ENHANCING GRADUATE EDUCATION AT TEXAS TECH UNIVERSITY:

The Pathway to 2025

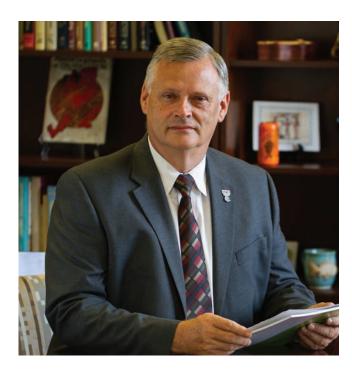


SPRING 2019



TEXAS TECH UNIVERSITY Graduate School

Message from the Dean





The graduate enterprise of Texas Tech University is an essential part of the university's emergence as a premier national research university. This was re-affirmed by the recent designation of Texas Tech by the Carnegie Commission on Higher Education as one of the nation's elite universities ("doctoral university: very high research activity"), a recognition for which our graduate programs figured prominently.

Enhancing Graduate Education at Texas Tech University: The Path to 2025 is a complete revision of the former strategic plan of the Graduate School. The changes were made to better align with the university's new strategic plan, A Foundation for the Next Century: A Pathway to 2025, and to compliment efforts to continue the emergence of Texas Tech University as a preeminent student-centered, national research university...the kind of university that helps meet the demands for innovation and a highly skilled workforce... the kind of university that serves as an economic engine and helps secure the economic vitality of Texas and the nation.

The Path to 2025 is much more than a set of milestones for growth. It is a comprehensive plan for developing an enterprise that produces ethical, knowledgeable, and thoughtful graduates who are prepared to tackle complex challenges and will enrich the cultural and social fabric of society.

The Path to 2025 is a dynamic plan designed to adapt and respond to the needs of our students, our partners inside and outside the university, and to the workforce. Accordingly, the plan is designed to be reviewed and adjusted as necessary to assure attainment of goals. I'm particularly grateful to the Dean's Advisory Council of the Graduate School for their input in developing this strategic plan.

Mark A. Sheridan, Ph.D.

Vice Provost for Graduate and Postdoctoral Affairs Dean of the Graduate School Texas Tech University

BACKGROUND AND IDENTIFICATION OF GOALS

Graduate education is the centerpiece of American higher education and is highly respected worldwide. Graduate education has major impacts on society. It drives innovation in all fields of endeavor, from the arts and humanities to science, technology, engineering, and mathematics. Graduate education also is a central component of the US workforce development strategy as graduate degree holders bring increased value to the workforce and to society through their specialized knowledge, creativity, and problem-solving ability. The contributions of graduate education to research and innovation and to workforce development helps fuel economy, create jobs, and improve the quality of life and the cultural and social fabric of society. Graduate degree holders also realize significant personal benefits through higher annual and lifetime earnings and increased job security.







Graduate education has significant and far-reaching impacts on society

- · Creates the workforce needed in a global, knowledgebased economy
- Contributes to innovation and groundbreaking research
- · Facilitates technology transfer and commercialization
- Develops innovators and entrepreneurs
- Prepares future college and university faculty
- Develops leaders for business, nonprofit, and government sectors
- Prepares the K-12 teacher workforce
- · Contributes to start-ups and the creation of new jobs
- Enables development and implementation of public health and safety initiatives
- Strengthens communities through social action
- · Enhances society through the arts, humanities, and social sciences

Texas Tech University in its strategic plan, A Foundation for the Next Century, sets out the goal to become a premier national research university. The strategic plan of the Graduate School, Enhancing Graduate Education at Texas Tech University: The Path to 2025, complements the strategic plan of the university to help achieve this goal by expanding the size, scope, and quality of its graduate enterprise.

Texas Tech has made a number of advancements through the implementation of the previous strategic plan of *The Graduate School, Enhancing Graduate Education at Texas Tech University: The Path Forward.* Highlights are as follows:

We have added 8 doctoral degree programs and 28 master's degree programs since 2013 that align with the strategic priorities of the university and help meet workforce demands. We also have added 15 graduate certificate programs since 2013 that focus on developing critical skills in focused areas. A particular emphasis has been placed on increasing accessibility; and of the new programs offered, most are available online.

