

The University of Texas at Dallas
Compact with The University of Texas System
FY 2007 through FY 2008

I. Introduction: Institution Mission and Goals

The mission of The University of Texas at Dallas is to serve the Metroplex and the State of Texas as a global leader in innovative, high quality science, engineering, and business education and research.

UTD is committed to producing engaged graduates, prepared for life, work, and leadership in a constantly changing world; advancing excellent educational and research programs in the sciences, engineering and technology, management, and the liberal, creative, and practical arts; and transforming ideas into actions that directly benefit the personal, economic, social, and cultural lives of the citizens of Texas. Over the next decade, UTD intends to become a first-rank public research university with focused centers of excellence, prepared to meet the challenges of a rapidly changing, technology-driven global society.

The university aims to achieve these objectives by six interlocking initiatives discussed more fully in its new strategic plan.¹ These initiatives focus on engineering, living systems, nanotechnology, life sciences, energy and environmental issues, and global security. They involve focused efforts on the preparation of students for leadership in a constantly changing world. The initiatives transcend traditional disciplines, involve the entire UTD community, and will transform UTD into a dynamic, intellectual, research force that has direct and powerful impact on the quality of the intellectual, cultural, physical, and economic life of the Dallas region's citizens as well as the citizens of the state. Over the next ten years, these initiatives will provide a roadmap for UTD's future.

Integral is investment in excellent students and faculty, building upon core programs, policies and operations and enhancing institutional character and excellence in education. The university will continue to improve the quality of its students' learning experiences and its employees' work environment. The university will expand and intensify partnerships and 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's premier universities and an excellent investment in the future of the region and state.

The University of Texas at Dallas's compact with the UT System is to sustain the course that has brought the university to the nationally emergent position it now occupies. This pledge is made in the context that over 33 percent of the Texas gross state product is generated 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's 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 major ongoing priorities are defined by the university's six major initiatives and specific actions related to those 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 that will 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. While some of the action issues

¹ Strategic Plan: Creating the Future. The University of Texas at Dallas, January 2006.

remain unchanged from the previous Compact, the new strategic plan provides guidance for achieving positive outcomes. In addition, the university is focused on the reaffirmation process of its accreditation by the Southern Association of Colleges and Schools (SACS).

1. Allocation of resources to preserve quality in teaching and research programs and to implement strategic initiatives.

Objective: UTD's dominating priority for the next year is to allocate its resources for FY 07 and FY 08 to preserve and build upon our teaching and research programs and to implement strategic initiatives. In the previous biennium, progress was impeded as a consequence of the reduction in the university's aggregate funding per weighted student credit hour. As a result, the university extracted efficiencies from academic and non-academic budgets and raised the portion paid by individual students.

Strategies:

- While essentially all major budget changes that might yield significant cost savings have been implemented, there are still opportunities – small individually but perhaps significant in aggregate that must be pursued. UTD will examine all university activities to identify areas not in alignment with the strategic intentions of the university and modify appropriately.
- Increase the percentage of semester credit hours taught by tenured and tenure-track faculty by increasing the numbers of tenured and tenure-track faculty and reducing the reliance on part-time lecturers.
- Examine and streamline curriculum and class scheduling without sacrificing student access and timely degree completion.
- Reassess the Enterprise Resource Project (ERP), which is a major (\$10M+) project to upgrade UTD's computer information system, to determine if cost savings are possible, including potential collaboration with other UT System institutions.
- Allocate essential resources for implementation of strategic initiatives, e.g., a vice president for communications to tell UTD's story better and a vice president who is responsible for promoting institutional diversity and inclusion.

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 a significant review of resource allocation must occur.

Progress Measures:

Progress Measure	Report
Cost reductions	A significant number of existing and new initiatives have either been delayed or canceled to yield cost savings. Examples include expenditures on federal government relations (made possible by UT System investments in Washington) and staff reductions in news and information to enable new investments in a broader communications program. Other similar budgetary choices will be made to make possible the implementation of UTD's strategic plan.
Volume of programmatic streamlining	Fall 03-04: the number of organized classes grew by 4% in spite of enrollment growth; growth occurred in lower division & Master's course work. Fall 04-05: In spite of enrollment growth, the number of organized courses declined 2.5% fall-to-

