# COMPACT
# THE UNIVERSITY OF TEXAS AT DALLAS
# 2004-05 and 2005-06

## I. Introduction: Institution Mission and Goals.

The mission of The University of Texas at Dallas is to provide Texas and the nation with the benefits of educational and research programs of the highest quality. These programs address the multi-dimensional needs of a dynamic, modern society driven by the development, diffusion, understanding and management of advanced technology.

The strategic intent of the university is to be a nationally recognized top-tier university sculpted within a model of focused excellence. The university emphasizes education and research in engineering, the sciences, technology and management while maintaining programs of focused excellence in other academic areas. Within the context of this mission, the goals of the university are as follows:

- To provide able, ambitious students with a high-quality, cost-effective education that combines the nurturing environment of a liberal arts college with the intellectual rigor and depth of a major research university.
- To discover new knowledge and to create new art that enriches civilization at large and contributes significantly to economic and social programs.
- To enhance the productivity of business and government with strategically designed, responsively executed programs of research, service and education.

The university intends to achieve these objectives by investing in excellent students and faculty, building upon its core programs, policies and operations and enhancing institutional character and excellence in education. The university is committed to enhancing the quality of its students' learning experiences and its employees' work environment. The university intends to expand and intensify partnerships relations with business, governmental and educational neighbors and actively pursue external support of and funding for the ambitious academic and service programs integral to its mission.

The university will serve its multiple constituencies (students, industry, and community) in an ethical, attentive and efficient manner with the highest standards of community service. The University of Texas at Dallas strives to set an example as a public higher education institution. When the public thinks of The University of Texas at Dallas, it is our desire to be recognized as one of Texas' premier universities and an excellent investment in the future of the state.

The University of Texas at Dallas' compact with the citizens of Texas is to sustain the course that has brought the university to the nationally emergent position that it now has. This pledge is made in the context that over 33 percent of the Texas gross state product is produced in the university's service area, and that the future economic viability of Texas hinges on the development of nationally prominent research oriented universities that can drive economic development and provide Texas' students with top-tier education—now essentially capped at UT

Austin and Texas A&M. The university's compact with the citizens is to seize our opportunities and overcome the challenges that face the university in the coming years.

## II. Major Ongoing Priorities and Initiatives

The University's strategy is to focus on the new knowledge bases that will drive the 21st century and the new Texas economy and provide students with an excellent education. The strategy is aligned with the needs of North Texas industry, the needs of the new Texas economy, and with demographic change in the university's service area. For the continued vibrancy of the emerging new economy, highly educated employees are required. Over its history, UTD has concentrated its resources to meet these requirements.

### 1. Reallocation of Existing Resources To Preserve Quality in Teaching and Research Programs

**Objective:** UTD's dominating priority for the next six months is to reallocate existing resources for FY 05 to attempt to minimize the continuing damage to our teaching and research programs that is occurring as a consequence of the10% reduction in the university's aggregate funding per weighted student credit hour (WSCH) from the last biennium to the present one. The university will need to extract maximum efficiency from academic and non-academic budgets.

**Strategies**: Examine and streamline curriculum and class scheduling without sacrificing student access and timely degree completion.
Increase the percentage of semester credit hours taught by tenured and tenure-track faculty by increasing the numbers of tenured and tenured track faculty and reducing the reliance on part-time lecturers.
Examine the totality of university activities to identify activities in all areas for reduction and reallocate funding to teaching and research.

**Resources**: There has been a massive resource shift from state, research funded and teaching formula funded appropriations to tuition and fees with the net result being a constriction of financial resources. At the same time, university enrollments and semester credit hour production are increasing, as are the research needs that are drivers of the new Texas economy. The financing reality is that significant resource reallocation must occur for at least the short term.

**Progress Measures**: With regard to the strategy of curriculum, two measures of progress will be the number of class offerings rescheduled and the volume of programmatic streamlining. In addition, we will measure the number of course offerings reduced while maintaining course quality, enrollments, and student quality. We will measure the percentage of semester credit hours generated by tenured and tenure-track faculty and the relative research productivity of the faculty.

**Major Obstacles**: There is a continuing lag in adding adequate, aggregate space to match our growth in research funding and activity. In addition, the available research space in many productive fields is dated and in need of immediate renovation. The lack of adequate research

space causes a lag in the onset of research projects and also places the university at a disadvantage when competing for specific projects. In many research fields, reallocation of specialized laboratory space is not a viable option because that space would require extensive renovations. A similar situation exists for many of the older teaching facilities, which are in a deteriorated state and technologically out-of-date.

**2. Protect enrollment gains, access, and student quality achieved over the last decade as part of moving toward a "first tier" institution.**

**Objective**: Within the context of available financial resources, protect and enhance student quality and access to excellent education. Continue significant but controlled growth in freshman enrollment and diversity while maintaining academic qualifications at their current high levels.

**Strategies**: Sustain the freshmen recruitment, retention and diversity initiatives with a consistent focus on maintaining a highly talented and qualified student body.
Sustain academic excellence merit based scholarship programs.
Synergistically combine forms of merit and need based financial aid.
Continue to focus resources in areas of core competency to the university and areas with transdisciplinary importance that will provide students with career opportunities in the new Texas economy (E.g., Audiology and hearing science, brain science, neuroscience, Nanotechnology, materials science, bioinformatics, biomedical engineering and imaging science digital art and technology, management science, and socially relevant social science programs).
During the 2004-05 academic year, work with students, UT System administration and key political leaders to restore UTD funding per WSCH for the 2005-07 biennium to at least the level of 2001-2003.

