordinates the System insurance procedures and programs and is responsible for coordinating the purchase and sale of real estate for the University.

Senior buyers, in addition to purchasing duties, have the following responsibilities: surplus property disposition, capital equipment inventory, minority participation efforts, and insurance.

Increase in minority participation is an important goal of the University. Percentage goals have been established in Business Services to reach out to more minority vendors by networking through the St. Louis Minority Business Council, participating in minority trade fairs, and utilizing various minority directories for services and commodities. There has been a steady increase in minority participation over the last four year, and the University has the highest percentage of minority participation of any campus within the System

Accounting Services personnel are responsible for checking approving, and entering accounting and accounts payable information in the Financial Records System (FRS) and for providing assistance to campus departments and outside organizations on accounting and accounts payable items.

The Cashier's Office receives payments made to the University. Most of the payments are from students. Other forms of fee remissions are also handled, such as third-party bill, agency scholarships, and the application of financial aid. Collections from nonstudents are also received.

The Office of Finance provides services such as financial management reporting and analysis, travel coordination, and credit card services for travel.

Vision

One vision of MTS is to provide information and analysis needed to meet mandatory reporting obligations and to help effectively manage the campus. MTS personnel must work with personnel in other divisions to do this. In addition, System personnel have responsibility for some major reporting activities, such as the Integrated Postsecondary Education Data System (IPEDS).

Business Services has a vision of improved service and streamlined operations. Some specific goals for Business Services include reducing purchasing options to two (on-line requisitioning and the procurement card); implementing electronic transmittal of purchase orders, bids, bid tabulation, and awards to vendors; implementing electronic transfer of funds to vendors for payments of goods and services; using the procurement card for purchases under $1,000 to reduce and/or eliminate the paperwork associated with small dollar purchases; increasing volume purchase agreements to provide the increased discounts and eliminate the necessity for bidding; supporting the effort to increase the thresholds of purchasing limits; and enhancing its Web page (RR: Web 185, http://www.umsl.edu/services/busserv/).

The vision of the Office of Finance is to provide quality service to students, faculty, and staff using the resources available to it. One potential long-term improvement idea of the Office of Finance is the elimination or reduction of cashiers. Alternative methods of making payments on student accounts have been implemented, such as mailing to a lockbox and credit card payments by telephone. Automated teller machines could augment the payment process further as well as provide account information, dispense cash, and provide general campus information. These machines can be available 24 hours a day, seven days a week. The function of counseling students might be transferred to the Student Financial Aid Office. The remaining accounts receivable functions would then be integrated into Accounting Services. Another idea is to enhance the use of the World Wide Web (RR: Web 186, http://www.umsl.edu/services/finance/finance.htm).

Situational Analysis

MTS personnel devote whatever time and efforts are needed to prepare externally and System-required reports and information requests. They also attempt to respond to information requests from within the University as well as from external individuals and organizations.

The major strengths of Business Services are professional and competent staff dedicated to delivering quality services, good relationships with vendors, one-to-two day turnaround time to process orders, and a high degree of cooperation with other UM campuses and the General Counsel's Office.

The primary concerns affecting Business Services are a minimal staffing level that impacts customer service at times, a need to provide end-user training for purchasing procedures and policies as a new financial system is implemented and new processes are introduced, and a need to increase the usage of the on-line requisitioning system.

The strength of the Office of Finance comes from its staff. Personnel strive to provide enthusiastic service to the University community. However, the Office of Finance must carefully balance its desire to be of service with its stewardship responsibilities. Providing the service desired by the students, faculty, staff, and other patrons of the University can conflict with the need to preserve and enhance the University's assets.

One example of this conflict is exemplified by the minimum payment plan inaugurated approximately three years ago. This plan allows students to spread their payments throughout the academic term rather than make full payment at the beginning of the term. This popular payment plan has resulted in an increased need for vigilance regarding student accounts receivable balances.

Identity Gap

Although there has been a small increase in the resources devoted to budgeting, planning, and institutional research activities, the needs exceed the available resources. One way to leverage resources is by working cooperatively with other University and System personnel with similar responsibilities.

As the University environment changes and more demands are expected of end-users, Business Services must constantly strive to provide a high degree of customer service, provide user-friendly software for electronic transmission of requisitions and data, and

streamline procedures whenever possible. The primary gaps between the unit's vision and the current environment exist in the areas of staffing levels required for improved customer service, and the ability to provide end-user training for new processes.

The Office of Finance has similar goals to those listed above for Business Services. One gap involves space. The Accounting Services office is inconveniently located in the basement of the General Services Building. A goal of MTS is for Accounting Services to rejoin the Office of Finance, yet maintain close proximity to Business Services. Having these units together will allow them to provide better service to campus departments.

Strategic Directions

Future strategic directions include the creation and/or enhanced use of data warehouses, the World Wide Web, and electronic business processes. The System's initiative titled Administrative Systems Project (RR: Web 187, http://www.system.missouri.edu/urel/main/second/asp.htm) involves implementation of the PeopleSoft software, although other changes will occur as part of ongoing, continuous quality-improvement initiatives. More specifically, ASP will replace the existing financial, student, human resources and grants management system with one integrated system that will streamline or eliminate manual processes and provide better access to information.

University employees will need increased training as the result of the strategic directions listed above. MTS personnel will need to be involved with training professionals in helping to develop and deliver such training to campus personnel. As users develop their own management reports, access information directly and generate their own purchasing and accounting transactions, MTS personnel will be able to devote more time and efforts to formal studies and analyses, either independently or in cooperation with the System. Also, MTS personnel will have to shift their focus from pre-approval of transactions to a post-audit environment.

Performance Benchmarks

Performance benchmarks for planning, budgeting, and institutional research activities include the following:

- Submit all required budget or other information on or before due dates.
- Complete major institutional research studies by due date (mutually agreed upon by MTS personnel and individual/unit requesting the study).

The progress of Business Services will be measured by the following performance benchmarks:

• Purchase orders prepared and issued in 1 to 1.5 days.

• Invoices processed 1 to 2 days after receipt.

• Use of on-line requisitioning increased to 75 percent.

• Purchase orders under $1,000 reduced from 80 percent of the total number of purchase orders to 25 percent with the use of the procurement card.

The Office of Finance will measure its progress by the following performance benchmarks:

• Processing of vouchers by Accounting Services 1 to 2 days after receipt.

• Processing 100 percent of cash receipts electronically.

• Processing 100 percent of journal entries electronically.

Technological Activities and Units: Campus Computing and Telephone Services

Mission

MTS employees are involved in providing computing, data communication, and voice communication services. These personnel also help to analyze and deploy new information technologies that are appropriate to the core academic and administrative missions of the University (RR: Web 180, http://www.umsl.edu/~teleserv/); (RR: Web 181, http://www.umsl.edu/~webdev/computing/).

Operating Principles

Campus Computing operates on two fundamental principles: the coordinated management of a number of interdependent software and hardware technologies and the establishment of a robust end-user support infrastructure. These principles are distilled from the two-dimensional matrix of cross-functional responsibilities that must be addressed in any university IT management model. One axis of this matrix enumerates the various end-user groups with their differing support requirements. The other axis enumerates the technologies that must be deployed. Campus Computing strikes a balance on these axes by establishing management areas based on technology when that is appropriate and based on the user groups that are being supported when that best serves the needs of the University.

Work performed by Telephone Services falls into the following general categories: installing new services; changing, repairing, and discontinuing existing services; and evaluating customer requirements to plan for new services. Evaluation of customer requirements and planning for new services are continuous processes. Units request consultation and advice on the application of voice-related telecommunications technology to meet their needs. External resources are used as needed to provide specialized assistance.

Coordination among Telephone Service, Campus Computing, the Instructional Technology Center, and the Libraries is critical to the provision of technology-based infrastructure services.

Vision

The roots of modern computing can be found in the requirements of scientific and engineering computation before and during the Second World War. The 1950s and 1960s saw digital computers emerge as important tools in business analysis. Almost as a byproduct of the architecture of shared systems, computers developed into tools for communication and collaborative work. Starting in the 1970s when groups of programmers could share a common software development environment, connectivity has grown. Today's World Wide Web allows almost anyone with a computer and a telephone to share this global information resource. Of course, it is these developments that have led to the virtual post office, the coming virtual library, and the emerging virtual classroom and virtual university.

The elements of tomorrow's computing environment are already falling into place.

• A Language-Independent Object Model - How will "content" be organized and how will it be understood across the Internet? Within a few years the commerce in information necessary to support any viable model of the virtual university will require a universal language, with syntax and semantics that are understood by all computers.

• High-Speed Networking - Today's Fast Ethernet can move thousands of pages of text per second between a desktop client system and a server. Newer technologies already developed provide network speeds ten times as fast as Fast Ethernet.

• Stable Servers - Server uptime between "events" is now measured in weeks for NetWare servers and months for Unix servers. This trend should improve dramatically in the future.

• High-Capacity Chips - The prediction that chip capacity will double every 18 to 24 months is now said to be operable until about 2010.

• Flat Panel Displays - These display devices are beginning to follow the price-performance curve of other information technologies. These devices, mounted on stands or even on the wall, will replace the "standard video monitor."

The University's strategic plan impacts Telephone Services since each activity may require new applications of the technology. Existing services must be extended to new facilities.

Specific goals of Telephone Services include the following:

• Ensure that all systems are at their most current release.

• Improve Web-based information.

• Complete the disaster recovery plan.

• Reduce the effort required to produce the campus telephone directory.

• Improve equipment and services to meet campus needs.

Situational Analysis

The last NCA report pointed out deficiencies in strategic planning, resource allocation, and sensitivity to the needs of the faculty as well as communication between the campus community and Campus Computing. Those shortcomings have been addressed.

The issue of funding student computing facilities was addressed in 1991 with establishment of the Instructional Computing Fee. This per-credit-hour fee ($8 per credit hour in FY1999) has allowed campus computing to develop a program of regular technology upgrades in laboratories and classrooms.

The Desktop System Plan, begun in 1992 by the Chancellor, has allowed Campus Computing to provide all full-time faculty with desktop computers. A four-year replacement schedule has been established. More than 1,000 faculty and staff are now covered by the plan.

Recently Campus Computing has been reorganized into six management areas, each of which is led by a manager who has been given substantial responsibility in the development, implementation, and support of specific projects. The areas are Academic Computing, Administrative Computing, Client Services, Instructional Computing, Network Support, and Internal Operations. Weekly meetings keep managers apprised of the activities of the other areas and support cross-functional cooperation among the various areas. Each area is reviewed below.

Academic Computing

Academic Computing is responsible for support of faculty research, first-level computer support through the Technology Support Center (TSC), management of the University's Unix, NetWare, and Windows NT server farms, and the Urban Information Center.

The Urban Information Center is a nationally recognized resource for those needing to access to United States Census Bureau data as well as a wide variety of data from other federal, state, and local resources. While the emphasis has been on the local St. Louis region and the state of Missouri, activities have been national in scope. The Urban Information Center brings a unique combination of over 25 years of experience in dealing with such data files and in utilizing state-of-the-art computing tools. There is particular interest in providing access to the public policy and academic research communities, primarily via the World Wide Web.

All requests for service, from account creation to printer connectivity to requests to the Server Farm administrative staff, are handled through the TSC. Some software can be ordered and delivered through the University network. The TSC staff is also responsible for developing the department's short-course program.

Administrative Computing

Administrative Computing staff provide a wide range of computing services to the campus community: support of the UM System's data warehouse, Student Information System, Financial Records System, and Payroll/Personnel System; development of new database applications for campus departments; optical scanning services; campus ID card system server; University mainframe; and Exchange E-mail server.

Client Services

Client Services supports faculty and staff end-user desktop computing for approximately 1,500 individuals (this number includes an additional 500 not covered by the desktop program). The Desktop System Plan is managed by Client Services. Services provided include pre-purchase consultation, configuration and setup, hardware and software troubleshooting and repair, data transfer, network configuration, software and hardware upgrades, and application assistance and training. Client Services also houses Micro-Maintenance, which is a certified maintenance provider for both Apple and Dell desktop systems.

Instructional Computing

Instructional Computing staff supports all student facilities and provides faculty support for classrooms and student laboratories.

The Instructional Computing Fee is the primary source of support for student open computing laboratories and technology-enhanced classrooms. These facilities are designed to provide a Universitywide consistent computing environment. There is support for Macintosh-, Unix-, and Windows-based computing.

The campus has developed two models for technology-enhanced classrooms. Advanced technology classrooms have a media-enhanced instructor station, high-quality sound and projection systems, and networked workstations for all students. Media-enhanced classrooms do not have the networked student stations of ATCs. Currently, there are eight ATCs and four MECs. At present, there are six student open laboratories with 370 desktop systems.

Network Services

Network Services provides support for the University's data network consisting of more than 4,500 user nodes in 45 buildings. Two off-campus sites are networked via WAN ISDN or four wire serial 56Kbs dedicated lines. The Network is currently operated with a Fast Ethernet Switched Backbone with a centralized router for routing between VLANs and off-campus Internet access. Network Services also administers a 240-modem dial-up.

Internal Operations

Internal Operations has responsibility for Campus Computing financial accounts and for monitoring and providing those services necessary for the day-to-day operation of the various Campus Computing facilities.

Telephone Services' major strengths include a competent, dedicated, and thorough staff, reliable infrastructure, flexible and extendable system architecture, excellent technical support provided by the maintenance vendor, and a high degree of cooperation with other System campuses.

Telephone Services provides an evaluation form that is distributed with the campus telephone directory. Traffic reports measuring incoming and outgoing call volume are reviewed weekly. Progress is measured annually by comparing planned goals versus actual accomplishments.

Telephone Services provides approximately 3,300 lines on campus. The unit is effective in maintaining a high level of system availability and functionality. Additional staff would improve customer service and responsiveness. However, space in the telephone switch room already is tight. Financial resources are adequate for current operations. There is some concern about long-term capital needs.

Identity Gap

Use of the Technology Support Center and UNIX Server Farms continues to grow beyond the ability of present Campus Computing staff to provide the necessary support. This is also the case for Administrative Computing, where the forthcoming Administrative Systems Project will exacerbate the problem. Reflecting the rapid rate of growth in this area, Network Services is presently understaffed.

The primary gaps between Telephone Services' vision and its current situation exist in the following areas: the current level of staffing versus that required for superior customer service and the ability to fund enhancements to keep pace with customer demands.

Strategic Directions

The strategic directions for Campus Computing are presented for each of the six areas.

Academic Computing

For a consistent level of support, it will be necessary to continue to invest in automated support tools such as the University's present Automatic Call Distributor and request tracking system, implemented using "Track It" software. However, more sophisticated software will be required in the near future.

Planning exists for the strategic direction of the server farms as well. The UNIX Server Farm will require a more centralized management capability to handle early problem diagnoses, accounting, capacity planning, and resource tracking. The appropriate role for the Windows NT servers must be determined.

Administrative Computing

While the focus of activities will continue to be on specific projects, Administrative Computing must continue to investigate new general-purpose programming tools for use in the client/server environment. Additional effort must also be put into the development training materials

and into conducting training sessions for administrative system users on campus. The Administrative Systems Project will dominate the efforts of Administrative Computing for the next three to five years.

Client Services

Plans are under way to develop a local support partner program that would foster the relationship between a designated person in each department and Client Services. The local support partners would be trained by Client Services to provide first-level desktop system support to their departments. These staff members would also act as liaisons between their department and Campus Computing.

Other planned enhancements include improving and posting to the Web; help and training materials for end-users; publishing the supported software list; providing up-to-date training for support staff; and distributing feedback cards to each customer as services are provided.

Instructional Computing

Three recent computing developments have impacted the use of computing technology in instruction:

• Networking, in particular the Internet, has turned the desktop computer into a telecommunications device and a "virtual library."

• Multimedia computers are replacing older technologies as teaching tools in many areas.

• Highly portable computing and display equipment has made it relatively easy to bring computer-based instruc-tion into regular classrooms.

"Infostations," offering E-mail, Web browsing, and other Internet services, are being deployed in student comput-ing laboratories and other locations on campus such as the "Cybercafe." "Classrooms in a Case," each consisting of a network-enabled laptop computer and a high-quality projection device, are being provided to various class-room buildings that do not have advanced technology or media-enhanced classrooms. Finally, technology-specific student open computing laboratories are being developed to support applications that require special peripheral equipment or more processing power. However, these laboratories are also configured to allow their use by any student for general computing needs.

Network Services

The network is undergoing constant change with upgrades and the migration toward Fast Ethernet. Security is becoming a more critical issue. Because of this, more sophisticated network management and fire-wall tools will be required. Remote Monitoring Probes will be installed around the campus to capture specific network statistics. These statistics will allow Network Services to plan and implement upgrades and enhance-ments to network operations as well as to provide improved security.

Internal Operations

Personnel in this area will work to improve financial pro-jections and account monitoring, improve operations of the machine room, and establish satellite centers to move support closer to the end-users.

Telephone Services

Telephone Services is experiencing the same pressures as the rest of the telecommunications industry: a wider array of services, competitive local access, and demand for new technologies. The unit will continue to accom-plish its purposes by: developing formal feedback mechanisms; improving the flow of service information; deploying new technology to meet campus needs in cooperation with other units; and seeking out new opportunities to improve efficiency.

Performance Benchmarks

Campus Computing continues to monitor the activities of its various units through performance benchmarks. Examples of these include:

• Server Up-time – measured for both peak and non-peak periods.

• Server Capacity – measured by CPU and swap-space activity, and disk space utilization.

• Network Saturation – measured on all sub-nets, across the backbone, and at the Internet gateway.

• Technology Support Center Telephone Activity – meas-ured by volume of activity, call-holding times, and user surveys.

• Service Request Activity – measured by volume and time to completion for all Units.

• Student Laboratory Activity – measured by application usage and "seat utilization."

- Project Performance – measured in projected completion time versus actual completion time.
- Student experience in classrooms – measured by surveys.

The following benchmarks are used by Telephone Services:

- Grade of service of P.01 or better.
- Trouble calls cleared within one business day.
- Other orders received by Friday completed the following week.
- System availability of at least 99.9 percent.
- Emergency requests handled within two days.

University Relations

Mission

The Division of University Relations exists to support the mission of the University. It does so by planning and implementing strategic campaigns which increase private and public financial support; increase national, state, and local awareness of UM-St. Louis as a model metropolitan university; and increase and focus the involvement of its constituents, including community leaders, students, parents, alumni, staff, faculty, and friends.

Operations

Overview

The Vice Chancellor of University Relations oversees alumni relations, communication services, development, and special events (Figure 4-16). The Vice Chancellor ensures that all external activities adhere to System and University policies and match goals established by the Chancellor and academic officers of UM-St. Louis. The Vice Chancellor also serves as the primary liaison to numerous civic and business organizations and maintains relationships with primary donors and constituents.

The four units work collaboratively to carry out the goals of the division. During the past five years, the division has dramatically increased fund raising, community support, and volunteerism.

The University has grown substantially to meet the needs of the public it serves. This commitment to the community is the basis of a unique collaborative relationship between the University and its constituents. The division facilitates the process by which constituents give resources and the University then gives back to the community through its educational and other programs.

During its most recent five-year review, dated 1996, the Division of University Relations was praised for its steadfast attention to its mission. The Review Committee wrote:

"Overall, the committee was impressed with the energy and focus of University Relations. Under Kathy Osborn's direction, this Division has seen major success in fund raising. Their efforts are well-planned, carefully targeted and results-oriented. Especially noteworthy is the fact that 'fundraising has increased 262 percent over the past five years.' This is a highly impressive statistic and an indication that smart decisions have been made and

Figure 4-16 – University Relations Organizational Chart
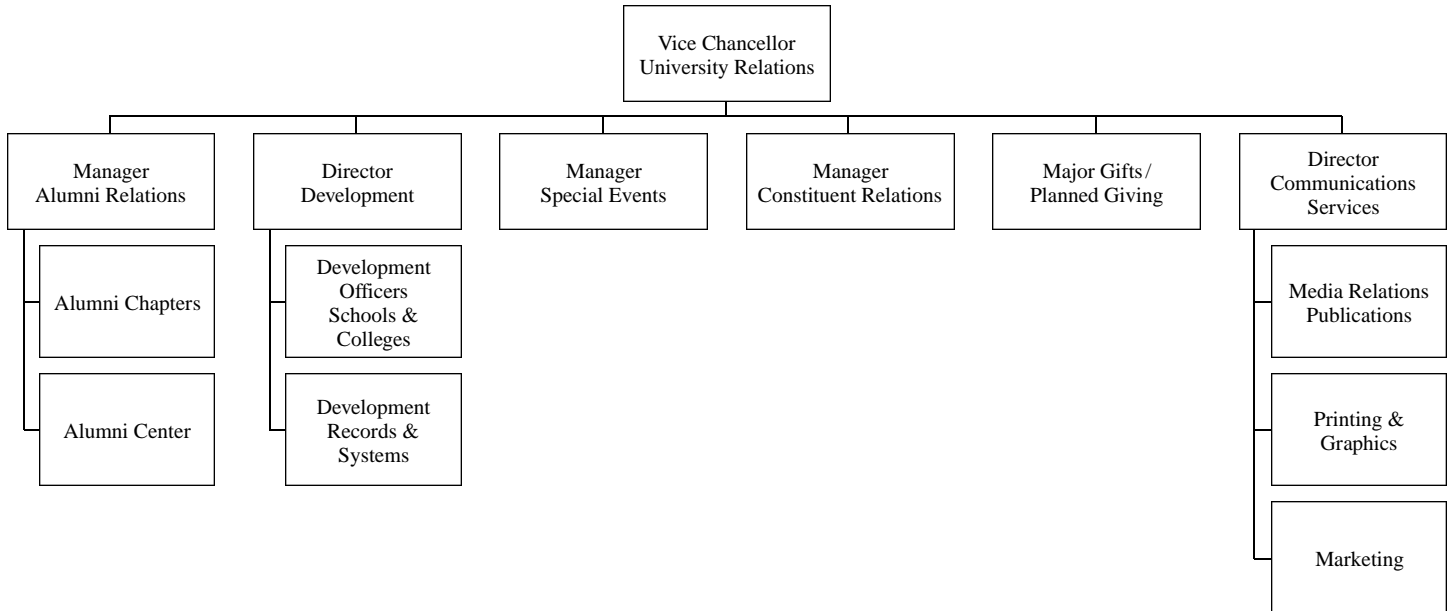
carried out with demonstrable results. UM-St. Louis has
increased its media exposure and improved its image in
the community. UM-St. Louis' endowments have grown
also. The Division has a clear mission and is actively
pursuing it — to promote the image and presence of the
university both within the St. Louis community and
beyond. Obviously, this is an area that will have to be
maintained and expanded as the university continues to
grow." (RR: File 133, University Relations 1996 Five-
Year Review).*

Division Roles

Alumni Relations

The manager of alumni relations implements programs
which maintain a link between the University and its
more than 53,000 graduates, including meetings and
programs of alumni chapters, boards, and committees,
and other special activities as approved by the University
and elected alumni officers. The manager serves as
primary representative to the Alumni Association, a
501(c) (3) membership organization dedicated to serve
alumni and the University. The manager also oversees the
operation of the Alumni Center, often used for meetings
of alumni, campus groups, and external organizations. A
coordinator, an administrative associate, and a part-time
associate in the Alumni Center assist the manager.

The Alumni Association model of an interdependent
alumni association with a central board and correspon-
ding and interconnected departmental chapters has

become a national model. The key to its success has
been using career and departmental interest to stimulate
involvement. In addition, a national and international
ambassadors program has been developed.

Communication Services

The director of University Communications works with
the Chancellor, academic deans, and individual faculty
members to ensure that the public understands the quality
of programming and research under way at the region's
only public research university. The unit also informs the
public of its programs and people through a variety pub-
lications, newsletters, and marketing initiatives (RR: File
134, Examples of University Relations Newsletters and
Other Publications). A manager of media relations and
four information specialists with special assignments in
the schools and colleges assist the director. The director
also oversees an on-campus graphics and print shop, an
auxiliary unit which handles nearly 2,000 projects annually.

Development

The director of development oversees fund-raising
campaigns to support programs approved by the
Chancellor and individual academic units. Campus fund-
raising personnel (development officers) are located both
in a central office and in individual schools or colleges.
All campaigns and solicitations are coordinated through
the development director and Vice Chancellor. The devel-
opment office also maintains an electronic database of
more than 90,000 constituents to track donors and other

important campus constituents. This information is used by development staff and can be accessed by academic officers. Growth in University giving is illustrated in Figures 4-17 and 4-18. Figure 4-17 (top) shows total gifts, which are displayed by category in Figure 4-17 (bottom), and Figure 4-18.

The development office, in collaboration with the manager of alumni relations, cultivates and solicits alumni, realizing that in the short term, as alumni are relatively young, they will give only modest support. It is projected, however, that with continued cultivation, alumni giving will increase as they mature. In the short term, then, the office has focused on alternative sources of funds from corporations, foundations, and individuals. As their giving figures reveal, there has been substantial growth in these areas. This trend is expected to continue.

Special Events

The manager of special events plans all campuswide events, including three commencement ceremonies, a Founders Dinner, and a Chancellor's Report to the Community luncheon. Additionally, the manager and a development officer plan and oversee several donor relations events and activities.

Special Support for Educational Mission

Partnerships

The University strives to be a national model for creating and maintaining partnerships which enhance the community and resources available to students and faculty. The Division of University Relations facilitates many of these partnerships. These linkages have resulted in increased opportunities for students and faculty, joint grant submissions, and endowed professorships with joint appointments and responsibilities beneficial to the partner institutions and the community at large.

A unique example of these partnerships is the umbrella organization called the "Des Lee's Collaboration Vision: Connecting St. Louis through Educational and Community Partnerships" (RR: File 135, Des Lee's Collaboration Vision). In addition, the unit has worked successfully to attract funding to support other collaborative projects. For example:

- University Relations attracted a $300,000 gift from Southwestern Bell to support faculty research in the best applications of telecommunications in education and business.

- Southwestern Bell of Missouri and UM-St. Louis joined to develop a $4 million TeleCommunity Center at UM-St. Louis, which provides free access to advanced technology computer systems, videoconferencing facilities and internet access for the St. Louis community.

- University Relations recruited the Whitaker Foundation to underwrite a collaborative effort by the University's music department and the St. Louis Symphony to provide educational programs in local school districts. The $400,000 grant runs over five years.

- Pre-collegiate programs in math, science, and engineering were supported by significant gifts from Emerson Electric Company, Monsanto Fund, Ameren UE, Boeing-McDonnell Foundation, CPI Corporation, Stupp Foundation, and other corporations and foundations.

Professorships

The Division of University Relations also has worked closely with the Chancellor and academic officers to secure outside funding to endow professorships in areas strategic to campus growth and consistent with Mission Enhancement. In the last five years, the division has assisted in raising funds for 22 endowed professorships in nursing, education, arts and sciences, business, and international studies.

Speakers

The Division of University Relations has worked to ensure that speakers at Universitywide events provide its constituents with exposure to a diversity of ideas and insight into numerous professional fields. Speakers have included journalist William Raspberry, paleoanthropologist Richard Leakey, writer Maya Angelou, former Canadian Prime Minister Brian Mulroney, and Nobel Peace Prize winner John Hume.

Vision

The Division of University Relations strives to serve the changing and growing needs of the institution as it moves toward a Research II status and continues to be a national model of urban education. This will require increased emphasis on external relations, which will lead to more private funding for research and teaching-related activities, more private funding for student scholarships, development of new partnerships and maintenance of existing partnerships. This vision is reflected in the division's goals and objectives (RR: File 136, University Relations Goals and Objectives).

Figure 4-17 – Growth in University Giving: Overall and Corporations/Foundations

Private Giving
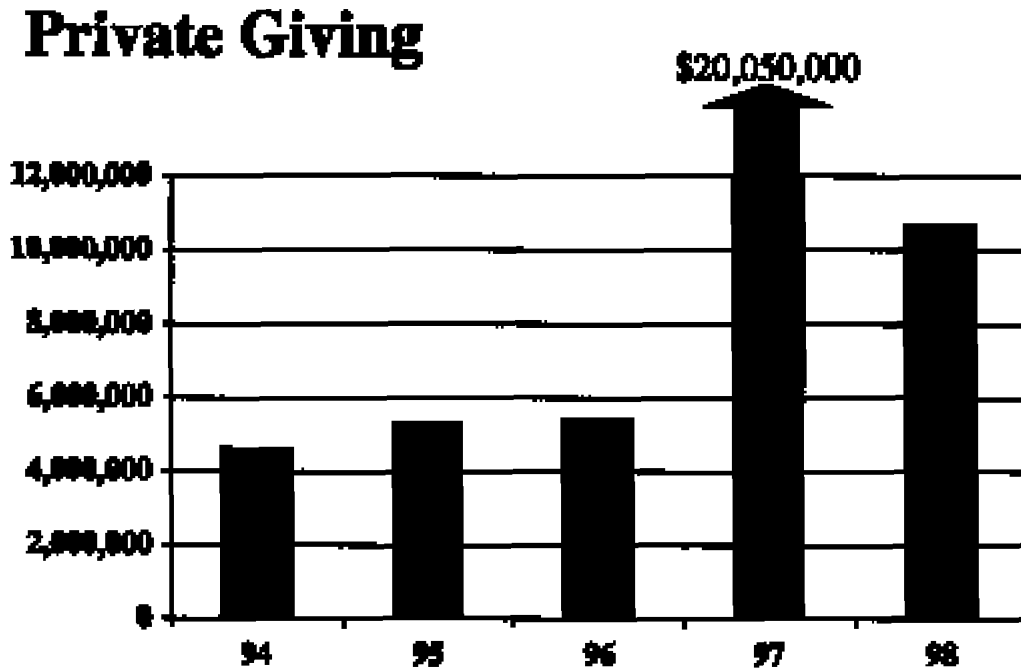
Note: 1997 includes $10 million booking of St. Louis Mercantile Library.