Expanded marketing and recruitment efforts have led to a 38% increase in the number of applications since 2013. At present, 48.6% of our applications are domestic, while 24% are from India and 7% from China; other countries from which we receive applications, in order of number, include Iran, Bangladesh, Saudi Arabia, Nigeria, Sri Lanka, Turkey, Taiwan, South Korea, Nepal, Vietnam, Brazil, and Mexico.

Since 2013, \$8M from central administration has been added to increase stipend levels and the number of assistantships. The average stipend has increased ca. \$1,450 since 2013 to \$20,590. The endowment of The Graduate School has increased by \$20M since 2013, which now provides over 450 recruitment fellowships to increase the competitiveness of department offers and helps support the newly launched Presidential Fellowship Program aimed at attracting top applicants. These investments have increased the quality of applicants. Since 2013, the quantitative GRE score increased from the 35th percentile to the 55th percentile and admission selectivity has improved from 50.2% of applicants admitted to 39% of applicants admitted.

Total graduate enrollment has increased 25% since fall 2007 and has increased ca. 10% since 2013. Full-time graduate enrollment currently ranks 66th in the US (top 10%)* and is ahead of all Big 12 peers except the University of Texas (UT) and Iowa State University (ISU). Doctoral enrollment in science, technology, engineering, and mathematics (STEM) fields ranks 77th in the US (top 10%).* Texas Tech's enrollment growth far outpaces national trends, which has increased ca. 1% per year since 2007 (0.5% per year since 2013) according to data from the Council of Graduate Schools.** Therefore, the increase in Texas Tech's graduate enrollment is ca. 2.5 times the national average over the last 10 years and over four times the national average over the last five years.

A signature feature of the graduate experience at Texas Tech is a professional and career development program-a program designed to complement disciplinary training that helps students succeed in their studies and better positions them to transition to the workforce. Since 2013, we opened The Graduate Center; launched and expanded the services of The Graduate Writing Center; increased the number of professional and career development events; expanded opportunities for students to present their work, including adding the 3-Minute Thesis Competition; and created The Office of Graduate and Postdoctoral Fellowships to assist students develop and submit applications for external fellowships. Over 74% of alumni report that they are "very satisfied" or "satisfied" with the preparation that they received for their career.

The impacts of increasing size, scope, and quality of graduate programs leads to

- Enhance access and opportunity
- Increase intellectual capital
- Compete effectively for prestigious external fellowships
- Recruit top-quality faculty
- Improved teaching and learning
- Accelerate development of a highly-skilled workforce
- Increase R&D funding
- Advance technology development
- Increase stature of the university
- Expand the economy of the region, state, and nation

The number of master's degrees awarded increased by 53% between fall 2008 and fall 2018 (to 1629 degrees); there has been an increase of 20% just since 2013. Between fall 2008 and fall 2018, the number of doctoral degrees awarded increased by 59% (to 349); there has been an increase of 14% since fall 2013. The number of doctoral degrees awarded currently ranks 58th (top 14%)* in the US and is ahead of all Big 12 peers except UT and ISU.

Following completion of their degree programs, our graduates enter every sector of the economy (private industry, higher education, K-12 education, government, and nonprofit)*** Moreover, 70% of alums remain in Texas for employment.***

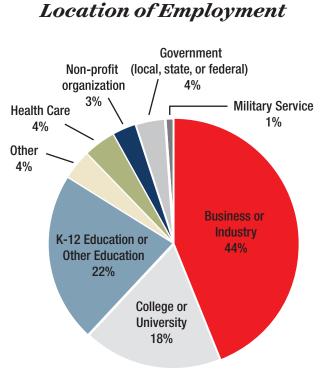
The achievements we have made in full-time enrollment and number of doctoral degrees conferred are significant and put us at levels for these metrics similar to those displayed by our aspirational Association of American Universities (AAU) peers. In other areas, such as percent of total student population that are graduate students, percent of graduate students receiving funding, and stipend levels, however, we have substantial progress to make. In light of the fact that graduate students are increasingly taking positions outside of academia, it is essential that our students continue to obtain a wide range of professional and career development skills in addition to their disciplinary training in order to launch and advance in their careers.

