

Strategic Plan for Research



Prepared in response to House Bill 51
..... *for the*

Texas Higher Education Coordinating Board
..... *by the*

Executive Research Planning Committee

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Preface

In the spring of 2012, Texas State University was designated as the eighth Emerging Research University (ERU) statewide. ERU is the second highest research classification under the Accountability System developed by the Texas Higher Education Coordinating Board (THECB). There are two public institutions of higher education in the state with the designation of Research University, which is the highest research designation in the Accountability System.

During the Fall of 2012 the provost appointed the Executive Research Planning Committee (ERPC) comprised of faculty, staff, and students from all divisions within the university and charged it to develop a long-term research strategic plan to accomplish two goals: 1) achieving eligibility to receive financial incentives through the National Research University Fund (NRUF) and 2) achieving recognition as a Research University.

With these goals and strategies in mind, the ERPC formed separate subcommittees charged with assessing two mandatory and six optional criteria required for ERUs to receive NRUF:

Mandatory requirements

- a. ERU designation
- b. \$45M in restricted research expenditures

Optional requirements

- c. Endowments (\$400M).
- d. Number of Ph.D. degrees awarded (200 per year).
- e. Freshman class of high academic achievement (at least 50 percent of first-time entering freshmen in top 25 percent of high school class).
- f. Recognition of research capabilities and scholarly attainment (Association of Research Library membership, Phi Beta Kappa Chapter, or Phi Kappa Phi Chapter).
- g. High quality faculty (5-7 faculty with various international and nationally recognized awards).
- h. High-quality graduate education (reflected in number of programs and graduation rates).

The final plan, submitted and implemented in fiscal year 2014, requires updating every five years in accordance with HB-51 wherein the 81st Texas Legislature established Emerging Research Universities under the Texas Higher Education Coordinating Board Accountability System.

The data presented in the original research strategic plan encompassed fiscal years 2009 to 2013. As a contextual guide for creating the research plan, ERPC members relied upon the 2012-2017 University Strategic Plan. In particular, three goals in the 2012-2017 Strategic Plan (below) and the strategies for implementing those goals mapped closely to THECB guidelines.

- **Goal 1: Promote academic quality by building and supporting a distinguished faculty.**
- **Goal 2: Provide opportunities for a public university education and contribute to economic and cultural development.**
- **Goal 5: Develop and manage human, financial, physical, and technological resources effectively, efficiently, and ethically to support the university's mission.**

The updated Research Strategic Plan utilizes data spanning from fiscal years 2014 to 2018 to 1) detail progress made towards achieving NRUF eligibility, 2) update institutional data presented throughout the plan to reflect changes that have occurred in the past five years, 3) evaluate milestones and peer/aspirant university comparisons for benchmarking purposes, and 4) re-examine the timeline to achieve NRUF eligibility.

Unlike the 2012 to 2017 University Plan which *indirectly* recognized research as a university goal, the 2017-2023 University Strategic Plan explicitly articulates Texas State's emphasis on Research and Creative Activity:

- **Goal 3: Achieve significant progress in research and creative activity as measured by national standards.**
- **Achieve National Research University Fund (NRUF) Eligibility.**
- **Develop new graduate programs to advance the university's research goals.**
- **Encourage and promote student research opportunities.**
- **Expand support to the research community by enhancing resources to support the evolving requirements while developing a staff of research professionals to support and assist researchers.**
- **Foster a university-wide culture that promotes, rewards, and celebrates interdisciplinary research, scholarship, creative activity, innovation, and community engagement.**

As stated in the original research strategic plan, NRUF eligibility does not constitute a new classification under the THECB Accountability System. Indeed, any institution that qualifies for NRUF maintains its status as an Emerging Research University and is eligible to participate in programs and funding that are specific to that cohort including the Texas Research Incentive Program and the Core Research Support Fund.