Corporations/Foundations
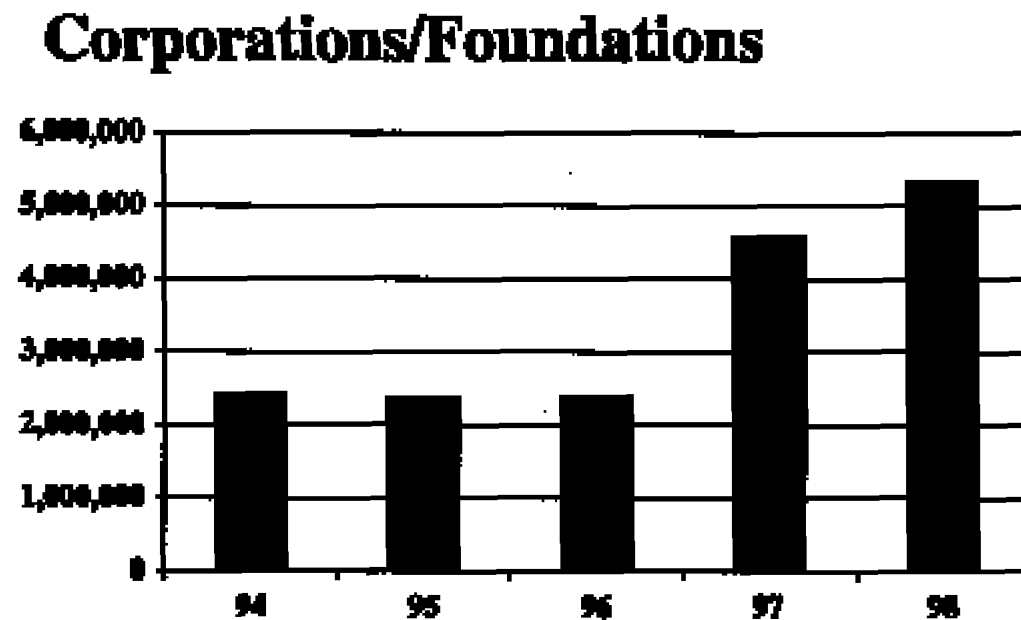
Figure 4-18 – Growth in University Giving: Individuals and Alumni

Individuals

Alumni

Consultant's review led to changes in program.
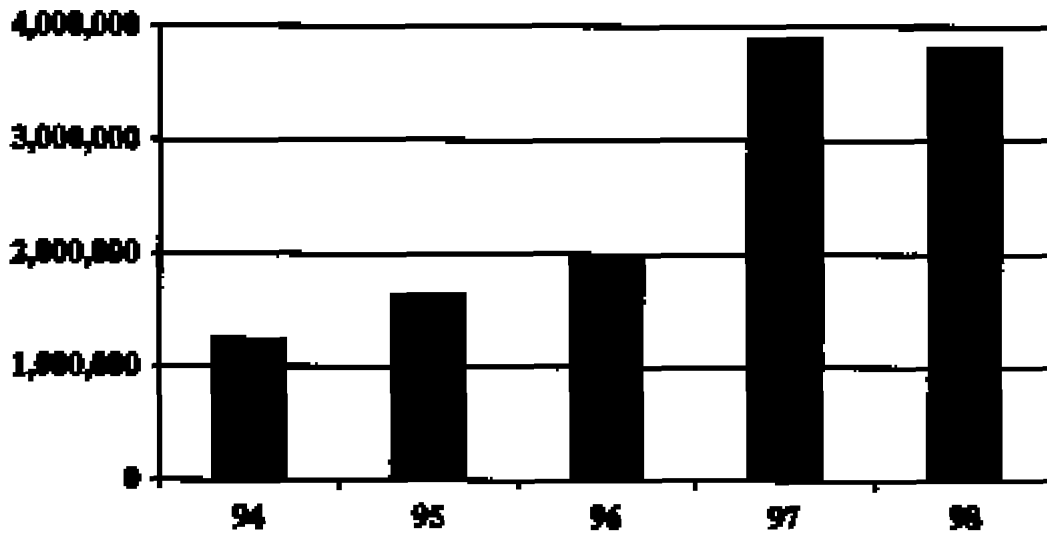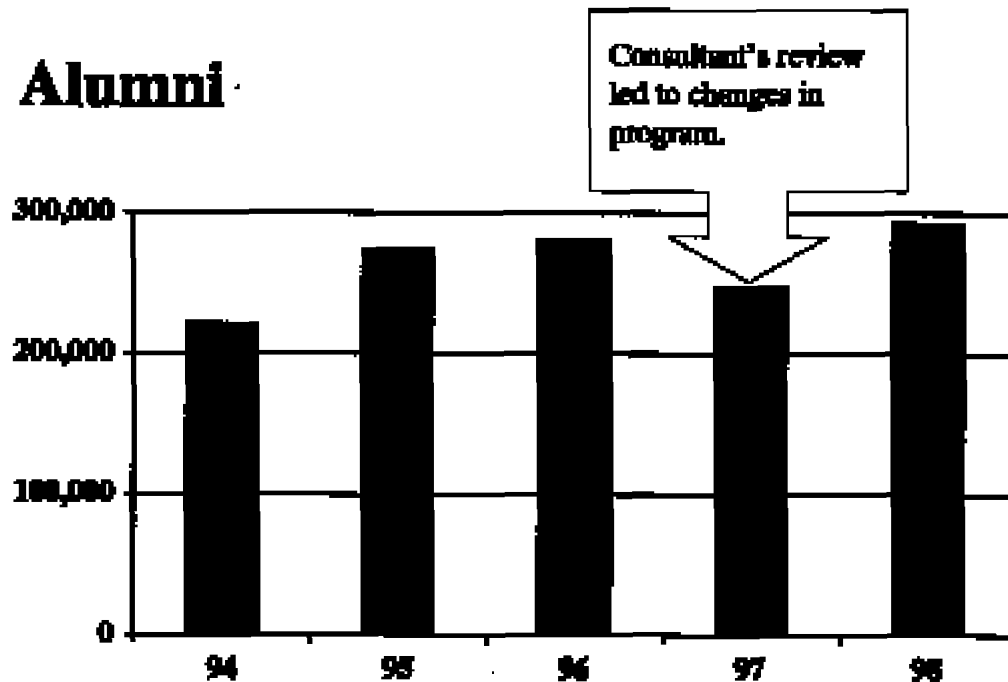
Situational Analysis

Strengths

The strength of University Relations remains its ability to accomplish strategic long-range goals while remaining flexible enough to assist the Chancellor, academic officers, and faculty on new and developing projects.

For example, University Relations creates annual goals and objectives which reflect the input of the Chancellor and academic officers. This printed document serves as a blueprint for staff activities. It establishes specific benchmarks for each unit, ranging from annual fund-raising totals to the number and content of publications. University Relations staff members are asked frequently to support projects which cannot be included in the planning process but represent substantial opportunities for the campus. University Relations staff from the four units often work together with academic units to ensure that these projects are brought to successful completion.

Areas of Concern

The University has been highly successful in facilitating partnerships with regional schools and cultural institutions. Over the long term, the progress of these partnerships, and new partnerships, will require coordination. The Division of University Relations does not have the resources to maintain and expand these partnerships over an extended period of time. This is an issue of concern that could affect all aspects of the University's external relations programs.

Identity Gap

As the campus moves toward its Research II goal, greater emphasis will be placed on external funding and attracting better students at both the undergraduate and graduate levels. These efforts will require greater investments in the Division of University Relations to support targeted fund-raising campaigns, to market the university to external audiences and potential students, and to support increased alumni activities for recruitment and fund-raising purposes.

Specifically:

• Additional well-trained staff will advance the planned giving program and provide support for schools or colleges which do not yet have such assistance. Also, future investments must be made in the central development office and development systems area (database) to support increased activities stemming from these schools and colleges.

• As the University incorporates enrollment management as a guide for its purpose, goals, and strategic mission, University Relations will work with the divisions of Academic Affairs and Student Affairs to establish a competitive marketing budget and develop appropriate marketing plans.

• As the alumni office expands to reflect increased alumni activity regionally, nationally, and internationally, additional staff will be needed to facilitate fund raising and student recruitment activities.

• As the University looks to additional corporations and individuals for funding, the numerous partnerships which have been created over the past five years will need funding support.

Strategic Directions

The Division of University Relations annually assesses its organization and activities for consistency with institutional goals. These reviews have led to reorganization and reallocation.

Development officers have been hired to work directly with the deans in several schools and colleges. This ensures that the development priorities of these academic units are addressed. These positions are funded jointly by University Relations and the specific school or college in which the individual is assigned.

The communication office has reallocated resources to help individual units market programs. A recent example was the School of Business Administration's Professional MBA On-Line option. The communication office provided 25 percent of the marketing campaign funding and implemented a highly successful public relations campaign.

The addition of several new alumni chapters, the alumni national ambassadors program, and statewide constituency necessitated that resources be reallocated to create a coordinator of alumni chapters position. Annually, the alumni office organizes numerous chapter meetings and special events for alumni.

University Relations works collegially with other divisions to achieve campus goals. This movement will continue as University Relations becomes more involved with the divisions of Academic Affairs and Student Affairs in securing new funds for research and student scholarships and in overall student recruitment and image issues.

Performance Benchmarks

Traditional benchmarks for the Division of University Relations are reflected in its annual report:

• Increase in private gift income.

• Increase in scholarships.

• Increase in breadth and depth of local media coverage.

• Increase in sales and profit for Graphics and Printing Services.

• Increase in attendance at special events.

• Increase in alumni membership.

• Expansion of alumni chapters nationally and internationally.

• Increase in alumni giving, average gift size, and overall participation rate.

Administrative Services

The Division of Administrative Services seeks to improve the quality and efficiency of support services while adjusting to the dynamics of a growing institution. The division operates more than 30 activity centers.

The organizational chart (Figure 4-19) indicates the division's major activity centers: Athletics, Auxiliary Services, Facilities Services, Institutional Safety, Engineering and Planning, Residential Life, and Human Resource Services. Organizational charts for these activity centers are in the Resource Room (RR: File 137, Administrative Services Unit Organizational Charts).

Athletics

Mission

The athletic department supports the service and academic missions of the University and contributes to student learning and development. Athletics promotes and contributes to student life on campus and promotes identification with the University for both athletes and nonathletes.

Operating Principles

The athletic department is made up of three units: athletics, campus recreation, and intramurals. Sports information and sports medicine operations support the athletic programs. The athletic program is a member of the National Collegiate Athletic Association, Division II, and the Great Lakes Valley Conference. In Fall 1998, the university offered 11 sports, 5 for male students and 6 for female students. The male sports are soccer, basketball, baseball, tennis, and golf. The female sports are soccer, volleyball, basketball, softball, tennis, and golf.

Figure 4-19 – Administrative Services Organizational Chart
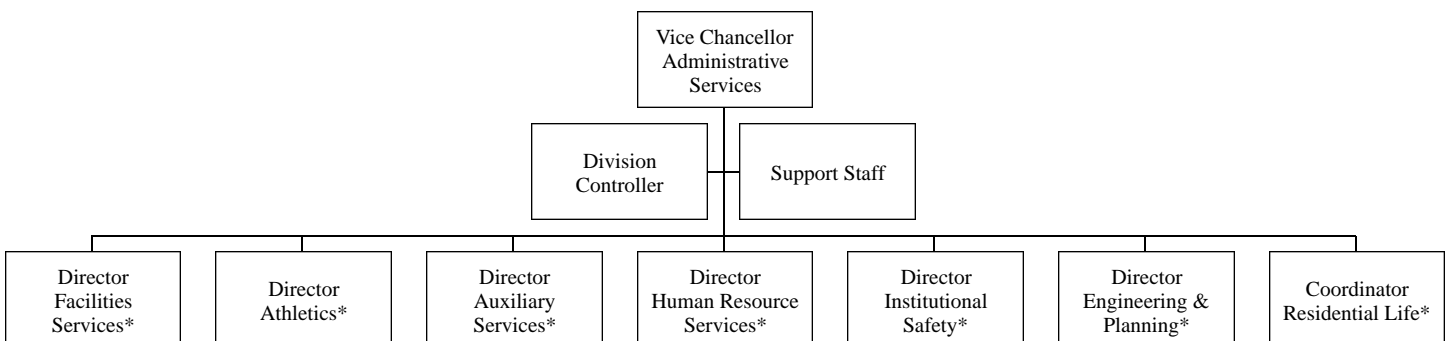
*Detailed organizational charts in the Resource Room.

Vision

The long-term vision for the department is to enhance the status of the university by developing an outstanding athletic program. This can be accomplished by improving the athletic proficiency of each athlete, maintaining high standards of behavior, emphasizing academic excellence, and successfully competing with other Division II institutions. As the number of residential students increases, athletics will take on a new dimension. It will enjoy an ever-increasing participation, strengthening school spirit and reinforcing the university's bonds to the community. In the near future, a task force will be formed to develop a master plan for athletics.

Situational Analysis

The athletic department has all the necessary basic components to field successful athletic teams, to promote University-sponsored recreational activities, and to develop an extensive intramural program. In the past, due to the nature of a commuter campus and the high percentage of nontraditional students, student participation in athletic events has been low. As a result of this reduced level of involvement, the department could justify only part-time program staff in a majority of the sport programs. The low level of campus participation in athletics and the elimination of supporting campus funds has left the department trying to maintain the status quo.

The athletic program will take on new dimensions as efforts in recruitment are intensified, new residential housing is constructed, and a new initiative in development activities is undertaken. The athletic department anticipates that part-time program staff will be converted to full-time, and increased participation and resources will ensure that the department will achieve its goals of being the best in its conference.

The athletic program is funded by student fees, fund-raising efforts, and donations. All general operating revenue was removed in September 1996. The University's move to the Great Lakes Valley Conference from the Mid-America Athletic Conference has proven to be very expensive. Each athletic team travels at least 1,000 more miles during a competitive season in the new conference. Travel to the cities where the teams of the Great Lakes Valley Conference are located is more costly for each team. The athletic program lacks sufficient funding to be fully competitive in the Great Lakes Valley Conference. The program needs more scholarship resources to improve the quality of the athletic teams.

The challenge is to develop a strong athletic program in the NCAA Division II. This program must be developed with strong input from the academic departments. Athletics on the campus must be recognized as complementary to and not competitive with a student's strong academic performance. The athletic department must also help in developing an "esprit de corps" among athletes and the general student body.

Strategic Directions

The department has begun implementation of its long-range goals by communicating the expectations of each program to the coaches. These expectations are designed to improve the existing program by emphasizing good citizenship, scholastic achievement, and athletic performance.

Performance Benchmarks

• Athletic team retention rates will equal or exceed campus retention rates.

• At least half of the team athletes will participate in community outreach or another recognized student activity.

• Gender equity will be achieved by Fall 1999.

• External fund raising will increase by 10 percent.

• Incidents of poor spectator sportsmanship at athletic contests will decrease.

Auxiliary Services

Mission

Auxiliary Services seeks to provide the most responsive and cost-effective products and services to students and faculty while creating an innovative and creative workplace for the staff.

Operating Principles

Auxiliary Services operates the Bookstore, Food Services, and off-campus properties.

The Bookstore serves students, faculty, and staff with textbooks and general-use books, academic supplies, computer hardware and software, clothing, gifts, and related merchandise supporting the needs of the campus community. The policy is to supply reasonably priced books and goods to the customer while maintaining self-supporting financial status.

Food Services provides a variety of appetizing and nutritionally sound food offerings that appeal to students, faculty, staff, and visitors. Food Services is responsible for all food venues and catered events. During peak periods, more than 2,500 meals are prepared each day.

University Center Operations have been formally established in anticipation of bringing the new University facility on-line in 2000. Extensive planning and promotion have already occurred to familiarize students and faculty with the services and facility potential. Special emphasis during the design phase ensured that student "gathering places" were part of the building design.

Vending provides a variety of snacks, beverages, and food items at convenient locations throughout the campus while generating income for the University.

Off-campus properties have been acquired primarily since the implementation of the 1993 Master Plan and are operated by the Properties Management Group (PMG) of Auxiliary Services. PMG manages commercial and residential properties and selected facilities that are not specifically used for teaching and research. PMG maintains and renovates structures to university standards.

Situational Analysis

The Bookstore is involved in a highly competitive, yet demanding, business. During the past three years, the number of titles offered has increased while the average class size has decreased, and the use of electronic media has become more prevalent in the transfer of knowledge. Revenues and operating income have continued to increase. The greatest challenge of this enterprise is to maintain the motivation of its staff in spite of limited monetary incentives.

The Bookstore has worked with the faculty to reduce the margin of error from 3 to 2 percent. This low margin of error ensures that the right textbooks are available at the right time and at the lowest cost. There is also a focus on recycling textbooks and custom-publishing to lower cost and improve availability of printed material. As more educational material is accessed by electronic means, corresponding changes and adaptations will be accommodated through the Bookstore Website and on-line ordering.

Food Services is also a highly competitive and demanding activity. During FY1996 and FY1997, patronage and revenues declined, partly as a result of enrollment declines in full-time students. In FY1998 a new food vendor was employed to reverse the downward trends. Multiple food venues, expanded menus, high-quality food preparation, a food advisory committee, ethnic food selections, and expanded hours of operations were implemented during FY1998.

Vending continues as an exceptional revenue source, generating in excess of $160,000 income. Additional venues are being explored.

PMG manages and operates more than 100 residential, retail, and commercial building units. The unit has improved the building-level maintenance to such a degree that adjacent communities have been revitalized and improved. The properties will be maintained until there is a need for academic building sites or other properties to support the University mission.

Strategic Directions

The primary location of both the Bookstore and Food Services is the existing University Center, a complex of three buildings with different floor elevations. In the past it has been noted that the campus perception of both the Bookstore and Cafeteria is that they are remote and difficult to reach. The Bookstore and Cafeteria locations on multiple levels have adversely affected their efficiency.

The construction of a new Student Center will afford ample space for existing levels of activity, provide room for growth, and significantly improve the perceptions of both the Bookstore and Food Services. The new Bookstore location is more than double the size of the existing store. Food Services will be located on one level in contrast to the current location, which has the kitchen on one level, the cafeteria on a second, and meeting rooms on a third.

Performance Benchmarks

The Bookstore will:

• Achieve a net 10 percent return on investment.
• Achieve zero-error ratio for having books on shelves when classes start.
• Fully implement on-line ordering (virtual bookstore).

Food Services will:

• Create atmosphere for "gathering."
• Stress nutritional foods and provide information to maintain a balanced diet.
• Increase ethnic food offerings.

University Center operations will:

- Increase "gathering" areas in and outdoors by 10 percent.
- Increase campus awareness of all services offered.

Vending will:

- Increase revenues by 10 percent.
- Expand selections.

Properties Management Group will:

- Maintain all campus properties at the highest level of maintenance.
- Continue to lead the adjacent communities to a revitalization of their neighborhoods.

Facilities Services

Mission

The Facilities Services Department seeks to provide an attractive campus that is well-maintained, functional, and efficient for students, faculty, staff, and visitors.

Operating Principles

The Facilities Services unit is organized into three main groups: maintenance, automation and energy management, and custodial services. The unit is also responsible for the customer service function (in-house renovation projects), mail service, and warehousing. It consists of a director and three supervisors in maintenance and automation and energy-management areas and a manager with three supervisors in the custodial function. The Facilities Services unit operates and maintains 34 buildings and structures totaling 2,253,807 gross square feet with approximately 100 FTE employees.

Vision

In September 1993, the University adopted a comprehensive Master Plan outlining the physical development of the campus over a 5-, 10- and 15-year horizon. Subsequent to the Master Plan, the state allocated $20 million for property acquisition and implementation of the Master Plan. The campus recently began a major Capital Improvement Program that will cost in excess of $100 million. This rapid growth with all its related difficulties will pose a challenge to this department.

In FY 1997, the campus met the state's goals for becoming accessible under the ADA guidelines and eliminated all deferred maintenance. The goals of the department involve full implementation of a computerized work order system, purchases of electricity and gas on a spot basis to reduce costs, completion of the installation of all-energy-efficient mechanical and electrical upgrades, and maintaining a building cleanliness rating of 95 percent or better.

Situational Analysis

Facility Maintenance is a highly diverse group of maintenance professionals capable of performing most of the maintenance and repairs needed for the buildings. This resourceful group has kept the cost of maintenance contracts to a minimum as a result of their expertise in various fields.

Through better organization, training, communication, motivation, and upper-management support over the past four years, the functionality of the buildings and equipment has vastly improved. Many of the building systems that were causing problems or operating inefficiently have been corrected.

There are three areas of concern: electrical system preventative maintenance, refrigerant compliance, and alternative fueled vehicles.

Last year the Maintenance department completed 7,860 work orders. The work order system records all labor and materials used, and what was done where. The system reports which buildings require the most attention, which workers are the most productive, and the history of repairs to equipment, buildings, and rooms. A data entry person could greatly improve the overall performance of the system.

The Maintenance and Planning and Construction departments have worked very closely in the design and development of new buildings and renovations. This joint effort has greatly improved the functionality, serviceability, and energy efficiency of the buildings. The next step is to develop an in-house commissioning team with procedures.

Performance Benchmarks

The following are the performance benchmarks:

• Increase customer satisfaction to 95 percent.

• Reduce unscheduled equipment downtime to 5 percent.

• Reduce unexcused absenteeism to 5 percent.

Institutional Safety

Mission

The mission of Institutional Safety is to provide a safe environment for the University through use of modern law enforcement techniques and a dedicated and professional staff. Services are provided in a manner that is responsive and sensitive to the needs of the community.

Operating Principles

The Department of Institutional Safety is made up of the following units:

• Police. Applies modern law enforcement principles toward providing a safe learning and working environment. It uses new and cost-effective technology to safeguard campus property.

• Parking and transportation. Monitors parking issues and works to ensure a fair and equitable distribution of spaces between students, staff, faculty, and visitors. It provides a campus shuttle service and emergency vehicle service.

• Security maintenance. Maintains all locking mechanisms and facilitates authorized access to buildings, departments, and offices.

• Environmental health and safety. Monitors use of hazardous materials and ensures strict compliance with all applicable laws and regulations; develops plans for emergency response.

• Grounds maintenance. Enhances and maintains the campus as an attractive and safe place to live, work, and learn.

Situational Analysis

The University has experienced very low levels of criminal activity on the campus. Crime statistics are markedly lower than for the five adjacent municipalities and, in most instances, lower than other institutions of higher learning in the area.

Strategic Directions

The campus police department has a well-developed "Community Oriented Policing" (COPS) program in the residential areas of the campus. It plans to expand this program to staff and faculty work areas. The COPS program helps to reduce crime and is a beneficial adjunct to the department's foot patrols.

The department proposes to improve its dispatch function. The department uses civilian dispatchers rather than commissioned officers wherever possible and increased training for all personnel. On occasion, police officers and selected personnel receive the latest training on law enforcement computer systems. The department will upgrade its dispatch function by installing a computer-assisted dispatch system. This will eliminate many hand-written forms, track officer productivity, and conduct crime and traffic analysis. The goal is to use automation wherever possible.

The parking and transportation unit will continue to maintain approximately 5,000 parking spaces on the campus grounds. Construction has begun on the initial phase to eliminate all surface parking and to relocate parking into permanent garages.

The security maintenance unit will continue to upgrade all major campus buildings with an integrated card access system.

The environmental health and safety unit will develop a bar coding monitoring system for all hazardous materials, and will implement regular safety inspections on all laboratory facilities.

The road and grounds maintenance unit will continue to concentrate on utilizing products which are environmentally friendly.

Performance Benchmarks

Selected performance benchmarks for the police, parking and transportation, security maintenance, environmental health and safety, and road and grounds maintenance are as follows:

• Complete international certification of the police department.

• Increase by 10 percent the lighting in parking areas.

• Achieve a ten-minute arrival schedule at each campus stop.

- Design and implement a new patented key system.
- Develop and implement a bar coding inventory system for all hazardous materials on campus.

Human Resource Services

Mission

Human Resource Services (HRS) provides human resource support services to those directly engaged in the accomplishment of the University's mission. Content expertise and consultation services are provided in the following areas:

- Strategic development of the organization and its people.
- Strategic recruitment, selection, compensation, training, and evaluation of staff.
- Strategic design of work and jobs.
- Successful workplace relationships.

Through a commitment to continuous process improvement, efficient and effective services are provided in:

- Payroll administration
- Benefits administration
- Policy and employment law administration
- Human resource information system administration

Operating Principles

Human Resource Services provides leadership to the campus in human resource administration for all faculty, staff, and student employees. Within the department, functions are organized by teams, which include benefits, payroll/records/ HRIS, and recruitment and compensation. Each team is headed by an administrative-level staff member who reports to the director. The department has six administrative/professional staff and seven clerical support staff. The department provides consultation, training, dispute resolution, reference materials, records maintenance and review, and interpretation of policies and laws to other University units.

Vision

Human Resource Services' vision is to continue to review and streamline material processes while redirecting its focus towards improving external resources and support, enhancing communication about services, and increasing training and feedback opportunities for management and staff to provide support to the University in achieving its goals of partnering and growth.

Situational Analysis

The department has recently accomplished goals in benefits administration, payroll/records administration, and recruitment/compensation administration. During FY1998-99 it is focusing on reviewing and refining internal processes, improving external processes and resources, improving communication to the University about department services, and developing a comprehensive management/staff training center and program. Department strengths:

- HRS management and administration average approximately 20 years' experience.
- The department has effectively minimized legal issues and complaints by using its knowledge and contacts to provide management with support and intervention.
- Administrative processes and practices are well-established.
- Recruiting processes and practices are well-defined and effective. Over 70 percent of open positions are filled within the same month they are established or become vacant.
- Department staff are adept at resolving employee concerns in all areas.

Areas of concern

- Some aspects of the HRS function now controlled at the System level, such as negotiation and purchase of employee benefits and policy development, could be managed more effectively at the local level.
- The department has not had the skill level, support, or funding to configure the databases necessary to derive local data by which to develop departmental strategies. Data available from the System are slow and sometimes inaccurate.
- The University has not had a consistent, comprehensive management training program. However, recently the University has designed and begun to implement a rudimentary training program. It is envisioned that this program will become more comprehensive as funding becomes available.
- The department has not had the opportunity to promote its services adequately.

Assessment

Human Resource Services maintains or solicits monthly and fiscal year projected statistics on voluntary and involuntary turnover and the ratio of new hires to terminations; average salary and benefit cost per employee; number of openings, responses to postings and advertisements, and the length of time it takes to fill a position; performance appraisals, including average performance appraisal ratings and the ratio of performance appraisals returned to those sent; impact on the workforce of benefit choices and usage; average sick days, employees on leave by category, and workers compensation claims; and the number of grievances and disciplines by category and the ratio of grievances and disciplines to each other and to eligible employees. These data are used by HRS and other University administrators to improve the efficiency of the University and to enhance the work environment of the employees.

Human Resources Services surveys managers on an annual basis to determine departmental responsiveness, the level of satisfaction with services offered by the department, and the need for additional training and support. To assess the impact of programs on staff, the department conducts an employee opinion survey on a biannual basis, tracks data from employee exit interviews and resignation notifications, evaluates training programs, and obtains input from the campus Staff Association. To assess the market impact, the department reviews national and local salary and practice surveys, as well as feedback from local organizations in which it maintains memberships.

Strategic Directions

The primary focus of the department has been placed on streamlining internal processes and resolving individual employee concerns. To be successful in helping the University achieve its goals at the next level, the department will broaden its focus to emphasize development of training programs, external support, and communication about its services. More emphasis will be placed on statistically tracking results to assess more accurately future strategies and initiatives.

As the department becomes more externally focused, the budget will be reallocated accordingly, and staff with the skills to implement the programs and assessments necessary to achieving goals will be added or reassigned.

Additional staff will include a training manager or coordinator and training specialist, a human resources information specialist, and necessary clerical support staff.

Performance Benchmarks

The success of department initiatives, goals, and objectives will be measured statistically according to percentage of voluntary turnover, ratio of grievances to disciplines, average sick-time usage, ratio of workers compensation injuries to employees, average amount of time required to fill openings, and ratio of performance appraisal forms returned to those sent. Qualitative measurements will include ratings on management and employee surveys, employee benefit choices, comparison of average performance-appraisal ratings to normative scales, ratio of management inquiries to staff inquiries, and ease of goal-related budget-item approval.

CHAPTER FIVE

Assessment of
Educational Outcomes

Assessment of Educational Outcomes

The University of Missouri-St. Louis implemented a campuswide assessment plan in 1986 when a Chancellor's *Ad-Hoc* Assessment Committee was appointed to develop a campus plan to assess student academic achievement. Assessment has been an integral part of the University's planning process since that time. The ongoing assessment conducted by the University was documented in the *University of Missouri-St. Louis Assessment Plan* (RR: File 138, UM-St. Louis Assessment Plan), a document prepared in December 1992 for the North Central Association. That report out-lined the history of assessment on the UM-St. Louis campus and the relationship of assessment to the University mission and planning process. Since that time, the essential components have been retained, but many new features have been added. The Chancellor's *ad hoc* committee has become a standing committee of the University Senate, the Senate Committee on Assessment of Educational Outcomes.

Since the last North Central visit, the campus assessment team has established a Drop-In Assessment Center which is open during the day and in the evening. Saturday. In addition to providing a place where students can take the exams that are part of the University's assessment program, the Center also serves students needing to make up faculty-scheduled classroom exams, students wishing to arrange an individual testing situation, and disabled students. An Assessment section has been added to the University home page, which outlines dates and times for all required and elective testing, procedures to be followed in the Assessment Center, and times when the service is available. It also gives the names of the current members of the Senate Committee on Assessment and the text of the University's assessment plan (http://www.umsl.edu/services/cad/ amenthp.htm).

Currently there are three major aspects of the University assessment plan. Students who matriculated in Fall 1986 or thereafter are required to take tests that measure general educational ability, both as incoming freshmen and as graduating seniors. Graduating seniors are also required to participate in a major field assessment, which is the responsibility of each school or Arts and Sciences department. In addition, currently enrolled students and alumni are surveyed as required by the State Legislature under the direction of the Coordinating Board for Higher Education (CBHE). Each of these aspects will be exam-ined in detail. Table 5-1 provides an overview of the ongoing and campuswide assessment activities at UM-St. Louis.

Table 5-1 – Assessment Program

FRESHMEN	JUNIORS	SENIORS	GRADUATE STUDENTS	ALUMNI
Admissions Test (ACT, SAT)	College BASE (for admission to School of Education)	General Education Assessment (Academic Profile II)	GRE required for Ph.D. and Ed.D., as well as selected master's programs	Alumni Survey
Math Placement	Writing Assessment (English 210, 211, 212)[1]	Major Field Exam (may be national, locally developed, Capstone Course, major paper or performance)	GMAT required for masters degrees in the School of Business	Graduate School Admission for those planning to attend graduate school
General Education Assessment (Academic Profile II)	ACT Residual (for education majors with no ACT score on file)	Graduate School Admission (GRE, GMAT, MCAT, LSAT, or Optometry)[3]	Licensure and Certification exams in specified programs	Licensure and Certification exams in specified programs
	Survey of currently enrolled students (biannual)[2]	Licensure and Certification exams in specified programs	Exit exam for M.Ed. candidates in Counseling[4]	
			Exit survey from Graduate School	

[1] May be taken in either Sophomore or Junior Year.
[2] Students randomly selected for Survey. Approximately one (1) in three (3) are surveyed.
[3] These tests are elective. Only those students wishing to gain entrance to an advanced study program are required to take a given exam.
[4] New for Fall '98.

General Education

The General Education component of the UM-St. Louis assessment plan is measured in two ways. All freshmen (full-time, part-time, first-time, or transfers with fewer than 24 hours of credit) are required to take the short form of the Academic Profile II exam. All graduating seniors are likewise required to take this test, with the exception of those who are education majors, who take a different test, discussed below.

This test provides eight norm-referenced scores: Humanities, Social Sciences, Natural Sciences, College-Level Reading, College-Level Writing, Critical Thinking, and Mathematics, as well as a total score. Three proficiency-level or criterion-referenced scores, for Writing, Mathematics, and Reading/Critical Thinking, are also provided.

In the user's guide that accompanies the test, Educational Testing Service (ETS), the company that produces both the Long Form and the Short Form of the Academic Profile II exam, says that in this version of the instrument, "The results obtained are recombined statistically to provide a group mean score on each of the eight norm-referenced scores and the percent of students at each of the levels on the three proficiency dimensions. Only a total score is reported for each individual taking the Short Form. Hence, unlike Long Form data, it is not possible to reaggregate or disaggregate data from the Short Form beyond a total score."

As a consequence of these limitations, it is not possible to make extensive comparisons of individual student results on various aspects of the test. However, one additional procedure suggests itself. Mean scores and 95 percent confidence intervals are available for the freshmen test scores. Upon retesting the same group and analyzing the results with regard to the confidence interval, some conclusions can be drawn about growth, even though there is no way to quantify or measure the degree of growth.