**Resources**: The resource shift from state (research funded and teaching formula funded) appropriations to tuition and fees poses a unique challenge. Both enrollment of excellent students and semester credit hour production are increasing while resources available are constricting. The university has achieved and will continue to achieve its participation objectives to "close the gaps." Because of the focused, but not narrow, range of university programs, efforts can be concentrated at producing graduates who will drive the new Texas economy. Even with a vigorous increase in gifts, the financing reality is that resources have to be reallocated. The university has deferred the purchases of a business and students information systems, deferred the hiring of back-up personnel in critical non-academic, support areas. Some budgets in non-academic areas have been frozen and new resources have been reallocated to academic areas. Furthermore, it is clear that without reestablishing the resource base of the university (as discussed above), some areas may have to be compromised.

**Progress Measures**: Increases in freshmen enrollment and diversity while sustaining student quality as measured by competitive achievement tests.
Increase in six-year graduation rates and decreases in time-to-degree for transfer students.
Increases in enrollment and majors in core programs of the university.

**Major Obstacles**: The merit and need-based funds needed to recruit and enable students to complete degrees in a timely fashions lag behind real needs. An additional challenge stems from the shifting economics and demographics of technologically oriented graduate students. The economic downturn and the aftermath of September 11th has led to a flattening in applications and hence enrollments of professionally oriented masters students. Furthermore, there appears to be an increase in the out-sourcing of some technology employment overseas, which puts further pressure on the existing human capital base and depresses demands for graduate education.

### 3. Sustain the university's progress over the last decade in moving toward a first tier institution in terms of programs, research and faculty quality.

**Objective**: Within the fiscal context protect the fruits of UTD's progress during the last ten years while simultaneously initiating the enhancements of our engineering, brain and behavioral sciences and physical science programs. Key achievements of the last decade that must be protected include:
Sustaining the rapid growth in externally funded research programs;
Continued enhancement of current collaborative programs with UT Southwestern and UT Arlington, particularly in the areas of imaging science, brain health, neuroscience and Nanotechnology; and
Consolidating major strategic initiatives such as those in audiology and hearing science, brain science, digital art and technology, materials science, management science, neuroscience, Nanotechnology, and socially relevant graduate social science programs.

**Strategies:** Sustain the current research thrusts in our centers of excellence (Disease-Centric Science and Technology, Advance Materials and Instrumentation, and Information Transmission and Processing) while also encouraging focused initiatives in other related areas (e.g., Arts and Technology, Digital Forensics).
Continue to implement targeted faculty hiring in areas of core competency to the university and research areas with transdisciplinary importance in areas (e.g., neuroscience, Nanotechnology, materials science, bioinformatics, biomedical engineering and imaging science Offers have been extended to and accepted by sixteen incoming faculty, in the areas of Behavioral and Brain Science, Accounting and Information Sciences, Physics and Chemistry, Electrical Engineering, Computer Science, and Art and Technology.

**Resources**: The resource shift from state (research funded and teaching formula funded) appropriations to tuition and fees poses a unique challenge. The university has achieved great success in boosting its externally generated R&D funds as part of the excellence effort to "close the gaps." The university's efforts are aimed at producing research that will drive the new Texas economy. Furthermore, it is clear that without establishing the resource and infrastructure base of the university (as discussed above), some areas of progress will have to be compromised.

**Progress Measures:**
Increases in externally funded research and development.
Increases in the depth and range of collaborative efforts with sister UT institutions in areas of core competence.

Targeted faculty hiring in areas of concentration.
Development of funds for endowed research professorships.
Stabilization of the oscillations in graduate enrollments, in light of shifting local, regional and global economic and political conditions, and student demographics, in areas of concentration.

**Major Obstacles**: The funds needed to recruit talented faculty in high-demand research areas lag behind real opportunities. The university is committed to increasing the number of endowed, research-oriented professorships in areas of core relevance. This is particularly salient to the rapid enhancement of engineering and physical science promised as the university's share of the multiparty agreement that convinced Texas Instruments to locate its new $3 billion wafer fabrication plant in Richardson, Texas, nearby the campus. The university will need to successfully mount a significant capital campaign to support these areas.
In terms of infrastructure, there is a continuing lag in adding adequate, aggregate space to match our growth in research funding and activity. In addition, the available research space in many productive fields are dated and in need of immediate renovation.

An additional challenge stems from the shifting economics and demographics of technologically oriented graduate students. The economic downturn and the aftermath of September 11$^{th}$ has led to a flattening in applications and hence enrollments of professionally oriented masters students. Furthermore, there appears to be an increase in the out-sourcing of some technology employment overseas, which puts further pressure on the existing human capital base and depresses demands for graduate education.

**4. Enhance research, graduate education and technology-driven economic development.**

**Objective**: Initiate rapid enhancements of the university's engineering and physical science programs that constitute UTD's share of the multiparty agreement that convinced Texas Instruments to locate its new $3 billion wafer fabrication plant in Richardson, close to the UTD campus.

**Strategies:** UTD is committed to an aggressive program of targeted hiring in the areas of engineering, physics, chemistry, mathematical and computational science, biomedical engineering, molecular biology and neuroscience. The phased development of these faculties includes a UTD commitment to the development and implementation of a major fund raising effort to create up to forty endowed professorships for the areas targeted above as well as additional hiring of research oriented faculty of the appropriate high qualifications.
UTD will purchase an off campus facility and renovate existing science facilities in order that new researchers can be added and existing researchers can be provided the needed space to perform their functions. Secondly, the university will construct a new 200,000 square foot research facility for Engineering and Natural Sciences with completion sometime around mid-2006.