Nevertheless, Texas State remains steadfast in achieving the goals outlined in the research strategic plan including expanding the research enterprise, fostering graduate and undergraduate academic programs and opportunities, collaborating with community partners, continuing to build an infrastructure that permits growth, safety and diversity for all stakeholders. The institutional resolve to pursue these outcomes is derived from the myriad accomplishments made over the past five years which include the following:

- Increasing Restricted Research and Total Research & Development Expenditures by 69 percent and 64 percent, respectively.
- Establishing the Materials Application Research Center as the newest University-level center.
- Beginning new Ph.D. Programs in computer science and anthropology.
- Starting new M.S. and B.S. degree programs in engineering.
- Constructing new nursing, health professions, and engineering buildings on the Round Rock and San Marcos campuses.
- Expanding the Science Technology and Advanced Research (STAR) facility that serves as a technology incubator for start-up and early-stage businesses.
- Completing the largest capital campaign in the school's history.
- Hiring new tenure-track faculty.
- Launching the new translational health Research initiative (THRI).
- Gaining membership in the Council for Governmental Relations (COGR).
- Becoming an active member in Research America.
- Creating the Undergraduate Research Fellowship program.
- Upgrading its Carnegie classification two categories to reach Research University status.

Based on the knowledge, experience, and confidence gained through these accomplishments Texas State is on a trajectory to accomplish its ambitious goals and, along the way, to surpass new milestones that measure progress and assess outcomes.

Executive Summary

Research Funding and Productivity

A minimum level of \$45 million in restricted research expenditures is one of the two mandatory criteria for NRUF eligibility. Research expenditures correlate to an institution's potential for discovering new knowledge and making an economic impact through technology transfer and commercialization of intellectual property. Expenditures also link to the teaching mission of the university because faculty researchers present cutting edge knowledge to students in the classroom and laboratory. From fiscal year 2009 through fiscal year 2013, Texas State experienced a 57 percent increase in restricted research expenditures, which was the second largest rate of increase by any Emerging Research University (ERU) during that time period. During the next five-year period from fiscal year 2014 to 2018 Texas State experienced a 70 percent increase in restricted research expenditures, which was the largest rate of increase by an ERU during that time period and which resulted in a new institutional benchmark of \$35.6 million in fiscal year 2018. Furthermore, Texas State's gross increase in restricted research expenditures during fiscal years 2009 to 2013 was \$7,608,261, making it the third largest gross increase among all ERUs. The gross increase in restricted research expenditures for fiscal years 2014 to 2018 almost doubled—\$14.6 million—demonstrating consistent progress toward the goal of \$45 million.

Our plan to increase research funding and productivity entails a three-pronged strategy: 1) sustain existing high-profile programs, 2) target external sources and support emerging strengths, and 3) leverage existing resources. This strategy includes the following features:

- Hiring and retaining high quality researchers-scholars.
- Providing competitive start up packages.
- Balancing faculty workloads to promote research while sustaining quality teaching.
- Developing research-related programs that encourage student participation.
- Maintaining a safe, well-equipped research infrastructure.
- Ensuring that faculty evaluation criteria are commensurate with teaching/research expectations.
- Identifying and enhancing emerging research strengths/areas
- Addition of net new graduate research assistants.
- Addition of net new staff positions to support research.
- Fostering a service-oriented atmosphere within research support offices.
- Maximizing funding opportunities in areas of research priorities.

- Fostering collaborations among faculty, centers, companies, and other external partners.
- Providing university support funds for research and scholarship to accelerate program development.
- Cultivating matching research gifts through the Texas Research Incentive Program.
- Implementing incentives identified in each college dean's strategic plan.

Plan for Master's Degree Programs

Texas State's strategic approach to master's education has enabled the university to build programs which meet state and regional needs. As of November 1, 2018, the Texas Higher Education Coordinating Board (THECB) Program Inventory listed the following master's degrees offered by the university:

Table 1: Types of degrees offered at Texas State

Degree Title	Number of Degrees Offered
BBA/MACY	1
MA	27
MACY	1
MAGEO	3
MAIS	2
MBA	1
MED	15
MFA	3
MHA	1
MHIM	1
MM	2
MPA	1
MS	26
MSCD	1
MSCJ	1
MSIS	1
MSN	3
MSRC	1
MSRLS	2
MSW	3
SPP	1

Texas State has regularly exceeded National Research University Fund (NRUF) requirements that 56 percent or more of new master's students graduate within 5 years of starting their program. Master's degree student graduation rates range from 71.2 percent to 78.5 percent from 2012 to 2017, which reflects an end-point increase of 7.3 percentage points. The GPAs of the incoming classes of master's

students have improved continuously, from 3.41 in 2014 to 3.47 in 2018. During this same period, retention rates have also improved. Texas State parallels the national trend of females participating more in graduate education than males. Our master's level student body is more diverse than national trends. Fifty-one of our master's programs offer a thesis option, and all integrate applied research projects, capstone projects, or specific research courses into their curricula. The Graduate College has also awarded about 25 competitive fellowship per year for up to \$2,000 for research expenses directly related to the thesis research. Master's students make regular use of conference travel funding provided by The Graduate College, and students in all colleges regularly publish their research in refereed venues.

