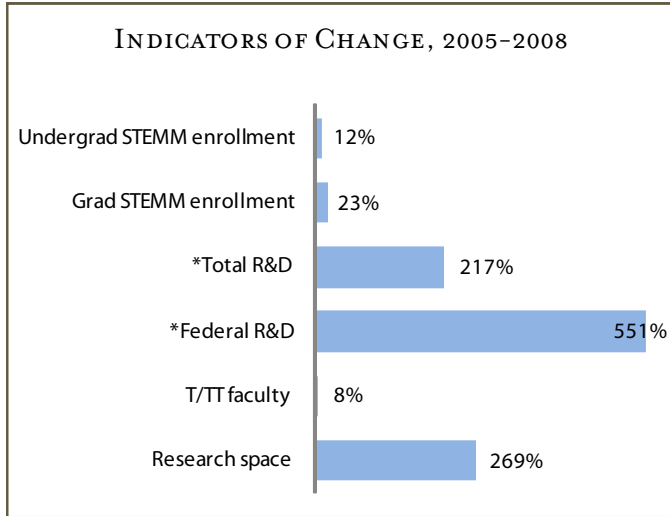


THE UNIVERSITY OF TEXAS AT TYLER

The UT System has responded to the challenge set forth by the *Rising Above the Gathering Storm (RAGS)* report and has committed more than \$57 million to strengthen competitiveness at UT Tyler. The initial impact of these investments is presented here, organized according to the critical elements described by RAGS: education, research and technology development, and competitive capacity.



STEMM = science, technology, engineering, math, and medical/health
 * % Change, 2005-2007. Source: NSF.

UT TYLER AT A GLANCE

Student enrollment in STEM, 2008	
Undergraduate (STEMM % of total)	828 (16%)
Graduate (STEMM % of total)	92 (12%)
New faculty recruited (2005-2008)	
STARs faculty recruited	2
ETF research superiority award recipients	1
Physical space (square footage)	
Teaching	211,000
Research	10,500
Increase in total sq. ft. through initiative	12%
New STEM-related endowments (2005-2008)	\$440,000
Research expenditures, 2008	\$3.4 million
Federal research expenditures, 2008	\$1.8 million
New invention disclosures, 2005-2008	4

Education

Under the UT System Competitiveness Initiative, UT Tyler increased its academic physical space by 19,700 square feet (9%). Increases in classroom and research space have opened the door to new degree programs in STEM fields. The three new programs are in civil and environmental engineering and nursing. These expanded opportunities have allowed UTT to focus on increasing student success with the implementation of several initiatives. For example, supplemental instruction, a new advising center, and the creation of learning communities target improving student retention. More than 67 percent of freshmen have been exposed to one or more student success programs.

UT Tyler is focused on increasing educational opportunities in science, technology, engineering, math, and medical/health fields to overcome the workforce shortfall predicted in the RAGS report. Approximately 16 percent



of all undergraduate students enrolled at UTT major in STEM fields. Undergraduate enrollment in STEM has increased by 12 percent at UTT since 2005, while overall undergraduate enrollment has increased by 8 percent. This growth trend in STEM enrollment is greater than the 5 percent growth in undergraduate STEM enrollment at all UT System academic institutions. Undergraduate enrollment in nursing varied from year to year and in 2008 was only four students less than 2005 levels. This growth trend is less than the 9 percent

increase in undergraduate nursing student enrollment at all UT System academic institutions. Undergraduate enrollment in health professions increased from two students per year to an enrollment of eight students in 2008.

Graduate enrollment in STEMM fields has increased almost 23 percent since 2005, adding 17 additional students. This growth is larger than the overall decline in graduate enrollment of 4 percent at UTT. The rate of increase at UTT is considerably larger than the 9 percent increase of STEMM graduate students enrolled at all UT System academic institutions while graduate enrollment for all majors increased by 4 percent. Graduate student enrollment in nursing increased slightly between 2005 and 2006 and has remained relatively stable. In contrast, nursing graduate student enrollment grew 12 percent at all UT System academic institutions.

Undergraduate enrollment in STEMM at UTT has increased 10% since 2005. It has increased 23% at the graduate level.

An important initiative at UT Tyler is the East Texas Center for Science, Technology, Engineering, and Mathematics. The East Texas STEM Center received a \$1.2 million federal grant to improve instruction and academic performance in science- and math-related subjects in rural school districts. Through research, technical assistance, professional development opportunities and access to curriculum, the program is working to meet the growing demand for graduates in the STEMM fields. This is critical to the U.S. remaining globally competitive in technology.

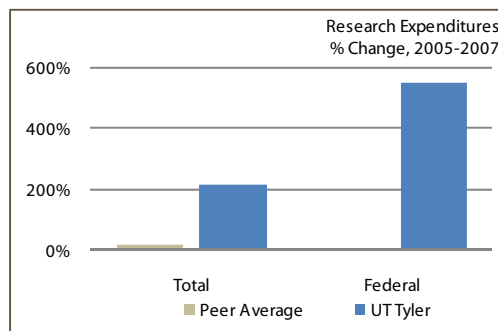
Research & Technology Development

UT Tyler's culture is changing with an enhanced focus on research. Implementing that change has included a newly creation position of Associate Vice President for Research. At UTT, this person is responsible for research administration, technology transfer, and federal relations. The development of this position demonstrates a strong commitment from UTT leadership to advance the research enterprise at UTT.



An ongoing initiative at UT Tyler is to increase the number of grant proposals submitted to support research activities. Through one-on-one faculty mentoring, training workshops, and expanded sponsored research staff, significantly more faculty are submitting grant proposals. These proposals will lead to new discoveries that drive education and expose students to state-of-the-art projects.