The University used the ACT Comp Test as its assessment indicator between 1987 and 1992, and switched to the Academic Profile II in 1992. University populations in large metropolitan areas are highly mobile groups. Older, nontraditional students may attend many colleges or universities before finishing a degree at a four-year institution. It is difficult, therefore, to gather significant numbers of students who matriculate and graduate from the same institution. Thus FY1998 (for assessment testing, the fiscal year, e.g., fiscal 1998, is defined as

Summer 1997, Fall 1997, and Winter 1998) was the first year when a significant number of students who took the Academic Profile II as incoming first-time freshmen and again as graduating seniors could be identified. In FY1998, there were 92 seniors who as freshmen had a mean score of 446 with a 95 percent confidence interval of 438 to 454. Fifty-seven of those students, as graduating seniors, scored above the upper limit of the confidence band, while 15 students scored below the lower limit. It is clear that a large number of these students did show growth. But it is likewise clear that some students did not approach the test with a mindset to do the best work possible. This is, of course, one of the weaknesses inherent in testing that does not result in some consequence. Students are aware that the test is designed to provide information for the institution's benefit. Even though the test results are made available upon request, there is no consequence for poor performance, nor award for trying one's best. Many students become cynical as they proceed through their college career, and appeals to do one's best for the University fall on deaf ears.

In the last few years the University has placed more emphasis on attracting more full-time freshmen, and with this emphasis larger cohorts will be available in future years. These analyses will be repeated in the future to develop longitudinal results. Further, it is important that faculty be made more aware of the importance of testing for institutional purposes and that they encourage students to more fully participate in the process with an attitude to do the best work possible.

The results of the Academic Profile II test of freshmen and graduating seniors, not all of whom began at the University as freshmen, are shown for FY1996, 1997, and 1998 in Tables 5-2, 5-3, and 5-4a, b.

Students in the School of Education are required to take College BASE (College Basic Academic Subjects Examination) as their measure of general education. This test is required by the Missouri Department of Elementary and Secondary Education before teacher certification. College BASE, a criterion-referenced achievement examination, assesses student proficiency in English, mathematics, science, and social studies. In addition to evaluating academic achievement in these subjects, College BASE gauges cognitive processing skills in three cross-disciplinary competencies: interpretive reasoning, strategic reasoning, and adaptive reasoning. The certification passing score for this test is 265, and the median score is 300. While School of Education students have always been successful in achieving a passing score, the most

Table 5-2 – Academic Profile II

Year	Number of Freshmen	Number of Seniors	Number Above Mean[1]	% Above Mean
1996	484		206	42.6%
		1042	579	55.6%
1997	637		241	37.8%
		1240	676	54.5%
1998	529		263	49.7%
		1178	617	52.5%

[1] Based on a scale from 400 to 500 for freshmen in 13 comparison universities: Brigham Young University, East Texas State University, Memphis State, Old Dominion, Parker College, University of Kansas, University of Louisville, University of Missouri-Kansas City, University of Missouri-Rolla, University of Missouri-St. Louis, University of Oklahoma, University of Tennessee, and Virginia Commonwealth University).

Table 5-3 – Results of General Education Assessment for 1996, 1997, and 1998 for Freshmen

Academic Profile	Means (Freshmen – National Comparison)	1996	1997	1998
Total Score	446.5	445.4	444.5	448.3
Subscores				
Humanities	115.6	114.8	114.5	116.1
Social Sciences	114.2	114.0	113.5	115.0
Natural Sciences	116.5	116.0	116.0	117.0
College-Level Reading	118.6	119.0	118.5	119.1
College-level Writing	116.1	115.3	114.5	116.2
Critical Thinking	111.8	111.0	111.0	112.0
Using Math Data	115.3	115.0	115.0	116.2

Table 5-4a – Results of General Education (Academic Profile II) Assessment for 1996, 1997, 1998 for Seniors

	National Comparison[1]	All UMSL Seniors Tested		
		1996	*1997*	*1998*
Number Tested		1042	1240	1178
Mean Score	456.6	453.0	450.7	451.3
Academic Areas Subscores				
Humanities	118.5	117.7	116.8	117.0
Social Sciences	117.3	117.0	116.4	116.0
Natural Sciences	119.3	119.0	118.4	118.0
Skills Areas Subscores				
College-Level Reading	121.6	121.3	121.4	121.3
College Level Writing	118.8	118.1	116.8	118.3
Critical Thinking	114.9	114.0	113.4	113.8
Using Math Data	117.2	116.9	115.8	116.3

[1] See Table 5-2 footnote for list of comparison universities.

Table 5-4b – Results of General Education (Academic Profile II) Assessment for 1996, 1997, 1998 for Seniors

	Number of Hours Not Taken at UMSL				Age			
	>30	16-30	0-15	Not a Transfer	20-29	30-39	40-49	50+
		1996				*1996*		
Number Taking	575	165	84	210	812	147	56	--
Mean Score	453	453.5	452.9	453.4	453.4	452.5	449.1	--
		1997				*1997*		
Number Taking	744	180	69	223	912	192	78	10
Mean Score	451.7	450.4	453.5	452.0	451.8	452.4	451.6	440
		1998				*1998*		
Number Taking	693	170	56	248	914	162	61	20
Mean Score	451.2	451.7	453.6	452.8	452	451	449.8	445

	1996			*1996*		
(Number)	Male (458)	Female (565)		African-American (110)	Asian/Pacific Am. (41)	White non-Hispanic (841)
Mean Score	454.4	451.6				
(Number)						
Mean Score				441.1	444.8	455
	1997			*1997*		
(Number)	Male (527)	Female (688)		African-American (146)	Asian/Pacific Am. (64)	White non-Hispanic (982)
Mean Score	452.5	450.7				
(Number)						
Mean Score				439.5	442.7	454.2
	1998			*1998*		
(Number)	Male(512)	Female (650)		African-American (138)	Asian/Pacific Is. (31)	White non-Hispanic (935)
Mean Score	452.8	450.8				
(Number)						
Mean Score				442.9	435.6	454.0

Table 5-5 – College BASE

Year	Number Tested	Number above Mean	% Above Mean
1996	326	163	50.0%
1997	379	189	50.0%
1998	324	206	63.5%

[1] The mean score on C-BASE is 300.

recent results show a substantial increase in the proportion scoring above the mean. The results of this test for FY 1996, 1997, and 1998 are shown in Table 5-5.

The University has not made major changes in its General Education curriculum based on the results of the Academic Profile II examination. This is not the result of oversight or lassitude. Rather, it is the result of a conscious and considered decision that these results are less relevant to UM-St. Louis than they would be to a more traditional, residential university. As has been noted in a number of places in this Self Study, many UM-St. Louis students, during their academic careers, attend a number of institutions of higher education: community colleges, state four-year colleges, private universities, and public universities. Any student assessment results will integrate all these different experiences with no way to disaggregate the UM-St. Louis component of their General

Education. Under these circumstances, the University has concluded that the best way by which to improve General Education is to rely on its excellent faculty, most of whom have a strong commitment to General Education, to establish, modify, and update the General Education component of the curriculum. The Vice Chancellor for Academic Affairs coordinates these reassessments of General Education, and has made a thorough review of General Education a major goal of the five-year strategic plan being developed under his leadership. This fall he established, in cooperation with the University Senate, a General Education Task Force charged with conducting that review and with recommending changes as appropriate.

Ongoing reviews of General Education have already produced significant changes in the way basic mathematics and business statistics are taught.

The University has invested significant funds to improve basic mathematics education based on a Fall 1994 assessment of student performance in College Algebra. The assessment included a review of the final grades, interviews with students and instructors, and a conference to consider ways of improving student learning. The outcome was a $70,000 annual investment which helped implement the following changes:

• The classes now meet four days per week rather than three, although it is still a three-credit-hour course. The fourth day is a compulsory workshop. No new material was added to the course.

• Closer ties were established with the Center for Academic Development.

• Additional graders, instructors, and tutors were provided.

• An alternate course that is equivalent to College Algebra but covers material more suitable for non-science majors was established.

These changes had the following results (Math 30 is College Algebra and Math 20 is the alternate course):

• The number of students enrolled in Math 20 and 30 has increased significantly — from 380 students, under the old system in Fall 1994-Winter 1995, to 539, under the new format in Winter 1997-Fall 1997, a 42 percent increase.

• For the combined Math 20 and 30, there has been a 26 percent decrease in F grades and an impressive 70 percent increase in A, B, and C grades, over the old teaching methods.

In a recent survey of Urban-13 universities, 51 percent of students taking College Algebra got grades of C or better. At UM-St. Louis, 75 percent of our students received a C or better.

An assessment of retention rate in a required Business statistics course indicated the need for improvement. Adopting many of the methods that were used successfully in Math 20 and Math 30 resulted in significant improvement. From the last semester of the old format (Winter 1996) to the current year in the new format (Winter 1997 and Fall 1997), there was an increase from 51 to 273 students. The percent of "D" and "F" grades dropped from 17.6 percent to 12 percent.

Major Field Assessment

Major Field assessment is carried out within schools and departments serving undergraduate students: Business, Education, Engineering, Nursing, and Arts and Sciences. Within Arts and Sciences, each of the 18 departments has responsibility for assessing education outcomes of its majors. Business, Education, Nursing, and 11 of the departments in Arts and Sciences use nationally normed tests. The other seven departments use a combination of locally developed tests, capstone courses, senior theses, and senior seminars. The specifics for these departments — Anthropology, Art, Communication, Foreign Language, History, Philosophy, and Political Science — are described in their individual assessment writeups below. Because the curriculum is different for each student, Bachelor of General Studies students do not have an appropriate major field assessment test. Engineering students will be able to sit for the national examination in their field as soon as the young, but already highly successful, program achieves accrediation.

The national norms used to evaluate student performance come from three sources: Educational Testing Service, which produces 14 major field exams based on the subject exams created for the Graduate Register Examination; the National League of Nursing; and the University of Tennessee, which produces the ACAT exam used in the Department of Social Work. These norms are based upon scores by seniors who took these exams from 1991-1998.

Tables 5-6 and 5-7 present a summary of senior performance on major field exams for FY 1997 and 1998.

Table 5-6 – Major Field Assessment Results, Fiscal 1997

Department		Number Tested	Number above 50th Percentile	Number above 80th Percentile
Anthropology		. 13	--	--
Art		14	--	--
Biology	N[1]	64	25 (39%)	19 (30%)
Business	N	409	249 (61%)	145 (35%)
Chemistry	N	16	7 (44%)	1 (6%)
Communications		136	--	--
Computer Science	N	18	12 (67%)	4 (22%)
Criminal Justice	N	95	84 (88%)	26 (27%)
Economics	N	15	6 (40%)	3 (20%)
Education	N	527	284 (54%)	118 (22%)
Foreign Language		17		
History		38	--	--
Lit. in English	N	43	34 (79%)	9 (21%)
Mathematics	N	12	6 (50%)	5 (42%)
Music	N	2	0 (0%)	0 (0%)
Nursing	N	93	68 (73%)	35 (38%)
Philosophy		7	--	--
Physics	N	4	3 (75%)	1 (25%)
Political Science		37	--	--
Psychology	N	77	24 (31%)	5 (6%)
Sociology	N	10	7 (70%)	4 (40%)
Social Work	N	62	35 (56%)	5 (8%)
Totals		1709	844 (49%)	380 (22%)

[1]N indicates nationally-normed examination.

Table 5-7 – Major Field Assessment Results, Fiscal 1998

Department		Number Tested	Number above 50th Percentile	Number above 80th Percentile
Anthropology		. 15	--	--
Art		14	--	--
Biology	N[1]	65	36 (55%)	20 (31%)
Business	N	380	243 (64%)	149 (39%)
Chemistry	N	13	3 (23%)	1 (8%)
Communications		112	--	--
Computer Science	N	19	10 (53%)	8 (42%)
Criminal Justice	N	80	71 (89%)	
Economics	N	16	8 (50%)	2 (13%)
Education	N	435	244 (56%)	96 (22%)
Foreign Language		11	--	--
History		21	--	--
Lit. in English	N	50	25 (50%)	18 (36%)
Mathematics	N	6	2 (33%)	1 (17%)
Music	N	5	4 (80%)	4 (80%)
Nursing	N	33	24 (73%)	6 (18%)
Philosophy		8	--	--
Physics	N	1	0 (0%)	0 (0%)
Political Science		39	--	--
Psychology	N	101	35 (35%)	12 (12%)
Sociology	N	14	8 (57%)	4 (29%)
Social Work	N	58	39 (67%)	14 (24%)
Totals		1496	752 (50%)	335 (22%)

[1]N indicates nationally-normed examination.

Surveys

Background

The State Legislature of Missouri charges the Coordinating Board for Higher Education (CBHE) with the responsibility for conducting three types of surveys on a to-be-selected, but rotating, basis. These surveys sample alumni, currently enrolled students, and employers. For the first two groups, alumni and students, CBHE has contracted with the ACT Corporation to do the sampling, conduct the survey, and develop the survey results. CBHE has not conducted employer surveys in the past ten years.

Alumni Surveys

The Alumni Outcomes Survey is an instrument developed in 1992 by the ACT Corporation. It contains eight sections, with Section II subdivided into three parts. Section I asks for background information and allows alumni to skip or leave blank any items they may wish to exclude. Many exclude their social security number, which is the only way a person might be identified. Section II concerns one's current job, the degree of satisfaction with that job, and its relationship to the major field of study. Section III concerns abilities one might expect to develop while pursuing a postsecondary education. Section IV concerns educational experiences and uses a five-point scale from 1 (lowest) to 5 (highest) for most of its ratings. Section V deals with organizational involvement while in school and since leaving school. Section VI asks for current mailing address. Section VII includes additional questions (1-25 by CBHE; 26-30 by the UM-St. Louis Alumni Office); and Section VIII is reserved for additional comments.

There are several values to be gained from alumni surveys. Among them is the opportunity to compare results from one group of alumni with results from another group. The two most recent alumni surveys were made during Spring 1994, when alumni from FY 1992 and FY 1993 were queried, and during Spring 1997, when alumni from FY 1994 were surveyed. The same survey forms were used each time, although the additional questions posed by CBHE in Section VII were somewhat different. In each case, the analysis of results was prepared by the ACT Corporation. Not all questions were answered by all students, resulting in totals of less than 100 percent in the response tabulations. Questions were not framed in a way that allowed identification of students majoring in the humanities. Also, because the sampling was deter-

mined by ACT, it has not been possible to determine why differences in such areas as minority response occurred. Table 5-8 shows results from the two surveys (RR: File Full Report on 1994 and 1997 Alumni Surveys).

Table 5-8 – Alumni Survey Comparative Summary[1]

	1994	1997
Section I: Background Information		
Number of Respondents	146	228
Percent 20-24 years old	17.0%	7.5%
Percent 25-29 years old	42%	42%
Percent Female	70%	65%
Percent Minority	12%	7.5%
Employed Full Time	75%	74%
Employed Part Time	6.9%	5.7%
Percent Majoring In		
Business	32%	30%
Education	20%	18%
Health Sciences	7%	6.6%
Math/Science	20%	10%
Social Sciences	17%	22%
Overall GPA		
3.5 - 4.00	31%	29%
3.0 - 3.49	30%	35%
2.5 - 2.99	23%	21%
2.0 - 2.49	15%	13%
1.5 - 1.99	0%	1%
Transfer Status		
Did Not Transfer	10%	10%
1 - 15 hours	20%	16%
16 - 30 hours	15%	18%
31 – 45 hours	12%	11%
46- - 60 hours	24%	21%
Over 60 hours	18%	21%

Section II, Item D: How well did school experiences prepare you for your current job?		
Exceptionally Well	8.9%	8.8%
More than Adequately	18%	25%
Adequately	46%	37%
Less than Adequately	6.2%	6.6%
Very poorly	2.7%	0.4%
Not at All	9.6%	8.8%

Section IV, Item B: Quality of program in your major field.		
Very Satisfied + Satisfied	72%	76%
Neutral	10%	10%
Dissatisfied + Very Dissatisfied	16%	10%
Standard Deviation	1.11	0.98

Section IV, Item C: If you could begin again, would you attend this school?		
Definitely + Probably Yes	68%	69%
Uncertain	14%	18%
Probably + Definitely No	17%	11 %

Section IV, Item D: Overall, how would you rate this school?		
Excellent	17%	19%
Good	52%	56%
Average	25%	20%
Poor	5%	3%

[1]Percentages do not necessarily add up to 100, as not all students responded in each category.

Section IV, Item G: Graduates' level of satisfaction:[1]

	1994		*1997*	
	Rank	Score	Rank	Score
Library Services & Materials	1	4.28	1	4.29
Academic Advising	4	3.08	4	3.25
Registration Procedure	2	3.21	2	3.65
Academic Support Services	3	3.21	3	3.41
Personal Counseling Services	6	3.01	5	3.23
Health & Wellness Services	5	3.06	6	3.16
Instruction in Computer System	7	2.91	7	3.13
Financial Aid Counseling	9	2.61	8	3.08
Career Planning and Placement	8	2.66	9	2.95

[1] Satisfaction was rated on a five-point scale, with 1 as lowest satisfaction and 5 as highest.

Survey of Enrolled Students

The Coordinating Board for Higher Education has conducted three surveys of currently enrolled students, in Spring 1993, 1995, and 1998, using the ACT College Outcomes Survey.

It is difficult to compare results from 1995 with the results from 1993 and 1998 because in 1995 the survey was carried out during a class period in a random selection of classes, whereas in 1993 and 1998 the survey was mailed by ACT to students who were selected at random from the System database. ACT also conducted follow-up mailings. In 1993, a total of 189 students responded, while in 1998, a total of 329 surveys were returned. On 39 items related to quality of the program, services provided, and atmosphere of the campus, student satisfaction increased significantly (greater than a 0.25 change on a five-point scale) on 11 items and showed no significant difference on the other 28 items.

Survey of Employers

CHBE never conducted their planned survey of employers. As a part of the University's recently established Enrollment Management Task Force, a series of employer roundtable discussions have been hosted by Career Services, the Division of Student Affairs, and the Office of Academic Affairs. The employers who were invited hire business, arts and sciences, and education majors who have graduated from the University. The employers shared information regarding successful recruiting and retention strategies, compensation issues, and changing trends and attitudes, and they were asked what they thought of the preparation that their UM-St. Louis alumni had received. They responded that the graduates had a good grasp of technical information and showed great dedication and perseverance, but needed stronger writing and communication skills and were less polished in the business etiquette required for social situations than are graduates of some other institutions. These results have prompted a reevaluation of writing requirements and a discussion of moving from a two-writing-course requirement to a three-course requirement. The School of Business is also working on strategies whereby it can impart to its students social skills required of business professionals.

Graduate Student Assessment

The Graduate School and the University Senate Committee on Assessment have discussed a number of assessment options for graduate students and have reviewed a number of assessment tools used by other universities. As a result of this review, they developed a survey (RR: File 140, Graduate Student Post-Graduation Survey), which is mailed to all graduate students within a couple of months of their graduation. The survey has 39 questions that are common to graduates from all disciplines, as well as an option for each graduate program to include additional questions tailored to its needs. The Graduate School sends out the surveys and distributes the returned surveys to the respective graduate programs, where they are analyzed. These surveys have experienced a 40 percent return rate. The information generated is incorporated into future planning, and programmatic decisions are made on the basis of the survey results.

One of the best ways to determine success in achieving educational goals for graduate students is their success in getting their original research published in peer-reviewed literature. A listing of known publications by graduate students on work done during their graduate education (RR: File 141, Listing of Graduate Student Publications) indicates notable achievement on this excellent assessment measure.

Assessment as a Catalyst for Change

Universitywide assessment programs are useful in providing a broad overview of the University's success in educating its students. However, improvements to the educational process are best achieved at the unit level. This is the level at which the results of the assessments are studied most carefully and the most appropriate responses crafted. The following is a unit-by-unit review of assessment activities and an overview of the programmatic changes implemented as a result of assessment.

College of Arts and Sciences Departments

Anthropology

At the outset of the assessment process, the Anthropology Department administered a comprehensive essay examination to graduating seniors, with the examination being sent out for external review. Review of this effort led to a clearer definition of the core competencies in the discipline and how they should be taught. In 1991/92 the department overhauled the curriculum. The new curriculum achieved more structure by sequencing courses and directing elective options into areas where competency was lacking. In 1994 a senior thesis assessment system was established.

Assessment works as follows: during the senior year, each major takes Ideas and Explanations in Anthropology (301) and the Practicum in Cultural Research Methods (308) during the Fall semester, followed by the Senior Seminar (315). The result is a problem-solving research paper based upon original data, analysis, and interpretation. The paper is presented in writing to a faculty member and orally to the collected faculty and students within the department. It is critiqued in an open research seminar format. This process has resulted in a positive feedback loop, demonstrating superior quality while progressively increasing standards among students and faculty.

Art and Art History

General education in assessment results have indicated a knowledge gap among students in various periods and cultures in art history. To correct this problem, the Art and Art History Department made changes in course offerings so that a broader perspective would be provided. Also, the major field departmental exam, which consists of two parts, a 50-minute slide exam and a senior paper, has been broadened to enable students to display better their background and expertise. Formerly, 11 slides were presented and students were asked to identify and analyze each. Now the students may choose 9 of the 11

for identification and analysis. The paper presented is a revision of the best term paper previously presented by the student. Also, a senior seminar, with a four-week intensive review of Western art, was developed to prepare students better for the major field exam. Since the implementation of these assessment-based improvements, every art history major from the University who intended to pursue a graduate degree has been accepted into a graduate program.

Graduating studio art majors submit an exit portfolio of their work to be reviewed by a faculty committee and displayed in Gallery FAB. Students must also provide an oral defense of their work. Both the exit portfolio and the oral defense must be approved by a majority of the faculty committee. These standards exceed the standards set by NASAD, the National Association of Schools of Art and Design. As the B.F.A. program develops, another valuable assessment measure will be the acceptance of student work into exhibitions off campus, particularly juried exhibits.

Biology

All seniors majoring in biology are required to take a nationally normed assessment test, the Educational Testing Service Major Field Achievement Exam, before they can graduate. The test is divided into four parts: Cell Biology, Molecular Biology and Genetics, Organismal Biology, and Population Biology/Ecology/Evolution. In general, students have done well on this exam. In 1998, 55 percent scored above the 50th percentile and 31 percent scored above the 80th percentile. An analysis of these scores by sub-area reveals that student scores are somewhat weaker in the area of organismal biology. This is an area of the curriculum in which there had been an under-emphasis in variety among the elective courses offered. The department has added new courses in this area in recent years and is scheduling electives more regularly.

At present, the department offers students a strong undergraduate experience. Recent years have also witnessed enhancements in the curriculum in molecular biology, cell biology, and biochemistry (biotechnology) as well as in ecology and conservation biology.

This past year, the department conducted its five-year self study. Questionnaires were sent out to former graduates and current seniors. Overall, the responses of seniors and alumni were very favorable in rating both the faculty and the department training they received. Thirty-two percent rated the program as average, 54 percent as above average, and 10 percent outstanding.

Another element of the department's ongoing assessment activities is the student evaluation form that is used by every instructor in the department for each course that is taught. Students are asked to evaluate various aspects of the course and the instructor. The students' responses are graded on a scale of 1 to 5, with 5 being the excellent/high score. On this student evaluation form, the average score is about 4.2, which the department regards as good.

The final source of feedback for this department is the success of its students in finding appropriate positions after graduation. The success of graduates in obtaining employment in biological fields indicates that the department program has an excellent reputation.

Chemistry

Every graduating student in chemistry is required to take the Educational Testing Service Major Field Exam in Chemistry. For the past several years there has been a good correlation between the students' scores on this test and their UM-St. Louis grade point average.

The majority of bachelor's degree recipients become employed in large or small chemical companies in the St. Louis area. Feedback from the department's industrial advisory group has indicated that graduates have received an excellent training in chemistry, but their communications skills and laboratory training in analytical chemistry could be improved. The department now requires more active student participation in the two-semester seminar program for all seniors. Students present two talks and provide critiques of student and faculty talks they attend.

In chemistry there is no substitute for original research in developing laboratory techniques, maintaining a laboratory notebook, and presenting results either in written or oral form. Although faculty members have always directed the research of undergraduates, the department now encourages undergraduates to take Chemistry 290, Chemical Research, to fulfill their elective hours in chemistry. For the past several summers, the department has run an undergraduate research program, with support from the National Science Foundation and local industry, in which UM-St. Louis and other students have participated in an intensive 11-week program, culminating in their presentation of their results in a one-day symposium.

In analytical chemistry the Instrumental Analysis course was changed from a three-credit-hour lecture and laboratory course (Chemistry 324) to a two-course sequence comprising a two-credit lecture course (Chemistry 321) and a two-credit laboratory (Chemistry 323). In this way

the fundamentals of the instrumental techniques are presented first, allowing the students a greater understanding of the operation of the instruments they use in the second semester. Many of these techniques are ones that graduates will use when employed in local industry.

Communication

The use of a standardized local test assessment instrument has assisted the unit and led to change in the Department of Communication in a number of ways (there is no nationally normed communication test).

First, the assessment instrument has helped the department identify key curricular strengths such as mastery of research techniques and theoretical concepts from the area of Communication Theory and Methodology. Identification of these strengths reinforces longstanding department core-curriculum requirements, including student completion of Communication 135, Communication Theory, which further enhances student prospects for graduate study in the field.

Second, the assessment instrument has aided the department in monitoring knowledge acquired from individual sections of both the large-lecture and multiple-section courses such as Introduction to Mass Communication and Introduction to Broadcasting. This ensures that students who take different sections of courses offered in different formats during day, weekend, and evening sessions are receiving the same curricular content.

Third, the assessment instrument offers a comparative basis for reinforcing concepts presented in more than one set of courses within an emphasis area — either Mass Communication or Communication Theory — and applied to other areas. For example, the skills acquired in using Internet sources for the course Communication 65, Introduction to Information Technology, can be generalized in use, helping the student in more than one curricular context. In a department with more than one area of emphasis, assessment testing also assists the unit in monitoring areas of strength and potential weakness. One weakness, as reported by alumni feedback, is the lack of well-equipped laboratories for both audio (radio courses) and video (television courses). The University is in the process of addressing these needs.

Computer Science

The primary assessment tools employed by the Department of Mathematics and Computer Science are exit interviews for majors and a nationally normed comprehensive

examination. Feedback from the exit interviews with graduating computer science majors has resulted in the initiation of several elective computer science courses as well as changes in existing courses. Specifically, object-oriented methodology is introduced at an earlier stage, and more emphasis is being placed on Internet-related topics, like Java. The Educational Testing Service Major Field Exam in Computer Science is required of all graduating seniors, and the results are incorporated into the decision-making process for programmatic planning.

Criminology and Criminal Justice

The Department of Criminology and Criminal Justice has participated in a nationally normed exam for the past six years. The aggregate results of this exam are provided to all teaching staff and discussed at a faculty meeting with the goal of maintaining quality and continuing to challenge students. The department has implemented a number of changes in light of the results of the assessment exam. For example, a new, and much more challenging, statistics textbook has been adopted by all department members involved in the teaching of statistics and quantitatively oriented methods courses. Likewise, those teaching the department's capstone course (the senior seminar which focuses on the writing of an original research paper) have reached a joint decision to raise their expectations for student performance substantially through increased reading requirements and the implementation of higher standards for writing. Indeed, strongly positive assessment exam results have generated efforts to maintain high quality while challenging students further in many, if not most, courses by doing such things as increasing the amount of material assigned and covered. These efforts have paid off: during the past academic year department majors had the highest average score in the nation on the assessment exam. Exam results also are disseminated to the Office of Academic Advising and the dean of the College of Arts and Sciences to keep these units abreast of department performance in this important area.

Economics

The Educational Testing Service (ETS) Major Field Exam in Economics is required of all graduating seniors. The department designed a new course in economic statistics (Economics 265) to address the observed weakness in quantitative skills of its students on the ETS. It also modified its other courses in econometrics and quantitative analysis on the basis of information gathered from current students and alumni.

The department has also surveyed current undergraduate and graduate students as part of its five year self study, completed in January 1998. The students were asked to rate on a scale of 1 (low) to 5 (high) eight aspects of the economics program. The results were as follows: overall quality (4.4), difficulty (4.2), faculty (4.6), interaction (4.2), instruction (4.4), availability of courses (3.5), advising (4.4), and quality of the Economics Resource Center (4.5). Only the availability of courses for program requirements was rated low, and when the graduate and undergraduate responses were examined separately, only the undergraduate responses were seen to be low. Graduate students rated course availability at 4.1, whereas undergraduates rated course availability at 3.2.

In response to this survey, the department examined past course offerings and scheduling and concluded that required course offerings were adequate but that there were insufficient undergraduate electives offered. The department therefore increased its Winter 1999 elective offerings from four to five courses and is examining the feasibility of joint-listing one or more courses in economic history with the Department of History. This would be a new area of study for the department.

In addition to the student survey that is conducted for each five-year self study, student course evaluations are conducted for all courses each semester. These course evaluations allow the department to monitor course quality and student satisfaction, as well as to detect problems on a timely basis and respond to them.

Finally, the department initiated a new program evaluation policy in Fall 1998. The department chair will conduct an exit interview with each graduating senior and will prepare a report that will be delivered to the faculty the following semester. The results of this on-going assessment will be incorporated into the decision-making process for future modifications to the departmental program.

English

All seniors majoring in English take the Educational Testing Service Literature in English Major Field Exam. The UM-St. Louis overall mean in recent years has been consistently higher than the national mean, and a majority of students test above the national mean. For example, in the period May 1996 - May 1997, 65 students were tested. Forty-one of these students tested above the overall national mean and three just at the national mean. Five of the 65 students tested in the 99th percentile. Because the exam results are broken down by literary

period, they provide information by which the department regularly checks the comprehensiveness of coverage in department offerings and can identify and correct any weakness that might arise. Each year the department chair distributes the results of the exams to the faculty for review and discussion. One result of this nationally normed test has been to reinforce the view that the major is basically well-structured and that thus far the department has been successful in keeping current without giving way to curricular fads.

In addition to this nationally normed exam, the department also assesses its programs though student course evaluations in every class and through periodic surveys of graduate students and alumni. Programmatic changes result from these assessments. For example, as a result of recent graduate surveys, the department offered a literature seminar in the Summer 1998 session and has increased the variety of offerings during the regular academic year. Responses from alumni have led to the department's developing a new specialty in Technical Writing within the Writing Certificate program. Also, changes have been made in the Writing Certificate internship program in response to student and site-supervisor surveys made after each term. The required number of hours has been extended and the evaluation processes have been reworked to be more convenient for both students and supervisors.

Foreign Languages and Literature

Language learning is a progressive skill; thus assessment is an ongoing process in all of the skill classes in the Department of Foreign Languages and Literatures. Cultural and literary knowledge is measured in a different manner. The senior assessment test, as created by teams of faculty and conducted completely in the specific language, gives a concrete picture of what the student has actually retained from what was taught in class. Each of the three senior assessment exams (in French, German, and Spanish) uses various testing methods such as multiple choice, short answer, essay, oral conversation, or presentation. The content of the tests is based on specific course curricula and course objectives, as stated on the syllabus for each course. The combination of the specific course curricula reflects the goals of each of the three major languages. Each assessment test incorporates the following subsections:

- Knowledge of the language to express meaningful and idiomatically correct thoughts.

- Culture and civilization of the country or countries as expressed in their history or social customs.

- Literature analysis and synthesis of thought.

- An oral interview of each prospective graduate with the section head of each language.

