

FY 2002-2003 General Fund Operating Budget

July 18, 2002

Introduction

The budget that we present here is designed to provide continued momentum for the major initiatives of the past several years and to assure that the University is well positioned to respond to emerging opportunities and challenges. Under this budget the bulk of the incremental resources flow to the University's core academic missions, assuring that we can maintain the quality of our academic programs in what is overall a fairly tight year.

For the four years that ended in Fiscal Year 2001, a succession of relatively generous State appropriations increases permitted a welcome succession of unusually small increases in tuition rates. The continuing partnership between the State and the University is well summarized in the chart labeled Exhibit 1, which shows rates of tuition increase for resident undergraduates in LS&A and rates of increase in the State appropriation since Fiscal Year 1986-87. Two features of the chart are striking: (1) There is an obvious systematic relationship between growth in the State appropriation and tuition growth. Over any contiguous set of years, when the State appropriation grows rapidly, tuition growth is relatively restrained, and vice versa.⁽²⁾ The period between FY97 and FY01 shows much lower tuition growth than the preceding ten years, and FY02 and the proposed rate of increase for FY03 are still relatively low in comparison to much of the 1980s and the early 1990s. The record of the most recent period is one of which University administration, the State, and this Board of Regents can be justifiably proud.

As was the case last year, the tuition increase proposed in this budget is entirely consistent with the overall pattern shown in the chart. Unfortunately, due to economic and fiscal exigencies, the enacted State appropriation for FY03 provides no increase in funding for universities. This University and higher education in general have been spared widespread cuts in State public expenditure, and in this regard we have fared better than most of the major public universities in the country. This is our lowest increase in the State appropriation since FY94, which was also zero, but given the State's circumstances we recognize how fortunate we are to simply have a flat year-to-year appropriation. The constraints imposed by the flat State appropriation, coupled with rapid growth—much higher than inflation—in costs in a variety of areas, lead us to propose a tuition rate increase of 7.9% for undergraduate programs.⁽¹⁾ The proposed increase amounts to between \$272 and \$290 per semester for resident lower-division undergraduates. An increase of 7.9% in tuition rates is high relative to recent history, but it is low relative to our public peers and low relative to other universities in the State. The tuition rate increase that we are proposing is the lowest of any public institution in the Big 10 and the second-lowest in the State. Under the proposals made in this budget, for the four-year period ending in FY 2003, our overall rate of undergraduate tuition growth would be the lowest in both the Big 10 and the State.

The tuition rates recommended in this budget for graduate and professional programs reflect the wide variation in circumstances faced by our diverse units. Tuition rates for most graduate programs are increasing by 5.8%, with a range of 3% to 9.9%. The full set of recommended rates is included in the separate Action Item on Tuition Rates.

At the same time that we seek approval from the Board for these tuition increases, we are making substantial internal reallocations in order to maintain the strength of our faculty and sustain momentum in the key areas of life sciences, undergraduate education, distinguished scholarship and research, and the use and understanding of new information technologies. Our overall level of activity continues to rise as well. Continuing a long trend, in FY03 we expect to teach more students and engage in more sponsored research than ever before.

Finally, it is worth noting that the budget proposal made here calls for an increase in the General Fund of 5.5%, compared to 6.3% last year, and that this attenuation in the rate of growth takes place in the context of a slight increase in the rate of inflation.

Maintaining Momentum and Continuity

This budget, like its immediate predecessors, supports commitments in four broad areas of continuing priority, each of which is connected to the others. Three of these—the Life Sciences Initiative, the Undergraduate Experience, and the Information Revolution—have been the subjects of Presidential special commissions. The fourth—maintaining our excellence in research and scholarship—is a prerequisite for everything that a great university does. It requires, above all, a faculty that is no less than superb. In the context of a difficult budget year, maintaining momentum in these areas is especially challenging, yet we cannot afford to back away.