Plan for Doctoral Programs

Since launching its first Ph.D. program in 1996, the university has used strategic planning and resource allocation to develop strong doctoral programs that meet state and regional needs. As of November 1, 2018, the THECB Program Inventory listed 14 doctoral degrees offered by the university. Enrollment in the university's Ph.D. programs increased 18.6 percent from fall 2012 to fall 2018. Enrollments have grown over time and have now reached a relatively steady state in most of the well-established programs. Texas State's current doctoral programs resulted from a strategic planning process and adherence to decision criteria established internally and externally by the THECB. This systematic approach yields new sustainable academic initiatives that fit into the institution's near-term and long-range plans and support its research and scholarly mission.

Assessment measures for doctoral program quality include the THECB's 18 Characteristics of Public Doctoral Programs. The university also uses a comprehensive matrix to select national aspirant institutions for benchmarking doctoral programs. Furthermore, Texas State conducts regular, rigorous reviews of academic programs in order to maintain and strengthen quality, productivity, and effectiveness. Program reviews also identify departments/schools with potential to offer new doctoral programs based on such indicators as faculty quality and research productivity, opportunities for multidisciplinary collaboration, economics of scale and scope, competitive climate, and potential state impact. Texas State is widely known for offering doctoral programs with an applied focus. This focus comes from the university's recognition that graduate education must embrace change in preparing students for careers of the 21st century. Using this philosophy, Texas State has identified potential for new doctoral programs. The university is currently exploring the feasibility of developing full proposals

for a Ph.D. in Communication, a Ph.D. in Health and Rehabilitation Sciences, and a Ph.D. in Clinical Psychology.

Plan for Faculty and Student Development

The Office of the Provost and Vice President for Academic Affairs and the Office of Research and Sponsored Programs coordinate to support faculty development in research and scholarship.

Development efforts include one-on-one mentoring, internal research grant programs, a developmental leave program, guided workshops, specialized research and compliance training and consultation services, and collaborative programs both inside the university and with cooperating institutions. Faculty development efforts include nomination of nationally and internationally recognized faculty for major awards and for membership in prestigious professional organizations. For example, 12 faculty have been designated National Science Foundation Career Award recipients, and efforts continue to increase that number. The university recognizes the importance of both undergraduate and graduate students participating in research. Student involvement provides essential personnel for the design and conduct of research and enhances students' learning experiences. The Honors College and the Office of Research and Sponsored Programs have developed an undergraduate research program and symposium to highlight research outcomes. Graduate student research, including thesis and dissertation projects, is supported by several programs across campus. Research and scholarship foster a diverse student body by encouraging inclusiveness, a global perspective, and a sense of community. To help achieve these goals, Texas State has developed and implemented a diversity plan that includes a commitment to recruiting and graduating doctoral students who can contribute to the state's diversity goals in "Closing the Gaps."

Other Resources

Texas State continues to make significant progress in developing its 491-acre San Marcos campus, its 101-acre Round Rock campus, the Science, Technology, and Advanced Research (STAR) Park on a 58-acre tract in San Marcos, as well as the 3,500-acre Freeman Center and the 160-acre Mueller Farm. These major new projects include Bruce and Gloria Ingram Hall (166,851 GSF / 34,515 Research NASF) that will facilitate space reallocation and renovations of the Roy F. Mitte Building (152,449 GSF /