Enhancing Graduate Education at Texas Tech University: The Path to 2025 is a comprehensive plan aimed at improving the size, scope, and quality of the graduate enterprise in a manner that will further the mission of the university and the attainment of its goal to be a premier national research university. Ultimately, the plan will lead to expansion of the innovative capacity of the university and to meeting the nation's demand for a highly-skilled workforce. The plan is built around the following three priority areas:
Expand the scope and impact of our graduate programs
Increase access to and participation in our graduate programs
Enhance engagement and success of our graduate students

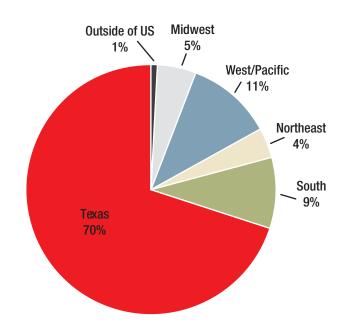
It should be noted that these priorities are somewhat different from the priorities articulated in the university's plan because of the unique nature of the graduate enterprise. The relationships of the priorities of The Graduate School plan to those of the university's plan are described below.

*Data source: National Science Foundation

- **Data source: Council of Graduate Schools
- https://cgsnet.org/ckfinder/user-files/files/CGS_GED17_Report.pdf
- ***Data source: Survey of TTU Graduate School Alumni, 2018



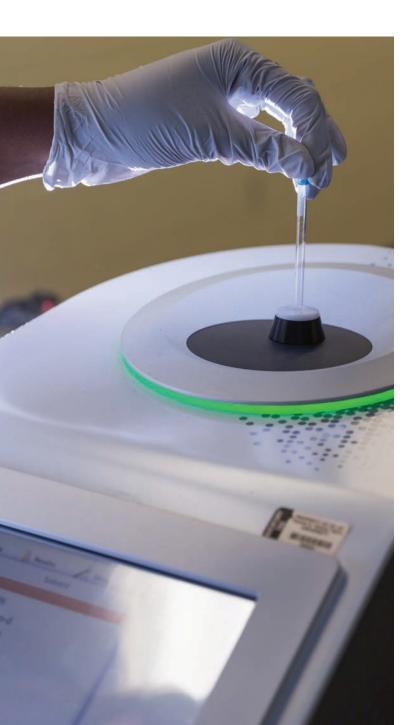
Employment Sector



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Strategic Priority 1: Expand the Scope and Impact of Our **Graduate Programs**

This priority is aimed at increasing the size, scope, and quality of graduate programs by attracting the highest quality applicants and by increasing the number of graduate-degree holders that will contribute to a highlyskilled workforce.



GOALS

- Create and strengthen graduate programs with more programs achieving national prominence
- Expand the Texas Tech brand in domestic and international markets
- Increase applicant quality and admission selectivity
- Increase graduate enrollment to 8,000 students by 2025
- · Increase the number of graduate certificates and graduate degrees awarded

STRATEGIES

- Continuously grow and improve graduate programs to meet workforce demands while aligning with the strategic priorities and the research/scholarly themes of Texas Tech
- Encourage collaboration that facilitates the development, delivery, and capacity of interdisciplinary, multidisciplinary, and multi-degree programs
- · Provide enhanced business intelligence and data analytics to enable better data-informed decisions and to enhance student recruitment, retention, and success as well program excellence
- Strengthen the relationships between the Graduate School, professional schools, and Texas Tech University Health Sciences Center to develop and strengthen graduate and professional programs
- Develop, implement, and support a comprehensive enrollment management plan that includes strategic marketing and recruitment plans at the university and unit levels
- Establish salary guidelines for assistantships and work collaboratively to increase stipends to levels of aspirational peers
- Work collaboratively to increase the endowment of The Graduate School in order to increase the number of recruitment fellowships
- Enhance the dissertation completion program to better facilitate degree completion and entry into the workforce
- · Establish programs and incentives to attract and develop National Science Foundation Graduate Research Fellows
- Strengthen the development and retention of faculty, especially new and those at the junior level, by enhancing orientation and professional development efforts.
- Promote and support international research and professional development opportunities for all faculty.
- Increase our presence in non-sports national media.