	fall. Night sections declined 5.3% and day sections 1.1% without affecting overall time availability and programmatic needs.
Class offerings rescheduled	Fall 03-fall 04: reduction of 13% of lower division evening coursework, addition of 10% day. At the master's level, there was a 2% reduction in evening sections and 45% increase in day sections, which reflect the shift to full-time master's programs. The number of sections taught Monday-Wednesday-Friday doubled. Fall 04-05: The number of organized courses declined 2.5% fall-to-fall. Night sections declined 5.3% and day sections 1.1% without affecting overall time availability and programmatic needs.
The percentage of semester credit hours generated by tenured and tenure-track faculty	Fall 03-04: number of courses offered by the faculty that are tenured/tenure-track increased 7.4% and the percentage of semester credit hours generated increased by 5.6%. Fall 04-05: number of courses offered by tenured/tenure-track faculty declined by 13% but the SCH declined only by 3.8%.
Research productivity of the faculty	Fall 03-04: Total research expenditures increased 8.3% to over \$36 million, while restricted R&D increased over 17% to \$22.4 million. ² Restricted research expenditures increased from \$58,305 per tenured/tenure-track faculty to \$66,159. ³ Fall 04-05: Total research expenditures increased over 18% to \$43.1 million while restricted R&D increased 55% to \$34.7 million. ⁴ Restricted research expenditures per tenured/tenure-track faculty increased to \$95,950. ⁵
Reassess the Enterprise Resource Project	In close consultation with the UT System, a consultant has been engaged to review the entire project in spring 2006, and decisions will be made in the subsequent months that will be aimed at saving dollars and maximizing efficiency.
Re-budget to enable implementation of strategic initiatives	Examples include the newly created position of VP for communications and significant expansion of the office of development to enhance private fund raising. Further implementation will occur in FY07.

Major Obstacles: There is a continuing lag in adding adequate, aggregate space to match our growth in research funding and activity, but this will be alleviated temporarily when the new Natural Science and Engineering Research Laboratory (NSERL) comes on board in FY07. In addition, the available research space in many productive fields is dated and in need of immediate renovation. The lack of adequate

² These data come from the Annual Financial Statements, Office of the Controller, The University of Texas at Dallas.

³ Tenured and Tenure-track faculty is based on the CBM008, excluding senior administrators, who have tenure, above the level of Dean.

⁴ Texas Higher Education Coordinating Board Research Expenditures. <http://www.txhighereddata.org>, and the Annual Financial Report, The University of Texas at Dallas.

⁵ Tenured and Tenure-track faculty is based on the fall 2005 CBM008, excluding senior administrators, who have tenure, above the level of Dean.

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 through 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).
- Continue to examine with students, faculty, and key stakeholders the funding mix between state appropriations and tuition/fees to enable quality growth.

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 husbanded and allocated carefully.

Progress Measures:

Progress Measure	Report
Increases in freshmen enrollment while sustaining student quality as measured by competitive achievement tests ⁶	Fall 2004 class: 1,265 students; average SAT of 1239; 38 National Merit Scholars Fall 2005 class: 1,205 students; average SAT of 1241; 33 National Merit Scholars
Increases in freshmen diversity ⁷ while sustaining student quality as measured by competitive achievement tests	Fall 2004 class: 9% Hispanic, 6% African-American, 21% Asian American, 60% Anglo, and 4% other. Fall 2005 class: 10% Hispanic, 5% African-American, 22% Asian American, 62% Anglo, and 1% other.
Increase graduation rates and enhance freshman-to-sophomore retention rate	1997 cohort: ⁸ 6-year rate was 62.9%; the five-year rate for the 1998 cohort was 57.2%. 1998 cohort: ⁹ 6-year rate was 66%; the 5-year

⁶ Source: Dean of Undergraduate Studies.

⁷ Students self-identify their ethnicity.

	rate for the 1999 cohort was 57%.
Increase enrollment and majors in core programs of the university	<p>Fall 2003-fall 2004: biology increased 8.5%, chemistry 13.4%, and biochemistry 71.2%. Neuroscience and cognitive science increased 37.8%, audiology increased 17.9%, physics increased 14.3%, and mathematics and statistics 48%. Electrical engineering experienced a 1.8% rise in majors. However, the downturn continues to drag on computer science, which experienced a 20% decline in majors.</p> <p>Fall 2004-fall 2005: biology majors increased 2.2%, chemistry 8.1%, biochemistry 29.3%, neuroscience 26.7%, physics 3.5%, management 2.9%, and mathematics 1.9%. While software engineering increased 2.1%, engineering as a whole decline 6.2%, and computer science declined 14.1%.</p>

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.