The content and structure of the assessment instrument were evaluated by outside evaluators, noted experts in the respective fields. These exams test what an educated major in French, German, or Spanish should know.

In French and German the assessment instrument is updated as curricular changes take place. When new courses are added or others dropped, the corresponding subject matter is added or dropped from the assessment exam. The Spanish faculty reworked their assessment exam during 1996-97; students now receive a list of topics, terms, and questions when they declare a major. Students also may substitute what they consider one of their best papers from a literature class for the essay that is standard in the other assessment exams. Thus the Spanish section is trying the portfolio idea that is currently popular in the field of education. Results of these exams over the years show that the department's strength is in language and literature and that there is a need for more syntax and culture courses on the intermediate and upper levels.

History

The History Department uses as its assessment tool History 393, Senior Seminar, a five-credit-hour capstone course required of all majors. The course is offered in multiple sections with different topics, each section having an enrollment cap of 12 students. Students complete a major project, usually a research paper 20-25 pages in length, based heavily on primary sources. An independent committee, organized by the history honorary society Phi Alpha Theta, reads the completed papers and selects the best one presented each year as the winner of the Rawick Prize.

Faculty who teach History 393 provide the department chair with a written evaluation of the strengths and weaknesses of the students in each section. This evaluation, in turn, becomes the basis for an annual review of the objectives and requirements in the other courses taught by the department for the major and a regular reminder of the department policy that formal written work is required in all upper-division courses. As a result of this annual review, the department faculty systematically discusses ways to improve the skills of majors, and the department as a whole systematically adjusts the curriculum and strengthens the major. One specific

consequence is that a growing number of faculty now require students to purchase and use a published guide to writing in history as well as a general writing handbook as part of an effort to strengthen the writing component of existing courses.

Mathematics

College Algebra was changed substanitally in response to assessment of students and instructors. As noted under General Education, a workshop was added, ties to the Center for Academic Development were enhanced, additional tutors were provided, and a new course was developed for non-science majors. The results show both increased enrollments and improved student learning.

Exit interviews with graduating mathematics majors have resulted in changes in the curriculum. In particular, many courses now introduce computer methods for solving appropriate problems. The department uses the Educational Testing Service Mathematics Major Field Exam to evaluate graduating seniors. Almost half of the relatively small number of majors score above the 50th percentile. No major changes in curriculum seem warranted. However, several changes have been made in the math placement process and examinations used to place incoming students.

Music

Instructional objectives for each program of undergraduate study in music are written by music faculty members and reviewed periodically. The department is evaluated regularly by the National Association of Schools of Music, ensuring that faculty, programs, and options meet or exceed all national standards. In addition, students are assessed on a semester-by-semester basis, through their performance in music classes and through end-of-semester juries in applied music. These assessments result in programmatic and curricular changes within NASM guidelines. Achievements of students and recent alumni in research/creative activity are monitored (e.g., a student performing with Opera Theatre of Saint Louis or being selected as Miss Missouri and winning the talent competition with her singing).

Students transferring into the Department of Music are required to take placement tests in the areas of music theory and history. These are the same tests that non-transfer students take to progress in the various sequences of study within these programs. Graduating seniors in music take the Educational Testing Service major field exam, and students majoring in music

education take a vocal/piano proficiency exam and the Professional Assessment for Beginning Teachers (PRAXIS) exam through the School of Education.

Philosophy

A major component of the Philosophy Department's assessment program is its Senior Seminar, a capstone course required of all majors. The course is taught by a member of the department who both has an established record of research and has continued to be an active contributor to the field.

The Senior Seminar involves the student in the philosophical investigation of issues at a professional level. Under the guidance of the instructing philosopher, as a final course requirement, students choose a topic of interest and write a paper of 20 to 25 pages, with the aim of making it of publishable quality. In their seminar work and in their paper, students are expected to display evidence of the analytical, argumentative, and writing skills taught to them in previous classes. Further, they are expected to show familiarity with the relevant background of the topic they have chosen, as well as with the current philosophical literature.

Each student's paper is evaluated by an independent committee made up of an external examiner from another university and two members of the department. The committee assesses the paper by employing a questionnaire that was designed by an *ad hoc* departmental committee to reflect the department's philosophical and general academic standards.

The department uses the performance results of students in the Senior Seminar to assess and improve its own performance. On the basis of past results, the department has recognized the continuing need to emphasize in its lower-level courses the process of identifying and evaluating arguments and the importance of having students write analytical papers that use arguments to support an explicit thesis. Further, the department has seen the importance of making a special effort in all its classes to help students recognize philosophical questions and to frame them with a useful degree of precision.

A second component of the department's assessment program is the interviews it conducts with graduating majors planning to apply to graduate school in philosophy. Not only do they provide the students with guidance and useful advice, but from discussions with them faculty learn which parts of the program are strong and which need strengthening. Like this Senior Seminar, these exit interviews are important elements in a feedback loop.

A third component of the department's assessment program is the constant monitoring of course offerings and teaching by means of course-evaluation questionnaires. This process is supplemented by information derived from performances in the Senior Seminar and interviews with graduate-school-bound majors. Through data obtained in this way, as supplemented by information from Senior Seminar results and exit interviews, course content and instructional style are modified when it seems warranted. For example, the content of sections of the Formal Logic course has been standardized and it was recommended that some courses include more class discussion and less lecturing.

Physics and Astronomy

The nationally normed Educational Testing Service Major Field Exam in Physics remains a major tool to assess graduating seniors. As a result of the department's experience in undergraduate education, it has implemented a policy whereby any undergraduate physics major is eligible to work as a research assistant in a faculty research laboratory. Firsthand exposure to research techniques in the field has proven to be instrumental in motivating students to enter graduate programs. The department's contention is that the ultimate assessment tool is the degree to which graduates at both the undergraduate and graduate levels in physics and astronomy are successful in obtaining technical employment. The department continues to have a high measure of success in placing undergraduates in graduate programs elsewhere in the country and in placing its M.S. and Ph.D. students in highly desirable positions.

In curriculum assessment, the Department of Physics and Astronomy has upgraded an earlier elementary electronics course (Physics 201) to a digital electronics course (Physics 304) to meet current needs in the field. Also, three new courses in microscopy are being developed to train students and representatives from local industry and research organizations in the use of state-of-the-art scanning electron microscopes, transmission electron microscopes, and scanning probe microscopes.

Political Science

Political Science uses a capstone course, the senior seminar (Political Science 395), as its primary assessment instrument. The department elected this model of assessment over a standardized test because the tests in existence do not synchronize appropriately with the department's varied B.A. and B.S. curricula.

Initially, students prepared a research paper in an area of their choice and together read and discussed significant theoretical work in the discipline. Feedback from an external evaluator, graduating majors, and professors who taught the course convinced the department to have each of several seminars offered in a given year focus on a particular area in political science. In that way, students could more readily assist one another and readings and discussion focused on a body of literature related to the research projects. To provide further focus, the seminar instructor asked the students to each prepare a policy document for consideration by public officials. Using quantitative and qualitative techniques, the students have been able to apply research skills in a practical setting. With a choice of several seminars each year, students can choose the one that best fits their interests. The faculty member in charge of the course is an expert in the general area under study.

Each seminar paper is sent to an external reviewer at another university for his or her comments regarding the research and writing skills of the soon-to-graduate major. These comments in turn influence the direction of the senior seminar and also lead to improvements in seminar structure. After extensive discussions of the course in 1998, the department established that a longer (15-25 page) seminar paper would constitute the product of each section of the senior seminar, and that, subject to sufficient personnel, the department would offer three sections of the course each academic year.

Feedback from this assessment mechanism also led the department to require a research methods class for all undergraduate majors. This class, Political Science 200, emphasizes the logic of inquiry as well as practical methods of doing research in the field. Students learn to construct and test political theory, and have the opportunity in data lab to use graphics, descriptive statistics, correlation and cross-tabs, and various computer applications. Finally, the department has established an elective sophomore/junior level comparative politics course (Political Science 150) to bridge the freshman-level comparative politics survey and advanced classes in comparative analysis.

Psychology

All undergraduate seniors majoring in psychology are assessed using the Educational Testing Service Major Field Exam in Psychology. This test is a nationally normed, comprehensive survey of most of the fields available to a psychology major. As such, it covers some areas in psychology in which any one student will not

have had an opportunity to take a course. Consequently, when assessed by the total test score, many students do not exceed the 50th percentile, according to the national norms. When scores on subareas of the test are considered, however, a substantial number of students at the University of Missouri-St. Louis equal or exceed the 50th percentile for those areas of psychology in which they have had coursework. Thus, there is evidence that undergraduates are doing well in those subjects in psychology that they have studied.

Because of the results generated by this assessment mechanism, the College of Arts and Sciences has moved to broaden the areas of expertise available to students, allowing the department to hire additional faculty to cover unrepresented areas and by providing extra funds to offer additional courses. Additionally, four psychology courses are now crosslisted with other units, and more courses will be crosslisted with gerontology in the near future. The crosslisting makes it clear to students that they have additional course options.

At the graduate level, students in all three psychology doctoral programs (Clinical, Experimental, Industrial/ Organizational) have extremely high GRE scores when admitted to their respective program. Almost all students who are admitted graduate and secure jobs in business, industry, academia, medical research, or mental health. The Clinical program was recently rated 13th in the nation (in terms of scores of graduates on the national licensing exam), and the I/O program was ranked 6th in the nation in terms of research productivity. Thus the graduate programs have demonstrated that they are quite good.

Sociology

As its primary assessment instrument, the Department of Sociology administers the nationally normed Educational Testing Service Major Field Exam in Sociology to its graduating majors during their final semester. The results are monitored to identify areas in which the department can improve curricular offerings. While the overall results have consistently been quite favorable, i.e., 100 percent of graduating sociology majors in 1997 and 86 percent in 1998 scored above the 50th percentile in the Major Field Assessment, the results also confirm that some of the content areas in sociology that are covered on the national test are not supported so adequately by the department as others. Scores in urban sociology, demography, and social stratification need to be improved. The department's regular faculty has not been offering courses in these fields for several years,

because it has lost staff through retirement and to other institutions. As a partial remedy, the department has explored ways of incorporating aspects of these subjects in other courses. The department has also submitted plans via the University's Planning Process to promote academic offerings that would bring regular faculty in these areas of specialization to the campus. Moreover, the dean of the College of Arts and Sciences has invited the department to make appropriate representations to the College's Planning Committee.

Social Work

The Department of Social Work employs the Area Concentration Achievement Tests (ACAT) as a mechanism of assessment, and the results have for the most part been positive, with scores consistently above the mean. To improve its scores on this national normed examination, the department examined areas within the test on which students seemed to have the most trouble. The department discovered that the students taking the test during the second semester of their practicum had not necessarily taken all their other social work courses by that time, and that this in part was responsible for less-than-satisfactory performance on the content areas of the test. Students scheduled for the test are now checked to see if they have taken key courses before they are allowed to take it. To ensure that students understand the importance of the test to the University, the department has also become more careful in how it introduces the testing process and checks that students have followed instructions carefully and adequately supplied identifying information when handing in the test.

In addition to these practical measures directed at the taking of the test, the department has also examined its coursework in the light of the test to evaluate how adequately it was preparing students for the test. The resulting curriculum review is now in progress, with particular emphasis on possible overlap between courses and missing areas of information. The process of developing a curriculum for the new Master of Social Work degree will supplement and enhance this curriculum review. Specifically, the department is now reconfiguring its introductory course (Social Work 100) and its practice courses. Social Work 300, for example, will focus more on theory and practice with groups and families, so as to prepare students better for that area of expertise. A newly created course on Behavior in Communities and Organizations is another result of this assessment effort. These modifications in curriculum and in the department's approach to testing will, it is hoped, yield continuing improvement in test scores.

School of Business Administration

The School of Business Administration subscribes to the philosophy and practice of continuous improvement through assessment. Following this approach, the School makes ongoing changes to its courses and practices as a result of findings from various student, alumni, and employer sources. Student feedback is solicited in course evaluations and in an exit interview. Course content is routinely monitored, and appropriate changes are made as a result of reviewing the feedback. Moreover, course evaluations are conducted in every class each semester.

At the graduate level, the process to monitor program quality is carried out by several surveys of students. The Graduate Studies Committee has identified three critical stages when student feedback and suggestions could be highly beneficial to the School. First, at the start of the program a survey of student expectations should be conducted. Second, students in mid-program should have an opportunity to share their concerns about the program and whether their expectations are being met. Finally, exit interviews at the end of the program allow students to comment on the pros and cons of the full program. In the future, the School will conduct periodic surveys of students entering and at mid-program. Currently, the advising staff (in conjunction with a capstone Business Policy class) conducts exit interviews. The survey responses are compiled and reported to the Graduate Studies Committee. A copy of the survey used is on file in the Resource Room (RR: File 142, Business Graduate Student Exit Survey).

In the exit surveys, many students have asked for one-evening-per-week classes as well as Saturday courses. Most students hold full-time positions and have travel obligations during the week and found a two-meetings-per-week format difficult. In response to these surveys, the graduate division is implementing a standard one-evening-per-week format for all graduate business offerings. Saturday courses will also be offered.

At the undergraduate level, graduating seniors are required to take a major area assessment examination in their final semester. The School has adopted the Major Field Exam, an instrument designed, scored, and summarized by Educational Testing Service. The exam is designed to assess the mastery of concepts, principles, and knowledge expected of students at the conclusion of a business degree program. The instrument is administered through a student's enrollment in a zero-cost, zero-credit-hour course which is required to be completed with a "satisfactory" grade prior to graduation. Students register for the course (exam) when they enroll in their credit courses for what is usually their last semester.

A composite score is reported to each individual by ETS. The School receives the individual's composite score as well as summary scores for the population of those taking the exam. The summary scores are an overall composite mean as well as means in accounting, economics, management, quantitative business analysis, finance, marketing, legal and social, and international. Normative means for all students taking the exam nationally are calculated by ETS at five-year intervals for use as benchmarks against which to evaluate the performance of the School's students with those of students from more than 317 other universities throughout the country that use this assessment instrument. The composite score for the School has been above the national composite score for each semester the exam has been given. Additionally, almost every semester the School's subscores have been above the ETS norms.

Test results are shared with the Undergraduate Studies Committee to allow them to see how students are performing. The committee in turn shares the information with their respective colleagues, resulting in ongoing monitoring of appropriate course content. Partly as a result of this assessment, large lecture sections of introductory courses were eliminated to increase the quality of instruction and to improve the resulting educational experience. Also, areas identified as needing attention (economics and international business) resulted in curriculum changes. Improvements in the economics and the international business content of undergraduate courses have resulted in improved performance in these two areas during the last two semesters.

The Accounting Area faculty teach in four functional areas — auditing/systems, financial, managerial, and tax. Each year faculty who teach in these areas meet to consider curriculum revisions. As input to their decisions, they consider the results of an exit survey given every graduating accounting student, recommendations from the area's external advisory group, feedback from recruiters (at least one faculty member has lunch with each on-campus recruiter for accounting students), and their own classroom experiences during the prior year, expecially regarding recent changes.

As a result of these meetings, a number of changes have been made to the undergraduate curriculum. These include requiring writing assignments in the financial accounting sequence, revising the system/auditing

sequence of courses to reflect changes in practice, and reorienting the introductory tax course to focus on business entities rather than on individual taxation. Accounting program graduates have a five-year pass rate (1992-96) for first-time candidates on the CPA examination of 21 percent. This is well above the average first-time-candidate pass rate of 15 percent. The UM-St. Louis School of Business had more graduates taking the CPA examination during that period (663) than any other school.

Scores of regional employers are involved in ongoing corporate roundtable discussions (one for each functional area of the School). These have increased the awareness of faculty members of the needs for whole-person development of students. Employer feedback has been clear: consistent with the field-examination findings, School of Business students are adequately prepared technically. They also have a strong work ethic. Their shortcomings stem from lack of "social graces." The faculty is actively working on systematic ways to increase this presence, or "polish," to increase the attractiveness of the students to employers.

School of Education

The faculty members of the School of Education conducted a long-range planning process from Fall 1996 to Fall 1997. A result of the process was a commitment to adopt performance-based standards and to change the assessment of preservice professionals accordingly. Since preservice professionals will be evaluated in terms of whether or not they know and can do those things expected of a newly certified professional, faculty members are engaged in reforming curricula. The new programs will incorporate more preparation in the field, emphasize efficient use of technology, and stress collaboration with other professionals in a variety of roles. Specific strategies for improving student learning are being developed as part of the curricular reform.

An early orientation will introduce students to and promote student reflection upon ten performance-based standards. Students will collect their work in a portfolio throughout their program of studies. Faculty members will periodically review the portfolios to provide students with feedback regarding their progress toward achieving the standards. This planning is under way in all programs for preservice teachers and in advanced programs for educational leaders. Performance-based assessment currently is being phased in by having student teachers collect work demonstrating their achievement of the ten standards during their student teaching semester.

Additionally, the standards have been mailed to all students in the School of Education so that those now in the program can begin immediately to collect their work for their portfolios.

Students in the School of Education seeking teacher certification in Missouri take their appropriate subject examinations (PRAXIS II) during the semester prior to student teaching. This subject examination must be passed for a student to graduate or be certified. PRAXIS II is a state requirement. For FY 1998, 442 students were recommended for elementary and secondary education, with 253 (57 percent) scoring at or above the 50th percentile and 104 (24 percent) scoring at or above the 80th percentile. PRAXIS II data are shared with chairs and faculty. Appropriate curriculum units, such as the Teacher Education Committee, are apprised of the results for possible curriculum modifications.

Master's students complete either a scholarly paper or an exit course at the culmination of their programs. Exit courses require a major research paper or curriculum implementation and evaluation. Doctoral students, of course, must successfully defend their dissertations to receive their degree.

In 1995 the Education student follow-up survey was subdivided into a survey for bachelor's (RR: File 143, Education Bachelor's Recipients Follow-Up Survey) graduates and a survey for master's/doctoral graduates (RR: File 144, Education Master's/Doctoral Recipients Follow-Up Survey). This has permitted questions to be more specifically geared to students' programs of study.

The Graduate Student Follow-Up Survey is mailed to students approximately one year after graduation, allowing graduates to answer in the context of their professional work. Results for the four years have been favorable, with 80 percent to 85 percent of the respondents saying they would recommend graduate study at UM-St. Louis to a prospective student. Courses, regular faculty, adjunct faculty, and the program have been rated highly, and students reflect satisfaction with the availability and scheduling of courses, as well as the quality, variety, and relevancy of courses.

A series of 12 items asked graduates about the extent to which their graduate work at UM-St. Louis aided their professional development. Among the highest-rated areas every year are "knowledge of their field," "knowledge of professional literature," and "improved ability to locate professional information." Other areas rated highly include "ability to read and understand research reports,"

"use of research results in the professional position," "use of resource materials," and "enhancing skills and effectiveness for the professional position." The single item receiving a low rating every year is "use of computer software." The School is addressing this assessment result in its strategic planning proposal.

Another series of 11 items asked graduates about the value of certain graduate experiences to professional development. All but "tests and examinations" are rated high from year to year. Particularly valued are internship/practicum courses, discussions with other students, class lectures and discussions, and research projects. These results clearly demonstrate that graduates of advanced programs in the School of Education feel that their studies added to their skills and effectiveness in their professional position and that they are better equipped to handle their position than when they began their graduate studies.

Feedback from the Graduate Student Survey caused the faculty of the Division of Counseling to reevaluate its exit requirement of a scholarly paper. Upon assessing other choices, the faculty chose to switch from the scholarly paper to a nationally normed test. This test not only serves to prepare students for the state licensure test, it also provides helpful information with regard to specific program content areas and allows UM-St. Louis graduates to be compared to a national group. The new test requirement began in Fall 1998.

At the conclusion of the student teaching experience at the University of Missouri-St. Louis, approximately 500 students annually complete a follow-up survey of their Teacher Education Program (RR: File 145, Education Teacher Education Program Survey). The survey embodies 20 "choice" questions and two short answer response questions, which elicit both academic satisfaction and opportunity for constructive criticism. Specifically, the survey seeks statistical academic and demographic data, an evaluation of student teaching and field experiences, library resources, and degree of curricular satisfaction. The survey was revised totally in 1995 to incorporate the above criteria.

Over 70 percent of the students have consistently assessed their courses, education faculty, and the total program as "good to excellent"; and well over 80 percent of the respondents would recommend the School of Education to others. Students have indicated generally that they were pleased with the quality of their field experience and internships, were satisfied with their overall preparation for student teaching, and seemed satisfied with the quality of faculty and advisers with whom they

have had contact. On the other hand, students believed a classroom management course should be required for all majors, that more preparation in the use of technology would be helpful, and that greater emphasis should be placed upon improving communication with parents. Secondary students, especially, believed more emphasis should be focused upon field experiences prior to student teaching.

The School of Education has taken these suggestions seriously. For the last three years the Teacher Education Committee has worked in earnest to develop sequential experiences throughout the Teacher Education Program. Under the new governance structure, the Curriculum and Planning and Accreditation Task Force is proposing a revised and sequential program of required courses for majors. Overlap and duplication among core courses will be reduced or eliminated. Field experiences will occur throughout the program. Topics such as technology, assessment, and classroom management will be integrated into core course work and field experiences.

Personnel in the Office of Teacher Education, especially the coordinators of clinical experiences, also have begun to track first- and second-year teachers in order to mentor new teachers informally and serve as a resource for these teachers on such topics as student portfolio development, reporting progress to parents, and classroom discipline. The School of Education is reinterpreting its role as one of serving as a catalyst for career development rather than merely the mechanism of initial licensure.

UM-St. Louis/Washington University Joint Engineering Program

The University of Missouri-St. Louis/Washington University Joint Engineering Program student learning outcomes are assessed in several ways.

Grades of UM-St. Louis students in the upper-division courses are regularly compared to grades of Washington University engineering students. The most frequent grade earned by all students enrolled in upper-division courses during the Fall 1993 through Summer 1997 period was a B. The average grade-point equivalent was 2.89. These results compare favorably to the performance of the traditional full-time undergraduate engineering students in the Washington University program, for whom the average GPA is approximately 3.0. If performance difficulties are identified in the future, additional tutoring and specialized workshops will be made available to students at no additional cost.

As a condition for graduation, seniors are required to complete a project as part of their capstone design course. Successful completion of the project requires an understanding of engineering concepts and principles and the ability to apply them in a creative way in solving design problems. The ability to complete the project successfully is a measure of student learning outcomes.

Each engineering course is evaluated every semester by the engineering student organization at Washington University, the Engineers' Council. Joint Program student ratings of the engineering courses have been very high, similar to the ratings of Washington University students. On a scale from 1 to 5, the average student response to the ten items on the evaluation was 4.1. "Course was worthwhile" was rated the highest (4.5), and the lowest rating was still a high 3.7 for "Professor's teaching style was motivating."

Although only a limited number of students have graduated so far in this relatively young program, one survey has been conducted to determine the average starting salaries of graduates, and it has demonstrated a successful outcome for even the earliest students in the program. The average starting salary of the first 12 graduates was $40,000.

Students in parallel cooperative education positions are evaluated by their employers. Over 99 percent of the students' performance was rated at least "above average," and over 45 percent of the time, the rating assigned was "outstanding." On a scale from one to five, the average response was 4.24.

In May and June of 1995, a student satisfaction survey was completed as part of the UM-St. Louis Title III grant. Sixty-four engineering students were interviewed by telephone. Students were asked how satisfied they were with information they had received on general education requirements, electives, information on internships and co-op placements, finding a tutor, evaluation of transfer credits, academic advising, etc. The results showed a high degree of satisfaction, with means ranging from 7.52 (evaluation of transfer credit) to 9.33 (internship and co-op placements). Evaluations of faculty advising were also very high.

Once the three degrees are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), students will take the Fundamentals of Engineering (FE) exam and the Principles and Practice of Engineering (PE) exam.

Students are not eligible to take the exam until the degrees are ABET-accredited. These exams will provide a basis for comparison with national norms, changes from the previous year, etc.

Pierre Laclede Honors College

Just as the Pierre Laclede Honors College offers courses at all undergraduate levels and from most Unversity disciplines, Honors College students major in every division, and virtually every department, of the University. They select their Honors courses according to many criteria, but the most common one is to fulfill one or another of their General Education requirements. It is perhaps for these reasons that Honors students' outcomes have been assessed through their undergraduate majors and/or through the General Education assessment measures. This, however, does not provide the Honors College with the accreditation and review assessment it needs.

Honors College educational outcomes will be measured in two main ways. The first will be to identify as such the Honors students who take the General Education profile examinations at the beginning and end of their undergraduate careers. This will be an appropriate measure in that most Honors students take most of their Honors courses to meet various General Education requirements. The second measure of assessment will also be appropriate, in that it will be based on an ongoing analysis of a central element in the Honors program, students' writing. This new Honors College Writing Program already has a part-time director, who will become full-time from August 1999. In this program, Honors students will be required to construct an honors writing portfolio which will be used to assess their progress in writing and research. The portfolio will include the two essays presented as part of the admissions process and at least two essays/research papers from each year of study (more if the student chooses to present material from his/her non-Honors courses). All essays and research papers included in the portfolio will be reviewed and assessed according to an extensive rubric consisting of different writing qualities grouped under the following main headings (in hierarchical order): depth and breadth of thought and information, structure, style, and mechanics. Since each separate element of the rubric will be given a numerical assessment, this review will produce a publicly available statistical profile of writing outcomes for the College. There will also be an educational benefit, for each student will be given these numerical assessments, together with a written report, and these will form the basis of periodic consultations with the director of the

Honors College Writing Program. The objectives of each consultation will be to discuss these assessment outcomes, to agree upon areas where imporvement is required, and to indicated strategies for improvement. It is also intended that the portfolio should be of use to students after graduation, and to that end portfolios will be turned over to graduates together with a final assessment of their success in the undergraduate writing program.

The General Education assessment will be in place from Fall 1999. The Writing Program is under development and will be in place from Winter 1999 for new students and from Fall 1999 for all students.

Barnes College of Nursing

The College of Nursing's baccalaureate and master's programs are fully accredited by the National League for Nursing's accrediting body (NLN/AC). This voluntary external review process ensures the College's high standards. In addition, the basic baccalaureate track leads to graduates'eligibility for licensure as professional registered nurses if fully approved by the Missouri State Board of Nursing, a governmental regulatory body. Both NLN/AC and Missouri State Board of Nursing place a major emphasis on assessment.

Currently, a major evaluation of the College's total assessment plan is under way. A director of evaluation was designated effective in Fall 1997 and given the goal of revising and maintaining an ongoing comprehensive evaluation plan for the College. Substantial revision of the instruments used to collect data was completed during 1997-98, with time lines determined for data collection. Faculty and staff were kept apprised of the revision of the evaluation instruments throughout the process.

Exit surveys were conducted in May 1998 with response rates of 32 percent for the four-year basic baccalaureate program, 57 percent for the baccalaureate completion, and 66 percent for the master's program. Results have been shared with the appropriate program directors, with goals established to improve those areas identified as problematic. Student feedback related to goal attainment and program satisfaction has been collected and used to revise the program of study and outcome goals at both the undergraduate and graduate levels. Major revisions of programmatic outcome goals and curricula were begun in Fall 1997 with all required approvals achieved in Winter 1998.

Student feedback related to course objective achievement and instructional effectiveness is collected each semester for all nursing courses. Results are shared with faculty of record and, where appropriate, with the curriculum committee of the College. In addition, faculty complete comprehensive self-assessments of their teaching effectiveness as part of their required annual report. Each faculty member is required to identify specific strategies which have been employed to alter instructional approaches as a result of student feedback.

School of Optometry

The National Board of Optometry administers a series of comprehensive tests that are designed as a complete set of examinations to assess the cognitive, psychomotor, affective, and communication skills essential for entry-level optometric practice. Each examination is developed by a broad geographic cross section of the optometric community, including faculty members, state board members, and practitioners.

Part I (Basic Science) assesses the fundamental knowledge and understanding of the scientific principles upon which optometric practice is based. The Basic Science examination contains some items that assess students' ability to recall knowledge and to understand how to apply knowledge. Basic Science has a larger emphasis on factual recall than do the other parts of the examination.

Part II (Clinical Science) assesses application of the knowledge of basic science to the prevention, diagnosis, treatment, and management of clinical conditions within the scope of optometric practice. The Clinical Science section places much greater emphasis on students' ability to apply knowledge.

Part III (Patient Care), in addition to assessing cognitive skill, also measures students'psychomotor, affective, and communication skills. This multifaceted examination is designed as a seven-station assessment of patient-care skills. The Patient Management section consists of patient-management problems (PMPs). This section is in a written simulation format in which the student must interpret and evaluate the case history and clinical findings from a patient's examination, render diagnoses, prescribe treatment regimens, and then state the prognoses and optimal follow-up schedules. The Visual Recognition and Interpretation of Clinical Signs section is based on printed color photographs. Accompanied by written patient demographic characteristics, these photographs depict pathological conditions of the eye as well

as ocular motility problems and contact lens wear and fit, fluorescein angiograms, corneal topography, visual fields, and ophthalmic materials.

Treatment and Management of Ocular Disease is a stand-alone examination that assesses the cognitive skills deemed essential for utilizing pharmacologic agents for the therapeutic management of ocular disease and trauma, as defined by the broadest state-of-practice statute.

The School of Optometry results on the National Board examination compare favorably to the national data for those graduates passing all parts of the board examination:

	% passing UM-St. Louis	**% passing nationally**
Graduating class of 1997	92	90
Graduating class of 1996	90	91
Graduating class of 1995	97	87

These data suggest that Optometry should seek to maintain its high standards.

CHAPTER SIX

Criterion 4

**The university can continue to
accomplish its purpose and strengthen
its educational effectiveness.**

Introduction

UM-St. Louis has a well-established annual planning process that includes faculty, staff, students, administrators, and outside constituents. The process begins at the department or unit level and proceeds through the Vice Chancellors to the Chancellor. The Chancellor involves the Senate Budget and Planning Committee as well as other groups such as the Cabinet, the Academic Officers, the Chancellor's Council, and the Executive Committee of the UM-St. Louis Alumni Association.

The output of the process is a document covering a five-year period. Each year, departments can decide whether to submit additional requests and/or revise previously submitted requests.

The University planning process has been in effect for more than ten years and has been very beneficial to the University. Since it is a bottom-up process, it provides the Chancellor with information regarding the directions in which departments are moving and how they envision themselves in the near future.

The University planning is done within the context of planning at the System level and at the level of the Missouri Coordinating Board for Higher Education (CBHE). Planning and related activities are described below, starting with the statewide CBHE, followed by the System, and concluding with specific University plans, activities, issues, and concerns.

Coordinating Board for Higher Education

The Missouri Coordinating Board for Higher Education was authorized in 1972. CBHE has the following statewide planning and coordination goals:

- To promote academic quality.
- To ensure the efficient use of resources.
- To provide financial access to the system of higher education.

Funding for Results and Mission Enhancement are two major CBHE initiatives:

Funding for Results

According to CBHE, the Funding for Results (FFR) initiative defines priorities, promotes systematic assessment of performance, and uses budget policies to reinforce accountability. FFR has two tiers. The statewide tier rewards institutions for achieving statewide goals based on Missouri's planning initiatives. The criteria at the statewide level have changed somewhat over the years. For FY1999, proposed criteria are:

- Assessment of graduates.
- Performance of graduates.
- Success of underrepresented groups.
- Quality of prospective teachers.
- Quality of new graduate students.
- Graduation rates.