The Life Sciences. Construction projects associated with the Life Sciences Initiative are easy to see—the bend in the road where Washtenaw becomes Huron provides a view of four major projects in the Life Sciences, including the Life Sciences Institute Building and the Medical School's Biological Sciences Research Building. A set of team-taught, interdisciplinary undergraduate courses in the life sciences were first offered last year, and the responses of the 207 students who took them were enthusiastic. The Life Sciences Initiative extends beyond the Medical School and the science departments in LS&A, those units most typically associated with this area, to many of our schools and colleges.

For instance, the College of Engineering's Department of Biomedical Engineering research programs include new areas such as biofluid mechanics and microfluidics, BioMEMS, biologic micro- and nanotechnology, biomaterials, tissue engineering and biomedical applications of ultrafast optics in addition to traditional strengths in biomechanics and biomedical imaging.

Our top-ranked School of Social Work is developing a strong program on social work in the life sciences to incorporate significant and distinctive contributions necessary for effective translation of scientific discoveries to the public, including ethics, inclusion of disadvantaged populations, and socioeconomic barriers to health care. Their work will enhance campus-wide inquiry in the research areas of adult development, chronic disease, and aging; health policy; and health services and outcomes investigation, focusing in particular on genetics and cognitive neuroscience.

In addition, plans made last year to strengthen the new LS&A departments of Molecular, Cellular and Developmental Biology and Ecology and Evolutionary Biology—essential disciplinary components of a strong life sciences program—are on track, and both departments are recruiting new faculty and adding to their programs.

As the Life Sciences Institute prepares to open its doors in Fall 2003, recruitment efforts are zeroing in on a core of faculty to initiate its multi-disciplinary research focus. Key faculty are being recruited in collaboration with the College of Engineering, the College of Literature, Science, and the Arts, the College of Pharmacy, the Medical School, and others.

Our considerable investments in the Michigan Life Science Corridor are already bearing tangible fruit. In the first series of competitive research grants awarded under the auspices of the Corridor, seven grants totaling \$15.3 million were obtained by faculty at the University of Michigan. UM also serves as the host institution for the Core Technology Alliance management activities and for two of the five major core technology centers, the Michigan Center for Proteomics, and the Michigan Center for Biological Information.

The Undergraduate Experience. Improving the undergraduate environment and extending the boundaries of the traditional classroom have been at the center of our programmatic initiatives for each of the past five years. During the past year we convened a group of faculty and administrators to develop plans for implementing recommendations contained in the Report of the President's Commission on the Undergraduate Experience, which was released early in the academic year. The report is both the continuation of a trend and a call to accelerate our objective of engaging undergraduates with the unique strengths of a great public research university, including the ability to learn through community service.

We have many enhancements to the undergraduate experience in progress or in the planning stages. And we should not lose sight of the many ongoing activities that bring the distinctive strengths of a great public research university to the lives and learning of undergraduates. We often cite the Undergraduate Research Opportunities Program, which involves 1,000 students every year, but many other notable programs exist as well.

The University has made a sustained commitment to diversity in academic programs that seek to foster an ethos of inclusion for all students and to provide all students with the educational benefits of multicultural engagement. Thus, the program on Intergroup Relations, Conflict, and Community (IGRCC) offers First-Year Seminars, intergroup dialogues, and residence-hall workshops that integrate social analysis, structured conversation, and residential community-building to explore identity and difference on a diverse campus.

The Health Sciences Scholars Program, one of several academically themed residential programs in the Michigan Learning Communities, offers a broad perspective on the most pressing issues facing health care professionals from many disciplines as they promote, manage, deliver, sustain, and improve health in a variety of contexts. This program had its pilot year in Fall 2001 with 90 students.

During the summer of 2002, the Global Intercultural Experience for Undergraduates Program sent 25 undergraduates and 6 faculty members to exciting locations in the U.S. and around the world for two to four weeks of engaging intercultural academic studies.