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 university core competency areas and research areas with transdisciplinary importance (e.g., neuroscience, nanotechnology, materials science, bioinformatics, biomedical engineering, and imaging science).

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,

⁸ <http://www.thecb.state.tx.us/AccountabilitySystem/UnivMeasRank.xls>

⁹ <http://www.txhighereddata.org/Interactive/Accountability/Matrix2.cfm>

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:

Progress Measure	Report
Increases in externally funded research and development	Total research expenditures increased over 18% to \$43.1 million while restricted R&D increased 55% to \$34.7 million. ¹⁰ Restricted research expenditures per tenured and tenure-track faculty increased to \$95,950. ¹¹
Increases in collaborations	In addition to collaborations reported last year, the new UTD-UTA joint research funding program has resulted in 12 new research collaborations between the universities.
Targeted hiring in areas of concentration	Fall 05: over 48% of all new tenured and tenure-track hires from fall 2004 to fall 2005 are in targeted areas.
Development of funds for endowed research professorships	FY04: 22 chairs and professorships with endowments. FY-5: 31 chairs and professorships with endowments. ¹²
Stabilization of the oscillations in graduate enrollments	Fall 04-05 graduate enrollment has been stabilized and applications for fall 06 are up over 29% as of April 12, 2006.

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, near the UTD campus. The university has set aggressive fund raising goals of reaching a total endowment (including, but not limited to, research professorships) of \$320 million in FY09 and \$470 million in FY11. 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.

4. Enhance research, graduate education, and technology-driven economic development: Discovering Tomorrow's Inventions Today

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.

¹⁰ Texas Higher education Coordinating Board Research Expenditures. <http://www.txhighereddata.org>, and the Annual Financial Report, The University of Texas at Dallas.

¹¹ Tenured and Tenure-track faculty is based on the fall 2005 CBM008, excluding senior administrators, who have tenure, above the level of Dean.

¹² Nine new endowed research faculty (professorships/chairs) positions were created in FY 2005 adding \$4,385,023.00 in book value and \$8,205,199.00 in market value in to the total UTD endowments. Six of the positions resulted with the renegotiation of Ida and Cecil Green endowments which converted endowments that supported the Green Center to endowed faculty positions.

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 purchased an off campus facility and is renovating 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 is constructing a new 200,000 square foot research facility for Engineering and Natural Sciences with completion sometime around mid-2006.

Progress Measures:

Progress Measure	Report
Recruit engineering and science faculty	Fall 05: over 48% of all new tenured and tenure-track hires from fall 2004 to fall 2005 are in targeted areas.
Funding for capital improvements	Strategic Plan for university completed; fund raising plan initiated.
External research funding	Fall 04-05: Total research expenditures increased over 18% to \$43.1 million while restricted R&D increased 55% to \$34.7 million. ¹³ Restricted research expenditures per tenured and tenure-track faculty increased to \$95,950. ¹⁴
Increase in the national ranking of the university in federal R&D	UTD has move up to position 184th (from 205th) in the NSF R&D rankings. ¹⁵
Elevation of UTD's Jonsson School of Engineering in national rankings	According to the most recent IPEDS data, the Jonsson School is ranked in the top twenty in degree production in both electrical engineering and computer science.
Expansion of research space	Construction of the new science research building proceeds on pace. UTD purchased and improved the Waterview Science and Technology Center, which expands the campus across Waterview Parkway and provides research space while the renovations of the Founders building continues.

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 then make 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

13 Texas Higher education Coordinating Board Research Expenditures. <http://www.txhighereddata.org>, and the Annual Financial Report, The University of Texas at Dallas.

14 Tenured and Tenure-track faculty is based on the fall 2005 CBM008, excluding senior administrators, who have tenure, above the level of Dean.

15 FY 2002 and FY 2003 data, National Science Foundation, Table B-33.

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 is 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

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.¹⁶ Thus, UTD's future initiatives of high strategic importance are 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."¹⁷ 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 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 the 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 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 initiatives of high strategic importance are:

1. Fulfill the commitments of the Engineering and Science Research Enhancement Program which is integral to the strategic initiatives outlined earlier.