**Progress Measures:** The rapidity with which the university can fully fund and fill the research positions is a critical measure of progress. Our critical challenge during the next 18 months is therefore to recruit engineering and science faculty of the appropriate high qualifications and to identify the required additional faculty salary funding. The funding of the capital investments is

materializing. Funding committed for equipment and start-up costs for new research programs is adequate for the next several years.
We will measure the increase in external research funding in relevant research areas.
Increases in the national rankings of the university in federal R&D and elevation of UTD's Jonsson School of Engineering in national rankings.
In terms of infrastructure, acquisition of new research space and completion of required renovations and the planning and construction of the new research facility for Engineering and Natural Sciences are significant measures of progress.

**Major Obstacles**: While UTD has been provided with a very enviable opportunity, it also has a tremendous challenge in addressing the logistical obstacles and financial demands posed. This is especially so in the current climate of resource shifting and constriction. As noted above, the first step is to purchase a facility and making timely renovations once the building is attained. Secondly, while not a major obstacle, the planning, coordination and construction of the new research facility for Engineering and Natural Sciences will be challenging given the time frame involved.

While, perhaps, not a major obstacle, the renovation of the old science facility is logistically difficult. Practically, there is a need to vacate faculty and staff from the building in order to gut it and rebuild the interior into the needed facilities. However, much of the important federally funded ongoing research at the university is taking place in this building and, in addition, important laboratory teaching space in housed in this building. Even though much of this space is no longer adequate, there must be immediate replacement space available. Simultaneously, the university needs to continue to hire additional highly qualified and research productive faculty and equip their labs. Accomplishing such a significant renovation project efficiently and optimally will be challenging. However, the additional research space that will result will adequately address near-term needs for additional space. Funding committed for equipment and start-up costs for new research programs is also sufficient for the next several years.

## III. Future Initiatives of High Strategic Importance

As the recent report from the Washington Advisory Group has noted, UTD must continue to address its structural issues and resource needs over the next decade. The university must double the size of its research faculty and increase the external funding efficiencies of current faculty. UTD must also improve the quality of its graduate students and expand its partnerships with UTSWMC and UTA. All of this must be done with the uncertainty of its search for a new president with "appropriate expertise and standing."[1] Thus, UTD's future initiatives of high strategic importance bounded by and remain unchanged from those of the present.

As the Washington Advisory Group noted, the university "has been given a five year fundraising head start in its march towards Tier 1 status with Project Emmitt."[2] Thus, the dominant initiative for the 2007-2009 biennium will be the fulfillment of most of the commitments of the Engineering and Science Research Enhancement Initiative, "Project Emmitt." The university

[1] Washington Advisory Group, pg. 52.
[2] Ibid.

must increase in numbers of faculty members and graduate students in these areas. Importantly, UTD is also committed to a major capital campaign, with a five-year goal of $100 million. The major focus for the campaign is the creation of endowed chairs and graduate fellowships that are crucial to the recruitment of excellent research active faculty and students that achievement of our goals requires.

This same period will see completion and occupancy of a major new facility for experimental research in engineering and science and a renovation of Founders Hall that will address urgent space needs for student services and undergraduate laboratory instruction. Concurrently, older classrooms should be renovated and outfitted with modern instructional equipment and a general enhancement of the functionality and appearance of the campus completed. Fundamentally, the bundle of opportunities and challenges for the entire next five years are the substantially the same ones that the university faces now. The university must establish a funding base that is adequate to build the faculty, student body and the university in the 21st century milieu that is Texas. Thus, the three major initiative of high strategic importance are:

**1. Fulfillment of most of the commitments of the Engineering and Science Research Enhancement Initiative**

**Objectives**: There are three interrelated commitments. First, the university is committed to increase the numbers of faculty members and graduate students in engineering, physical sciences and technology. Secondly, the university is committed to a major capital campaign, with a five-year goal of $100 million that is directed to the creation of endowed chairs and graduate fellowships in engineering and the physical sciences. Third, the university is committed to the completion and occupancy of a major new facility for experimental research in engineering and science and a renovation of Founders Hall.

**Strategies**: As noted earlier**,** UTD is committed to and will, as a strategy, stay committed to an aggressive program of enhancing the numbers and quality, through targeted hiring of faculty members and targeted recruitment of graduate students in the areas of engineering, physics, chemistry, mathematical and computational science, biomedical engineering, molecular biology and neuroscience. Secondly, as called for in the Washington Advisory Group's report, the university will build on its research strengths in advanced materials and instrumentation and information technology. Third, it will also expand engineering programs that "underpin Project Emmitt."[3] Fourth it will expand underpinning programs in the schools of Natural Sciences and Mathematics and Behavioral and Brain Sciences. Fifth, the university will leverage research and programmatic collaborations (e.g., biomedical engineering, applied organic chemistry, Nanotechnology) with area institutions. Sixth, the university will critically reexamine current resource commitments, and explore all available means to enhance its resource base to accomplish it objectives.