The second tier is voluntary and operates at the institutional level. It allows each university to design and implement local performance funding programs related to teaching and learning. These FFR plans can be unique to each campus. CBHE's spending goal is that at least 1 percent of each institution's planned expenditures for instruction should be dedicated to teaching and learning improvement projects.

CBHE seeks broad participation in FFR activities. To help achieve this objective at UM-St. Louis, the Chancellor appointed an FFR Committee consisting of faculty, students, and administrators.

CBHE required a pilot project in FY1996 (RR: File 146, FFR Pilot Project). Each year, the University must submit a report on its FFR Activities (RR: File 147, FFR Reports for 1996, 1997, and 1998). UM-St. Louis called its pilot project Seamless Transition (from community colleges). As listed in UM-St. Louis's FY1997 FFR report, the goals of this project are:

• To enhance course content and offerings.
• To establish faculty exchanges.
• To encourage communication that leads to increased participation and student preparedness for and success in upper-division courses.

UM-St. Louis decided to implement its Seamless Transition plan over four years. FY1999 represents the fourth and final year of the initial plan. The academic departments involved by year are:

1995-96	Art and Art History, Business, Engineering, Nursing, Psychology, and Communication.
1996-97	Education, Biology, Chemistry, History, Political Science, and Social Work.
1997-98	Anthropology, Foreign Languages and Literatures, Philosophy, Sociology, and Pierre Laclede Honors College.
1998-99	Criminology and Criminal Justice, Economics, English, Mathematics and Computer Science, Music, and Physics and Astronomy.

In general, department-level discussions have resulted in a variety of significant improvements. In addition to improvement of lines of communication and enhancement of collegiality of faculty across participating institutions, specifics on course content, degree prerequisites, student visits, faculty exchanges, and articulation agreements have been formalized. Also, community college students now participate in open houses, advising sessions, and UM-St. Louis colloquia.

In 1995-96, the School of Business Administration made changes in the quantitative requirements for the B.S.B.A. degree and allowed up to 15 hours to be taken as part of the A.A. degree. The School of Business Administration also established scholarships for community college students who transfer to UM-St. Louis and arranged for community college faculty to take graduate courses. The Communication Department participated in updating a transfer equivalency guide and agreed to accept for transfer credit three additional courses from one of the community colleges. Engineering finalized articulation agreements with five community colleges and discussed the cooperative teaching of three pre-engineering courses. Nursing has, as a result of program discussions, eliminated the requirement of certain validation examinations and agreed to count all associated degree nursing credits toward UM-St. Louis nursing requirements. Psychology exchanged information and made suggestions concerning courses that are good prerequisites for advanced work but that are seldom offered at the community college.

In 1996-97, all five departments in this cycle — Biology, Education, History, Political Science, and Social Work — held meetings and exchanged information with the corresponding faculty at the local community colleges. Biology, Education, and Political Science used the opportunity to resolve misunderstandings about course requirements and content and to clarify transfer policies. Education provided four education coordinators to work with St. Louis community colleges and arranged for interactive video advising sessions. Receptions and orientations for transfer students were provided.

In 1997-98, faculty in foreign languages, Pierre Laclede Honors College, philosophy, and anthropology met with their counterparts at the community colleges and exchanged information, including syllabi, informational flyers, and articulation booklets. Faculty in anthropology initiated discussions on developing archaeological partnerships and field trips, and faculty from philosophy held discussions on jointly bringing in speakers intended to generate interest among undergraduates in philosophy. The PLHC dean held discussions on the possibility of an honors transfer program and of a dual-enrollment program between honors colleges at the various campuses. Faculty in sociology have initiated a review of procedures for mentoring transfer students, established plans for meeting of faculties, and extended invitations for joint review of courses, curricular requirements, and transfer agreements.

As another University FFR activity, UM-St. Louis has expanded its highly successful Supplemental Instruction (SI) program. The goals of this program are to increase the success rate of students in selected courses and to impart transferable learning skills.

Under the SI Program, student discussion leaders are attached to course sections, often large lecture sections, that have a history of significant D, F, and Withdrawal rates. The SI leader will have taken the course, have a grade of A or B, and be recommended by the instructor. In the role of SI leader, the student functions as a model student by attending the classes and reading the text and assigned materials. The SI leader provides regularly scheduled review sessions throughout the course. Participation in the SI sessions is voluntary on the part of the students enrolled in the course. (See the Center for Academic Development section in Chapter 4.)

Since Supplemental Instruction was developed at the University of Missouri–Kansas City in 1975, a number of national studies have confirmed its effectiveness in promoting learning and retention (as measured by

increased numbers of As, Bs, and Cs and fewer Ds and Fs). SI was instituted at UM-St. Louis in 1985, and as part of the University's FFR initiatives was increased in scope from 14 courses/24 sections/860 students in FY1996 to 22 courses/57 sections/1,261 students in FY1997. A study of the effectiveness of the SI program was made for the Fall 1996 semester on 1,596 students enrolled in 12 courses. In every course but one, of those participating in SI compared with those who did not, the percentage of students receiving As and Bs was higher (53 percent to 32 percent), the percentage receiving Ds, Fs, and Withdrawals was lower (15 percent to 40 percent), and the average course grade was higher (2.54 to 1.76). The exception was an evening Business course (Business 131) where the sample size was small. Similar results were achieved in Fall 1997.

These results are in agreement with the positive results of national studies. In addition, almost universally, faculty members who have had the benefit of SI in their classes have become enthusiastic supporters.

Also as part of its Funding for Results initiatives, UM-St. Louis has expanded its program of Orientation/Study Skills Workshops. The goals of this program are to improve course success rates and retention by giving students knowledge of supporting resources and to provide transferable learning skills. Students admitted on a trial or probationary basis are required to enroll in the workshops. The program is also open to other students on a voluntary basis.

A study on workshops offered from Summer 1993 through Fall 1996 showed that student success (GPA≥2.0) directly correlates with the number of times a student attends the workshops. Students attending nine or more times succeed at higher rates. For example, for Fall 1996, students attending nine or more times had a success rate of 77 percent, while those attending between four and eight sessions had a success rate of only 52 percent. For Fall 1997, students attending nine or more times succeeded at a rate of 84 percent, while those attending between four and eight sessions succeeded at a rate of only 31 percent.

Mission Enhancement

Senate Bill 340, signed in 1995, established CBHE's mission review responsibility. In 1995, CBHE adopted a process and schedule for a five-year review and possible refinement or enhancement of institutional missions. Institutions were grouped into one of three phases. The

University of Missouri System is in Phase III, which means the first-year request for additional funding was FY1999.

The Mission Enhancement initiative represents a major strategic planning activity for CBHE and thus for the entire System. The funding requests in it will be a significant part of the UM System for at least the next four or more years. The Board of Curators approved the UM Mission Enhancement request on September 25, 1997 (RR: File 148, System Mission Enhancement). The first-year requests totaled $20.65 million, while the grand total Mission Enhancement request was $64.1 million.

CBHE, at its meeting on October 9, 1997, approved a first-year Mission Enhancement request for the System of $15 million, of which UM-St. Louis received $1.3 million. The Missouri General Assembly appropriated the CBHE-recommended amount in May 1998.

The University of Missouri-St. Louis included four major categories in its Mission Enhancement request (total amounts requested are shown in parentheses):

- Enhancing the synergy among graduate programs, research, and the undergraduate experience ($2.2 million).
- Enhancing programs in health science and technology ($4.3 million).
- Enhancing the quality of life through research in education and public policy ($1.5 million).
- Enhancing quality of and access to higher education through technology ($1.0 million).

Since the University is only 35 years old, it is not surprising that it must continue to grow in order to fulfill its mission. Most Mission Enhancement activities are focused on existing programs, primarily at the graduate level. However, to serve the citizens of the state's largest metropolitan community, UM-St. Louis will, in addition to Mission Enhancement, continue its efforts to add degree programs and to provide additional educational opportunities.

University of Missouri System

As described above, many System planning activities, and thus those at the University level, occur within a framework established by CBHE. Likewise, many UM-St. Louis planning activities occur within a framework established by the System.

Five-Year Plan — FY1993-FY1997

The System President began the process for developing a five-year plan in October 1991, when he provided each Chancellor with System priorities. The System priorities were to:

• Improve compensation (salaries, wages, and benefits).
• Maintain physical facilities and equipment.
• Improve libraries.
• Increase need-based student financial aid.

In addition, the University set priorities in the following areas: research/graduate education, professional education, general education, and teacher education and service to elementary and secondary education. UM-St. Louis established its priorities in each of these four areas based primarily on plans contained in its then-current planning document.

Funding for the System Five-Year Plan came from three sources: a 49 percent increase in student educational fees between FY1993 and FY1997, after a 21 percent increase between FY1992 and FY1993, an early-retirement plan, and internal reallocations. Listed below are the rate (recurring) five-year totals (in millions) for UM-St. Louis as reported by the President in March 1992:

Requirements

Compensation	$2.99
Maintenance & Repair and Equipment	1.98
Libraries	.60
Student Aid	1.25
University Priorities	3.33
Total	$10.15

Sources

Additional Revenue	$9.32
Reductions	.83
Total	$10.15

In addition, UM-St. Louis had to use cost (one-time or nonrecurring) dollars to address $6.45 million of maintenance and repair and equipment deficiencies during the UM Five-Year plan. This amount was also included in the President's March 1992 report. The System Five-Year Plan was implemented successfully. Listed below are some of its major results. Salary and wage raise pools during the five years were:

FY1993	5.00%
FY1994	4.00%
FY1995	4.12%
FY1996	5.25%
FY1997	5.35%

Maintenance and repair expenditures have exceeded goal of spending 1.5 percent of replacement value. For example, in FY1997, the University spent $3.7 million, which was 117 percent of its goal. For equipment, the University spent $4.9 million, which was 212 percent of its goal of spending 10 percent of replacement value.

The System President, in a December 1997 report (RR: File 149, President's December 1997 Report on Strategic Planning Framework) described a strategic-planning framework to be used in the future. The President stated that this strategic process will emphasize continuous planning with a focus on results. He said that strategic planning differs significantly from past planning processes and represents an alignment of the System with its environment.

The President posed four questions and described how the questions would be answered:

Where are we now?

"The first question…is best answered by a continuous process of environmental scanning — a thorough assessment of the major internal and external factors that will affect the future of the university."

Where do we want to be?

"From the examination of mission and core values, we shape a vision and set strategic directions needed to transform the vision into reality." The President stated that such an examination occurred as part of the planning for Mission Enhancement.

How do we get there?

"After clearly determining where the university should be, we must develop strategies to get there by setting goals, objectives, and action plans to achieve our goals."

How do we know when we get there?

"We must set clearly defined benchmarks and performance measures against which our progress in student success, quality of instructional programs, quality of research output, and other areas can be measured."

The President announced that the Chancellors and Vice Presidents would serve as a Systemwide strategic-planning steering committee. The President also stated that he would appoint a special task force to carry out environmental scanning activities and another special task force to advise the steering committee on appropriate benchmarks and performance measures. The President provided a strategic planning status report (RR: File 150, Strategic Planning Status Report, March 1998) to the Board of Curators at its March 26-27, 1998, meeting. The President stated that he is chairing the Strategic Planning Steering Committee and that by December he intends to bring to the Board of Curators:

- A vision statement for the System.
- A review of strategic initiatives to guide the System toward realizing the vision.
- A list of the critical success factors for the System (RR: File 151, Critical Success Factors).
- A set of performance indicators that will be essential to achieving the underlying vision (RR: File 152, Performance Indicators for Critical Success Factors).

Annual Appropriations Requests

During the spring of each year, the System starts the process for preparing its appropriations requests for operations and for capital items. Each of these requests is discussed below.

The general format of the appropriations request for operations is as follows:

- A request prepared by the System for cost to continue (inflation adjustment).
- Requests for new or additional funding prepared by the System, the campuses, or some combination, as discussed below.
- Requests prepared by the System for related programs.

At one time, campuses were involved extensively in submitting requests for new or additional funding. However, during recent years, only a few such requests were made and they were prepared almost exclusively by the System. It is not yet known what the current President will do. However, if he chooses at least to consider University requests, UM-St. Louis is poised to participate based on its annual planning process as described later in this chapter.

Campuses have always submitted projects for possible inclusion in the appropriations request for capital items. The current categories for such requests are rehabilitation, new construction, and capital equipment replacement.

In addition to the appropriations request for capital items for a specific year, the document contains a long-range plan describing possible future projects by year. Such future requests for UM-St. Louis are consistent with its Master Plan discussed later in this chapter.

Student Fees

There is national concern over the cost of higher education. The University is an active participant in such discussions. In fact, the Chancellor was one of 11 members on the National Commission on the Cost of Higher Education, a Congressional commission, in 1997. The University of Missouri-St. Louis is allowed to keep its own student fees. Educational fees are the same for all four campuses, with the exception of professional programs. Educational fees vary by student level (undergraduate and graduate) and by student residency status.

Historically, the University of Missouri could have been compared to low-tuition-level institutions. Even after the System Five-Year Plan, UM would now be compared to middle-tuition-level institutions. The in-state undergraduate educational fees per credit hour since FY1992 are shown in Figure 6-1 (see next page). (Note: There were different lower-division and upper-division undergraduate educational fees in FY1992. The amount shown is the simple average of those two fees.)

The percentage increase from FY1992 to FY1997 was 80 percent. Now that the System Five-Year Plan has been completed, the Board of Curators has adopted an educational fee increase policy that is moderate in scope, usually approximating the HEPI increase. Thus the increases for the latest two fiscal years have been approximately 3 percent. This policy will help keep higher educational affordable at UM-St. Louis, especially when financial aid sources are considered.

One initially forecasted result of the educational fee increases during the System Five-Year Plan was that enrollments would decline about 10 percent. However, eventually it was thought that enrollments would return to the levels that existed prior to the start of the System Five-Year Plan.

On-campus total student credit hours for the past eight years at UM-St. Louis are shown in Figure 6-2 (see next page). The immediate decline in student credit hours between Fall 1991 and Fall 1992 was almost 10 percent. Almost half of that decline was recovered through incremental increases over the next four years. After a drop in

Figure 6-1 – In-State Undergraduate Educational Fees Per Credit Hour

	FY1992	FY1993	FY1994	FY1995	FY1996	FY1997	FY1998	FY1999
Fee	$67.20	$81.40	$91.10	$101.00	$111.00	$121.00	$124.80	$128.50
% Change		21.13%	11.92%	10.87%	9.90%	9.01%	3.14%	2.96%
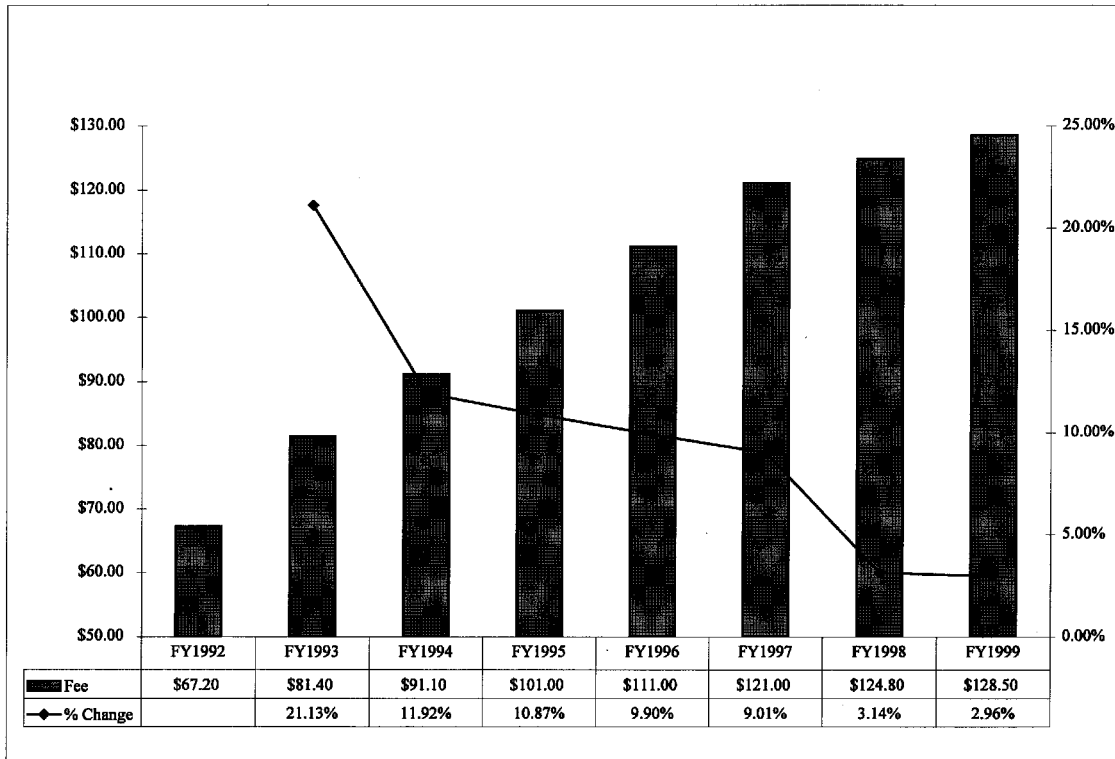
Figure 6-2 – On-Campus Total Student Credit Hour Enrollments

	Fall, 1991	Fall, 1992	Fall, 1993	Fall, 1994	Fall, 1995	Fall, 1996	Fall, 1997	Fall, 1998
SCH	116,223	104,909	105,453	108,932	109,179	109,680	106,392	110,463
% Change		-9.73%	0.52%	3.30%	0.23%	0.46%	-3.00%	3.83%
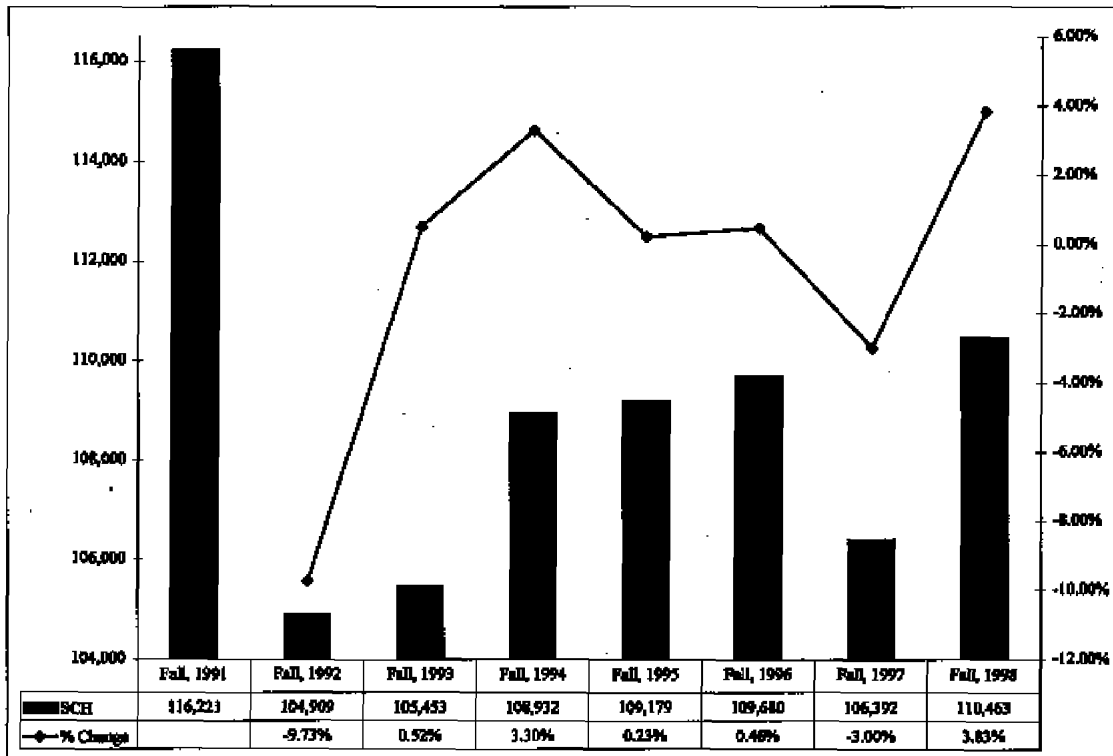
Fall 1997, the numbers for Fall 1998 show that student credit hours are now approximately five percent less than they were in Fall 1991.

Part of the reason student credit hours did not decline more was the addition of new programs. For example, the merger of the Barnes College of Nursing with UM-St. Louis brought approximately 500 students to the University in the Fall 1994 semester. The opening of the B.F.A. program (Fall 1996) has already resulted in approximately 100 new students. Another factor that helped enrollments during this period was the opening of residential housing facilities. Still another positive factor was expansion of the Pierre Laclede Honors College.

However, in addition to the increased fees, a number of environmental factors adversely affected enrollments during this period. First, for at least part of the five years, the number of high school graduates was declining. Second, the economy has been strong. Students often defer or reduce their involvement in higher education when the economy is strong. Third, the System increased its admission standards, reducing the number of applicants who could be accepted. Fourth, UM-St. Louis has improved and continues to improve its articulation agreements with community colleges. This results in making it easier for students to transfer to the University instead of starting here.

For budget purposes, the University separates a few units and/or programs that are allowed to keep the educational fees they generate. All other educational fees are pooled at the University level. The student credit hours generated by this latter group of units and programs have declined from 250,000 in FY1991 to 214,000 in FY1997, a 14 percent decline. These declines have resulted in a series of annual cost cuts spread across all University units. In an effort to improve the University budgetary situation, the Chancellor asked the Vice Chancellors of Academic and Student Affairs in Fall 1997 to co-chair an Enrollment Management Task Force. The importance of this task force cannot be overemphasized.

System Technology Plans

The University of Missouri System recognized the importance of technology to all aspects of higher education when it hired a Chief Information Officer in 1992. Adequate planning for technology seems especially important given the continual changes occurring in this area.

The System developed a major information technology plan in July 1994 (RR: File 153, System Information Technology Plan, July 1994). Each campus was involved extensively in helping to prepare the plan. This plan still helps guide both the System and the campuses and serves as one of the bases for requests to the State of Missouri for additional technology funding.

The System has been successful in securing additional state funding for technology. A review of the FY1998 UM budget shows state appropriations of approximately $8.5 million of recurring funds for information technology; $1.2 million is the amount for UM-St. Louis. Also, during FY1995-97, UM-St. Louis received approximately $2.5 million of one-time (cost) dollars for information technology. UM-St. Louis has used these funds primarily for computer desktop systems, computing staff support, library technology, and instructional technology support.

To improve computing for students, the System established an instructional computing fee starting in FY1991. This fee has been increased consistently so that in FY1999 it is $8 per credit hour. A review of the FY1998 budgets for the four campuses of the System shows budgeted instructional computing fees of approximately $9.0 million; $1.8 million is the amount for UM-St. Louis. The University has used the proceeds from this fee primarily to help support advanced technology and media-enhanced classrooms and for open student computing laboratories.

Administrative Systems Processes Project

As mentioned earlier, Mission Enhancement will be a primary focus for many academic-related units of the System during the next four or more years. In a similar manner, a project called Administrative Systems Project (ASP) (RR: Web 187, http://www.system.missouri.edu/urel/main/second/asp.htm) focuses on the System's administrative processes. These processes affect students, faculty, and staff, and cross all organizational units.

A broad-based, Systemwide Administrative Systems Project Committee has been appointed to develop a plan to streamline and make more efficient and user-friendly the core business and service processes historically included in the finance, human resources, and student systems of the University of Missouri. Coopers & Lybrand Higher Education Consulting Group was selected to help facilitate the work of the ASP Committee.

The ASP Committee developed a vision that includes features required in the System's business processes and administrative systems: integrated, easy-to-use, flexible, timely, accurate, cost-effective, benchmarked performance goals, and continuous learning. These processes and systems must provide needed information to multiple users for a variety of purposes

On March 26, 1998, the Board of Curators approved a contract with PeopleSoft USA Inc. for the purchase of student, human resources, and financial systems application software. The total cost for the initial software licenses, vendor maintenance, vendor account management, training, and professional services and support was $7.3 million. The Board of Curators also approved $1.2 million of options during the next two years that will allow the System to purchase treasury management, grants, and expense application software.

KPMG Peat Marwick has been chosen by the UM Vendor Selection Committee as an implementation partner to provide consulting help on technical, product, and process redesign aspects related to PeopleSoft implementation.

There have been redesign teams for each of the three processes: student, finance, and human resources. Each team has representatives from each campus and other major University units. Also, there is a senior-level advisory group for each redesign team. The following redesigns have been completed or are in progress:

Student

- Recruit and admit students
- Register students
- Provide financial support
- Manage student accounts
- Track and report student progress (in progress)

Finance

- Purchasing

Human Resources

- Recruit, select, and hire
- Payroll (in progress)

Eventually, a plan for policy and process change, system replacement, and cultural change must be developed. The plan will have to consider required investments in people, training, consulting resources, software, and hardware.

Cost reductions and higher service levels to students, faculty, and staff will need to be identified. A funding plan must be established. For a project of this size and scope, the implementation of the plan may take from three to five years or longer and be in the $20-$40 million range, including the PeopleSoft contract.

Other Administrative Technology Improvements

In addition to the ASP project, the System has been involved in many continuous quality-improvement initiatives. These include activities that will change how the System and the campuses obtain information. Two of the more important involve the use of the World Wide Web and the development of data warehouses. Each of these is discussed briefly.

The System has developed MIS Web Applications that allow internal users to obtain financial information. The major uses to date have involved electronic cash receipts processing and obtaining Financial Record System (FRS) information as of the close of business on the prior day. The System will eventually discontinue sending printed financial reports to units or will charge units for such reports.

Various data warehouses have been or are being developed by the System. Among these are human resources, financial reporting, and student information. Although these data warehouses are hosted by the System, campuses may also choose to rehost them.

Another important data warehouse is called University Integrated Data System (U/IDS). This warehouse is designed to support planning, decision making, and institutional research. In addition, it is to be used as the primary source for answering *ad hoc* inquiries from the University General Officers and Board of Curators. The warehouse contains "snapshots" of historical data from System operational data systems, including FRS, the Payroll/Personnel System (PPS), and the Student Information System (SIS). It is unique in that it supports integration of data across these operational systems by using a common organizational structure defined and maintained by the System's Office of Planning and Budget.

Various inquiry tools can be used to access data in the data warehouses. Currently, the most widely used software package is Infomaker.

University of Missouri-St. Louis

The University of Missouri-St. Louis has produced a series of annual planning documents (RR: File 154, Six "Visions" Plans; File 155, Five "Challenge" Plans; File 156, One "Enhancing the Mission" Plan) for more than ten years. A new Vice Chancellor for Academic Affairs has drafted a strategic planning document which is the focus of University discussions during the 1998-99 academic year.

Annual Planning Documents

UM-St. Louis has an extensive planning process that has been in place for more than ten years. The University is now involved in its third series of five-year plans. The outputs of this process may be used in funding requests to the System, the CBHE, the Governor, and/or the Missouri General Assembly.

For the University, this process results in an annual planning document. The first series of plans was titled "Visions for the 21st Century." It started in FY1988 and covered a period of five fiscal years. The focus of this plan was Partnerships for Progress, the major categories being Project Compete, Project Advance, and Project Succeed. Starting with the second year's document in this series, actual funding amounts received were listed along with the funding requests. The last document in the series (FY1992-96) contained a five-year summary of funding. Note that this series of plans always looked five years into the future, whereas the subsequent series covered a fixed five-year period.

The second series of plans, titled "Meeting the Challenge," covered FY1993-97. As previously described, the System had a major five-year plan covering the same time frame. Thus, although the theme of partnerships was continued, this plan generally used the same categories as the System Plan. Specifically, the categories were General Education, Research/Graduate Education, Professional Education, Teacher Education, and Maintenance of Assets. During this five-year period, the publication process also changed. Rather than print formal documents at the start of each year, the annual document is produced after the close of each fiscal year so that it can reflect actual funding during the year. However, units still submit their new requests or changes in priorities before the start of each fiscal year.

The third series of plans, tentatively titled "Enhancing the Mission," will cover FY1998-2002. The major categories in this plan will be the same as those used in the Mission Enhancement document. All UM-St. Louis plan-ning activities take place on an annual basis. The process begins with the departments. Personnel in the division of Managerial and Technological Services send the guidelines and timetables related to the current five-year plan to each Vice Chancellor, dean, and academic director. These individuals are instructed to include faculty and staff in the development of their requests.

Units prepare each request on a Form 5 (the standard System format) that includes five components:

• Purpose and Decision Criteria for Inclusion in Request
• Description
• Expenditure Explanation
• Outside Revenues
• Evaluation of Outcomes

Strategic Planning

The Vice Chancellor for Academic Affairs has developed a strategic plan (RR: File 72, Strategic Plan Outline) with five broad goals:

• Establish an ongoing, data-based planning and budgeting process for Academic Affairs.

• Enhance undergraduate programs and services so as to better meet the needs of students and to offer students a richer educational experience.

• Selectively add and expand graduate and professional programs, enhance faculty research and creative activity, and increase external funding.

• Further the University's urban, land-grant mission by contributing to the economic, social, educational, and cultural development and enrichment of the metropolitan region and the state.

• Enhance physical facilities and academic support services.

This document is being refined through Universitywide discussions during the 1998-99 academic year.

Master Plan

On a periodic basis, the University of Missouri-St. Louis has engaged in a master planning process. Although they must relate to academic and other programmatic needs, master plans are concerned primarily with the physical environment of the University.

Starting in Fall 1992, a team of consultants led by Sasaki Associates Inc. used a highly interactive process involving University faculty, staff, students, and administrators, as well as representatives of the surrounding communities. Previous master planning efforts had focused on the

core campus areas. The latest process developed a more comprehensive plan that, in addition to addressing the core facilities, also considered future directions and expansion of the University.

The master planning process resulted in a comprehensive document (RR: Shelf 79, Master Plan Report) that was finalized in August 1993. The master plan was presented to the Board of Curators at its September 1993 meeting.

To help implement selected parts of the Master Plan, the University of Missouri-St. Louis campus received $15,787,182 from the fourth state bond issue in FY1995 and a $5,000,000 capital appropriation in FY1996. Most of these funds have been used for property acquisitions.

The Master Plan has served the University very well and will continue to do so for the foreseeable future. The University now has property and facilities that will allow for growth and expansion in future years.

Title III — Institutional Development Grant

In 1994, the University of Missouri-St. Louis was awarded a five-year institutional development grant under the U.S. Department of Education's Title III Strengthening Institutions Program. The goals of the grant are to improve retention and graduation rates of undergraduate students by developing computer-assisted enrollment, advising, and retention systems, while also improving the quality of academic and student service advising through the use of this technology and better advising techniques.

As the North Central Association visit is taking place, the grant development activities will be in their fifth year. The planned improvements include streamlined methods and practices in 13 core business processes experienced by students:

• Handling prospective student inquiries.
• Processing applications and transcripts.
• Making admissions decisions.
• Advising students.
• Processing financial aid.
• Registering students for courses.
• Processing payment of tuition and fees.
• Reducing wait lists.
• Processing add/drops.
• Completing prerequisite checks.
• Evaluating transfer credits.
• Making course equivalency decisions.
• Completing graduation checks.

In addition, software development, including client-server solutions, supported over the University's computing network, has been completed and implemented. The products of this software include on-line degree audit reports (RR: File 158, DARS Brochure) using Degree Audit (DARS) software, a Web-based student guide and academic planner (RR: Web 188, http://www.umsl.edu/studentlife/handbook/index.html), an inquiry/admit system using PowerBuilder, and many improvements to front-end desktop computer interfaces used by faculty, students, and staff. The degree audit project was especially challenging, involving not just the comprehensive reen-coding of DARS software but the complementary reencoding of tens of thousands of course equivalency rulings in a separate database and the recoding of each student's CICS-based (student information system) academic record.