Objectives: There are three interrelated commitments. First, the university is committed to increasing 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 of faculty, through targeted hiring of faculty members and

¹⁶ Washington Advisory Group, pg. 52.

¹⁷ Ibid.

targeted recruitment of graduate students in the areas of engineering, physics, chemistry, mathematical and computational science, biomedical engineering, molecular biology, and neuroscience.

- Second, 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."¹⁸
- 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 its 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 20 active research faculty per year (with junior faculty and post-docs, graduate students, etc.) will be an enormous undertaking in the current fiscal environment.¹⁹
- 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 technological 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 its 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. 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.

¹⁸ Op. cit., pg. 53.

¹⁹ Op. cit., pg 54.

Objectives: UTD's objective is controlled enrollment expansion while maintaining the approximately 60 percent undergraduate to 40 percent graduate mix and the highest academic standards. Significantly improve the quality of UTD's graduate students.²⁰ 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.
- 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 40 baccalaureate degree programs, 42 master's degree programs, and 21 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 critical areas 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 of full-time equivalent (FTE) students²¹ and FTE faculty, the university is, right now, 90 faculty members short. Thus, while the university is committed to a controllable per academic year student growth rate (or about 14,800 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 1980s, 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 focus on its programmatic intentions.

²⁰ Op. Cit, pg. 56.

²¹ The FTE calculation is based on the commonly used standard of undergraduates taking 15 semester credit hours, master's students taking 12 SCH and doctoral students 9 SCH.

IV. Unexpected Opportunities or Crises

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. Strategic enrollment planning on a controlled growth model (a modest 4 to 5% per academic year) indicates that enrollment will be 15,000 FTEs²² 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, enrollment, and research are to be accomplished, at least for the short term, in a financially constricted environment will be challenging. Over the next ten years, to meet the pedagogical goal of 17/1, the university will need to have a tenure-stream faculty of over 800 and an FTE faculty of 1,150-1,200 as compared to a current faculty FTE of 496. 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.

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 accordingly 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. Identifying funding to construct the first phase of the campus loop road to alleviate the horrendous traffic problems in the campus interior is a high priority. The campus loop road, when completed, will enhance the campus malls for pedestrian traffic and better control vehicular traffic. 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, and carpeting will need replacement.

V. System and State Priorities

UTD Collaborations

The university has meaningful and productive collaborations with UT Southwestern Medical Center and with other UT System institutions. The principle collaborations with UTSWMC are: 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 in medical management specifically designed for practicing physicians. 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 American. This project is called NANO@BORDER.

²² A 15,000 FTE will translate into about 20,000 full and part-time students.

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 cyber-crime, information assurance, and emergency preparedness.

UTD has 12 new research collaborations with faculty at UT Arlington funded through the joint research funding program. Among the areas of collaboration are sickle cell anemia, neurodegeneration, cancer therapeutics, microelectronics, and wireless sensors.²³ Other collaborations between the institutions (e.g., brain imaging) continue.

Plan to Improve Graduation Rates

Providing the educational and structural conditions that allowing serious students to graduate in six years or less is a fundamental and important commitment the university has made in its strategic plan. The university's current six-year graduation rate is 56 percent. Our intent is to raise this rate to 66 percent over the next six years. There are four interlocking components of the UTD strategy. First, we have begun a comprehensive review of the core curriculum, especially "gateway courses" in the mathematics and science areas. We are examining the curriculum, modes of presentation, and the characteristics of student performance as measured by mid-term and final grades. The use of mid-term grades is especially important in the enhancement of adviser and tutorial services. Secondly, we are focusing on the raising of freshmen retention rates since failures in the first-year account for almost half the losses in the six-year rates.²⁴ Concomitant with these initiatives, the university has provided incentives for students to enroll in a greater number of semester credit hours. Our aim is for students to take and successfully complete 30 semester credit hours during the two long semesters. Finally, the university has established the "Living Learning Communities" as a lynch-pin strategy in retention. The first two communities are focused on pre-health professions and pre-law. The students in these communities will take a common curriculum, live together residentially, and be connected to a "leadership team" to assist, advise, and provide guidance.