The Arts of Citizenship Program fosters the role of the arts, humanities, and design in civic life through cultural projects with community partners. Michigan undergraduates take part in these projects through University Course 312/313, "Community Projects In the Arts and Humanities." In 2000-2001, course project teams helped write a play about coming of age in the 1940s in Detroit; created a traveling exhibit on the history of the Underground Railroad; led dance workshops in Detroit community centers; and taught poetry, environmental studies, and local history to third- and fourth-graders in Ann Arbor.

Arts at Michigan exists to inspire and enable students at the University of Michigan to develop a commitment to the value of the arts in their lives. These units serves as an umbrella organization and arts clearinghouse by channeling arts opportunities to students, both in and outside the classroom; supporting the activities of student arts organizations; representing student needs in the arts; and promoting student-targeted programming by University and community partners. Arts at Michigan also promotes collaboration with and among University and community arts organizations in order to enhance student access, learning, and enjoyment of the arts.

At its best, the University offers undergraduates an exhilarating array of intellectual and social opportunities. Students can work with some of the world's leading scholars and explore almost every conceivable human activity in their work and play. The very scale of the University—as it is encountered, for instance, in the Graduate Library, Hill Auditorium, or Michigan Stadium—offers students an embodiment of the grandeur of the educational mission itself.

The Second Chapter of Change: Renewing Undergraduate Education at the University of Michigan Report of the President's Commission on the Undergraduate Experience

Information Technology. Information technology appears in almost every part of this document. It will come as no surprise that it is an area where rapidly increasing use leads pervasively to costs that rise more rapidly than the general rate of inflation. There is no alternative to embracing the new information technologies and to using them throughout the academic enterprise. Our students, our faculty, and the evolution of human knowledge itself require that we do so.

The Report of the President's Information Revolution Commission was released in the spring of 2001. It contains a number of themes for the University's engagement with changes in information technology and its use, and many of these have substantial budget implications that will continue into the future. The report begins by documenting the essential fact that information is the foundation of knowledge and hence is at the heart of a university's mission: the generation, preservation, dissemination and application of knowledge.

Much of what we have accomplished in the past year, and much of what we continue to work on, is investment in infrastructure, broadly construed. The investments include a multi-million dollar upgrading of the University's computing backbone (with millions more spent in the College of Engineering, the Library, and elsewhere), as well as the nearly-invisible and essential work of keeping the organizational and technical infrastructure in line with technological changes, all in a decentralized environment.

This budget also contains funds that are provided to the schools and colleges to cover the increased operating costs of the improved backbone. An additional information technology infrastructure expansion is represented by an allocation of funding for the first steps leading to the replacement of Mirlyn, the Library's catalog management system.

Retaining Faculty and Maintaining Scholarly Excellence. The quality of our faculty and their work can be documented in many ways, including the extraordinary growth in the research that they undertake, and the extraordinary efforts that other institutions make to bid them away. Research expenditures are estimated to be \$655 million in FY02, a growth of almost 11% over FY 01, with Indirect Cost Recovery growing by more than 10%. The volume of research will continue to grow in FY03.

We continue to face severe competitive pressure on the wages and working environments of faculty. Salaries of continuing faculty nationwide rose by 5% last year (according to the Chronicle of Higher Education) and salaries at the best universities have been rising even more sharply. At the University of Michigan, continuing faculty salaries rose by an average of 5.2% during FY02, implying that we are at best keeping up with the competition even while we are slightly ahead of the average of all higher education institutions. This has been the pattern for the past several years; our faculty salary increases have been a priority each year and each year we implement programs designed to do more than just keep pace. Yet when national data are released, we find that our rate of increase is approximately the same as the national averages and somewhat below the best of the private institutions. Thus, it is not surprising that our deans repeatedly tell us that their highest priority for incremental funds is to shore up the salaries of those faculty most vulnerable to outside offers.