31,600 Research NASF), the University Events Center (219,041 GSF / no Research NASF), Willow Hall (107,708 / 11,593 Research NASF), Elliott Hall repurposing (37,293 GSF / no Research NASF), Encino Hall renovation (92,463 GSF / 822 Research NASF), Jowers Center renovation (143,436 GSF / 4735 Research NASF), Albert B. Alkek Library and Wittliff Gallery renovations (313,581 GSF / no Research NASF), Blanco Hall renovation (193,155 GSF / no Research NASF), Family and Consumer Sciences Vivarium (2870 GSF / 1722 Research NASF), Hilltop Residence Hall (207,240 GSF / no Research NASF), and LBJ Student Center Expansion (243,719 GSF / no Research NASF). In the projects mentioned the research square footage may change due to reconfiguration and repurposing for actual use. Looking ahead, the construction of new space and the renovation of existing space to support research remain important strategic goals of the institution, now guided by the 2017- 2027 Campus Master Plan Update, which builds on the original 2012-2017 plan. The Campus Master Plan also establishes new, near-term goals for the physical campus and identifies projects for the 2017-2027 window based on near- and long-term recommendations from consultant reports. In order to accommodate growth and build on its successes as an emerging research university, Texas State must focus special attention on its electrical systems. High performance computers and other sophisticated research equipment demand uninterrupted power supplies, electricity that is not subject to surges or sags, and maintenance of specific environmental criteria.

National Visibility

In the long term, national visibility is achieved largely by the academic success of a university: the reputation and stature of the faculty it hires and retain, the patents that they secure, their research publications and other creative outcomes, and the achievements of graduates in their careers and public lives. The success of non-academic programs is also critical for creating visibility, e.g., public outreach projects, services for students and alumni, and athletics. To highlight all of these and other areas of achievement, the university will continue to implement a coordinated marketing plan designed to enhance national visibility. The plan focuses on enhancing the image and brand equity of the university by highlighting university features, unique benefits, and credible outcomes that are valued by both internal and external constituents. Effective promotional tools are one part of an integrated marketing communication strategy to deliver accurate, clear, consistent, and continuous messages about the university.

I. Vision Statement

Texas State seeks to become a nationally-recognized research university, offering a wide range of quality programs that contribute to building a better and more sustainable future for Texas and the nation. The university's focus is, and will continue to be, on research with relevance: the creation of new knowledge with applicability to real-world issues. Some current key research emphases are in translational health research; environmental science and sustainability, with special emphasis on water issues; materials science and engineering; leadership in education, including mathematics, geography, and developmental education; nutrition; public safety and security; applied computer science; applied anthropology, with emphases in archaeology and forensics; humanities and social sciences. These emphases are a natural extension of Texas State's mission as a student-centered, emerging research university dedicated to excellence in serving the educational needs of the diverse population of Texas and the world beyond.

II. UPDATE ON PLAN TO INCREASE RESEARCH FUNDING AND PRODUCTIVITY

Our strategy to increase research funding and productivity is a three-pronged strategy: 1) sustain existing high-profile programs, 2) target external sources and support emerging strengths, and 3) leverage existing resources. During fiscal year 2018, Texas State generated \$48.3 million in expenditures from all types of externally sponsored programs. The university receives research funding from three primary sources: federal agencies, state agencies, and private (for-profit and nonprofit) organizations. In aggregate, these sources provided a total of \$40.9 million in research expenditures (including facilities and administrative costs) during fiscal year 2018, distributed as follows:

1. Federal agencies \$31.1 million
2. State agencies \$5.4 million
3. Private \$4.4 million

Thus, federal dollars make up about 76 percent of total research expenditures, while state and private funding sources comprise 13 percent and 11 percent of the expenditures, respectively.

These existing resources, along with planned resource additions, are leveraged to increase funding levels from all external sources, and, most importantly, to increase the overall productivity of faculty, staff, and students. The university assesses productivity in terms of growth in research expenditures, dissemination of research in top-ranked journals, research recognition awards to faculty (e.g., National Science Foundation CAREER Awardees), creation of centers in targeted research areas, number of new doctoral programs, number of doctorates awarded, and number of postdoctoral appointees.

II.A. External Funding

In the short term, the university has set a target of reaching \$45 million in restricted research expenditures, a mandatory requirement for ERUs to become eligible to receive NRUF and complete their transformation to a Carnegie R1 research university. From fiscal year 2009 through fiscal year 2013, Texas State experienced a 57 percent increase in restricted research expenditures, which was the second largest rate of increase by any ERU during that time period. During the next five-year period from fiscal year 2014 to 2018 Texas State experienced a 70 percent increase in restricted research expenditures (see Figure 1), which was the largest rate of increase by an ERU during that time period (see Table 1) and which resulted in a new institutional benchmark of \$35.6 million in fiscal year 2018.