MILESTONES AND TIMETABLE

- All graduate programs will have a recruiting plan by 2020 Increase the number of NSF Graduate Research Fellows • Increase website traffic by 25% percent by 2025 to 10 by 2025
- Increase the number of applications by 5% per year each • Increase the quality of applicants as measured by standardized test scores (e.g., increase average GRE year through 2025 • Increase total graduate enrollment to 8000 by 2025 scores by ten percent by 2025)
- Increase the number of combined/accelerated bachelor's-
- master's programs by 100% by 2025 • Increase the number of students participating in
- interdisciplinary graduate programs by 10% by 2025• Increase the endowment of the Graduate School by \$15M
- by 2025
- Increase the average stipend of teaching assistants and research assistants to the level of our AAU aspirational peers by 2025

CHALLENGES

- Geographical location of Lubbock
- Assistantship stipend levels that are below those of peers and aspirational peers
- Insufficient funds to facilitate recruitment of top students (e.g., marketing, student visits to campus, etc.)
- Budgeting processes and current promotion and tenure structure do not adequately support interdisciplinary activity
- · Limited acceptance of academic and research programs outside of traditional disciplinary structure
- Comparatively low rankings (e.g., US News and World Report)

A variety of information will be used to assess progress toward meeting these goals, including data on applicants as well as on newly admitted and enrolled students, data from the newly developed fellowship tracking system, and program reviews and other external appraisals of program quality (e.g., accreditation reports, etc.). This priority of The Graduate School supports the university's priority Educate and Empower a Diverse Student Body.

- Increase the number of doctoral degrees awarded by 10% by 2025
 - Increase the number of master's degree awarded by 20% by 2025
- Increase the number of graduate certificates awarded by 20% by 2025
 - Reduce time to degree to national averages in all disciplines by 2025
 - Increase the number of programs ranked in the Top 100 by US News by 100% by 2020

Strategic Priority 2: Increase Access to and Participation in Our Graduate **Programs**

Diversity produces unquestioned benefits. Diverse groups are more likely to produce innovative solutions to problems, and interacting with people from diverse backgrounds helps prepare students for productive activity in a multicultural, global life. Increasing access to education and fostering inclusion also produces benefits to individuals from backgrounds which are traditionally underrepresented by enabling them to feel engaged and able to add their voices to the generation of new ideas and products. Increasing access via distance delivery also allows students who are unable, for whatever reason, to enjoy and benefit from the graduate programs at Texas Tech. This priority is aimed broadly at increasing access to and participation in our graduate programs so that a) Texas Tech enjoys the benefits of a diverse graduate student population and b) produces a workforce that will enhance economic competitiveness in a knowledge-based economy.



GOALS

- Increase recruitment, enrollment, retention, and graduation of domestic students, including those from traditionally underrepresented backgrounds
- Increase recruitment, enrollment, retention, and graduation of US veterans
- Increase recruitment, enrollment, retention, and graduation of international students
- · Increase the number of graduate programs available by distance delivery and increase the number of students enrolled in online graduate programs

STRATEGIES

• Nurture an environment that values, respects, and engages diverse perspectives and talent and encourages all members of the Texas Tech community to thrive, develop, and contribute to their full potential

- Expand experiential, cross-cultural, and collaborative learning opportunities on campus and abroad to help students develop intercultural competencies and global awareness
- Increase access to and broaden participation in all graduate programs
- Develop and implement a comprehensive enrollment management plan that includes increased recruitment activities at minority-serving institutions and recruiting events/conferences that emphasize serving underrepresented populations

· Develop and implement a retention program for students from traditionally underrepresented backgrounds (e.g., first generation, minority students)

• Enhance Texas Tech's national veteran-friendly university status through targeted efforts to recruit and retain students from veteran populations