Advisers and other key administrators needed enhanced technology to take advantage of these improvements in processes, software development, and end-user functionality. Thus the University used Title III funding to install Pentium-standard desktop computers, printers, and other technology in the offices of Admissions, Financial Aid, Registrar, Cashier, and Career Services, as well as in all of the academic advising units within the schools and colleges.

Of course, computers and software development are of little help if the end users of these products are not trained to use them effectively. Members of the Title III Leadership Team produced the University's first comprehensive CICS documentation and training manual (RR: Shelf 159, Student System User's Guide) so that administrative and academic advisers throughout the University would have access to this information. They also held hands-on training workshops in the use of these products and continue to offer one-to-one or group workshops.

In addition to the technical development and training, the Title III team introduced the use of cross-functional teamwork and continuous improvement techniques as a way of thinking about and improving the student experience at the University. A customer service focus and the introduction of a "developmental advising" paradigm were key components in their efforts to improve advising.

One outstanding example of the success of this institutional development program relates to information availability for students. Before Title III, students often had to wait months to learn how their transfer credits

applied toward a degree. Students now have access to that information, on-line or through their academic advisers, within one week of submitting their transcripts. This is especially important to UM-St. Louis, where approximately 70 percent of all new students are transfer students. This type of success was enabled by University-wide commitment to the objectives of the Title III project (RR: Shelf 159, Strengthening Institutions Continuation Reports 1995, 1996, 1997, and 1998).

University Technology Plans

As previously mentioned, the System prepared an Information Technology Plan in July 1994. UM-St. Louis had engaged in an extensive planning process for computing three years earlier.

In late 1990, the Chancellor formed a Computer Study Task Force composed of six representatives from the University. Three IBM personnel assisted the Task Force members in conducting an "Application Transfer Study." The final report of the Computer Study Task Force (RR: File 160, Computer Study Task Force 2 vols.) identified root problems in four areas: technology issues, application issues, support issues, and administrative issues. The report included 35 specific recommendations and estimated implementation costs. Highlights of actions and changes since the report was issued are described below.

UM-St. Louis made a significant recurring (rate) reallocation of approximately $500,000 in FY1995 to establish a full-time faculty desktop plan. With subsequent resources provided by the State of Missouri and the System, this plan has now been expanded to full-time staff members who require such technology. The new plan started in FY1998 covers approximately 1,000 employees and provides each of them with a networked desktop computer every four years. The terms of the plan allow the University to meet a mandate from the System that such technology be made available to all full-time faculty and staff who need it for their jobs. Moreover, the University has just completed a network upgrade that provides connectivity in all classrooms and offices.

The University has moved from a mainframe-computing-dominated environment to one focused on client/server and Web-centric technology. There has been a significant investment in this area, and the University now has scalable Server Farms providing Unix, NetWare, Windows NT, and VM support.

Since the time of the Computer Study Task Force, ten new positions have been created from various funding sources. However, the growth in demand for support has been a continuing concern. It should be noted that this is a problem for information technology in general and not just for this University.

The Instructional Computing Fee has allowed the University to make significant strides in this area since the study was completed. However, new instructional technologies, such as the World Wide Web, that were not envisioned provide additional challenges that are continuing to be addressed.

There are now three Senate committees that deal with selected technology issues: Computing, University Libraries, and Video and Instructional Technology. Since there are three distinct units to which these committees provide advice, the structure is workable. In addition, there is an appropriate level of coordination and cooperation among the units involved in technology issues in the University. However, as technology progresses, issues related to the administration and governance will need to be reviewed.

The System has addressed some issues, for example, technology standards and the Administrative Systems Project. Finally, planning for new programs and activities is required to include consideration for appropriate technology resources.

Issues and Concerns

Although many topics could be discussed, this section will briefly focus on three categories of issues and concerns: programs, students, and faculty. As mentioned often throughout this self-study report, the University of Missouri-St. Louis is a relatively young university. With its 80 academic degree programs as of September 1998, UM-St. Louis has not been able to develop into a comprehensive research university that adequately meets the needs of the citizens of the state's largest metropolitan area.

Since the last NCA Self-Study in 1989, 19 degree programs have been added. However, more are needed. Both the State of Missouri and the University of Missouri System need to make investments in UM-St. Louis that will generate benefits for the entire region, state, and country.

One of the major challenges confronting UM-St. Louis is generating an improved sense of community among students. The Vice Chancellor of Student Affairs, newly appointed in Fall 1997, has been charged by the Chancellor to create such a learning community. As previously mentioned, initiatives such as residential housing and an expanded Honors College already are helping to achieve these objectives.

Although there are numerous potential faculty issues, three will be mentioned. First, there is the issue of faculty workload, which is part of a larger issue of resource allocation. The Chancellor has charged the Vice Chancellor of Academic Affairs with developing an appropriate faculty workload policy that is consistent with available resources (RR: File 161, Work Load Policy).

Another faculty-related issue is the use of adjuncts. One of the advantages of UM-St. Louis's location in the metropolitan St. Louis area is the ability to obtain the services of outstanding adjunct faculty. Some of them have national or international reputations in their fields. However, there is a question of balance. The workload policy addresses this issue.

Finally, there are questions of faculty distribution by age. Many faculty members came to UM-St. Louis in the 1960s and 1970s when it was a new institution. The numbers of full-time, ranked faculty by age category, as of October 1997, are shown in Table 6-1.

As shown, 56 percent of the faculty are between the ages of 45 and 60. The average age of the faculty is 48.6 years. Although the average age increased only 3.0 years compared to that in 1987, the percentage of the faculty who are between 45 and 60 increased by 15 percent compared to 1987. Questions regarding which faculty should be replaced and at what cost will need to be addressed in the light of student demand, new programs, and the faculty workload policy.

Another question that arises is how UM-St. Louis will deal with the fact that there no longer is a mandatory retirement age. The University may consider adopting appropriate post-tenure review procedures to help ensure that students receive the highest-quality instruction available from an active and productive faculty.

Table 6-1 – Age Distribution of Full-Time, Ranked Faculty

Age Category	Instructor	Assistant	Associate	Professor	Total	% of Total
25-29	1	4	0	0	5	1%
30-34	0	15	1	0	16	4%
35-39	1	21	21	0	43	11%
40-44	2	26	27	7	62	16%
45-49	3	14	27	28	72	19%
50-54	3	14	29	32	78	21%
55-59	1	12	18	29	60	16%
60-64	1	2	14	11	28	7%
65-69	0	1	4	8	13	3%
70 and over	0	0	0	1	1	0%
Total	**12**	**109**	**141**	**116**	**378**	**100%**

Conclusion

This chapter provides evidence that the University of Missouri-St. Louis can continue to accomplish its purposes and strengthen its educational effectiveness into the 21st century. UM-St. Louis aspires to become a Research II institution while continuing to serve the needs of the metropolitan St. Louis region.

Specifically, patterns of evidence presented suggest that UM-St. Louis:

- Uses an effective, ongoing planning process that results in annual operating and capital budgets, University-specific planning documents, and a master plan.
- Develops its plans in accordance with goals and objectives as set forth by the Coordinating Board for Higher Education and by the University of Missouri System.
- Understands and effectively uses technology in both its academic enterprise and administrative operations.
- Focuses on the future by studying and understanding history, analyzing the environment that exists today, and considering changes that may occur over time.

CHAPTER SEVEN

Criterion 5

**The university demonstrates integrity
in its practices and relationships.**

Introduction

"Integrity" implies a long-term, demonstrable commitment to ethical values in University policies, procedures, and relationships. The University of Missouri-St. Louis has demonstrated and continues to manifest such a commitment through the promulgation of guiding documents and conscientious adherence to them. These policies and practices include those approved by the Curators and promulgated in the *Collected Rules and Regulations of the University of Missouri System,* those issued as executive orders by the UM President or by the UM-St. Louis Chancellor, and those voted upon by faculty, staff, and students in the due course of approved University governance.

In this chapter the documents, policies, and procedures that have been developed over the years to promote and enhance standards of institutional integrity are described.

The chapter begins with University Issues which are important for faculty, staff, students, and the public who support the University and deal with it. Following this section, there are two more sections dealing specifically with faculty-related issues and student-related issues.

Systemwide Issues

Governance

The University of Missouri is a public university consisting of four campuses: Columbia, Kansas City, Rolla, and St. Louis. The System is governed by a Board of Curators consisting of nine members appointed by the Governor, with the advice and consent of the Senate. The System is administered by a President, appointed by the Curators for a renewable one-year term, and associated Vice Presidents and administrative officers. The President serves as presiding officer of the Board and carries out such duties as may be delegated by the Board. The Board, which conducts its business through a number of subcommittees, sets policy and establishes regulations *(The Collected Rules and Regulations of the University of Missouri,* (RR: Web 189, http://www.system.missouri.edu:80/uminfo/rules/content.htm) for the University and conducts the business of the University. The General Counsel is the chief legal officer of the University and is appointed by the Board, providing legal advice to the Board, University administrators, and faculty and staff on all matters which affect the governance and operation of the University of Missouri. The meetings of the Board of Curators are open, and there is a written record that is available for inspection and copying.

Each campus of the University is administered by a Chancellor, who is the chief academic and administrative officer of the campus and is charged with providing leadership and management of the campus. The Chancellors are appointed by the President, report directly to the President, and serve at the President's pleasure.

Access, Equity, and Diversity

UM-St. Louis is deeply committed to equal opportunity and affirmative action. Its institutional policy *(The Collected Rules and Regulations of the University of Missouri,* 320.010) was adopted on February 19, 1971, by the Board of Curators and subsequently amended or reaffirmed on several occasions by that Board. The policy provides, ensures, and promotes equal employment opportunities and admission to academic programs on the basis of merit without discrimination because of race, religion, color, national origin, sex, age disability, or Vietnam-era status.

The Office of Equal Opportunity (OEO) was established to develop, maintain, and evaluate a comprehensive and institutionwide approach to improve the total participa-

tion of protected classes on the campus. The OEO was designated by the chancellor to administer the campus equal opportunity and affirmative action programs.

African-American student enrollment has increased steadily in recent years, from 1,087 (9.2 percent of total enrollment) in Fall 1987 to 1,565 (13.7 percent) in Fall 1997. The number of minority scholarship programs has increased from 8 minority scholarship programs in 1986-87 to 21 minority scholarship programs today. Two retention programs serving these students have recently been consolidated within the Office of Multicultural Affairs, a unit placed within the Division of Academic Affairs.

The University has completed its planned construction and rehabilitation program in compliance with the Americans with Disabilities Act.

The Disability Access Services Program assists students with physical or learning disabilities in pursuing their academic objectives successfully. The University was awarded a Student Support Services Grant from the U.S. Department of Education in 1997, the purpose of which is to enhance the academic support available to students with disabilities.

The University Senate, the Office of Student Activities, the Office of Equal Opportunity, and the administration have actively sought to provide protected class status for gays and lesbians.

Grievances, Complaints, And Other Disputes

The Collected Rules and Regulations of the University of Missouri contain the Academic Grievance Procedure (370.010), Faculty Grievance Relative to Equal Opportunity and Affirmative Action (370.020), Grievance Procedure for Administrative, Service, and Support Staff (380.010), and Grievance Procedure for Students (390.010). These procedures were established to provide prompt and efficient procedures for fair and equitable resolution of grievances without fear of prejudice or reprisal for initiating a grievance or participating in its settlement. Over the next few years, the University of Missouri-St. Louis will seek to improve these areas so that the process for achieving resolution is simpler, more comprehensible, and easier to apply in the University environment.

Purchasing and Contracts for Services

Each campus receives delegation of authority to oversee purchasing policies and administrative policies, to operate a campus purchasing department, to inform and advise campus staff on all purchasing matters, and to approve and sign purchase orders and contracts in accordance with the authority delegated. The Purchasing Office has been charged by the University administration to acquire equipment, supplies, and services for all departments of the University in an economical, expeditious and reasonable manner. Purchases of $5,000 or more require solicitation of bids from at least three prospective suppliers.

The use of consultants under professional agreement for unique or specialized services requires Curator approval if the contract is in excess of $100,000. Any purchases in excess of $1,000,000 for equipment, services, or supplies require approval of the Board of Curators. Any "sole source" purchases (for unique items where only one supplier is available) must be approved at the System level if they are in excess of $50,000, and by the Board of Curators if they are in excess of $100,000.

Risk Management

The University subscribes to the principle that it has an inescapable obligation to furnish facilities and an environment that will provide reasonable protection from injury and property damage for employees, students, and the public. It is a good steward of funds coming into its possession and is responsible for preserving its assets.

The Risk Management Program provides the following:

• Defense and protection against loss, damage, or expense to employees and students.
• Insurance coverage for property, liability, fidelity and bonds, staff benefits, and student insurance programs.

For the Risk Management program to be effective, it is necessary for each employee, particularly those who supervise other employees and who use or are responsible for University assets, to act as individual Risk Managers in the implementation of the program. The program is administered at the University of Missouri System Risk and Insurance Management Office.

The University carries an Auto and General Liability (AGL) Policy of $25,000,000 with a $1,000,000 deductible.

Accounts Payable

The University strives to process payment for invoices within a maximum of a 30-day period. The Accounts Payable responsibility resides in the Purchasing Department. An invoice is normally processed one to three days after its receipt, resulting in a payment voucher being prepared. To expedite a payment under $1,000, a procedure has been implemented to automatically release a payment after a five-day review period by the department. Payments more than $1,000 are released only after the department authorizes the payment and returns the voucher for its release.

In accordance with the state statute regarding disclosure of information, sealed bids and related documents are considered public documents at the time the bids are opened, a negotiated contract is executed, or all bids or proposals are rejected. Financial information is released upon request in compliance with the stated conditions described above.

University Relations

The task of creating, building, and fostering relationships between the University and its external publics falls to the Division of University Relations and its four units: Development, Communications, Alumni Relations, and Special Events. Policies and procedures of the Division are governed by federal and state statutes and the *Collected Rules and Regulations of the University of Missouri.* In addition, the division subscribes to the codes of conduct and ethics of various professional organizations.

All private fund development activities are governed by the System *(Collected Rules and Regulations* - Chapter 30) and guided by the codes of the Council for Advancement and Support of Education (CASE) and the National Society of Fund Raising Executives (NSFRE). The University System undergoes regular internal and external audits, and reporting of gifts is guided by the National Association of College and University Business Officers (NACUBO) policies.

Communications Services oversees the general marketing and public relations functions of the University. Much of the public information from Alumni Relations and Special Events is generated through Communication Services. The University's current marketing plan includes the creation and purchase of student recruitment advertising in local markets. It is targeted to specific

media and potential student groups and accurately represents the institution. Working closely with Admissions, additional materials such as viewbooks, brochures, and posters are developed for recruitment purposes and are regularly reviewed for accuracy, integrity, and uniformity of message and design.

The University relies greatly on "free press" to inform the public and to generate media interest in programs, faculty, special events, and the use of faculty as experts in complex media stories. Missouri's open meetings and open records laws require honest depictions and timely responses from the University.

A quarterly magazine for alumni and friends is produced through Communication Services and is subject to the same rules and policies as all other materials.

Faculty-Related Issues

Faculty Credentials, Tenure, and Academic Freedom

As with most accredited institutions of higher education, the University of Missouri-St. Louis has tenure provisions designed to ensure and protect faculty members' academic freedom. The University subscribes to the general tenets for tenure as promulgated by the American Association of University Professors (AAUP).

The System has uniform tenure regulations for its four campuses. These are found in the *Collected Rules* regarding Academic Freedom and Economic Security of Academic Staff (310.010), which articulates the General Principles of Academic Freedom and the Principle of Tenure; Annual Review of Faculty Performance (310.015); and Regulations Governing Application of Tenure (310.020), which addresses the various classes of academic appointments, types of appointments, tenure, probationary period, regular-term appointments and reappointments, and nonrenewal of a regular-term appointment.

Schools, colleges, and departments have their own tenure documents framed in the context of the System's document. Copies of the documents of the academic units are filed with the Office of Academic Affairs on campus and are furnished to the Senate Committee on Promotion and Tenure (RR: File 162, Collection of Unit Tenure and Promotion Guidelines).

Faculty's Right to Know

The *UM-St. Louis Faculty Handbook* is intended to provide information relating to the faculty's "right to know." It is available in both hard copy (RR: Shelf 77, *Faculty Handbook*) from the Office of the Vice Chancellor for Academic Affairs and electronically on the UM-St. Louis World Wide Web site (RR: Web 182, http://www.umsl.edu/services/academic/table.htm). A revised version of the *Faculty Handbook* will be available in Fall 1999.

Faculty Grievance Procedures

The faculty grievance procedures are also detailed in the *Collected Rules and Regulations.* There are a number of steps, and at each step care is given to due process. The faculty and the administration are committed to following established grievance procedures in a fair and open fash-

ion. In addition to the on-campus activities mandated as part of the grievance procedures, the grievant also has the opportunity to appeal to the President of the University of Missouri System as a final step. The opening paragraph under the *Collected Rules* Academic Grievance procedure (370.010) reflects the tenor of the grievance procedures:

> The Board of Curators, the faculty, and the administration of the University of Missouri recognize the importance of providing a prompt and efficient procedure for fair and equitable resolutions of grievances with the University without fear of prejudice or reprisal for initiating a grievance or participating in its settlement. To the extent possible, grievances are settled through informal discussions at the lowest administrative level.

Conflict of Interest

The *Collected Rules and Regulations of the University of Missouri* contain an explicit Policy on Conflict of Interest (330.015), including general provisions, the use of confidential information, and outside business interests of University personnel, faculty, and exempt personnel consultation, use of University stationery, and use of the University logo. Violation of these policies, regulations, or rules may constitute a breach of the employment contract and may lead to disciplinary action.

Pursuit and Conduct of Sponsored Research

The assurance of the ethical use of animal and human subjects in research is, by agreements with the Office for Protection from Research Risks, National Institutes of Health, a responsibility delegated to properly constituted committees.

The procedures of the Animal Care and Use Committee and the Animal Care facilities were recently (7/98) reviewed by the Association for Assessment and Accreditation of Laboratory Animal Care (AALAC). Subsequent to this inspection, all Animal Care facilities as well as the University Animal Care program received continued full accreditation.

Campus and off-campus members regularly participate in the monthly meetings of the Institutional Review Board for the Protection of Human Research Subjects. The depth of discussion and commitment to the role of the IRB ensures that every proposal for full review receives the intended thorough investigation, which often results in changes that may require resubmission or acceptance by the IRB chairperson.

The *Collected Rules and Regulations of the University of Missouri* also contain specific guiding rules and procedures with regard to Allegations of Research Dishonesty (420.010), Procedures Governing the Disposition of Charges of Research Dishonesty by Academic Faculty and Staff (420.020), and Conflict with the Interests of Federal Grant Agencies (420.030).

Student-Related Issues

Recruitment and Admission of Students

Admissions requirements are set by the Board of Curators. The UM-St. Louis Office of Admissions is charged with a variety of tasks leading to new and continuing student enrollment, including disseminating information to the general public and identifying qualified students who wish to enroll at the institution.

Dissemination of information involves ethical decisions because information influences prospective students who are making critical decisions about where to attend college. UM-St. Louis distributes information about institutional size, instructional quality, educational fees, campus and classroom location, program offerings, and the availability of financial aid through high school and community college counselor workshops, high school visits, open houses, campus tours, college fairs, print media (e.g., viewbook, transfer guides, scholarship handbook, and departmental brochures), electronic media (e.g. World Wide Web), and advertisements (e.g., radio, newspaper, and billboards).

The University has an ethical obligation to recruit students who have a reasonable chance of success. Therefore its recruitment efforts are focused on attracting a pool of applicants with requisite credentials, using databases such as the ACT Search Service to obtain names of potential students who fit the University's desired academic profile.

A sign of the University's commitment to cooperating with other Missouri colleges regarding articulation and transfer issues is its employment of transfer coordinators at seven of the area community colleges. The University enrolls nearly 3,000 new transfer students each year, and transfer coordinators keep community college advisers and students aware of changes in degree requirements. Recently increased admissions standards for first-time freshmen have made it necessary for more students to complete at least their first 24 college-level hours at a community college.

Students who meet all admissions requirements are automatically admitted to the University as either first-time freshmen or transfer students. All files of students who do not meet these criteria are referred to the director of Admissions for review. The director reviews the entire file including any letters of recommendation. The director uses his best judgment to determine if the student has

a reasonable chance to succeed at the institution. All students who are denied admission have the right to appeal to the University Senate Committee on Admissions, Recruitment, and Financial Aid.

The Registrar publishes a *Schedule of Courses* for the Fall Semester, the Winter Semester, and the Intersession and Summer sessions. These schedules provide details about: registration dates and procedures; fees and fee refund schedules; individual course listings, including course locations, days, and times of class meetings, names of instructors, and prerequisites for courses; and final examination schedules. Day, evening, Saturday, and Residence Center offerings are included for undergraduate and graduate courses.

Articulation Agreements

The Missouri Coordinating Board for Higher Education promulgated a document in 1998 that spells out the public policy framework regarding credit transfer between and among Missouri colleges and universities. In the introduction of this document *(Credit Transfer: Guidelines for Student Transfer and Articulation Among Missouri Colleges and Universities;* RR: Web 190, http//www.mocbhe.gov/pages/acadafrs/ctg1998.htm) CBHE spells out its underlying philosophy:

> The Coordinating Board for Higher Education (CBHE) recognizes that each Missouri college and university is responsible for establishing and maintaining standards of expectations for all students completing its courses, programs, certificates, or degrees. It also recognizes that for effective and efficient transfer of credits between and among these colleges and universities, it is necessary to exercise this responsibility within the context of a statewide "system" of higher education. Effective transfer and articulation is based upon inter- and intra-institutional communication, a mutual respect for institutional integrity, a high degree of flexibility, procedures for identifying problems, a mechanism for implementing appropriate solutions, regular and systematic review of policies, and a timely and orderly process for change. Harmonious and equitable consideration of any problem which a student may encounter in moving from one institution to another is an ultimate objective of these transfer guidelines.

Financial Aid

After the hiring of a new director in 1995, the Student Financial Aid office was reorganized and refurbished to provide better service to students and faculty. The staff size was increased from 7 to 15. Participation in the Direct Lending program has decreased the average loan-processing time from five weeks to five days.

Scholarship management was centralized so that timely and efficient awarding of the many scholarship types would be ensured. In addition, the office now assists students in using the FAFSA Express option to file their federal applications for aid electronically. Students also may access a new financial aid Web site (RR: Web 191, http://www.umsl.edu/services/finaid) that not only explains the complexities of financial aid but also puts them in touch with a comprehensive source of scholarships and other college funding opportunities.

There is a clearly articulated procedure for appealing awards and decisions about financial aid, which begins with a written appeal to the Student Financial Aid Appeals Committee and ends with a final appeal to the Board of Curators.

Provisions for Auxiliary Aids, Reasonable Accommodations, and Other Services to Students with Disabilities

The University publishes, in its *Bulletin,* information regarding how students with disabling conditions may seek reasonable accommodations. The statement also informs students about how to appeal an unfavorable determination and references the Discrimination Grievance Procedure that may be used if discrimination is thought to be involved.

Confidentiality Policy and Students' Right to Know

To comply with the Family Educational Rights and Privacy Act of 1974, the University publishes in its *Bulletin* its policy on student records. In this statement the University defines "education records" and "public information" as well as who is responsible for maintaining and disseminating such information, under what conditions.

The Department of Institutional Security publishes an annual report as required by the Students' Right to Know and Campus Security Act. Information contained in this report, developed by a Universitywide team, is made available throughout campus and pertains to crime awareness and campus security. In addition to reporting actual crime statistics and the number of arrests on campus for specified offenses, the pamphlet provides information on incident reporting, crime prevention, campus facilities access, residential housing, office security, substance abuse education, substance abuse policies, sexual assault policy, sexual assault education, possible sanctions, procedures students should follow in the event

of sexual assault, consideration and rights to be afforded to students who are victims of sexual assault, and campus safeguards. The brochure also lists emergency and assistance telephone numbers throughout campus and in the St. Louis community as well as actual operating definitions of crimes.

Course Syllabi

Each school or college has it own guidelines regarding the content of course syllabi. Copies are normally kept with the department chair or the dean's office. The syllabus is intended to anticipate questions that students might have regarding the expectations of a given course. Content includes prerequisites for the course, objectives, expectations, information on grading, and policies regarding dropping the course.

Academic Honesty

The student Standard of Conduct, part of the *Collected Rules & Regulations of the University of Missouri,* was updated by a System committee in 1994 and now provides detailed definitions of academic dishonesty, including cheating, plagiarism, and sabotage. The preamble to the code includes the following statement: "A student enrolling in the University assumes an obligation to behave in a manner compatible with the University's function as an educational institution . . . In all cases of academic dishonesty, the instructor shall make an academic judgment about the student's grade on that work and in that course."

Allegations and charges of academic dishonesty are adjudicated by the faculty and the Office of Academic Affairs.

Student Evaluation and Grading System

The grading system of UM-St. Louis is clearly articulated in the *Bulletin.* There are defined grading systems for both undergraduates and graduates. If a student feels that she or he has not been treated fairly in the assigning of a final grade in a course, there are procedures defined in each academic unit regarding the adjudication of grade appeals. These procedures are different from the due process procedures arising from student disciplinary problems and allegations of discrimination based on sex, race, color, religion, national origin, age, disability, or Vietnam-era veteran status.

The *Collected Rules and Regulations of the University of Missouri* includes policies regarding Report of Grades (210.050) and the Policy on Plus/Minus Grading Systems (210.060).

Degree Requirements

Assuring the integrity of a degree earned from the University of Missouri-St. Louis is of primary importance to the faculty. The department approves each individual student's degree audit to ensure that all degree requirements have been met prior to the awarding of a degree.

Requirements for each degree or certificate, undergraduate and graduate, are articulated in the University's *Bulletin.* New degrees and certificates and changes to existing degrees and certificates are approved through procedures established by the faculty to ensure the academic integrity of each program.

Documents originate in a specific academic unit; once approved at that level they are forwarded to the appropriate approval group within each school or college. That body reviews the proposal and presents it to the faculty of that school or college for their approval. Following approval at that level, the proposals are forwarded to the Academic Affairs Office, which routes items to the Graduate School (if appropriate) and to the Curriculum and Instruction Committee (C & I) of the University Senate. C & I reviews the proposal and presents it to the Senate for approval. Once approved at that level, changes are implemented; new programs are sent on, via the Office of the Chancellor, to the University System and ultimately to the Missouri Coordinating Board for Higher Education for approval.

These procedures guarantee maximum exposure to the proposed degree requirements before implementation by the campus.

The University has made significant strides in making information about degree requirements and individual student degree progress available to faculty advisers, professional advisers, students, and others with a need to know through the development of the degree audit (DARS) module of the student information system. The process of evaluating transfer course work and applying it toward degree requirements, which was unwieldy and time-consuming on the occasion of the last NCA visit, is now completed within a few days of receiving transcripts.

Working with the advisers and department chairs in each of the schools and colleges, the degree audit team has developed a new format for degree audits which serves as a student's "roadmap through the curriculum" and is a valuable advising tool. These improvements have been made possible through a coordinated, Universitywide effort largely funded by the University's five-year, Title III Strengthening Institutions Development Grant.

Athletic Programs

The University's Division II athletic program is governed by an Athletic Committee consisting of eight faculty members, one alumnus, and two student athletes.

The Athletic Committee's commitment to academic integrity is longstanding. The program follows all NCAA guidelines with regard to academic progress. Additionally, first-year athletes must attend study halls. Recently, the Athletic Director, with legal department approval, added wording to the financial aid agreement signed by student athletes indicating that failure to attend classes regularly may result in loss of scholarships. A three-credit student-athlete orientation class is taught by the Athletic Director.

The Athletic Department is also committed to equity, particularly in relation to Title IX (gender equity) legislation. The same procedures are used for awarding financial aid to male and female athletes, and the patterns and levels of funding for the two groups are equitable. The Athletic Director, hired in 1995, is a woman, and there are now four female coaches in the women's athletic programs. In recent years, one men's sport was dropped and two women's sports were added. Scholarship money has been earmarked by the Chancellor specifically to attract and retain a higher proportion of female athletes.

CHAPTER EIGHT

Residence Centers

Residence Centers

1. Authorization for Residence Centers.

In 1994, the University of Missouri-St. Louis was authorized by the University of Missouri Board of Curators and the Missouri Coordinating Board for Higher Education to establish new Residence (educational) Centers in St. Charles County and Jefferson County, Missouri, where various degree programs would be offered. The University seeks to have all of its programs at these centers accredited by the NCA.

2. Notification of NCA.

Pursuant to NCA policy I.C.2b, which relates to the opening of an additional site that houses a range of instruction as well as administrative and support services, the University of Missouri-St. Louis provided official notification of the new Residence Centers on November 1, 1995 (RR: File 163, NCA Notification of Residence Centers). This report follows the directives indicated in that policy.

In May 1994, MGT of America was engaged by the University of Missouri System on the recommendation of the Missouri Coordinating Board for Higher Education to complete a needs assessment for proposed UM-St. Louis educational centers in St. Charles County and Jefferson County. MGT of America Inc. is a nationally recognized consulting firm based in Tallahassee, Florida, and specializing in the needs assessment area of higher education. On February 24, 1995, MGT submitted its final report to the UM System.

During the MGT study of the St. Charles County Center and Jefferson County Center proposals, the consultants interviewed well over 2,000 residents of St. Charles, Lincoln, Warren, Jefferson, and Franklin counties. Their comprehensive interviews included a survey of citizens, students from St. Charles County Community College and Jefferson College (located in Jefferson County), area high schools, small and large employers, and civic and political leaders. In addition, MGT studied census and other demographic data regarding education levels and participation rates.

An analysis of census data and campus enrollments has shown that there is great potential for public higher education opportunities in adjoining counties close to St. Louis. Counties of greatest potential include St. Charles, Warren, Lincoln, Jefferson, and Franklin. Generally, these counties are under-represented in the University's

main campus enrollments. In addition, the needs assessment study identified several areas in which area high school and community college students, residents, and major employers and other business professionals identified access to higher education as an unmet need.

The MGT report contains the documentation regarding these needs in section 4.0, Program and Service Needs (RR: Shelf 164, MGT Report on Residence Centers). Business representatives and community leaders interviewed by MGT said that they are interested in hiring new employees with university experience and degrees. They also said that they would like to see current employees completing their degree requirements. There was strong agreement that expanded educational opportunities in the local area would enhance economic development in both the short and long terms.

Highlights of the MGT study included the following supporting data:

St. Charles County Residence Center

Population trends

- St. Charles County has the highest growth rate of any county in the state. In addition, it has the highest median income of Missouri counties. Yet only one in five residents of St. Charles County over the age of 25 has achieved a college degree. This is considerably less than the 29 percent level achieved by citizens of St. Louis County.

- St. Charles County is among those with the greatest percentage of its population with some college education. However, a considerable drop in those with college enrollment after two years indicates that many residents terminate their postsecondary education at the associate's degree level in part because of limited accessibility to upper-division courses in public higher education.