**Progress Measures**: The rapidity with which the university can fully fund and fill the research positions is a critical measure of progress. Our critical challenge will be to recruit engineering and science faculty of the appropriate high qualifications and to identify the required additional faculty salary funding. Even with optimal facilities and funding packages, recruitment of twenty

[3] Op. cit., pg. 53.

active research faculty (with junior faculty and post-docs, graduate students, etc), per year will be an enormous undertaking in the current fiscal environment.[4]
We will measure the increase in external research funding in relevant research areas.
Progress can be measured in the increases in the national rankings of the university in federal R&D and the elevation of UTD's Jonsson School of Engineering in national rankings.
In terms of infrastructure, completion of required renovations and the planning and construction of the new research facility for Engineering and Natural Sciences are significant measures of progress.
The success of the capital campaign will be measured by the number of endowed chairs and graduate fellowships created, and by the total contributions made toward the university's goal.

**Major Obstacles**: Achievement levels in sources of funds other than tuition/fees and state funding is currently inadequate to be of significant help to the university in meeting its commitments to the Engineering and Science Research Enhancement Initiative. Furthermore, the dilution of the weighted semester credit hour formula funding for a tuition form of funding poses new challenges for science and engineering oriented universities. Weighted funding formulas explicitly recognized the differential costs associated with science, health science, and engineering preparation and instruction. The funding formulas provided a state assisted base to ensure adequate supplies of new scientists to fuel the technologically developments necessary in a brain-based economy. These costs cannot be shifted to students on the basis of a uniform cost per credit hour because the differential tuition rates necessary would create effective barriers to entry into scientific and engineering careers for many young people. Moreover, passing on to students the true costs of instruction is myopic and competitively unsound. Texas and the nation have extremely critical needs for scientists and engineers. Thus, the university must, during the time it solves it funding base issues, also aggressively recruit engineering and science faculty of the appropriate high qualifications and to identify the required additional faculty salary funding. Needless to say, this will be tricky.

**2. UTD will continue a strategy of controlled growth as a means to sustain academic excellence, further enhance the student experience, and meet ambitious graduation rates in engineering and science.**

**Objectives**: Controlled enrollment expansion while maintaining the approximately a 60% undergraduate-to 40% graduate mix and the highest academic standards. Significantly improve the quality of UTD's graduate students.[5] Enhance student diversity and increase retention and graduation rates. Expand degree profile and depth within the core competencies of the university.

**Strategies:** Continue expansion but at a controlled pace (4-5% per year) that preserves the current student-faculty ratio and aims to lower it toward a goal of 17/1. To do so, the university will commit to a higher growth rate in faculty in targeted areas, which will enhance both the pedagogical objectives and research objectives of the university.

[4] Op. cit., pg 54.
[5] Op. Cit, pg. 56.

The university will streamline its academic offerings by engaging in critical path analysis of all of its academic degree programs. It will teach approximately 1,550 sections or classes per semester at optimal times for timely degree completion which directly contribute to forty baccalaureate degree programs, forty-two master's degree programs, and twenty-one doctoral degree programs.
The university will expand degree programs in its focal areas especially programs beneficial to the physical and economic well being of Texas citizens.
The university will plan and tightly direct institutional resources toward fulfilling the university educational and research missions, while sustaining access to and retention in academic programs for students and staff.

**Progress Measures:** Progress will be measured by the targeted hiring of faculty in areas of focused excellence, enrollments in these areas, and improvements in retention and graduation rates. The university's progress in sustaining the excellence of its students and increasing university diversity will be measured. The student-to-faculty ratio, particularly in the critical areas of foci for the university will be measured. While it may not be possible in some non-core academic areas to significantly reduce the student-to-faculty ratio, the university will aim to make significant progress in its core areas. We will monitor the number of course sections and their timing to ensure that students can graduate in a timely fashion.

**Resources**: At the university's current level full-time equivalent (FTE) students[6] and FTE faculty, the university is, right now, 90 faculty members short. Thus, while the university is committed to a 4% per academic year student growth rate (or almost 15,500 by fall 2006), it must also be committed to a higher growth rate in faculty especially if both the pedagogical objectives and research objectives of the university are not to be compromised.

**Major Obstacles**: The decline in state funding which began in the 1980's and accelerated recently has shifted revenue from weighted formula funding to tuition based funding. The weighted formula recognized the higher costs associated with nation-critical engineering and science education. Recent shifts in funding have diluted the impact of this formula. The university's mission, programs and student mix pose unique challenges under this reality. The resources needed to hire and retain faculty and train students in research and scientifically intensive fields will be ongoing. Practically, university funding (income) originates from a delimited number of sources. The historical trends of declining federal and state support will be most difficult to reverse. Concurrently, there are limits to which the costs of high quality education can be shifted to families and students without restricting access with serious consequences for Texas and American society. The deep discounting available to richly endowed private institutions is not an option for the university. The cost shifting to families and students at some point will change the landscape of higher education. At the same time, the knowledge explosion makes it more expensive to educate citizens in market critical skills. The university will need to sustain a tight vision on its focus and on its programmatic intentions.

[6] Based on the commonly used standard of undergraduates taking 15 semester credit hours, masters students taking 12 SCH and doctoral students 9 SCH.

## IV. Other Critical Issues Related to Institutional Priorities

### A. Impact of Initiatives

The mission and strategic intent of the university is to be a research-oriented university with focused areas of excellence in contrast to a large, diffuse, comprehensive megaversity on one hand, and a technological institute on the other. The university does not aim to be narrow and fixed in convention; rather it intends to be agile and sustain its high fidelity to the emerging scientific, technological, managerial, and social trends that affect society.

### Growth in Enrollment

Enrollment planning for the university on a controlled growth model (a modest 4 to 5% per academic year) indicates that enrollment will be over 20,000 in less than ten years. A top priority, as the university grows, is to sustain access for a highly talented and qualified student body and increase campus diversity within the design limits of the university's mission and strategic intent. During the same time frame, research-planning calls for externally funded research to, at least, exceed $70 million per year. How these expansions in access and enrollment and research are to be accomplished, at least for the short term, in a financially constricted environment will be challenging.