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 has directed the vice-presidents to develop their own strategic plans, consistent with the mission and long-range intentions of the university and ensure that their line directors and their staff had opportunities for participation. Each major unit is examining its short- and long-term priorities and critical issues and will describe actions they believe are necessary to achieve stated objectives. Academic deans were explicitly instructed to engage their faculty in the process of school compact and strategic plan development. This extensive process is ongoing and will be completed this fall. The President meets with various faculty and staff committees involved and with the academic senate to discuss the compact and the strategic planning processes. The Office of Strategic Planning has posted the compact on its website for faculty, staff, and students to view and to provide feedback.

VII. System Contributions

As the university continues on its road to national prominence, vital support will be needed from the UT System. Support from System actions with regard to state funding (Governmental Relations, Academic Affairs) to staunch the erosion of state-support for higher education is vital. Similarly, System assistance with facilities expansion (Facilities Planning and Construction) and attendant financing issues is critical.

²³ <http://www.utdallas.edu/research/collaboration.html>

²⁴ "An Analysis of the 1999 through 2004 First-Time Freshmen Cohorts at The University of Texas at Dallas: Critical Characteristics in Retention," Lawrence J. Redlinger and Xu Zhao. December, 2005.

The state and region's need for an enhanced research infrastructure at UTD must involve active support from the System (Academic Affairs). Finally, the university's effort's to create 40 new endowed chairs and the capital campaign will need active counsel and aid from the System's Office of External Relations.

VIII. Appendices (to be added by system)

A. Budget Summary

**The University of Texas at Dallas
Operating Budget
Fiscal Year Ending August 31, 2006**

	FY 2005 Adjusted Budget	FY 2006 Operating Budget	Budget Increases (Decreases) From 2005 to 2006	
			Amount	Percent
Operating Revenues:				
Tuition and Fees	\$ 94,293,843	98,998,478	4,704,633	5.0%
Federal Sponsored Programs	24,443,984	25,287,451	843,467	3.5%
State Sponsored Programs	6,608,237	27,330,724	20,722,487	313.6%
Local and Private Sponsored Programs	4,372,152	4,721,795	349,643	8.0%
Net Sales and Services of Educational Activities	6,617,265	6,937,764	320,499	4.8%
Net Sales and Services of Hospital and Clinics	-	-	-	-
Net Professional Fees	-	-	-	-
Net Auxiliary Enterprises	5,553,100	5,676,500	123,400	2.2%
Other Operating Revenues	2,174,991	2,056,421	(118,570)	-5.5%
Total Operating Revenues	144,063,572	171,009,131	26,945,559	18.7%
Operating Expenses:				
Instruction	82,450,638	89,238,974	6,788,336	8.2%
Academic Support	19,059,368	23,576,771	4,517,405	23.7%
Research	40,759,564	57,314,149	16,554,585	40.6%
Public Service	4,659,039	5,843,722	1,184,683	25.4%
Hospitals and Clinics	-	-	-	-
Institutional Support	17,325,093	19,409,373	2,084,280	12.0%
Student Services	7,606,075	8,883,362	1,077,287	14.2%
Operations and Maintenance of Plant	13,039,858	12,567,544	(472,314)	-3.6%
Scholarships and Fellowships	28,723,766	29,475,677	751,911	2.6%
Auxiliary Enterprises	11,846,519	12,075,260	228,741	1.9%
Total Operating Expenses	225,489,918	258,184,832	32,714,914	14.5%
Operating Surplus/Deficit	(81,406,346)	(87,175,701)	(5,769,355)	7.1%
Nonoperating Revenues (Expenses):				
State Appropriations & HEAF	65,390,384	71,699,334	6,308,950	9.6%
Gifts in Support of Operations	3,443,405	6,899,468	3,456,063	100.4%
Net Investment Income	7,831,236	8,662,649	831,413	10.6%
Other Non-Operating Revenue	-	-	-	-
Other Non-Operating (Expenses)	-	-	-	-
Net Non-Operating Revenue/(Expenses)	76,665,025	87,261,451	10,596,426	13.8%
Transfers and Other:				
AUF Transfers Received	-	-	-	-
AUF Transfers (Made)	-	-	-	-
Transfers From (To) Unexpended Plant	-	-	-	-
Transfers for Debt Service	(6,311,169)	(6,635,863)	(324,694)	5.1%
Other Additions and Transfers	7,665,461	4,276,029	(3,419,432)	-44.4%
Other Deductions and Transfers	(7,916,461)	(3,606,029)	4,310,432	-54.4%
Total Transfers and Other	(6,532,169)	(5,965,863)	566,306	-8.7%
Surplus/(Deficit)	\$ (11,273,490)	(5,880,113)	5,393,377	-47.8%
Total Revenues	\$ 220,728,597	258,270,582	37,541,985	17.0%
Total Expenses and Debt Service Transfers	(231,781,087)	(264,820,695)	(33,039,608)	14.3%
Excess (Deficiency) of Revenue over Expenses	\$ (11,052,490)	(6,550,113)	4,502,377	