· Establish and maintain cooperative agreements with foreign governments and international institutions that 1) foster student exchange and/or 2) enable joint/dual degree conferral

• Develop and implement a comprehensive international recruitment plan

MILESTONES AND TIMETABLE

- Increase the number of applications from domestic students with traditionally underrepresented backgrou by 15% by 2025
- · Increase the number of enrolled domestic students with traditionally underrepresented backgrounds by 10% by 202
- Reduce attrition of domestic students from traditionally underrepresented backgrounds to national averages in each discipline by 2025
- Increase the number of applications from US veterans by 10% by 2025

CHALLENGES

- Geographical location of Lubbock in West Texas
- Assistantship stipend levels that are below those of peers and aspirational peers • Students from traditionally underrepresented backgrounds often lack a support structure and role models who understand the value of graduate education
- Highly competitive market for international students
- · Comparatively low world ranking (e.g., ShanghaiRanking: Academic Ranking of World Universities)

A variety of information is and will be used to assess progress toward meeting these goals, including data on applicants as well as on newly admitted and enrolled students and data from sponsored student programs and study abroad. This priority of the Graduate School supports two of the university's strategic priorities: Educate and Empower a Diverse Student Body and Enable Innovative Research and Creative Activities.

	• Increase the number of enrolled US veterans by
nds	10% by 2025
	• Increase the number of agreements to foster student
	exchange and/or enable joint/dual degrees conferral by
25	10% by 2025
	• Increase the number of international graduate students by
	10% by 2025
	• Increase the number of international sponsored students by
y	50% by 2025

• Faculty advisors often lack the skill sets to effectively mentor students from traditionally underrepresented backgrounds

Strategic Priority 3: Enhance Engagement and Success of Our Graduate Students

This priority is aimed at assuring that graduate students have the professional skill set necessary to succeed in their degree programs and to embark and advance in careers in a diverse and global marketplace, whether in academia, government, the private sector, or in nonprofit organizations. This is especially important in light of the fact that graduate students are increasingly seeking positions outside of academia and need to be prepared for these types of environments. Moreover, graduate student engagement opportunities allow students to generate, transmit, and apply knowledge in ways that make a positive difference in their lives and in the lives of others.

GOALS

- Increase participation and engagement of graduate students in professional activities
- Increase the skill set of graduate students in communication, critical thinking, leadership and management, professionalism, teamwork, and ethics
- Increase placement of students in discipline-related careers in all sectors of employment

STRATEGIES

- Engage local, state, national and global communities as partners in scholarly endeavors that cut across teaching, research and creative activities, and service that have public impact
- Develop and/or support student learning opportunities through civic engagement and engaged scholarship projects and activities
- Continue development of The Graduate Center to assure that essential academic support services (e.g., graduate writing center, statistical consulting, career services, counseling services), professional development programming, and student life activities are available to graduate students and postdoctorals

- Expand opportunities for graduate students to present and showcase their research and creative work
- Continue to engage The Dean's Advisory Council, employers and others to enhance programming for professional development, including development of interdisciplinary thinking and collaboration skills
- Enhance high quality teaching skills across all Texas Tech programs through expanded teaching development programs
- Expand Fellowship Office to help students find and apply for individual fellowship and grant opportunities to support professional activities, including participation in international experiences
- Work with programs and businesses to expand internship and field-based opportunities
- Expand graduate student research and travel programs
 Continue to conduct and refine surveys of graduating students and alumni regarding program effectiveness



MILESTONES AND TIMETABLE

- Increase the number of career and professional development events by 20% by 2025 and the participati of students in those events by 20% by 2025
- Increase use of the Graduate Student Writing Center by 20% by 2025
- Increase participation in teaching development program by 10% by 2025
- Increase the number of students who participate in the Individual Development Plan (IDP) program by 20% by 202
- Increase submission of student-initiated applications for external fellowships and grants by 10% by 2025
- Increase the number of TTU graduate students that stu abroad by 10% by 2025
- Increase the number of TTU graduate students receivir Fulbright Fellowships to teach/research abroad by 10% by 2025