The university rapid growth in enrollment (36%) during the last five years has stretched the university's human resources and facilities. The ratio of students-to-faculty has risen, as has class size. While the university's intent is to lower the student-to-faculty ratio progressively toward 17/1,[7] the next 18-36 months will test the university greatly. As noted earlier, to meet community expectations in graduation rates in engineering and science and levels of research output, the university must commit to a controlled student growth rate and an even higher growth rate in faculty especially if both the pedagogical objectives and research objectives of the university are not to be compromised.

### Growth in Research and Research Funding

With the increase in research awards at the university (a 60% increase between fiscal year 2000 and fiscal year 2003 – from $17.6M to $28.7M), facilities and other infrastructure needs are also on the rise. Support staff in Contracts and Grants Accounting will be stretched beyond their capacity to manage pre-award and post-award issues. In addition, there are increasing bio-safety, lab-safety and EPA compliance issues that demand new policies and procedures and monitoring by our small Environmental Health and Safety staff. Laboratory space is currently limited and the demand for new labs and renovations to existing labs will increase. Managing these issues will be critical to achieving the expectations of the larger business and economic community that is the university's constituency.

[7] Georgia Tech has a student to faculty ratio of 14/1, and UC Santa Barbara is 17/1. See The University of Texas System, Board of Regents, Accountability and Performance Report, 2003-2004, Section V. Institution Profiles.

## Library

Library acquisitions (books, periodicals, electronic subscriptions) are in adequate equilibrium with UTD's programmatic breadth and depth and enrollment. Funding for acquisitions will scale with enrollment, since a student fee supports this vital component of library operations.
Shelf space and study space have fallen behind materials and enrollment growth, however. Plans for relocation of Information Resources and Student Affairs from the Library to renovated space elsewhere on campus will solve these capacity problems, and capital funding for renovations of the vacated space in the amount of $4 million will be required. When these renovations are completed, the McDermott Library will be in good shape to serve a growing UTD for the next ten years at least.

## Infrastructure Needs To Support Growth

As the University's enrollment continues to climb, attention must be focused on the infrastructure needs to support the growth. Managing the increase in the university's infrastructure and facilities according will be a major focus for the university over the next five years. Generally, the campus utilities and infrastructure are at capacity and expansion of the thermal energy plan, utility lines, roads and buildings is necessary to achieve the university's goals. The Board of Regents at its November 12, 2003 meeting approved the new Campus Master Plan. The Plan targets certain goals such as:

- Accommodating a doubling of the present enrollment by 2027 and allowing for future growth beyond that time,
- Incorporating Dart and City of Richardson transportation planning,
- Providing for transformation of existing housing,
- Expanding the open space and landscaping, and
- Developing visibility to the community on all sides.

Given the dynamic growth of the student body, identifying funding to construct the first phase of the campus loop road to alleviate the horrendous traffic problems in the campus interior is one of the first priorities. The campus loop road when completed will enhance the campus malls for pedestrian traffic and better control vehicular traffic.

The Student Activity Center will need significant expansion in size and functionality with construction that will occur in the coming year. Activity Center fees will fund this addition.

Additional student housing is scheduled for construction in the coming year. The resulting buildings (constructed by August 2004) will house 216 additional UTD students, but demand for on campus housing will not abate. Students also desire a new leasing center (construction underway), which will enhance resident services and provide opportunities for utilization of the current facility, perhaps a convenience store function as has been requested by UTD students.

Parking has become a serious issue. A parking garage will be constructed in the next few years to alleviate the parking capacity challenges experienced due to the campus enrollment growth. The garage is planned be built near the School of Management and Bookstore buildings at the south end of the campus and will house 550-600 vehicles. Parking permit fees will provide funding.

Renovations must occur in academic buildings across the campus in the coming years in order to provide the improvements in technology necessary for many of the University classrooms and labs. Lecture halls in the older buildings are in need of fundamental renovations to allow students and instructors to use the technological advances made in instructional tools. In addition, laboratory equipment, writing surfaces, carpeting, will need replacement.

**External relations and university advancement**

Given its young age and history, the university has historically had to rely on corporate gifts more so than is typical of older more established universities. With the engineering and science initiative, and with the university's growth, there will be a need for a new continuing capital campaign. The university will need to improve its attractiveness to alumni, community leaders, philanthropists, and corporations. Increasing external, non-governmental, support will be a high priority of the next UTD President. Every avenue for strengthening UTD in this area must be creatively pursued. A greater involvement of academic faculty and administrators will be essential in this effort.

**Information Technology**

The university currently utilizes SCT's Plus product for its campus-wide administrative systems (Financial, Human Resources, Payroll and Student systems). As enrollment has grown, the SCT product is reaching its capability to meet the University's growing information technology needs. While a committee has been formed to determine an appropriate replacement for the legacy system and a decision target date of April or May 2004 has been set, it has become clear that given the current fiscal environment, the university will not be able to proceed until the funding base for the university has been stabilized. It is estimated that the project cost will be $5 to $7 million dollars. Funding for this project will come from dedicated student fees over a 5-7 year period. Implementation of the project currently was scheduled to begin in September 2004 with a go-live date for the financial system of September 2005 and for human resources/payroll system, January 2006. The student system would be implemented in stages over a 2-year period between 2006 and 2007. Implementation of this project will not be possible without additional staff in component areas: Information Resources, Controller's Office, Procurement Management, Budget Office, Human Resources, Payroll, Records, Admissions, Financial Aid, and Bursar. Given the financial constrictions the university faces in the next 12-18 months, it is not clear how adequate staffing funds will be available.