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

B. Statistical Profile for UT Dallas

<i>fall</i>	2000	2001	2002	2003	2004	2005
Undergraduate headcount	7,807	9,009	9,482	9,523	9,782	10,074
Graduate/professional headcount	3,138	3,446	3,747	4,195	4,310	4,325
Total enrollment	10,945	12,455	13,229	13,718	14,092	14,399

<i>yr of matriculation</i>	1998	1999	2000	2001	2002	2003
1st year persistence	75.6%	77.7%	78.0%	79.4%	83.8%	80.2%

<i>yr of matriculation</i>	1995	1996	1997	1998	1999	2000
4-year graduation rate	32.0%	30.3%	31.7%	37.7%	29.6%	30.6%
5-year graduation rate	48.3%	46.0%	51.5%	50.9%	50.9%	
6-year graduation rate	55.2%	51.8%	56.2%	56.4%		

<i>academic year</i>	99-00	00-01	01-02	02-03	03-04	04-05
Baccalaureate degrees granted	1,303	1,386	1,537	1,605	1,823	2,020
Master's degrees	1,077	1,129	1,172	1,299	1,363	1,352
Doctorate degrees	64	69	58	70	50	117
Professional degrees	0	0	0	0	4	9

<i>academic year</i>	00-01	01-02	02-03	03-04	04-05	05-06
All instructional staff	596	655	716	743	774	
Administrative		111	123	101	103	110
Other, Non-Faculty		1,179	1,281	1,341	1,384	1,530
Student employees		456	919	1,005	1,070	1,136

<i>fall</i>	1999	2000	2001	2002	2003	2004
FTE student / FTE faculty ratio	19 to 1	20 to 1	22 to 1	22 to 1	21 to 1	21 to 1

<i>fiscal year</i>	2000	2001	2002	2003	2004	2005
Federal research expenditures	\$7,049,617	\$8,781,295	\$11,815,490	\$14,432,841	\$15,733,571	\$19,933,291

<i>fiscal year</i>	2000	2001	2002	2003	2004	2005
Revenue / FTE student	\$14,000	\$15,000	\$13,000	\$13,000	\$13,000	\$13,000

(nearest thousand)

<i>as of</i>	8/31/2000	8/31/2001	8/31/2002	8/31/2003	8/31/2004	8/31/2005
Endowment total value	\$187,273,000	\$190,257,000	\$171,653,000	\$181,753,000	\$195,714,000	\$222,424,000

Institution-Specific Information

- Between 1999 and 2005, enrollment for the university grew 43%, from 10,101 to 14,480 as certified by the Texas Higher Education Coordinating Board.
- In 1999, 41.8% of the student body was either post-baccalaureate, master's, or doctoral students and the remainder, 58.2%, were undergraduates. By fall 2005, the percentage of students who enrolled as post-baccalaureate, masters or doctoral students dropped to 35% with a consequent rise in the undergraduate (and residential) population.
- Currently, UTD's retention rate is 82% and its six-year graduation rate is 56%.
- Last year, the university conferred 3,498 degrees. Thirty-eight percent of these degrees were awarded in the fields of science, engineering, and technology. UTD conferred 774 Bachelor of Arts degrees, or 22.1% of the total, and conferred 1,246 Bachelor of Science degrees, or 35.6% 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 System institutions. UTD conferred 1,352 Master's degrees, 59% of which were Masters of Science. The university also awarded 126 doctoral degrees.
- In fall 2005 the university had 536 FTE faculty.²⁵ Of these, 457 were full time faculty, and, of those, 358 were tenured or tenure-track.
- As of June 30, 2005, the market value of the university's total endowment was \$222,424,202.

Web Resources

The university's Office of Strategic Planning and Analysis provides additional data on its online Statistical Handbook: http://www.utdallas.edu/ospa/enrollment_stats/index.htm.

²⁵ Calculated using the CUPA formula, which counts all part-time faculty as equal to 1/3 full time faculty.