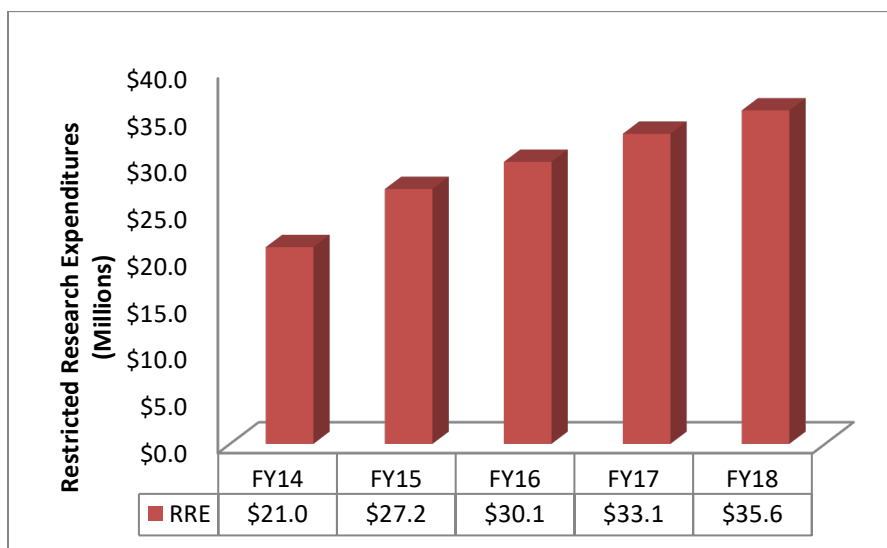


Figure 1. Restricted Research Expenditures by ERUs During Fiscal Years 2014 to 2018

Table 1. Restricted Research Expenditures for ERUs, Fiscal Years 2014 – 2018

University	FISCAL YEAR 2014	FISCAL YEAR 2015	FISCAL YEAR 2016	FISCAL YEAR 2017	FISCAL YEAR 2018	5-Year % Change
Texas State University	\$21.0M	\$27.2M	\$30.1M	\$33.1M	\$35.6M	70
Texas Tech University	\$46.9M	\$48.8M	\$55.4M	\$61.4M	\$57.6M	23
University of Houston	\$62.2M	\$64.4M	\$66.2M	\$61.7M	\$85.8M	38
University of North Texas	\$17.5M	\$16.1M	\$12.9M	\$15.5M	\$17.7M	1
The University of Texas at Arlington	\$30.2M	\$31.6M	\$33.3M	\$37.0M	\$45.4M	50
The University of Texas at Dallas	\$44.2M	\$45.1M	\$50.1M	\$52.4M	\$53.8M	22
The University of Texas at El Paso	\$40.2M	\$46.8M	\$47.4M	\$51.0M	\$50.6M	26
The University of Texas at San Antonio	\$23.6M	\$25.0M	\$29.4M	\$33.6M	\$36.8M	56

Furthermore, Texas State’s increase in restricted research expenditures during fiscal years 2009 to 2013 was \$7.6 million, making it the third largest gross increase among all ERUs. The gross increase in restricted research expenditures for fiscal years 2014 to 2018 almost doubled--\$14.6 million--demonstrating consistent progress toward the goal of \$45 million.

To achieve the target of \$45 million in restricted research expenditures, external funding received from federal, state, and private sponsors in the form of grants, contracts, and gifts will have to increase. A partial list of sponsors that will be specifically targeted for future funding as well as the research priorities they would support includes the following: the National Science Foundation, (NSF) the National Institutes of Health (NIH), the National Aeronautics and Space Administration (NASA), Departments of Justice, Education and Defense, the National Endowment for the Humanities (NEH), and the National Endowment for the Arts (NEA). This list is not exhaustive, and it is meant to be reflective of

those funding agencies where the university has experienced success in the past and those that the university will target for future funding.

A key component of the overall research funding is philanthropic gifts restricted to research. As a consequence of its designation as Emerging Research University under the Texas Higher Education Coordinating Board Accountability System, Texas State is eligible to apply and receive matching funds from the Texas Research Incentive Program (TRIP).