We also face increasing competition for improved facilities, especially in the sciences. It is not uncommon for universities to provide newly-recruited scientists with laboratory equipment and renovations costing a million dollars and more. These facilities are essential to effective research in the sciences, and are essential to the development of the kinds of research programs that attract major external support. If Michigan is to maintain and improve the quality of its faculty and programs in the sciences, we must provide the level of facilities that are being provided elsewhere. If we fail to do so, we will miss out on the leading research of the future, with its benefits for our students, our State, and society at large. Our commitment to the sciences, which is driven by a powerful vision of the best possible University of Michigan in the future, will demand continuing upgrades in facilities.

Continuing Budgetary Pressures

That faculty salaries grow faster than the rate of inflation is no surprise. We also face a number of other costs that tend to grow relatively rapidly, placing a continuing strain on our ability to contain costs and restrain tuition.

Benefits. Total benefits costs for faculty, staff and retirees charged to the General Fund will grow by over \$10 million between FY02 and FY03. The principal cost driver is medical care, which is growing at double-digit rates, in part because of extremely rapid growth in prescription drug costs. Some time ago, the Provost and the Chief Financial Officer appointed a University-wide working group to consider broad options that could lead to better control over rising prescription drug costs. As a result of that effort, in the coming year the University is restructuring the management of its pharmacy benefits in the expectation that we will be able to slow the increase in costs. However, slowing the increase in costs is the best that can be done in an environment of double-digit inflation. Similarly, our continuing efforts at containment of the growth of health insurance premiums for our faculty and staff can at best slow the rate of increase.

Administrative Information Systems. This budget contains a \$2 million increase for Michigan Administrative Information Services (MAIS). Today's integrated data management systems provide great power and flexibility, but cost more to operate than their less complicated predecessors. Complementary with the increased capacity that comes with the new technology are a variety of efforts to exploit that capacity through ongoing changes in business processes. The benefits of these changes are highly diffused, while the costs of the technology are painfully visible. We note that our experience has been typical of what others have encountered in both higher education and the corporate sector. New and sophisticated management information systems both do more than their predecessors and cost more to operate.

Changes in Student Mix. As a general matter, tuition revenues change from year to year, even if tuition rates are held constant, because of changes in the numbers and mix of students. When the number of students rises (as it has been, slowly but steadily for some time), or when programs in which students enroll move to a higher cost mix, both revenues and the costs associated with instruction rise in tandem. The new Executive MBA program that is admitting its second cohort this year is a good example. The program brings in revenues that cover the incremental costs of providing it, and in that sense does not belong in a list of budgetary challenges. However, the program's structure is such that the substantial tuition revenue that the new cohort will generate—nearly \$3 million in the coming fiscal year—greatly overstates its effect on the University's fiscal health. In evaluating this budget for the University as a whole, the incremental revenue from the Executive MBA program must be netted against the incremental cost. University-wide, the change in the volume and mix of programs in the FY03 budget relative to FY02 accounts for nearly \$14 million of the projected increase in tuition revenue.

Insurance Premiums. Insurance premiums for liability and property coverage have increased markedly in recent years, but particularly in response to last year's terrorist attacks in the United States. Over the past three years, our property insurance premiums alone have increased by 118%. The General Fund budget for liability and property insurance premiums is increasing this year by \$1.4 million, to a total of \$7.5 million.

Physical Infrastructure. Facilities upgrades in the sciences are but one instance of a more general set of cost pressures arising from the need for facilities renewal. Our campus is large and old, and every year we engage in major maintenance projects that are necessary to keep the physical structures safe and productive. Although a good deal of our infrastructure maintenance is undertaken in conjunction with major renovations, such as those of the Rackham Building and Hill Auditorium, we still need substantial recurring resources for maintenance and renovation. We have been adding to those resources and we must continue to do so. This year's budget contains a new funding line of \$2million to begin a program of replacement and renewal of chillers across the campus, and it also contains an addition of \$1million for debt service that will be incurred in connection with renovation and building projects, bringing the total General Fund budget earmarked for debt service to \$16.3 million.