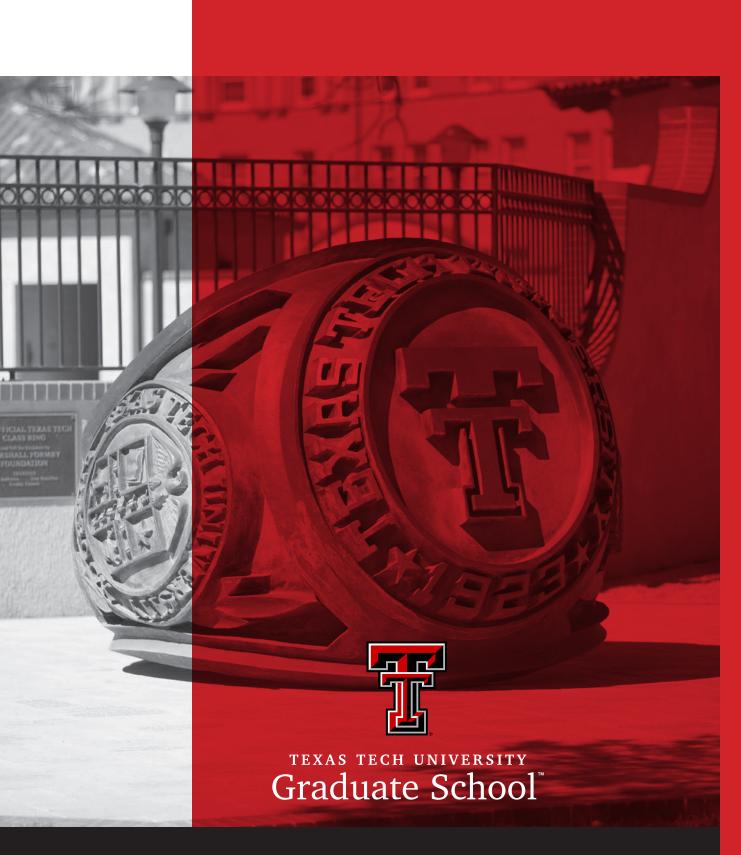
CHALLENGES

- Engagement has commonly been thought of as only se essential to achieving these goals.
- Lack of coordination of professional and career development opportunities and insufficient opportunities to develop skill sets needed for diverse career paths in a global marketplace
- $\bullet {\rm Lack} \ {\rm of} \ {\rm awareness} \ {\rm of} \ {\rm external} \ {\rm fellowship} \ {\rm and} \ {\rm grant} \ {\rm opportunities} \ {\rm by} \ {\rm graduate} \ {\rm students} \ {\rm and} \ {\rm postdoctoral} \ {\rm scholars} \ {\rm scholars} \ {\rm and} \ {\rm postdoctoral} \ {\rm scholars} \ {\rm scholars} \ {\rm and} \ {\rm postdoctoral} \ {\rm scholars} \ {\rm scholars}$
- \bullet Insufficient funding available to support travel to and present work at professional meetings

A variety of information is and will be used to assess progress toward meeting these goals, including exit surveys of graduate students, alumni surveys, employer surveys, feedback on professional and career development events, assessment data in program reviews and other external appraisals of program quality (e.g., accreditation reports), and discussions with the Dean's Advisory Council. This priority of The Graduate School supports all three of the university's strategic priorities: Educate and Empower a Diverse Student Body, Enable Innovative Research and Creative Activities, and Transform Lives and Communities Through Strategic Outreach and Engaged Scholarship.

on	• Increase participation in graduate school-hosted conferences by10% by 2025
	• Increase the publication of graduate student work in
	appropriate peer-reviewed outlets by 10% by 2025
	• Increase the number of students engaged in internships
ns	and field-based experiences by 10% by 2025
	\bullet Increase the participation of graduate students in engaged
	scholarship by 10% by 2025
25	• Increase the number of students who receive travel
\mathbf{r}	support to present the results of their research at a
	professional conference by 10% by 2025
dy	• Increase student satisfaction with career placement
	by 10% by 2025
ıg	

• Engagement has commonly been thought of as only service. Changing the mindset of faculty, staff and students will be



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