Approved submissions will be matched at the following rates:

(1) 50 percent of the amount if the amount of a gift or endowment made by a donor on a certain date is at least \$100,000, but not more than \$999,999;

(2) 75 percent of the amount if the amount of a gift or endowment made by a donor on a certain date is at least \$1 million but not more than \$1,999,999; or

(3) 100 percent of the amount if the amount of a gift or endowment made by a donor on a certain date is \$2 million but not more than \$10 million.

Since becoming an Emerging Research University, Texas State has been actively participating in the TRIP. To date, the University has submitted over \$33.5 million in gift funds eligible for a State match and has received more than \$13 million in matching TRIP funds. Texas State currently has \$14.5 million in the queue to receive as matching funds. Use of matching funds include: Program Costs, Endowed Chair, Graduate Research Fellowships, Research Facilities, Research Equipment, Research Professorships, Graduate Research Stipends and Undergraduate Research.

II.B. Research Priorities

Texas State identifies a limited number of focused research priorities, tied especially to current and future graduate research and education. These priorities are Environmental Science, Materials Science and Engineering, Nutrition, Translational Health, Criminal Justice, Applied Anthropology, Education, Geographic Information Science, and Computer Science. The university focuses its efforts on research priorities that emerge from university mission and strengths, advance academic and industry needs, meet state and national economic and employment needs, and encourage cross-disciplinary collaboration and innovation.

The research priorities listed above are a natural consequence of several factors including historical missions and strengths of the university, geographical location, concentration of faculty and resources, research expenditure data, opportunities for collaboration, potential for economic impact, response to current and future industrial demands as well as existing and planned academic (i.e. doctoral) programs. However, there are some recurring multidisciplinary and interdisciplinary themes that are encompassed within one or more of the main priorities. For example, in 2016, the university launched the Translational Health Research Initiative in response to the increasing number of Texas State faculty who are currently engaged in health research and sponsored programs. The initiative seeks to transcend existing disciplines and boundaries to create and apply new knowledge that will improve health outcomes and tackle complex health issues.

In support of these strategic research priorities, the university has supported the creation of numerous university-, college-, and department-level centers that focus on our research priorities. The centers and institutes have been listed in Table 2 along with the research priority with which they are most closely aligned in terms of their primary mission.

Table 2. University, College and Departmental Centers and Institutes

Center or Institute	Research Priority / Strategic Area
Texas School Safety Center	Education / Criminal Justice/Public Safety
Advanced Law Enforcement Rapid Response Training (ALERRT)	Criminal Justice/Public Safety
Texas Justice Court Training Center	Criminal Justice/Public Safety
The Meadows Center for Water and the Environment	Environmental Science / Applied Anthropology
Center for Applied Interdisciplinary Research (CAIR)	Education /Translational Health
The Education Institute	Education
Xiphophorus Genetic Stock Center	Translational Health
Texas State Small Business & Development Center (SBDC)	Education
Education Policy Information Center (EPIC)	Education
Texas Mathworks	Education

Center for P-16 Initiatives	Education
Edwards Aquifer Research & Data Center	Environmental Science / Education
Texas State Sleep Center	Nutrition and Health / Health
Center for Geospatial Intelligence and Investigation	Criminal Justice / Geographic Information Science
Clinic for Autism Research, Evaluation and Support (CARES)	Education / Health
Gilbert M. Grosvenor Center for Geographic Education	Education
Texas Center for Geographic Information Science (TxGISci)	Geographic Information Science / Environmental Science / Computer Science / Education / Health
Center for Archeological Studies	Applied Anthropology
Freeman Center	Environmental Science
LBJ Institute for STEM Education and Research	Education / Materials Science and Engineering / Environmental Science / Computer Science
Center for International Studies	Education
Center for the Study of the Southwest	Education
Center for Entrepreneurial Action	Education
Institute for Global Business	Education
Center for Professional Sales	Education
Center for Diversity & Gender Studies	Education
Center for Texas Music History	Education
William P. Hobby Center for Public Service	Education
Richter Research Institute	Education
Assessment and Counseling Clinic	Education
National Center for Research in Geography Education	Education
Texas Alliance for Geographic Education	Education
Institute for Government Innovation	Education / Geographic Information Science / Health