- The number of potential students in St. Charles, Lincoln, and Warren counties continues to expand at a rapid rate. St. Charles County experienced a net influx of 46,008 people from 1980 to 1990. At the same time, St. Louis City and County had a net loss of more than 115,000 people. In addition, from 1981-1989, St. Charles County experienced an increase of 22.1 percent in K-12 enrollment while Lincoln and Warren Counties also grew at rates of 16.7 percent and 10.1 percent, respectively. St. Louis City and County had major decreases in enrollment during the same period.

- Nearly 57 percent of the employed residents of St. Charles County work in another county, while only 32 percent of St. Louis County residents work somewhere else. Since economic development is strongest in areas with high educational levels, the presence of additional university-level programs could strengthen economic development activities and employment opportunities in St. Charles County.

- In the East Central region, St. Charles County has the highest percentage of its population under age 18, thus providing a growing base of residents who will likely seek higher education in the future.

- The minority population, a segment of the population typically underserved by higher education, has increased by more than 100 percent in St. Charles County over the last 10 years.

- Recent data indicate that the St. Charles County population trend in the 1990s has continued to accelerate, with the 1996 estimated population set at 255,000, up more than 20 percent from 212,000 indicated in 1990.

College participation rates and potential enrollment

- The college participation rate in the targeted area (St. Charles, Lincoln, and Warren counties) stood at 13.1 percent in 1990, or 2.9 percent below the Missouri average of 16.0 percent and a full 5 percent below the St. Louis County average of 18.1 percent.

- In 1995, MGT projected that potential growth in head-count enrollment in the target-age population of 18-44 averages from 3,826 to 6,596 students from 1995 to 2020.

- Fifty-nine percent of all residents expressed an interest in taking college-level courses, with 33 percent preferring bachelor-level courses and 23 percent preferring graduate-level programs.

- A strong 93 percent of high school seniors in the area said they wanted to go on to a college or university after graduation.

- Forty-five percent said they wanted to pursue a bachelor's degree, while nearly half (49 percent) said they wanted to obtain a graduate degree. This last figure is particularly impressive since only 5.8 percent of area residents in the target-age population (ages 25-44) currently have achieved a graduate-level education.

- Eighty-eight percent of St. Charles County Community College (SCCCC) students are interested in taking more college-level courses after leaving the community college.

- UM-St. Louis was by far the choice of SCCCC students for further education. Forty-four percent chose the University of Missouri-St. Louis as the college or university they would like to attend. Others included UM-Columbia,16 percent; St. Louis University, 14 percent; Lindenwood, 14 percent; and Washington University, 11 percent (page 2, MGT Study), (RR: File 164, MGT Report on Residence Centers).

- Other findings of interest include the fact that in Fall 1993, 78.7 percent of college undergraduates from the St. Charles County service area took their courses from public institutions. According to the survey, among all four-year institutions, UM-St. Louis currently dominates the field with 13.5 percent of enrollees. Lindenwood College of St. Charles has an 8.1 percent share.

- In addition to obtaining information on needs, the consultants probed to ascertain what areas of study were most desirable. Their findings included the fact that among all groups, those desiring more college-level courses cited the disciplines of business, education, health care, and engineering as their primary interests.

Jefferson County Residence Center

Population trends

- The population growth rates of Jefferson and Franklin counties are among the highest in the East Central Region, yet this area represents the largest population center in the state without the local presence of a public or private four-year college or university.

- The level of attainment of a college degree in Jefferson and Franklin Counties is about 9 percent, one-half of the state norm and considerably lower than the levels in St. Louis City and St. Louis County.

- The Jefferson/Franklin County area is among those with the greatest percentage of its population with some college education. However, a considerable drop in college enrollment after two years indicates that residents must, for the most part, terminate their post-secondary education at the associate-degree level.

- Recent trends show continued strong population growth. Information from the 1996 census reveals that the county has grown to 188,863 people from the 1990 figure of 171,380.

College participation rates and potential enrollment

- The college participation rate in Jefferson and Franklin counties stood at 12.8 percent in 1990, or 3.2 percent below the Missouri average of 16.0 percent and a full 5.3 percent below the St. Louis County average. For 1995, potential growth in enrollment in the target-age population of 18-44 from 1995 to 2020 is estimated to be from 3,663 to 6,067 students.

- Sixty-five percent of the employed residents of Jefferson County work in another county. Since economic development is strongest in areas with high educational levels, the presence of university-level programs could strengthen economic development activities and employment opportunities there.

- Approximately two-thirds of the workforce of Jefferson County are employed in the service sector, a sector increasingly requiring university education.

- Jefferson County was among those in the East Central region with the highest percentage of its population under age 18, providing a growing base of residents who will likely seek higher education in the future.

- Between 1980 and 1990, Jefferson County experienced a 116 percent increase in its minority population.

- Fifty-six percent of all residents expressed an interest in taking college-level courses, with 34 percent preferring bachelor's-degree courses and 15 percent preferring graduate-level courses.

- Eighty-four percent of area high school seniors want to go on to college.

- Eighty percent of Jefferson College students indicated they are interested in taking more college-level courses after leaving the community college.

- Nearly 62 percent of current Jefferson College students who plan to further their education indicated that distance and proximity will play a major role in selecting an institution.

3. A description of how the Residence Centers are appropriate to the institution's purposes.

American higher education sprang from a core of private, denominational institutions founded to prepare society's elite for leadership roles in the church, schools, businesses, communities, and nation. As in German universities, basic research was conducted by faculty to expand the knowledge base of the academic disciplines and to

assure transmission of the latest findings to the young men who enrolled at campuses located primarily in rural communities.

During the 19th century, there was a growing sense of nationalism and egalitarianism and a concern for the wider diffusion of knowledge to the community as a whole. Given the country's agrarian base, an early step toward the democratization of higher education occurred with passage of the Morrill Act (1862), which provided federal support to endow public, "land-grant" colleges to teach "agriculture and the mechanical arts." Subsequently, the Hatch Act (1887) established a system of agricultural experiment stations, and in 1914, the Smith-Lever Act established the Cooperative Extension Service, a formal partnership between the land-grant university and the Department of Agriculture designed to bring the latest agricultural research findings from the campus to the American farmer. To Cooperative Extension belongs much of the credit for the success of American agriculture as well as the demonstration of the potential of adult education in making a significant difference in the productivity and the way of life of a major segment of the population.

The University of Missouri was founded in 1839 and is one of the nation's premier land-grant institutions. Much more recently, in response to population shifts and demands for reasonably priced, state-supported higher education in major urban areas, the University of Missouri established campuses in Kansas City and St. Louis. In the land-grant spirit, the University of Missouri-St. Louis was founded 35 years ago as the Normandy Residence Center, an extension center of the UM-Columbia campus.

From its inception, The University recognized the potential for establishing its own educational centers. Indeed, a site was established at Lindbergh High School in south St. Louis County in 1975 so that students from that area could work toward a master's degree in education by taking courses at that site.

4. Consideration of how the Residence Centers relate to the contents of the last NCA Comprehensive Team Report.

The last NCA comprehensive Team Report was issued in 1989. This followed submission of the institution's Self Study in 1988. As part of the Self Study, it was demonstrated that the University of Missouri System and the

St. Louis campus were designed to provide public research university access in the metropolitan St. Louis area. In addition, the University's mission was to provide educational opportunities and access to the people of the St. Louis metropolitan area. More specifically, the Team Report dealt with the necessity of increasing enrollment. For example, it states that:

> Vigorous recruiting and advertising efforts have helped UM-St. Louis to expand its enrollment. Such new programs as its Bridge Program and advanced credit programs with high schools should further build its student body in future years. UM-St. Louis should pay continuing attention to student recruitment if it is to fulfill its urban teaching mission. At the same time, it is important to recognize that UM-St. Louis is a relatively new campus and is still developing academic degree programs to serve its metropolitan constituency. Program approval procedures or resource allocations outside the campus that slow or restrict UM-St. Louis' curricular development will have an effect on the University's ability to serve its special urban constituency. (page 8)

In addition to the above, also on page 8, there is reference to articulation agreements with major community colleges in the area. This is clearly a major facet of the expansion to St. Charles and Jefferson counties, where the two respective community colleges are integral partners in terms of the overall initiative.

The Team Report also described the academic departments which are part of the expansion as well as the high-quality academic credentials of the full-time faculty. The Residence Centers strive to maintain the same ratio of full-time and part-time faculty as that on the main campus.

An important area of consideration relates to the various partnerships now being carried out on behalf of the University. For example, partnerships involving major local corporations, e.g., Emerson Electric, Monsanto, and Boeing, as well as major not-for-profit organizations, e.g., St. Louis Symphony and Missouri Botanical Garden, reflect the growing support for the campus in terms of its overall mission of educating the next generation of leaders in the greater metropolitan area of St. Louis. The NCA Comprehensive Team Report specifically addresses the necessity of this campus' adequately educating a workforce suited for an expanding regional economy as well as preparing appropriately educated citizens. The document itself states:

The increase in private support shows growing community awareness of UMSL's importance to St. Louis, especially in training a workforce for the regional economy and preparing educated citizens. The campus leadership is keenly aware of the need to further expand private support for UMSL, and it has significant opportunities to obtain such support from corporations, foundations, interested persons in the community, and especially from alumni. Private support will be an essential element in building a strong public urban research university to serve metropolitan St. Louis. (page 21)

The Team Report also makes reference to some of the underlying rationale for the proposed outreach centers in both St. Charles and Jefferson counties. For example, on page 42, the Report states:

> UMSL should continue to increase its student body to meet the needs of metropolitan St. Louis for a more highly educated workforce.

In addition, the Team Report states on page 44:

> With respect to many of its programs, UMSL should be regarded as a still-developing institution. In a major metropolitan area, there is almost certainly a demand for additional educational opportunities — especially in graduate and undergraduate professional training.

5. *A description of the planning process that led to the Residence Centers.*

Since the late 1970s, the University has been monitoring the population trends of the St. Louis metropolitan area. These trends have shown significant growth in the outlying counties of the St. Louis area and a large decrease in population in the city of St. Louis. Under the direction of the dean of Continuing Education and Outreach, the University sought to serve that growth by offering sequential credit and noncredit courses at Lindbergh High School in south St. Louis County, its first off-campus site. This site was eventually designated as the University's first Residence Center. After both the 1980 and 1990 censuses, the dean commissioned studies to determine growth patterns and higher educational needs and trends in outlying counties. In addition, budgetary projections were developed to ascertain whether the establishment of residence or satellite centers was feasible.

In 1992, after it was determined that the outlying counties were not being adequately served by existing higher-educational institutions, a 20-person Outreach Committee

was appointed, consisting of senior-level academic and administrative officers. This committee's charge was to develop plans for establishment of a UM-St. Louis Residence Centers in St. Charles and Jefferson counties. After the committee established academic standards and a budget, its work was submitted by the Chancellor to the University Senate Budget and Planning Committee, which gave its approval in November 1993. Subsequently, a director of outreach development was given the responsibility to implement the plan. In spring 1994, the University of Missouri Board of Curators and the Missouri Coordinating Board for Higher Education commissioned a study by MGT of America Inc. to conduct a comprehensive needs assessment study in outlying counties as required by CBHE guidelines for Residence Center approval. In February 1995 the consultants issued their report, which strongly supported establishment of Residence Centers in both St. Charles and Jefferson counties. In March 1995 the University of Missouri Board of Curators gave unanimous approval to the UM-St. Louis request to establish Residence Centers. The University submitted documentation to meet the requirements of the Missouri Coordinating Board for Higher Education standards for Residence Centers, and, on June 15, 1995, the CBHE gave its formal approval for establishment of the Centers. In October 1995 the Coordinating Board gave the University permission to offer degree programs in business administration, elementary education, and nursing at the new Residence Centers.

During the planning and implementation process, UM-St. Louis has worked closely with St. Charles County Community College and Jefferson College to ascertain program needs and develop articulation agreements.

Planning Priorities

The ability to offer fully accredited programs at a satellite center extends to the residents of St. Charles, Lincoln, Warren, Jefferson, and Franklin counties the opportunity to pursue the upper two years of an undergraduate degree from the University at a more convenient site. In addition, it allows the campus to serve a growing number of graduates of St. Charles County Community College and Jefferson College who wish to complete undergraduate course work at, or near, those institutions. The University is continuing to develop cooperative agreements which would facilitate the transfer of students from those institutions.

The University plans to seek permission from the CBHE to offer the upper two years of a number of existing degree programs — which have been identified as an unmet need by the MGT study — at the Residence Centers in St. Charles and Jefferson counties. Initially, following CBHE approval, baccalaureate degree programs in business administration, nursing, and elementary education have been offered. Degree programs to be added include social work, criminology and criminal justice, and communication. In response to the high interest in graduate degrees cited in the report, master's degree programs may also be added.

The consultant's assessment of needs in the area, discussions with community college administrators, and discussions with University administrators indicate that these program areas reflect high priority needs.

Every attempt has been made to offer complete degree programs; however, as on the main campus, a realistic minimum number of students will be required for a class to be offered. Offering some courses through interactive video technology concurrently on campus and at the Residence Center has significantly increased the ability to maintain adequate enrollments and thus to offer all required courses on a more frequent basis.

For most programs at the Residence Centers, the University offers the upper two years of study over a three-year period and repeats some courses every other year, if necessary. However, core courses which serve more than one discipline may be offered every year.

The number of potential students identified in the MGT report indicate that these Residence Centers, if properly developed and marketed, are likely to attract a sufficient number of students to maintain financial viability over a sustained period of time. The University has developed a multiyear budget for these centers (RR: File 165, Multi-Year Budget for Residence Centers).

6. Evidence that the institution has the necessary internal and external approvals to initiate the change.

The establishment of the new educational centers has been approved by all the appropriate internal and external bodies of the institution as required by Missouri statutes, University of Missouri Rules and Regulations, Missouri Coordinating Board for Higher Education Regulations, and University of Missouri-St. Louis administrative and academic procedures. The University Chancellor initiated the necessary requests at the University and with the UM-System.

This change has been approved by the following:

Internal Approvals (RR: File 166, Internal Approvals)

• University Senate Budget and Planning Committee (November 1993)
• Chancellor of the University
• President of the System
• University of Missouri Board of Curators (March 1995)

External Approvals (RR: File 167, External Approvals)

• The Missouri Coordinating Board for Higher Education (June 15, 1995)

7. *An analysis of the institution's continued ability to meet the General Institutional Requirements and the Criteria for Accreditation.*

The assessment of student learning at the Residence Centers in St. Charles and Jefferson counties is modeled after the University Assessment Plan dated December 1992 and validated by a Review Committee of North Central Association in August 1993 (RR: File 138, UM-St. Louis Assessment Plan). Assessment of the Residence Centers addresses three areas: general education, major field, and satisfaction of alumni/ae and currently enrolled students.

As soon as there have been sufficient gradutes from the residence center to conduct valid analyses, a comparison of student achievement on general education and major field examinations will be made between students completing their degrees on the main campus and those completing their degrees at the Residence Centers.

8. *An analysis of the anticipated effect of the proposed change on the other parts of the institution.*

The addition of Residence Centers in outlying areas enhances and complements the existing programs offered at the main campus. While the overall goal is to provide an opportunity for students to complete their degree at a more convenient location, regular surveys of students taking courses at both off-campus sites indicate that nearly 50 percent of the students will probably continue to take courses on the main campus. The anticipated growth expected at the Residence Centers will provide the University with greater stability and allow it to enhance programs which may have otherwise been diminished.

9. *Evidence that the institution has established the processes to assure that it has the capability to initiate and maintain the proposed change and to monitor acceptable quality once the change has been implemented.*

The director of Outreach Development has the day-to-day responsibility over the Residence Centers and reports directly to an Associate Vice Chancellor for Academic Affairs. This director has formulated a budget for each of the Residence Centers, which is submitted to appropriate officials of the University.

The University Outreach Committee, consisting of top-level administrative and academic personnel, provides oversight for the Residence Centers and meets regularly to review the status of the centers and provide a critical overview. Each semester, the deans and directors of the various colleges involved in the program review the work of their academic staffs and monitor their activity so that the highest standards can be maintained. Students taking courses at the Residence Centers are surveyed periodically to determine whether the program is meeting their needs and fulfilling expectations.

10. *Evidence that the institution has organized and planned for adequate human, financial, physical, and instructional resources to initiate and support the proposed change.*

Human Resources

In addition to the director of Outreach Development, who oversees both centers, a department assistant is assigned to each center to provide daily administrative support. The director reports to an Associate Vice Chancellor for Academic Affairs. Academic advisers are available at both centers on most days. The standards for the faculty for approved programs remain the same. Faculty are provided by the various schools and colleges of the University, which seek to have the same ratio of full-time to adjunct faculty as that provided to students on the main campus.

Financial Resources

The University has developed a five-year budget which identifies funding sources and anticipated annual expenditures for both Residence Centers, including start-up costs (RR: File 165, Multi-Year Budget for Residence Centers).

Physical, Instructional, and Other Resources

On-site support services include on-line registration, testing, advising/financial aid, book sales, library (search services through the University's integrated systems and book delivery by regularly scheduled courier service), and administrative support. The programs are promoted through a variety of local print and electronic media, direct mail, and joint marketing with the community colleges.

In delivering courses at off-campus sites, emerging technologies can complement more traditional efforts. Library holdings, for example, are computerized; students can now conduct reference searches via telecommunications. Entire texts of an increasing number of periodicals are now available on-line. Video classrooms linked by an interactive network offer courses between the main campus and the Residence Centers. Such classrooms are also linked to other sites of the UM System and other community colleges to offer selected courses. The University has four interactive video classrooms and two video conference rooms from which courses can be extended from the main campus.

Through a cooperative agreement with the community colleges, students taking courses at the Residence Centers have computer and high-speed Internet access at the site. In addition, students also have the ability to access the Internet through their home computers by means of a dial-up connection with the University.

Facilities at both St. Charles County Community College and Jefferson College are currently used for a variety of service functions. The University uses an office at each institution for three-day-per-week on-site academic advising. University faculty identify reference books that the University librarians place on reserve at the community colleges' libraries. The University and community college librarians have also established document-sharing via Internet and fax for selected course references. Community college computer laboratories have been used for individual student projects and for testing services associated with the nursing curriculum. Of course, students may use the main-campus facilities at any time.

In 1998, a desktop interactive video computer was added at each site which, through the use of high-speed telephone lines (ISDN), allows faculty and advisers on the main campus to speak to and see students. The same hardware and software are being installed on the main campus in all of the schools as well as the admissions department. Students wanting to speak with faculty members or academic advisers can take advantage of the system to conduct the interview without having to travel a long distance.

Although space is currently rented at each site, the long-term goal is to occupy a freestanding building. It is envisioned that temporary facility and service arrangements such as the above will need to continue until it is appropriate to move into a more permanent facility.

Students at the St. Charles Residence Center pay the same educational and special fees (parking, computing, and student activities) as students on the main campus. The University recognizes that it is not convenient for students to travel to the main campus to avail themselves of student services; therefore local alternatives are provided. For example, students currently enrolled in the St. Charles courses may use the athletic facilities at the St. Peters Rec-Plex at a discounted rate. At the present time, students taking courses in Jefferson County do not pay a student activity fee, but such a fee is anticipated once more services are provided.

Each semester, all students taking courses at the Residence Centers are surveyed to determine their needs for academic and other support services. In addition, a Student Service Advisory Committee has been established to provide the University with input and guidance regarding the spending of student services funds and academic support needs.

The Chancellor has established Advisory Committees for each Center, consisting of 30 civic, business, and educational leaders from the surrounding counties. This committee, which meets several times a year, offers community feedback and guidance to the Chancellor regarding the Residence Center program.

11. Enrollments and student profiles at the Residence Centers.

Enrollments

Since the Fall 1994 semester, the UM-St. Louis St. Charles Education Center (as the Residence Center is known) has offered 70 courses and has had 1,111 enrollees who have taken a total of 3,549 credit hours. The Jefferson County Center, which began in fall 1995, has served 417 enrollees who have taken 1,233 credit hours in the 43 courses offered in the county since that time. A listing of courses offered and enrollments are on file in the Resource Room (RR: File 171, Courses and Enrollments at Residence Centers).

Interactive classes

Of the 70 courses offered in St. Charles, 9 were presented using interactive video technology. In Jefferson County, 8 of the 43 courses were offered using interactive technology. Students taking interactive classes are surveyed each semester for their recommendations regarding any technological or administrative improvements which could be made to facilitate the use of such technology.

Student profiles

Demographic and survey data reveal that students taking courses at the Residence Centers are predominantly female (77 percent), working full- or part-time (93 percent), and in the 25- to 40- year-old bracket (36 percent), and nearly one-half are married. Nearly one-third have children under the age of 13. Academically, students taking courses at the Centers average a 3.0 cumulative GPA, compared to the University average of 2.77 (Fall, 1997).

12. Looking towards the future.

Just as the original 1839 founding of the University of Missouri was motivated by a desire to expand higher education opportunities west of the Mississippi, so now the two Residence Centers in the fastest-growing counties in the state represent the University's desire to provide an opportunity to access higher education at a public university. The University has examined and monitored the growing population base beyond St. Louis and is well-positioned to serve the needs of these expanding communities and others. With the beginning of course offerings at the junior level at East Central Community College in Union and at Mineral Area College to the south of St. Louis, it is anticipated that authority will be sought to add more Residence Centers by the end of the decade. In addition, talks have begun with leaders from the Ft. Leonard Wood facility, southwest of St. Louis, to explore new partnership opportunities.

The economic potential of these regions is expected to expand enormously in the 21st century, thus requiring a better-educated work force. UM-St. Louis is well-positioned to provide public baccalaureate educational opportunities to citizens in these counties.To date, these opportunities have been lacking. Over time, the two Residence Centers and other off-campus sites will become a central part of a growing region which is well suited to take advantage of development opportunities.

CHAPTER NINE

General Institutional Requirements

General Institutional Requirements

General Institutional Requirement 1: *It has a mission statement, formally adopted by the governing board and made public, declaring that it is an institution of higher education.*

In May 1997 the Board of Curators of the University of Missouri approved the current Mission Statement for UM-St. Louis. The mission statement is publicly available on the University's World Wide Web site (RR: Web 192, http://www.umsl.edu/overview/glance.html).

General Institutional Requirement 2: *It is a degree-granting institution.*

UM-St. Louis confers baccalaureate (B.A., B.F.A., B.G.S., B.H.S., B.M., B.S., B.S.Acc., B.S.B.A., B.S.C.I.E., B.S.Ed., B.S.E.E., B.S.M.E., B.S.M.I.S., B.S.N., B.S.P.A., B.S.W.), master's (M.A., M.Acc., M.B.A., M.Ed., M.F.A., M.M.Ed., M.P.P.A., M.S., M.S.N. M.S.W.), and doctoral (Ed.D., O.D., Ph.D.) degrees. All of these degrees are approved by the Missouri Coordinating Board for Higher Education and appear in the degree inventory on their Web site (RR: Web 193, http://www.mocbhe.gov/pages/acadafrs/proginv/umsl.htm).

General Institutional Requirement 3: *It has legal authorization to grant its degrees, and it meets all the legal requirements to operate as an institution of higher education wherever it conducts its activities.*

The University of Missouri was established by the Missouri legislature in 1839. Its Board of Curators derives its authority from Article 9, Section 9(a) of the Missouri State Constitution. The Board of Curators established UM-St. Louis. The Coordinating Board for Higher Education has approved operations of UM-St. Louis at the main campus in Normandy, Missouri, and at off-campus sites at Jefferson College, St. Charles Community College, UM-Rolla, and Lindbergh High School.

General Institutional Requirement 4: *It has legal documents to confirm its status: not-for-profit, for-profit or public.*

The Missouri Constitution in Article 9, Section 9(a) establishes the University and the Board of Curators as its governing body. The Missouri Constitution in Article 9, Section 9(b) requires the Missouri General Assembly to adequately maintain the University. From these documents the University derives its status as a body politic.

General Institutional Requirement 5: *It has a govern - ing board that possesses and exercises necessary legal power to establish and review basic policies that govern the institution.*

The Missouri Constitution in Article 9, Section 9(a) establishes the Board of Curators as governing body of the University of Missouri. The Board of Curators establishes the *Collected Rules and Regulations* (RR: Web 189, http://www.system.missouri.edu:80/uminfo/rules/content.htm), which govern the operation of the University, and provides an active oversight of all basic policies.

General Institutional Requirement 6: *Its governing board includes public members and is sufficiently autonomous from the administration and ownership to assure the integrity of the institution.*

The Board of Curators is appointed by the Governor and confirmed by the Missouri Senate. Each of the nine congressional districts in the state is represented on the nine-member Board of Curators. Of the nine members, no more than five may be from any one political party. One consideration in selecting members of the Board of Curators is that conflicts of interest be avoided.

General Institutional Requirement 7: *It has an execu - tive officer designated by the governing board to provide administrative leadership for the institution.*

The Chancellor of UM-St. Louis is appointed by President of the University of Missouri System with the approval of the Board of Curators. Executive Order One issued by the President states that the Chancellor is the chief academic and administrative officer charged with providing academic leadership and management of the campus.

General Institutional Requirement 8: *Its governing board authorizes the institution's affiliation with the Commission.*

On August 29, 1994, the University of Missouri Board of Curators approved the affiliation of all campuses of the University with the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools, thereby formalizing a tacit understanding behind decades of such affiliation.

General Institutional Requirement 9: *It employs a faculty who have earned from accredited institutions the degrees appropriate to the level of instruction offered by the institution.*

Over 90 percent of the tenured and tenure-track faculty hold doctoral degrees. In most cases the degrees have been awarded by the leading research universities in the nation or internationally.

General Institutional Requirement 10: *A sufficient number of the faculty are full-time employees of the institution.*

UM-St. Louis employs 378 full-time ranked faculty (instructor through professor).

General Institutional Requirement 11: *Its faculty have a significant role in developing and evaluating all of the institution's educational programs.*

All changes in educational programs, from changes in course descriptions to new academic programs, originate in the individual academic units, or for entirely new programs, in *ad hoc* committees with substantial faculty representation. All courses and programs offered for graduate credit are approved by the Graduate Council, an elected faculty body, prior to being forwarded to the University Senate, a body with substantial faculty representation. All undergraduate courses and programs are forwarded through the schools and colleges to the University Senate. Courses and programs are changed or implemented only after Senate approval, and other approvals, where appropriate.

General Institutional Requirement 12: *It confers degrees.*

Over the past three years, UM-St. Louis has conferred an average of 1,647 baccalaureate, 589 master's, 26 doctoral (Ph.D. and Ed.D.), and 38 first professional (O.D.) degrees annually.

General Institutional Requirement 13: *It has degree programs in operation with students enrolled in them.*

In the fall of 1997, UM-St. Louis had 9,292 undergraduate students, 2,398 graduate students, and 168 professional students enrolled in 80 degree programs.

General Institutional Requirement 14: *Its degree programs are compatible with the institution's mission and are based on recognized fields of study at the higher education level.*

UM-St. Louis offers a full range of undergraduate degrees, a broad range of master's degree programs, and a selected number of doctoral degree programs. The University expects to continue adding new degree programs, primarily at the graduate level, to have a full range of graduate degree programs commensurate with its mission as the only doctoral-degree-granting public university in the largest metropolitan region of the state.

General Institutional Requirement 15: *Its degrees are appropriately named, following practices common to institutions of higher education in terms of both length and content of the programs.*

Bachelor's degrees require a minimum of 120 credit hours. Students typically take four to six years to complete a bachelor's degree. Master's degrees require a minimum of 30 credit hours beyond the bachelor's degree. Students typically take one to three years to complete a master's degree. The Ph.D. degree requires a minimum of 60 credit hours beyond the bachelor's degree, and the Ed.D. degree requires a minimum of 90 hours beyond the bachelor's degree. Students typically take four to eight years to complete a doctoral degree. The O.D. degree requires four years of full-time study.

General Institutional Requirement 16: *Its undergraduate degree programs include a coherent general education requirement consistent with the institution's mission and designed to ensure breadth of knowledge and to promote intellectual inquiry.*

UM-St. Louis faculty believe students today need a greater knowledge of natural sciences, mathematics, and foreign cultures than in the past, and need to possess better skills in communication, logical reasoning, and use of computer technology. The general education requirements provide sufficient flexibility to accommodate the educational needs of students in a wide variety of programs. The detailed course requirements in the general education program are given in the *Bulletin* (RR: Shelf 172, University *Bulletin*). General discipline areas specifically highlighted are communicative skills; mathematical skills; courses within the humanities, natural sciences and mathematics, and social sciences; and a course to meet a state requirement for instruction in American history and government.

General Institutional Requirement 17: *It has admission policies and practices that are consistent with the institution's mission and appropriate to its educational programs.*

Admission to UM-St. Louis is selective and based on the probable success of the student at the University. Admission is based on the high school curriculum and a combination of ACT score and high school class rank. The high school curriculum must include at least 17 units in a specified college preparatory curriculum. Students with ACT scores of 24 or above meet the test score and

academic rank admission requirements. Students with ACT scores between 23 and 17 can gain admission provided their high school percentile rank meets increasingly higher standards. The University seeks a student body reflecting diversity of race, ethnicity, age, physical disability, geography, and academic interest. With its admissions practices, the University strives to increase the number of students from under-represented groups.

Admission to Graduate School requires a minimum of an earned baccalaureate degree with a G.P.A. of at least 2.75. Many graduate programs have admission requirements more rigorous than the overall Graduate School requirements. All doctoral degree programs require the Graduate Record Examination as do a number of the master's degree programs.

The School of Optometry sets its own admission standards, which include the Optometry Admission Test.

General Institutional Requirement 18: *It provides its students access to those learning resources and support services requisite for its degree programs.*

Resources available to UM-St. Louis students include access to University Libraries, student computing laboratories, remote access to computing resources, advising, counseling, writing laboratories, mathematics laboratories, career services, specialized research equipment, a variety of internships, recreational facilities, and numerous student activities.

General Institutional Requirement 19: *It has an external financial audit by a certified public accountant or a public audit agency at least every two years.*

The University of Missouri System is audited annually by an independent certified public accounting firm. The most recent audit was performed by Deloitte and Touche, LLP (RR: Shelf 173, Deloitte and Touche Audit).

General Institutional Requirement 20: *Its financial documents demonstrate the appropriate allocation and use of resources to support its educational program.*

The financial statements of the University (RR: Shelf 173, University Financial Statements) are prepared in accordance with generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board (GASB), the American Institute of Certified Public Accountants in its *Audits of Colleges and Universities,* and the National Association of College and University Business Officers in the *Financial Accounting and Reporting Manual for Higher Education.* To ensure

observance of limitations and restrictions placed on the utilization of resources available, the University follows fund accounting with separate accounts for each fund.

General Institutional Requirement 21: *Its financial practices, records, and reports demonstrate fiscal viability.*

The most recent budget, audited financial statements, and bond ratings indicate that the University of Missouri is fiscally sound.

General Institutional Requirement 22: *Its catalog or other official documents include its mission statement along with accurate descriptions of:*
- *its educational programs and degree requirements;*
- *its learning resources;*
- *its admissions policies and practices;*
- *its academic and non-academic policies and procedures directly affecting students;*
- *its charges and refund policies; and*
- *the academic credentials of its faculty and administrators.*

The Mission Statement appears on the University Web page. The educational programs and degree requirements, learning resources, admissions policies and procedures, academic and nonacademic policies and procedures, and academic credentials of faculty and administrators are given in the UM-St. Louis Bulletin. The *Schedule of Classes* (RR: File 174, Schedule of Classes for each Term, Preceding Year), published every semester and summer session, also provides information on fees and refund policies.

