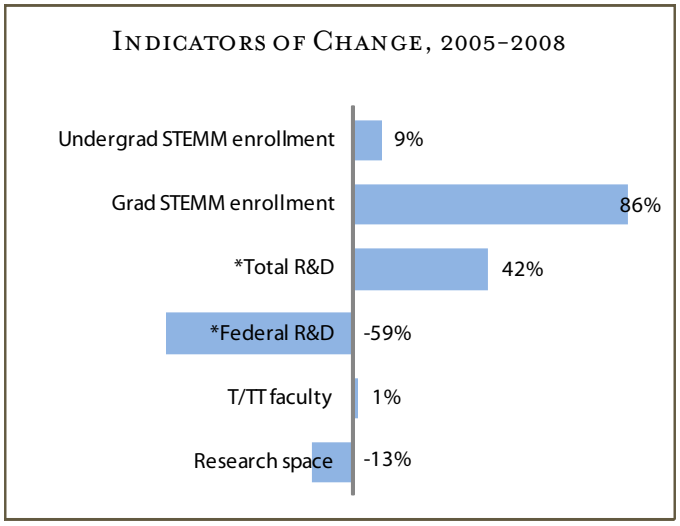
The University of Texas of the Permian Basin

The UT System has responded to the challenge set forth by the Rising Above the Gathering Storm (RAGS) report and has committed more than $136 million to strengthen competitiveness at UT Permian Basin. The initial impact of these investments is presented here, organized according to the four critical elements described by RAGS: education, research and technology development, competitive capacity, and incentives.



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

UT Permian Basin at a Glance

Student enrollment in STEMM, 2008	
Undergraduate (STEMM % of total)	466 (17%)
Graduate (STEMM % of total)	26 (4%)
Physical space (square footage)	
Teaching	102,000
Research	11,000
Increase in total sq. ft. through initiative	97%
New STEMM-related endowments (2005-2008)	$339,000
Research expenditures, 2008	$3 million
Federal research expenditures, 2008	$314,000
New invention disclosures, 2005-2008	2
U.S. patents issued, 2005-2008	1

Education

Under the UT System Competitiveness Initiative, UT Permian Basin increased its academic physical space by almost 128,000 square feet. Increases in classroom and research space have opened the door to two new degree programs in mechanical engineering and computer science. These expanded opportunities have allowed UTPB to set a goal of increasing their student enrollment by 5.5 percent.

UT Permian Basin is focused on increasing educational opportunities in science, technology, engineering, math, and medical/health (STEMM) fields to overcome the workforce shortfall predicted in the RAGS report. A major institutional initiative is to enhance the STEMM program with new degrees in chemical and electrical engineering. The initiative is expected to provide an increase in STEMM graduates for the region, reaching 350 students by 2015.

Another initiative is to increase the national recognition of program quality at UT Permian Basin. Four specialized programs have earned accreditation, and UTPB is now included in the survey for the *U.S. News & World Report* business school rankings. National recognition may also increase with new admission standards that will be implemented in fall, 2009.

Undergraduate enrollment in STEMM fields has increased by almost 9% since 2005 at UTPB. In 2008, approximately 17% of undergraduates were STEMM majors.

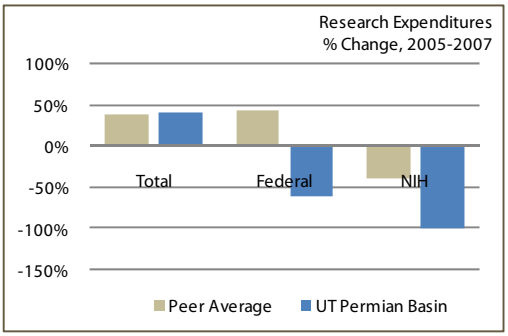
Approximately 17 percent of undergraduate students enrolled at UT Permian Basin major in STEMM fields. Undergraduate enrollment in STEMM has increased by almost 9 percent at UTPB since 2005, while overall undergraduate enrollment has declined by four percent. This growth trend in STEMM enrollment is more than the 5 percent growth in undergraduate STEMM enrollment at all UT System academic institutions.

Graduate enrollment in STEMM fields has increased 86 percent since 2005, adding 12 students. This growth is more than the overall graduate enrollment increase of 45 percent at UT Permian Basin. The rate of increase at UTPB 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.

Research & Technology Development

UT Permian Basin has set a goal of increasing sponsored research at the institution. In support of this goal, the institution enhanced its research support for faculty and increased faculty expectations for research productivity.

These institutional enhancements contribute to improved resources for faculty research projects, often tracked by the money spent to conduct the scientific investigations. Research expenditures at UT Permian Basin have increased 42 percent between 2005 and 2007, while peers averaged a 39 percent increase. Research expenditures from federal sources decreased 59 percent during the same time period while peers averaged a 45 percent increase. Similarly, research expenditures from grants awarded by the National Institutes of Health (NIH) decreased more than its peers: UT Permian Basin decreased by 100 percent and peers reported a 40 percent decrease. It is important to note that the largest funding source for research at UTPB is from the institution (43% in 2007), far exceeding federal, state, and private funding sources.



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 Permian Basin has increased the number of tenured/tenure track faculty by 1 percent, or one person, since 2005. The institution plans to increase the number of new faculty positions in STEMM fields by seven over the next two years.

Infrastructure

New construction and renovation of state-of-the-art buildings create educational and research possibilities that drive the institution's competitive prominence. UT Permian Basin decreased research space by 13 percent since 2005, losing over 1,600 square feet. The Competitiveness Initiative will help offset this loss with the completion of the Science and Technology Complex. In addition, the Wagner Noël Performing Arts Center will add space for classrooms, a recital hall, and an auditorium.

Competitiveness Initiative Supports $135 million for Capital Projects at UT Permian Basin

The Science and Technology Complex includes construction of 117,000 square feet of space for undergraduate and graduate teaching and research. In addition to laboratories, lecture halls, and general office space, campus wide information systems support will be housed here. The $54 million project is funded through tuition revenue bonds and is expected to be complete in fall 2010.

The Wagner Noël Performing Arts Center includes almost 65,000 assignable square feet of space that will be used for a performing arts center, classroom spaces, and a convocation center for various University functions. The $81 million project includes $45 million in tuition revenue bonds, $16 million in gifts, $12.5 million in Permanent University Fund bonds and $7.5 million in grants.

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 Permian Basin raised almost $339,000 in endowments since FY 2005 to support student scholarships. Over $2,700 is distributed for scholarships on an annual basis.

Faculty Awards

The faculty at UT Permian Basin are often recognized for their significant contributions to their 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. Marianne Berger Woods, assistant professor in the department of visual and performing arts, was named a Fulbright American Scholar to create effective synergies across continents through lectures, teaching, and conducting research. Dr. Woods provided lectures on the cross-fertilization of ideas in American and Russian visual arts and literature at the Moscow State Pedagogical University in Moscow, Russia.

Incentives

Various programs provide additional incentives to excel in science, technology, mathematics, and health. The UT System's Chancellor's Entrepreneurship and Innovation Awards recognized Dr. James Wright for his discoveries in nuclear chemistry and mathematical modeling. Dr. Wright serves as UT Permian Basin's director of the High-Temperature Teaching and Test Reactor (HT^3R) project.