**Financial and Market Issues**

Funding of operations at a per capita level competitive with the median funding of the nation's leading 100 research universities is essential if UTD is to be able to contribute the educational, research, and economic benefits that Texas vitally needs from research institutions of high caliber. The Higher Education Funding Formula does not provide this level of support to any public Texas University. The shortfall relative to national standards is at least 30 percent.[8] At

[8] The shift in funding from the weighted SCH formula to a great reliance on fixed tuition has a doubly diluting impact on funding of engineering and the sciences especially at the graduate levels.

the university's current level of operations, this amounts to an annual budget shortfall of approximately $15 million.

The university and the state, for the long term, will have to address this resource issue. There are several possible income streams. First, additional income from recovery of indirect costs on an expanded funded research base is not a practical solution to this problem, since such an expansion would inevitably correlate with an expanded base of operational obligations and a consequent limit on the gain in per capita funding. Secondly, an expanded base of private support is not a viable solution, short of a truly exceptional and highly improbable windfall. A $500,000,000 increment in endowment would be required to yield income at the current unmet need of $15,000,000. In addition, further growth in enrollment and faculty numbers will proportionately reduce the value of endowment income in terms of per capita operational funding. Third, the remaining possible sources of the additional revenue are some innovative form of local supplemental funding and/or significantly higher tuition and fees charged to students. These require legislative action. Unless the appropriations picture changes dramatically and reverses its almost two-decade trend, only higher tuition is a practical possibility in the near term.

**B. Use of New Tuition Revenue for New Faculty Positions**

Twenty faculty searches are underway in 2004-05 and forty are planned for 2005-06. Fields of focus for 2004-05 were:

- Behavioral and Brain Science, in the specialties of neuroscience and speech communication disorders;
- Physics and Chemistry, in the specialties of Space Science and Materials Science;
- Management, in the specialties of Accounting and Information Systems;
- Electrical Engineering, in the specialties of Systems Security, Materials Science, Biomedical Engineering, and Analog and Digital Processing; and
- Computer Science, in the specialties of Natural Language Processing and Graphical Design and Animation.

These searches all address current core competencies of UTD and active and prospective areas of collaboration with UT Arlington and UT Southwestern.

For 2005-06, approximately twice as many searches are planned, with an even greater emphasis of Project Emmitt goals, principally in terms of strengthening the Jonsson School in its current areas of excellence and, complementarily, consistent with the WAG recommendations, of broadening its areas of expertise to Biomedical Engineering, Chemical Engineering and Mechanical Engineering.

## V. System and State Priorities

### UTD Collaborations

The university has meaningful and productive collaborations with UT Southwest Medical Center and with other UT institutions. The principle collaborations with UTSWMC are listed below:
Cochlear Implant Program; Brain Plasticity research; Sickle Cell Disease research; Advanced Brain Mapping; Medical Imaging research; Molecular and Cell Biology and Biochemistry research; and an MBA degree program specifically designed for practicing physicians, in Medical Management. In addition, UTD and UTSWMC are developing a joint Ph.D. program in Clinical Psychology

UTD is also a main partner in SPRING (Strategic Partnership for Research in Nanotechnology), which is a program where scientists from four universities - UT Austin, UT Dallas, Rice University and UT Arlington, and the Materials and Manufacturing Directorate of the Air Force Research Laboratory at Wright Patterson Air Force Base in Dayton Ohio, initiated a Nanotechnology research and development excellence program. A "spin-off" collaboration was also initiated by the inclusion of two UT System campuses near the border: UT Brownsville and UT Pan Am. This project is called NANO@BORDER.

UTD (with UT Arlington) is working on research collaborations with Sandia National Laboratories.

The Erik Jonsson School's Digital Forensics and Emergency Preparedness Institute (in collaboration with Greater Dallas Crime Commission) works with the National White Collar Crime Center to develop, teach, and implement solutions to the rapidly growing Homeland Security problems in cybercrime, information assurance, and emergency preparedness.

## VI. Compact Development Process

The university's consultative process was a one in which all the academic Deans and all Directors of major business and student services units were asked to examine their ongoing priorities and initiatives within the framework of the university's mission. The President directed the Senior Vice-Presidents to develop their own compact processes, consistent with the mission and strategy of the university, and ensure that their line directors and their staff had opportunities for participation. Each major unit was asked to examine its short and long-term priorities and critical issues and to describe actions they believed were necessary to achieve stated objectives. Academic deans were explicitly instructed to engage their faculty in the process of school compact development. This extensive process resulted in compact documents for all academic units and for business and student affairs. The President met with the academic senate to discuss the compact and the Office of Strategic Planning posted the draft compact on its website for faculty, staff, and students to view and to provide feedback.