Conservation and Innovation. We are often asked why higher education as a sector seems to find it so difficult to reduce costs. One reason is that higher education is highly labor-intensive, with the result that it cannot take full advantage of productivity-enhancing innovations to the same degree as the economy as a whole. Another reason that costs in higher education tend to rise more rapidly than consumer price inflation is that we must engage in material programmatic enhancements in order to keep up with a changing world. In many areas of human endeavor, this would present no special problem—one would stop doing the old thing and use the resources to support the new activities. In the University, this is not so simple because of our essential role as a conservator. For example, even as we digitize parts of library collections, making them available more widely and permitting research that uses them in ways that were not possible before, we must still provide archives of original materials. The result is an increase in output coupled with an increase in costs.

General Fund Growth and Internal Reallocation

This budget projects overall growth in the General Fund of 5.5%, or \$57.7 million. The major components of the General Fund are tuition, the State appropriation, and recovery of indirect costs (ICR) on sponsored research projects. To the extent the growth in the General Fund derives from changes in the numbers and mix of students and increased sponsored research, costs rise with the revenues, and the additional revenue is generally not available either for program enhancements or to meet the budgetary challenges discussed above. When we subtract revenue growth due to enrollment increases, changes in the enrollment mix, and increases in research activity in the FY02 budget, we are left with an increase in the General Fund of \$38.6 million, or 3.8%. The first claim on this increased revenue is financial aid. Unique among public institutions in Michigan, we guarantee a level of financial aid such that the demonstrated need of all resident undergraduates is fully met. Thus, our financial aid budget grows at the same rate as tuition rates so that we can fulfill that promise.

Subtracting the budgeted financial aid increase leaves \$33.8 million. Benefits cost increases reduce the incremental resources available to \$23.2 million. Reduced natural gas prices lead to a savings of \$4.4m, increasing the available incremental resources to \$27.6 million. This residual amount is nearly \$10 million less than what will be required to mount minimally competitive faculty and staff salary programs, cover the increased costs of library acquisitions, allow for a modest increase in resources for startups in the sciences, cover increased insurance costs, meet the other challenges we have discussed above, and cover general inflationary increases on the rest of our expenditures. We know that we must do all of these things and more in order to maintain momentum in our highest priority areas. Thus, the General Fund increase proposed in this budget falls far short of providing for incremental expenditures to which we are firmly committed.

It follows that the principal source that will make up the difference is reallocation away from existing activities. In short, notwithstanding our commitments to preservation and conservation, and the cost drivers that we have discussed above, we will support our most essential activities by substituting away from less essential ones. For most of the 1990s, substitution of this kind has provided the margin that has allowed us to innovate. This year and last, it merely allows us to maintain our current momentum.

Cost Reductions and Other Sources of Revenue

Some of the ways in which we are finding resources to cover our highest priorities are large and easily visible, some are less so. Here are but a few examples of the dozens reported when our units were asked what actions they were taking to reduce the costs of operations.

- We have required that administrative units mount their salary programs and cover inflationary cost increases with budget increases of one percent or less—well below the increased costs that they face.
- Many of our schools and colleges have frozen searches for faculty and staff positions.
- Many of our schools and colleges are filling vacancies at the senior level with junior faculty instead.
- Engineering, Taubman College, the Ford School, Pharmacy, and LS&A have reduced staff positions by not replacing retiring staff.
- Many units have cut down on travel, photocopying, hosting expenditures and the like.
- Law, Engineering, LS&A and others report that they are using our new administrative information systems to obtain better management data for analysis and reporting. This increase in information available for decision-making is allowing them to identify areas with potential for cost savings and to make more targeted allocations.