These investments to enhance the organizational research culture expand resources for faculty research projects, often tracked by the money spent to conduct the scientific investigations. Research expenditures at UT Tyler surpassed \$1 million in 2007, increasing 217 percent between 2005 and 2007, while peers averaged a 16 percent increase. Research expenditures from federal sources also increased substantially, 551 percent during the same time period while peers averaged a 4 percent decrease.



Source: NSF, NIH.

Competitive Capacity

Competitive capacity, or the resources necessary to advance academic and research goals, is fundamental for institutional advancement. Resources include: world-class faculty, innovative buildings with advanced research laboratories and academic spaces, recognition programs to support faculty efforts, and interest from external donors.

FACULTY RECRUITMENT

Attracting top-caliber senior researchers who are internationally recognized for advanced breakthroughs in their field leads to major innovations in discovery, development, and application of research. UT Tyler has increased the number of tenured/tenure track faculty by 8 percent, or 13 people, since 2005. Two faculty members were recruited through the STARS (Science and Technology Acquisition and Recruitment) Program.

In addition, one faculty member was recruited through a Texas Emerging Technology Fund Research Superiority Award for \$3.75 million. Dr. Jan Sundell, research professor of engineering and a leading international expert on indoor air quality, came to UT Tyler to establish and direct The Texas Allergy, Indoor Environment and Energy Institute (TxAIRE). TxAIRE is based on a partnership with UT Dallas, the International Center for Indoor Environment and Energy at the Technical University of Denmark, and industry. UT Tyler and the UT System has committed \$2.5 million to support TxAIRE over four years.



Dr. Jan Sundell

STARS FACULTY



Dr. David Hoe, assistant professor of electrical engineering, was recruited from UT Arlington. Dr. Hoe's expertise is in integrated circuit design and mixed-signal system design. Prior to joining UT Tyler, Dr. Hoe worked for five years designing microelectronic circuits at the General Electric Research and Development Center and had ten years of academic experience.



Dr. Hector Ochoa, assistant professor of engineering, was Visiting Assistant Professor and was recruited to stay at UT Tyler. Dr. Ochoa, a graduate of UT El Paso, is an expert in radar signal analysis, including Doppler analysis of high-velocity radar targets. Dr. Ochoa's doctoral research was supported by the Army Research Laboratories.

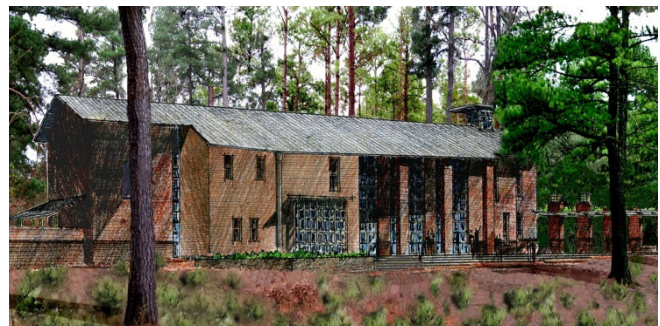
INFRASTRUCTURE

New construction and renovation of state-of-the-art buildings create educational and research possibilities that drive the competitiveness initiative. UT Tyler increased research space by 7,600 square feet (269%) since 2005. In addition, the Competitiveness Initiative funded two new facilities: the Renovation and Expansion for Engineering and Sciences and the Expansion of the Palestine Campus.

COMPETITIVENESS INITIATIVE SUPPORTS \$56 MILLION FOR CAPITAL PROJECTS AT UT TYLER

The Renovation and Expansion for Engineering Sciences project will cost \$48 million and includes several phases to add 6,800 square feet of new space and renovate 250,500 of existing space. First, the Engineering, Science, and Technology north building will be renovated, converting existing science and math classrooms and laboratories into larger science laboratories appropriate for lower division students and adding faculty and staff space. Second, as scientists move into the new space, their offices will house major portions of the College of Education. Third, space vacated by the College of Education will return the student center back to students. Finally, surge space that is created by the renovation will become permanent study space for waiting art students.

The Expansion of the Palestine Campus will add 17,500 square feet of space to accommodate rapid enrollment growth. The \$8 million project will add clinical and general classrooms, laboratories, and general faculty office space. The additional space provides needed expansion for programs such as nursing where critical shortages exist throughout the state.



PHILANTHROPY TO SUPPORT STEMM INITIATIVES

A compelling indicator of competitiveness is the institution's appeal to philanthropists who join the institution's commitment to excellence. UT Tyler raised more than \$440,000 in STEMM-specific endowments since FY 2005, including graduate fellowships, distinguished chairs to support student scholarships and faculty research. Over \$12,500 is distributed for STEMM research and scholarships on an annual basis from these new endowments. STEMM-related allocations equal 10 percent of the total philanthropic distribution per year. In addition, UT Tyler raised over \$1.6 million in gifts to support the two construction projects for the UT Competitiveness Initiative.

FACULTY AWARDS

The faculty at UT Tyler are often recognized for their significant contributions to their areas of expertise and respective fields of study. The institution's competitive stature is enhanced by the recognition that these awards bring and the experiences that are then shared with students.



Dr. K. Lynn Wieck, Jacqueline M. Braithwaite Professor for the College of Nursing and Health Sciences, was named a fellow in the American Academy of Nursing. FAAN membership recognizes the outstanding accomplishments within the nursing profession and to health care. Dr. Wieck is most recently recognized for her research to improve retention among nurses and generational differences in expectations.