## VII. System Contributions

- Support for state funding (Governmental Relations; Academic Affairs)
- Facilities expansion (Facilities Planning and Construction)
- Research infrastructure development (Academic Affairs)
- Development (to create 40 new endowed chairs and capital campaign) (External Relations and Development)

# VI. Appendices

## Budget Summary

**The University of Texas at Dallas**
**Operating Budget**
**Fiscal Year Ending August 31, 2004**

| | | FY 2003 Adjusted Budget | FY 2004 Operating Budget | Budget Increases (Decreases) From 2003 to 2004 Amount | Percent |
|---|---|---|---|---|---|
| **Operating Revenues:** | | | | | |
| Tuition and Fees | $ | 67,660,210 | 72,769,992 | 5,109,782 | 7.6% |
| Federal Sponsored Programs | | 11,536,196 | 17,218,659 | 5,682,463 | 49.3% |
| State Sponsored Programs | | 6,527,355 | 2,879,588 | (3,647,767) | -55.9% |
| Local and Private Sponsored Programs | | 2,827,718 | 5,405,556 | 2,577,838 | 91.2% |
| Net Sales and Services of Educational Activities | | 6,549,227 | 5,284,210 | (1,265,017) | -19.3% |
| Net Sales and Services of Hospital and Clinics | | - | - | - | - |
| Net Professional Fees | | - | - | - | - |
| Net Auxiliary Enterprises | | 5,009,800 | 4,450,100 | (559,700) | -11.2% |
| Other Operating Revenues | | 937,300 | 1,673,425 | 736,125 | 78.5% |
| Total Operating Revenues | | 101,047,806 | 109,681,530 | 8,633,724 | 8.5% |
| **Operating Expenses:** | | | | | |
| Instruction | | 73,619,453 | 73,987,995 | 368,542 | 0.5% |
| Academic Support | | 17,552,367 | 18,730,407 | 1,178,040 | 6.7% |
| Research | | 27,899,530 | 30,329,177 | 2,429,647 | 8.7% |
| Public Service | | 4,041,921 | 3,131,353 | (910,568) | -22.5% |
| Hospitals and Clinics | | - | - | - | - |
| Institutional Support | | 19,352,883 | 16,304,709 | (3,048,174) | -15.8% |
| Student Services | | 5,802,806 | 6,329,904 | 527,098 | 9.1% |
| Operations and Maintenance of Plant | | 11,872,459 | 12,191,172 | 318,713 | 2.7% |
| Scholarships and Fellowships | | 14,700,900 | 15,661,296 | 960,396 | 6.5% |
| Auxiliary Enterprises | | 9,938,506 | 10,827,081 | 888,575 | 8.9% |
| Total Operating Expenses | | 184,780,825 | 187,493,094 | 2,712,269 | 1.5% |
| **Operating Surplus/Deficit** | | (83,733,019) | (77,811,564) | 5,921,455 | -7.1% |
| **Nonoperating Revenues (Expenses):** | | | | | |
| State Appropriations & HEAF | | 69,196,060 | 65,124,869 | (4,071,191) | -5.9% |
| Gifts in Support of Operations | | 2,619,659 | 2,386,709 | (232,950) | -8.9% |
| Net Investment Income | | 9,761,755 | 8,478,420 | (1,283,335) | -13.1% |
| Other Non-Operating Revenue | | - | - | - | - |
| Other Non-Operating (Expenses) | | - | - | - | - |
| Net Non-Operating Revenue/(Expenses) | | 81,577,474 | 75,989,998 | (5,587,476) | -6.8% |
| **Transfers and Other:** | | | | | |
| Transfers From Endowments | | - | - | - | - |
| Transfers (To) Endowments | | - | - | - | - |
| AUF Transfers Received | | - | - | - | - |
| AUF Transfers (Made) | | - | - | - | - |
| Transfers From (To) Unexpended Plant | | - | - | - | - |
| Transfers for Debt Service | | (6,092,460) | (5,387,104) | 705,356 | -11.6% |
| Other Additions and Transfers | | 3,745,712 | 3,187,264 | (558,448) | -14.9% |
| Other Deductions and Transfers | | (4,013,820) | (3,385,264) | 628,556 | -15.7% |
| Total Transfers and Other | | (6,360,568) | (5,585,104) | 775,464 | -12.2% |
| **Surplus/(Deficit)** | $ | (8,516,113) | (7,406,670) | 1,109,443 | -13.0% |
| Total Revenues | $ | 182,625,280 | 185,671,528 | 3,046,248 | 1.7% |
| Total Expenses and Debt Service Transfers | | (190,873,285) | (192,880,198) | (2,006,913) | 1.1% |
| Surplus (Deficit) | $ | (8,248,005) | (7,208,670) | 1,039,335 | |

Note: Operating Budget Highlights with a glossary of terms are included on Page 1.

The FY 2005 budget is known to close approximation, barring dramatic unforeseen circumstances. State appropriations are known, enrollment projections appear to be well

founded, and tuition and fee rates are fixed. The levels of external research funding and private giving are unlikely to change enough to affect aggregate funding of annual unrestricted operations significantly, either positively or negatively. In this context, the FY 2005 budget cannot fund any enhancements of teaching or research unless funds that can be reallocated are reallocated from other components of the university. The academic funding shortfall relative to what is needed to reestablish the FY 2001 level of support per SCH is approximately $10,000,000, and this does not address shortages in areas that provide core functions that support teaching and research.

Of this amount, $2,000,000 is required to cover the operating deficit of FY 2004 and $8,000,000 is needed to address the impact of three years of significant increases in enrollment combined with decreased funding for instruction, instructional support, and research. The funding needed to bring the number of Teaching Assistants per SCH back up to its 2001 level is $750,000. Departmental operations budgets have lagged behind enrollment growth even more, and require an aggregate increment of $1,000,000. Engineering and Science faculty additions necessary to keep the Engineering and Science Research Enhancement Initiative on its projected track will cost $1,700,000. Concurrently, faculty attrition in the tenure ranks over the last several years in other teaching units will require $1,1500,000 to repair. These instructional costs amount to $4,550,000.