- SNRE has streamlined its governance structure, saving \$36 thousand next year.
- The School of Music expects to save about \$35 thousand by better management of supplies.
- Many of our business service offices, such as Purchasing, M-Stores, Printing Services and copy centers have reduced operating expenses in response to a decline in service demands due to University units' constrained budgetary circumstances.
- The Purchasing Department continues to aggressively negotiate prime vendor contracts so that all units will realize savings on standard purchases. The agreements reached this year will result in a 15% reduction on the prices of office supplies next year; savings that benefit every unit on campus.
- Business and Finance did a careful study of the University's use of our motor vehicle pool and was able to cut 20 vehicles from the fleet without a negative impact on service. This will save about \$100 thousand per year.
- The hard copy press clipping process in the Office of the Vice President for Communications was converted to a database with web interface, providing better service to University units by establishing a searchable archive and saving about \$50 thousand per year.

The General Fund Budget Recommendation for FY 2002-03

Table 1 summarizes the General Fund Budget Recommendation for FY03. The table shows percentage changes in budgets for FY03 relative to FY02, and also the average annual rate of change for the three-year period ending in FY03. Generally, the three-year averages are a better indication of the priorities of the University, and better reflect the multi-year budgeting approach that we implement.

There is considerable variation in the rates of growth of general fund budgets in the academic units. In most cases, units that are growing rapidly (e.g., the School of Public Health, the School of Information, the Division of Kinesiology, the College of Engineering) are doing so because they are experiencing rapidly growing volumes of research or instruction or both. It is a feature of our budgeting system that General Fund resources wax and wane with the volume of activity. Of course, changes in activity bring with them changes in costs. For example, the substantial increase in budget for the School of Public Health derives in large part from increased Indirect Cost Recovery, and the added resources are essential to support the indirect costs of the research itself. Similarly, much of the growth in the College of Engineering budget is due to an increase in the number of students, and the new students bring with them new costs of instruction and other academic support activities.

As a general matter, this year's budget growth in all of our units is designed to (1) assure that the units can mount an adequate salary program for faculty and staff; (2) cover increased benefits costs; (3) make available the resources needed to cover changes in the activity levels of teaching and research; and (4) maintain momentum regarding the University's most essential priorities.

Notwithstanding the tightness of the budget, for the sixth year in a row, the growth in academic programs—where the teaching, research and service are accomplished—is greater than that in administrative expenditures. The focus on our core academic missions is especially important in a relatively tight year.

Conclusion—Stewardship

As noted at the outset, this is a budget organized principally around continuation of the progress that we have made in prior years, rather than new innovations. This budget was developed to articulate a vision of the modern public research university and the roles that it can play in the education of undergraduates, the development of knowledge, service to society, and, vitally, the powerful interactions among these activities.

Research, teaching, and service are all essential parts of this University's mission, and they are inextricably linked. Research develops new knowledge and new ways of knowing; it animates the faculty and graduate students, allowing us to bring the most current insights and knowledge to undergraduate education. The resulting quality of undergraduate education is only available at great research universities. Similarly, the breadth of our academic compass—our scale and scope—enable this University to bring to bear an astonishing diversity of knowledge and points of view. Our schools and colleges, our departments and disciplines, our students and faculty at all levels, have a tradition of working together in the service of learning and teaching. Our size and scale enable this interdisciplinary and collaborative work. Our traditions and institutions make Michigan a place where we can take maximum advantage, in formal programs and informal interactions, of what our size and scale make possible.

The value of higher education has never been greater. In straightforward economic terms, the return to a college education continues to grow and the return on the investment is at its highest levels since economists started making such calculations. Less tangibly, but at least as important, education is the key instrument for understanding, engaging with, and negotiating in an increasingly complicated and interesting world. The best universities, including the University of Michigan, return the greatest value, both economically and more generally.

We have identified in this document four essential areas in which we must continue to make progress. Each is vitally important. Each is an element of the stewardship of this remarkable institution that all of us—students, staff, faculty, administration, and the Board of Regents must share.

Footnote

1. The language of the State appropriation vigorously admonishes universities (with a penalty for failing to heed the admonition) to restrain tuition growth for resident undergraduates to 8.5 percent or \$425 per year, whichever is more.