General Institutional Requirement 23: *It accurately discloses its standing with accrediting bodies with which it is affiliated.*

The accreditation status of UM-St. Louis with the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools is disclosed in the UM-St. Louis *Bulletin* and on the University Web page. The separate program accreditations are also disclosed both in the *Bulletin* and on the Web page.

General Institutional Requirement 24: *It makes available upon request information that accurately describes its financial condition.*

As a body politic of the State of Missouri, the University's budgets and audited financial statements are public information and available to anyone who wants to review them.

APPENDIX

Basic Institutional Data

North Central Association of Colleges and Schools
Commission on Institutions of Higher Education
30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504
(800) 621-7400; (312) 263-0456; Fax: (312) 263-7462

Basic Institutional Data Form A

PART 1 - FULL-TIME ENROLLMENT (HEADCOUNT)

Opening Fall Enrollment for Current Academic Year and Previous Two Years

Name of institution/campus reported: University of Missouri – St. Louis

	Two Years Prior	One Year Prior	Current Year
UNDERGRADUATE	1996 - 1997	1997 – 1998	1998 – 1999
Freshman - Occupationally oriented (Definition I-A&B)	1,046	888	932
Freshman - Occupationally oriented (Definition I-C)			
Freshman - Undeclared (Definition I-D)			
Sophomore - Degree oriented (Definition I-A & B)	862	940	1,015
Sophomore - Occupationally oriented (Definition I-C)			
Sophomore - Undeclared (Definition I-D)			
Junior	1,458	1,357	1,480
Senior	1,689	1,632	1,730
TOTAL UNDERGRADUATE	5,055	4,817	5,157
GRADUATE			
Master's	272	286	295
Specialist			
Doctoral	59	68	86
TOTAL GRADUATE	331	354	381
PROFESSIONAL (by degree)			
Optometry O.D.	163	168	173
TOTAL PROFESSIONAL			
TOTAL ALL LEVELS	5,549	5,339	5,711
OTHER			

Prepare separate reports for each campus. Please add
attachments and additional sheets wherever necessary.

Edition 7; December 1996

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Basic Institutional Data Form A

PART 2 - PART-TIME ENROLLMENT (HEADCOUNT)

Opening Fall Enrollment for Current Academic Year and Previous Two Years

Name of institution/campus reported: University of Missouri – St. Louis

	Two Years Prior	One Year Prior	Current Year
UNDERGRADUATE	1996 - 1997	1997 - 1998	1998 - 1999
Freshman - Occupationally oriented (Definition I-A&B)	380	458	431
Freshman - Occupationally oriented (Definition I-C)			
Freshman - Undeclared (Definition I-D)			
Sophomore - Degree oriented (Definition I-A & B)	411	423	416
Sophomore - Occupationally oriented (Definition I-C)			
Sophomore - Undeclared (Definition I-D)			
Junior	1,066	1,016	984
Senior	2,586	2,578	2,635
TOTAL UNDERGRADUATE	4,443	4,475	4,466
GRADUATE			
Master's	1,990	1,831	1,748
Specialist			
Doctoral	215	213	215
TOTAL GRADUATE	2,205	2,044	1,963
PROFESSIONAL (by degree)	0	0	0
TOTAL PROFESSIONAL			
TOTAL ALL LEVELS	6,648	6,519	6,429
OTHER			

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Basic Institutional Data Form A

PART 3 - FULL-TIME EQUIVALENT ENROLLMENT

Opening Fall FTE Enrollment for Current Academic Year and Previous Two Years

Name of institution/campus reported: University of Missouri – St. Louis

	Two Years Prior	One Year Prior	Current Year
	1996 - 1997	1997 – 1998	1998 – 1999
UNDERGRADUATE - (see definition I,A thru D)	6,389.9	6,250.0	6,518.2
GRADUATE - (see definition II)	1,049.1	997.9	999.1
PROFESSIONAL - (see definition III)	163.0	168.0	173.0
UNCLASSIFIED - (see definition VI)			
TOTAL	7,602.0	7,421.9	7,690.3

Basic Institutional Data Form A

PART 4 - OTHER SIGNIFICANT INSTITUTIONAL ENROLLMENTS
(e.g., non-credit, summer session, other)

Most Recent Sessions and Previous Two Years

Identify types of enrollment reported: University of Missouri – St. Louis

	Two Years Prior	One Year Prior	Current Year
	1996 - 1997	1997 - 1998	1998 - 1999
TOTAL UNDERGRADUATE	5,350	5,127	5,096
TOTAL GRADUATE	1,752	1,522	1,548
TOTAL PROFESSIONAL	37	58	43
TOTAL NON-CREDIT CONTINUING EDUCATION ENROLLMENTS (headcount)	79,868	82,366	84,942
TOTAL NON-CREDIT REMEDIAL AND DEVELOPMENTAL ENROLLMENTS (FTE)	191	175	89
TOTAL OTHER			
TOTAL	87,007	89,228	91,718

Prepare separate reports for each campus. Please add
attachments and additional sheets wherever necessary.

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Basic Institutional Data Form B

PART 1 - STUDENT ADMISSIONS

Opening Fall Enrollment for Current Academic Year and Previous Two Years

Name of institution/campus reported: University of Missouri – St. Louis

Provide as much of the following information as is available about applicants for admission in the current and previous two academic years. If exact figures cannot be supplied, careful estimates may be given. Students enrolled in a previous year should not be included as applicants in a subsequent year.

Open Admissions Institution ? Yes____ No **XX**.

	Two Years Prior 1996 - 1997	One Year Prior 1997 - 1998	Current Year 1998 – 1999
FRESHMAN			
Number of applicants with complete credentials for admission to the freshman class	1950	1999	1952
Number of applicants accepted	1594	1311	1193
Number of freshman applicants actually enrolled	768	696	695
TRANSFER			
Number of applicants with complete credentials for admission with advanced standing (transfer)	3354	3445	3494
Number of advanced-standing undergraduate applicants accepted	2778	2802	2721
Number of advanced-standing undergraduate applicants actually enrolled	1693	1747	1767
MASTER'S			
Number of applicants with complete credentials for admission to master's programs	1772	1852	1822
Number of applicants accepted for master's programs	955	938	956
Number of applicants actually enrolled in master's programs	490	502	433
SPECIALIST			
Number of applicants with complete credentials for admission to specialist programs	–	–	
Number of applicants accepted for specialist programs	–	–	
Number of applicants actually enrolled in specialist programs	–	–	

Prepare separate reports for each campus. Please add
attachments and additional sheets whenever necessary.

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Basic Institutional Data Form B - Part 1 Continued

Name of institution/campus reported: University of Missouri – St. Louis

DOCTORAL	Two Years Prior 1996 - 1997	One Year Prior 1997 - 1998	Current Year 1998 - 1999
Number of applicants with complete credentials for admission to doctoral programs	480	487	486
Number of applicants accepted for doctoral programs	59	95	98
Number of applicants actually enrolled in doctoral programs	29	28	32

PROFESSIONAL	Report by degrees	Two Years Prior 1996 - 1997	One Year Prior 1997 - 1998	Current Year 1998 – 1999
Number of applicants with complete credentials for admission to professional programs	O.D.	416	333	377
Number of applicants accepted for professional programs	O.D.	87	79	14
Number of applicants actually enrolled in professional programs	O.D.	44	44	42

Prepare separate reports for each campus. Please add attachments and additional sheets whenever necessary.

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Basic Institutional Data Form B
Part 2 - ABILITY MEASURES OF FRESHMAN

Name of institution/campus reported: University of Missouri - St. Louis

Specify quarter/semester reported: Fall 1998

Are scores used or routinely collected ? Yes ___ No ___

A. Class ranking of entering freshman	
Percent in top 10% of high school class	17.7
Percent in top 25% of high school class	42.5
Percent in top 50% of high school class	78.0
Percent in top 75% of high school class	95.2

B. SAT scores for entering freshman	Verbal	Math
Class average SAT score	566	577
Percent scoring above 500	73.8	83.6
Percent scoring above 600	32.8	44.3
Percent scoring above 700	14.8	4.9

C. Mean ACT scores for entering freshman	
Composite	23.3
Mathematics	22.5
English	22.7
Natural Science Science Reasoning	23.2
Social Studies Reading	24.1

D. Other tests used for admission or placement	
Test name	
Mean or Composite	
Range	

Basic Institutional Data Form B

Part 3 - ABILITY MEASURES OF ENTERING GRADUATE STUDENTS

(Report for last full academic year)

A. Graduate Record Examination   Range __800__ High   __280__ Low
(for total Graduate School excluding professional schools)

B. Miller Analogies Test   Range ____ High   ____ Low
(for total Graduate School excluding professional schools)

C. On a separate sheet, indicate other test data used for admission to professional programs.

Prepare separate reports for each campus. Please add   Edition 7; December 1996
attachments and additional sheets whenever necessary.

C. Test Data
    Optometry Admission Test (OAT)   Range   __370__ High .   __290__ Low

    Graduate Management Admission Test (GMAT)   Range   __730__ High   __400__ Low

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Basic Institutional Data Form B
Part 4 - UNDERGRADUATE STUDENT FINANCIAL AID
(Report for last full fiscal year)

Name of institution/campus reported: University of Missouri-St. Louis

SOURCE OF FUNDING		TOTAL $ AMOUNT	NO. OF STUDENTS AIDED
FEDERAL	Grants and Scholarships	3,405,849	2,698
	Loans	23,052,679	6,625
	Employment	155,191	92
STATE	Grants and Scholarships	590,469	401
	Loans	0	0
INSTITUTIONAL	Grants and Scholarships	4,258,110	1,604
	Loans	4,100	5
	Employment	1,465,384	452
FROM OTHER SOURCES	Grants and Scholarships	2,013,221	867
	Loans		
Unduplicated number of undergraduate students aided		1,825	
Number of students receiving institutional athletic assistance		128	
Percentage of institutional aid for athletic assistance		‹1%	

Part 5 - GRADUATE AND PROFESSIONAL STUDENT FINANCIAL AID
(Report for last full fiscal year)

SOURCE OF FUNDING		TOTAL $ AMOUNT	NO. OF STUDENTS AIDED
FEDERAL	Grants and Scholarships	0	0
	Loans	6,646,523	1,196
	Employment	43,698	25
STATE	Grants and Scholarships	0	0
	Loans	0	0
INSTITUTIONAL	Grants and Scholarships	1,494,259	709
	Loans	23,100	13
	Employment	2,005,852	243
FROM OTHER SOURCES	Grants and Scholarships	613,171	299
	Loans		
Unduplicated number of undergraduate students aided		1147 Graduate	

Prepare separate reports for each campus. Please add
attachments and additional sheets wherever necessary.

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Basic Institutional Data Form C
Part 1 - FULL-TIME INSTRUCTIONAL STAFF AND FACULTY INFORMATION

Name of institution/campus reported: University of Missouri – St. Louis

Specify quarter/semester reported: 1997 Fall Semester

Include only personnel with professional status who are primarily assigned to resident instruction and departmental or organized research. Exclude all nonprofessional personnel and those professional personnel whose primary function is not residential instruction, departmental research or organized research.

	Distribution by Sex		Distribution by Race						Distribution by Age Range			
	Male	Female	White	Black	Hispanic	Asian	Native Am.	Other	20-35	35-50	50-65	65-over
Professor	93	23	110	3	1	2				35	72	9
Associate Professor	84	57	121	8	2	9	1		1	75	61	4
Assistant Professor	52	57	79	20		10			19	61	28	1
Instructor	4	8	11	1					1	6	5	
Teaching Assistants & other teaching personnel												
Research staff & Research Assistants	included	in above	counts									
Undesignated rank	49	86	118	3	4	9	1					
Number of instructional staff added for current academic year (1)	24	25	41	2	1	4	1					
Number of instructional staff employed in previous academic year, but not reemployed for current academic year (2)	26	22	38	2	1	6	1					

Prepare separate reports for each campus. Please add attachments and additional sheets wherever necessary.

(1) Of these 49, five are administrators who returned to their faculty positions.
(2) Of these 48, six are faculty who currently hold administrative positions.

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Basic Institutional Data Form C
Part 1 continued- FULL-TIME INSTRUCTIONAL STAFF AND FACULTY INFORMATION

Name of institution/campus reported: University of Missouri – St. Louis

Specify quarter/semester reported: 1997 Fall Semester

Include only personnel with professional status who are primarily assigned to **resident instruction and departmental or organized research**. Exclude all nonprofessional personnel and those professional personnel whose primary function is not residential instruction, departmental research or organized research.

	HIGHEST DEGREE EARNED					
	Diploma, Certificate, or None	Associate	Bachelor's	Master's	Specialist	Doctoral
Professor				3		113
Associate Professor			1	7		133
Assistant Professor				24	1	84
Instructor				10		2
Teaching Assists. & other teaching peers						
Research staff & Research Assists.						
Undesignated rank	1		11	87	2	34
Number of instructional staff added for current academic year			3	13	2	31
Number of instructional staff employed in previous academic year, but not reemployed for current academic year			3	11		34

Part 2 - SALARIES OF FULL-TIME INSTRUCTIONAL STAFF AND FACULTY
(9-month)

	MEAN	RANGE	
		High	Low
Professor	68,819	137,055	14,050
Associate Professor	52,576	95,012	23,916
Assistant Professor	44,266	108,465	25,000
Instructor	39,844	62,650	32,364
Teaching Assists. & other teaching pers.			
Research staff and Research Assistants			
Undesignated rank	27,240	61,365	5,625

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Basic Institutional Data Form C
Part 3 - PART-TIME INSTRUCTIONAL STAFF AND FACULTY INFORMATION

Name of institution/campus reported: University of Missouri – St. Louis

Specify quarter/semester reported: 1997 Fall Semester

Include only personnel with professional status who are primarily assigned to resident instruction and departmental or organized research. Exclude all nonprofessional personnel and those professional personnel whose primary function is not residential instruction, departmental research or organized research.

	Distribution by Sex		Distribution by Race						Distribution by Age Range			
	Male	Female	White	Black	Hispanic	Asian	Native Am.	Other	20-35	35-50	50-65	65-over
Professor	11	1	11		1					1	6	5
Associate Professor	16	10	21	3		2				8	16	2
Assistant Professor	41	41	72	5	1	2	2		16	44	18	4
Instructor		5	5							3	2	
Teaching Assistants & other teaching personnel	86	89	120	11	13	30		1				
Research staff & Research Assistants	included in above counts											
Undesignated rank	170	229	341	44	4	10						
Number of instructional staff added for current academic year	162	193	283	37	9	23	2	1				
Number of instructional staff employed in previous academic year, but not reemployed for current academic year	153	151	248	21	10	23	2					

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Basic Institutional Data Form C
Part 3 continued- PART-TIME INSTRUCTIONAL STAFF AND FACULTY INFORMATION

Name of institution/campus reported: University of Missouri - St. Louis

Specify quarter/semester reported: 1997 Fall Semester

Include only personnel with professional status who are primarily assigned to resident instruction and departmental or organized research. Exclude all nonprofessional personnel and those professional personnel whose primary function is not residential instruction, departmental research or organized research.

	HIGHEST DEGREE EARNED					
	Diploma, Certificate, or None	Associate	Bachelor's	Master's	Specialist	Doctoral
Professor			1			11
Associate Professor				5		21
Assistant Professor			1	16		65
Instructor				5		
Teaching Assists. & other teaching peers	7	1	87	71	1	8
Research staff & Research Assists.						
Undesignated rank	53	14	98	202	12	20
Number of instructional staff added for current academic year	47	14	97	146	3	48
Number of instructional staff employed in previous academic year, but not reemployed for current academic year	37	4	84	114	6	59

Part 2.- SALARIES OF PART-TIME INSTRUCTIONAL STAFF AND FACULTY

	MEAN	RANGE	
		High	Low
Professor	15,741	38,110	8,000
Associate Professor	16,318	66,384	3,547
Assistant Professor	9,872	54,105	960
Instructor	12,060	14,700	7,500
Teaching Assists. & other teaching pers.	11,955	18,000	900
Research staff and Research Assistants			
Undesignated rank	8,737	41,600	565

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Basic Institutional Data Form D

LIBRARY/LEARNING RESOURCE CENTER

Report for current year and previous two years - Estimate if necessary (identify estimates)

Name of institution/site reported: __University of Missouri – St. Louis__

Do you have specialized libraries not included in this data. Yes ___ No _X_   If you do, please identify these specialized libraries or collections on a separate page.

	Two Years Prior	One Year Prior	Current Year
	19 _95_ - _96_	19 _96_ - _97_	19 _97_ - _98_
A. USE AND SERVICE			
Total use of the collection (number of books or other materials circulated annually)	211,389	210,529	196,315
Total circulation to students	170,329	169,251	155,323
Per capita student use (circulation to students divided by the number of enrolled students)	10.66	10.51	9.97
Total circulation to faculty	29,765	26,657	29,387
Per capita faculty use (circulation to faculty divided by number of FTE faculty)	47.85	45.62	44.34
Total circulation to Community Users	3,423	3,133	3,054
Number of items borrowed from other libraries via interlibrary loan	9,539	10,078	10,237
Number of items lent to other libraries via interlibrary loan	12,662	11,865	11,070
Hours open per week	85.5	85.5	85.5
On-line electronic database searches (usually mediated by library staff)	47	38	70
Total Library staff presentations to groups/classes	262	289	263
Tours and one-time presentations	N/A	N/A	N/A
Hands-on instruction for using electronic databases	N/A	N/A	N/A
Hands-on instruction for Internet searching	N/A	N/A	N/A
Semester-length bibliographical instruction	N/A	N/A	N/A
B. COLLECTIONS			
Total number of different titles in collection	414,012	421,967	681,285**
Books and other printed materials	625,249	639,544	953,782***
Print serials/periodicals	5,828	5,820	5,836
Electronic serials/periodicals	3,352	3,356	3,360
Other electronic materials (except serials/periodicals)	1,996	2,494	3,063
Microforms	1,949,046*	1,989,600*	2,030,893*

Prepare separate reports for each campus. Please add attachments and additional sheets wherever necessary.   Edition 7; December 1996

*   Includes government documents in microform

**   Includes 250,000 titles in St. Louis Mercantile Library

*** Includes 300,000 volumes in St. Louis Mercantile Library

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Basic Institutional Data Form D

LIBRARY/LEARNING RESOURCE CENTER (continued)

Name of institution/site reported: ___University of Missouri – St. Louis___

	Two Years Prior 19 _95_ - _96_	One Year Prior 19 _96_ - _97_	Current Year 19 _97_ - _98_
B. COLLECTIONS (Continued)			
Non-print materials (e.g. films, tapes, CDs)	965	1,076	3,602
Government documents not reported elsewhere	371,077	380,853	388,836
Computer software	N/A	N/A	N/A
Number of subscribed/purchased electronic on-line databases	55	60	83
Number of CD-ROM databases available for searches by students	629	690	768
Number of subscriptions to scholarly journals	2,899	2,890	2,912
C. STAFF (1 FTE Staff = 35-40 hours per week)			
Number of FTE professional staff	23	23	23
Number of FTE non-professional staff	32.5	32.5	32.5
Number of FTE student staff	14.3	14.5	19.3
Number of other FTE staff (please explain on attached sheet)	0	0	0
D. FACILITIES			
Seating ratio (number of seats divided by student headcount enrollment)	.07	.07	.06t
Number of publicly accessible computers	34	34	34
Estimated linear shelving space remaining for expansion	N/A	N/A	N/A
Estimated linear feet of materials stored off-site	5,180	5,263	4,822
E. EXPENDITURES			
For staff (exclude fringe benefits):			
Total professional staff salaries	746,448	768,625	813,363
Total non-professional staff salaries	503,454	513,367	545,755
Total student staff salaries	143,621	151,353	225,293
For collection			
Books/other printed materials	231,313	270,093	221,583
Print serials/periodicals	939,620	1,072,108	1,113,885
Microfilms	53,235	55,097	60,085
Non-print materials (e.g., films, tapes, CDs)	69,612	54,448	62,513
Government documents not reported elsewhere	0	0	0
Computer software	N/A	N/A	N/A

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Basic Institutional Data Form D

LIBRARY/LEARNING RESOURCE CENTER (continued)

Name of institution/site reported: University of Missouri – St. Louis

	Two Years Prior 19 _95_ - _96_	One Year Prior 19 _96_ - _97_	Current Year 19 _97_ - _98_
E. EXPENDITURES (Continued)			
Access and other services	47,126	82,066	50,738
Interlibrary loan	9,427	10,056	9,673
On-line database searches	3,881	2,775	510
Network membership	6,878	7,874	8,025
Binding, preservation, and restoration	25,215	36,293	29,301
Production of materials (on- or off-site)	0	0	0
Other equipment and furniture purchase/replacement	55,840	72,999	66,274
Other operating expenses (excluding capital outlay)	98,272	90,491	123,907
Total library expenses	2,993,942	3,187,440	3,332,907

F. OTHER	YES	NO
Output measures		
Does the library attempt to measure/record patron visits to the library?	X	
Does the library attempt to measure/record reference questions answered?	X	
Does the library attempt to measure/record user satisfaction?	X	
Does the library attempt to measure/record in-library use of other resources?	X	
Agreements and policies		
Are there formal, written agreements to share library resources with other institutions?	X	
Are there formal, written consortial agreements for statewide or regional use of library materials?	X	
Are there formal, written agreements allowing the institution's students to use other institutions' libraries?	X	

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Basic Institutional Data Form E
INSTITUTIONAL COMPUTING RESOURCES
Report for Current Academic Year

Name of institution/site reported: University of Missouri - St. Louis

WorldWideWeb (WWW) URL address: http://www.umsl.edu/

A. ORGANIZATION, PLANNING, AND POLICIES (Please attach an organizational chart. Include names)	YES	NO
Designated administrator(s) for institutional computing?	X	
Designated administrator(s) for Administrative computing?	X	
Designated administrator(s) for Academic computing?	X	
Centralized computing services?	X	
Formal, written, and approved technology plan?	X	
Technology plan linked to institutional mission and purposes?	X	
Computing resources included in institutional strategic plan?	X	
Policies on the purchase, replacement, and repair of hardware?	X	
Policies on the purchase and updating of software?	X	
Institutional computing responsible/ethical use policy?	X	
Institutional policies that include institutional computer issues?	X	
Institutional policies that include administrative computing issues?	X	
Institutional policies that include academic computing issues?	X	
B. FACILITIES		
Institutional network backbone?	X	
Computer labs networked?	X	
Classrooms functionally networked?	X	
Multi-media computers in labs?	X	
Administrative offices networked?	X	
Academic offices networked?	X	
Residence halls wired?	X	

Number of non-networked computer labs   0   Total number of stations   0

Number of networked labs   9   Total number of stations   400

Type of access?
Wired through network   0   Wired Ports   400   Remote dial-up access   0

Personal computers   0   Internet   400   Slip/ppp connection to WWW   0

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Basic Institutional Data Form E - Continued

C. FUNCTIONS: ADMINISTRATIVE (Place checks where appropriate)

	Access Available To					Via	
	Students	Faculty	Staff	Administrators	Public	Direct Access	Remote Access Modem WWW
College Activity Calendar	X	X	X	X	X	X	X
College Catalog							
Class Schedule	X	X	X	X	X	X	X
Financial Aid	X	X	X	X	X	X	X
On-line registration	X					X	
Student Academic Record		X	X	X		X	

E-mail: Intra-institution? ___ Yes ___ No   Inter-institution?   ___ Yes ___ No

D. FUNCTIONS: ACADEMIC	YES	NO
Computers in all full-time faculty offices?	X	
Computers in full-time faculty offices networked?	X	
All part-time faculty have access to computers?		X
All divisional/departmental offices networked?	X	
All students required to have computers?		X
Internet access available from all faculty offices?	X	
Library access available from all faculty offices?	X	
If YES, is access available to the institutions library(ies)?	X	
If YES, is access available to the state-wide or region-wide library system?	X	
If YES, is access available to other libraries?	X	
Library access available from all classrooms? ·	X	
Computers integrated into instruction?	X	
Off-campus access?	X	
If YES, is off-campus access available by the institutional network?		X
If YES, is off-campus access available by the academic network?		X
If YES, is off-campus access available by the Internet?	X	
If NO, plans to provide off-campus access within three years?		
Courses on Internet?	X	
Interactive courses in real-time (i.e., 2-way video and voice?)	X	

E-mail: Intra-institution? (Yes) No   Inter-institution?   (Yes) No

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Basic Institutional Data Form E - Continued

E. SUPPORT and TRAINING

Number of FTE technical staff? 31   Number of programmers? 9

Number of FTE training staff? 4   Integrated with Human Resources unit (Y/N) Yes

Name and Title of designated educational specialist?

    Dr. Lawrence Pickett

    Assistant Director

F. FINANCES/BUDGET for COMPUTING (Current Fiscal Year)

Total Annual Academic Outlay, Operating Funds: $2,088,000

Total Annual Administrative Outlay, Operating Funds: $1,237,000

Capital funds available: Academic 0

Capital funds available: Administrative 0

Amount of grants/restricted purpose funds available: 0

Technology fee assessed? (Y/N)

    If YES, amount per academic year?   Yes $8.00 per credit hour

G. EVALUATION	YES	NO
Formal system of evaluation by students of academic computing?	X	
Formal system of evaluation by students of administrative computing?	X	
Formal system of evaluation by faculty of academic computing?	X	
Formal system of evaluation by faculty of administrative computing?	X	
Systems of evaluation linked to plan to evaluate overall institutional effectiveness?	X	
Results of evaluation linked to institutional planning and budgeting processes?	X	

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Basic Institutional Data Form F
CERTIFICATE, DIPLOMA AND DEGREE PROGRAMS
Previous Three Years

Name of institution/site reported: _____University of Missouri – St. Louis_____

Certificates, diplomas and degrees offered by the institution; curricula or areas of concentration leading to each certificate, diploma and/or degree; number of students graduated in the past three years. Include all fields or subjects in which a curriculum is offered. If degree programs were not in effect during one or more of the years, please so indicate. The report form may be duplicated if additional space is needed.

CERTIFICATE, DIPLOMA OR DEGREE	CURRICULUM OR MAJOR	GRADUATES IN PROGRAM		
		1995 - 1996	1996 – 1997	1997 - 1998
BA	Anthropology	3	11	16
BA	Art History	7	5	6
BFA	Studio Art (1)	0	0	6
BA, BS	Biology	57	63	63
MS		28	20	28
PHD		2	4	3
GR CT	Biotechnology (2)	0	7	9
GR CT	Tropical Biology & Conservation (2)	0	5	3
BA, BS	Chemistry	20	23	13
MS		14	9	7
PHD		4	7	7
BA	Communication	97	122	102
BS	Criminology and Criminal Justice	109	106	84
MA		12	14	28
PHD (1)		0	0	0
BA, BS	Economics	22	15	17
MA		7	8	8
BA	English	34	40	52
MA		12	7	9
MFA	Creative Writing (3)	0	0	4

(1) added 1/95   (2) added 12/95   (3) added 12/96

CERTIFICATE, DIPLOMA OR DEGREE	CURRICULUM OR MAJOR	GRADUATES IN PROGRAM		
		1995 - 1996	1996 – 1997	1997 – 1998
BA	French	3	4	2
BA	German	0	7	2
BA	Spanish	6	11	10
BA	History	13	24	20
MA		11	6	6
BS	Applied Mathematics	2	7	2
BS	Computer Science	27	24	24
BA	Mathematics	7	8	6
MA		4	4	3
BA, BM	Music	3	2	3
BM	Music Education	3	7	7
MMB (1)		0	0	6
BA	Philosophy	9	7	8
BA, BS	Physics	6	4	3
MS		2	2	5
PHD		0	2	0
BA	Political Science	27	29	26
MA		8	9	6
PHD		3	3	4
BSPA	Public Administration	5	3	5
BA	Psychology	95	84	109
MA		11	13	10
PHD		5	6	11
GR CT	Psych-Clinical Respecialization (2)	0	0	0
BSW	Social Work	57	50	64
BA, BS	Sociology	7	10	19
MA		2	0	3
MAcc	Accounting	17	9	6
BSAcc (3)		0	0	99
BSBA	Business Administration	445	418	304
MBA		53	63	52
MS	Management Information Systems	19	16	6

(1) added 1/95   (2) added 12/95   (3) added 12/96

CERTIFICATE, DIPLOMA OR DEGREE	CURRICULUM OR MAJOR	GRADUATES IN PROGRAM		
		1995 – 1996	1996 – 1997	1997 – 1998
GR CT	Taxation	0	2	1
GR CT	Human Resource Management	0	1	1
GR CT	Marketing Management	0	1	0
EDD	Education	10	7	9
BSED	Secondary Education	59	52	56
MED		44	48	43 .
MED	Educational Administration	60	74	75
BSED	Early Childhood Education	23	26	26
BSED	Elementary Education	132	178	148
MED		74	67	56
BSED	Physical Education	15	17	17
BSED	Special Education	78	74	89
MED		38	40	28
MED	Counseling	121	121	96
BSN	Nursing	109	114	112
BSN	Nursing	31	34	32
MSN		39	106	46
OD	Optometry	41	37	38
MS	Physiological Optics	3	1	0
PHD		1	0	0
MPPA	Public Policy Administration	11	3	7
GR CT		0	0	1
GR CT	Gerontology (2)	0	6	5
MS		6	6	1
GR CT	International Studies (2)	0	1	0
GR CT	Women's Studies (2)	0	2	0
BGS	General Studies	74	88	95
BSCE	Civil Engineering	0	0	2
BSEE	Electrical Engineering	2	3	11
BSEE	Mechanical Engineering	0	3	1

(1) added 1/95   (2) added 12/95   (3) added 12/96

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Basic Institutional Data Form G

INTERCOLLEGIATE ATHLETICS

Name of institution/campus reported: **University of Missouri – St. Louis**

Intercollegiate athletic programs (as opposed to intramural and/or physical education programs) involve: a) formal agreements (association, league) to compete with other institutions; b) student athletes identified as members of a particular team; and c) professional staff.

Provide the name(s) of the intercollegiate athletic associations in which the institution holds membership and the level of membership:

NCAA Division II – Great Lakes Valley Conference

FOR MOST RECENT ACADEMIC YEAR (1997-1998)											
NAME OF SPORT	# OF STUDENTS PARTICIPATING IN INTERCOLLEGIATE ATHLETIC PROGRAMS		NUMBER OF ATHLETIC SCHOLARSHIPS		MEAN AMOUNT OF SCHOLARSHIP		NUMBER OF SCHOLARSHIP STUDENTS COMPLETING DEGREE		NUMBER OF STAFF (Use FTE)		OPERATING BUDGET FOR INTERCOLLEGIATE ATHLETIC PROGRAMS (list current last year)		
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	1996-97	1997-98	1998-99
Baseball	35		24		1043		1		1.3		1.57M	1.83M	1.95M
Basketball	20	17	16	14	6965	5296	2.5*	0	1.75	1.0			
Golf	6	n/a	4		1825	n/a	0	n/a	.2	n/a			
Soccer	27	19	19	18	1767	2291	3	4	.4	1.1			
Tennis	8	Rebuild year	8		751		5**		.2				
Volleyball		11		10		3333		1		.7			
Softball		21		18		1675		0		.4			

Prepare separate reports for each campus.   Please add attachments and additional sheets wherever necessary.   Edition 7; December 1996

*Brian Erik Rotegard received scholarships from men's basketball and tennis.
**Although non-varsity women's tennis team in FY97-98, one $500 athletic grant was awarded.