Maintaining and enhancing still further the university's current high levels of academic achievement and racial and geographic diversity in our undergraduate student body will require supplementary investments in the merit scholarship program, as our enrollment continues to increase in line with the university's commitment to Closing the Gaps. At next year's tuition and fee levels, maintaining the same percentage of the freshman class on merit scholarships as the class size increases will require an added $700,000.

While we have gained a significant number of new, state of the art classrooms, the majority of the rooms in which we teach students are quite shabby and lack modern instructional equipment. A multi-year program to bring these facilities up to current standards will require $1,800,000 per year. Finally, our ability to support and stimulate more research productivity has been stifled for lack of seed funding, as we have strived to maintain instructional productivity in the face of funding decreases. We need to recreate a fund for research start-ups and new initiatives, at the level of $1,000,000 per year.

The ability to reallocate even a fraction of this needed $10,000,000 will be extremely difficult, since almost all elements of the university have been operating on lean budgets for several years. Hence it is only realistic to contemplate that we will enter FY 2006 with much of this agenda still unfulfilled. In FY2006 and following years, we plan on enrollment growth at the rate of 4-5% annually. In order to keep pace with this growth and an assumed inflation rate of 3%, academic operations will require annual increases at the level of $4,000,000 just to maintain constant funding per unit of effort. In addition, the Engineering and Science Research Enhancement Initiative commitments will require incrementing the budget by an additional $2,000,000 each year for three more years.

## Statistical Profile

| Dallas | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | 1999 | 2000 | 2001 | 2002 | 2003 |
| Undergraduate headcount | 7,331 | 7,807 | 9,009 | 9,482 | |
| Graduate and professional headcount | 2,770 | 3,138 | 3,446 | 3,747 | |
| Total enrollment | 10,101 | 10,945 | 12,455 | 13,229 | 13,718 |
| | | | | | |
| | year of matriculation | | | | |
| | 1998 | 1999 | 2000 | | |
| 1st year persistence | 75.6% | 77.7% | 78.0% | | |
| | | | | | |
| | year of matriculation | | | | |
| | 1995 | 1996 | 1997 | 1998 | |
| 4-year graduation rate | 32.0% | 30.3% | 31.7% | 37.7% | |
| 5-year graduation rate | 48.3% | 46.0% | 51.5% | | |
| 6-year graduation rate | 55.2% | 51.8% | | | |
| | | | | | |
| | 1999 | 2000 | 2001 | 2002 | |
| Baccalaureate degrees granted | 1,217 | 1,303 | 1,386 | 1,537 | |
| Master's degrees | 937 | 1,077 | 1,129 | 1,172 | |
| Doctorate degrees | 60 | 64 | 69 | 58 | |
| | | | | | |
| Faculty fall headcount | 576 | 594 | 655 | 700 | |
| Classified staff | 1,024 | 1,056 | 1,037 | 1,232 | 1,270 |
| Non-classified staff | 875 | 955 | 1,146 | 1,199 | 1,238 |
| | 99 | 00 | 01 | 02 | 03 |
| FTE student/FTE faculty ratio | 18 to 1 | 19 to 1 | 20 to 1 | 22 to 1 | 22 to 1 |
| | | | | | |
| Federal research expenditures | 1999 | 2000 | 2001 | 2002 | 2003 |
| | $7,192,600 | $7,049,617 | $8,781,295 | $11,815,490 | $14,432,841 |
| | | | | | |
| Revenue/FTE student | $13 | $14 | $15 | $13 | $13 |
| Endowment total value | $136,778,000 | | | | $181,753,000 |

- Over the five-year period, 1999-2003, enrollment for the university grew 36%, from 10,101 to 13,718 as certified by the Texas Higher Education Coordinating Board.

- In 1999, 41.8% of the student body was either post-baccalaureate, masters or doctoral students and the remainder, 58.2%, were undergraduates. By fall, 2003, the percentage of students who enrolled as post-baccalaureate, masters or doctoral students dropped to 37.9% with a consequent rise in the undergraduate (and residential) population.

- The fall 2003 retention rate for the university was 84 percent and the six-year graduation rate was 56 percent.

- Forty-three percent of all degrees the university awarded were in Science, Engineering and Technology. This is twice the average for all other doctoral granting institutions in the state. UTD is a focused, but not narrow, university.

- Last year, the university conferred 2,974 degrees. Bachelor of Arts degrees comprised only 554 or 18.6% of the total. Bachelor of Science degrees numbered 1,051 or 35.3% of the total. The relative percentage of B.S. to B.A. degrees is an indication of the unique thrust of the university in comparison to other UT components. Master's degrees numbered 1,299 and of these, 68% were Masters of Science. The university awarded 70 doctoral degrees.

- In the fall, 2003 the university had 486 FTE Faculty.[9] Of these 416 were full time faculty, and of these 308 were tenured or tenure-track. The university's staff FTE was 1213.[10]

- The university's instructional expenditures per FTE student for fall 2003 was $10,464.[11]

- As of June 30, 2003, the market value of the university's total endowment was $181,753,51.

- The university's Office of Strategic Planning and Analysis provides additional university data on its website: http://ospa.utdallas.edu/enrollment_stats/default.htm.

[9] Calculated using the CUPA formula, which counts all part-time faculty as equal to 1/3 full time faculty.
[10] Staff FTE formula based on IPEDS. There were 987 full time staff and 678 part-time staff in the fall, 2003.
[11] Based on the university's annual financial report and FTE as reported to Peterson's Survey of Undergraduate Institutions, fiscal year 2003.