Forensic Anthropology Center at Texas State (FACTS)	Applied Anthropology
Center for the Arts and Symbolism of Ancient America	Applied Anthropology
Center for Middle American Research	Applied Anthropology
Center for Research, Public Policy and Training	Education
Institute for Play Therapy	Education / Health
Center for Communication, Collaboration, and Creativity (C3)	Health
Central Texas Writing Project	Education
Institute for the Study of Invasive Species	Environmental Science
Materials Applications Research Center (MARC)	Materials Science and Engineering

Academic departments/schools, programs, and centers that engage in funded projects that are associated with environmental science include our multidisciplinary Freeman Center and The Meadows Center for Water and the Environment, both of which are university-level centers. This priority is also a focus of the Edwards Aquifer Research and Data Center, which is housed in the College of Science and Engineering. Other centers that engage in this research include the Texas Center for Geographic Information Science, the LBJ Institute for STEM Education and Research, and the Institute for the Study of Invasive Species. Academic departments that engage in environmental science research include biology, geography, and agriculture. The most prominent academic programs that connect to this priority are the geography and aquatic resources doctoral programs.

Materials Science and Engineering at Texas State is by nature and design a multidisciplinary research priority. It primarily involves the partnership between the College of Science and Engineering and the McCoy College of Business Administration due to the unique emphasis on commercialization and entrepreneurial aspects of our MSEC doctoral program. Our Science, Technology, and Advanced Research (STAR) Park serves as an incubator and accelerator of new high-tech companies and creates opportunities for faculty expertise to be leveraged in this area.

One major advancement in Materials Science and Engineering at Texas State is the Materials Applications Research Center (MARC). MARC was allocated \$5.7 million in funding from the Texas Legislature in its 2018-2019 biennium, reflecting a significant investment in this university-level

innovation center. MARC was created to establish Texas State as a leader in the formation of integrated innovation strategic initiatives furthering creation of an innovation-led economy through applied research, engagement, and entrepreneurship.

Education research has been a mainstay at Texas State since it was initially established over a hundred years ago as a normal school, and it is reflected in the large number of centers and institutes that engage in education research. Today, faculty in the College of Education, College of Fine Arts and Communication, College of Liberal Arts, and College of Science and Engineering conduct education research ranging from new and effective methods for training teachers to increasing student participation in STEM-related fields and geographic education.

A major development in multidisciplinary education research is the LBJ Institute for STEM Education and Research. The LBJ Institute has received significant funding from the National Science Foundation and NASA, including a \$15 million NASA grant for STEM teacher training in 2014. In 2015, the Institute initiated the LBJ Faculty Research Fellows program in collaboration with the College of Science and Engineering. In its inaugural year, a cohort of eight faculty research fellows collaborated on an NSF-funded \$1.5 million grant. These faculty went on to lead their own research initiatives, publish numerous journal articles, and lead as principle investigators of NSF grants.

Geographic Information Science (GIS) is integral to various college and departmental centers, including the Texas Center for Geographic Information Science, the Center for Geospatial Intelligence and Investigation, the Institute for Government Innovation, and the Translational Health Research Initiative. In 2014, Texas State University signed a multi-million-dollar agreement to collaborate with Jacobs Technology on advanced engineering and science work for NASA's Johnson Space Center. The university currently holds seven active contracts from Jacobs Technology, totaling over \$1.7 million.

Computer Science remains a research priority, particularly in the area of networking and cyber security. In 2016, the Texas State University System Board of Regents authorized Texas State University to offer the innovative applied computer science Ph.D. program. Department faculty are active research-scholars and include three NSF CAREER Awardees, one of whom was awarded the highly prestigious Presidential Early Career Award for Scientists and Engineers (PECASE) in 2017.

The Criminal Justice/Public Safety research priority is advanced by the Criminal Justice doctoral program in the College of Applied Arts an University Endowed Chair and the Advanced Law Enforcement Rapid Response Training Center (ALERRT), a department-level center. ALERRT addresses

the need for active shooter response training for first responders. In 2013, the FBI named ALERRT their standard for active shooter response training. Furthermore, the Texas School Safety Center (TxSSC) disseminates safety and security information through research, training, and technical assistance for K-12 schools and junior colleges throughout the state of Texas. Chapter 37 of the Texas Education Code and the Governor's Homeland Security Strategic Plan tasks TxSSC with key school safety initiatives and mandates.

Research and scholarship in academic disciplines that comprise the Humanities is another area where Texas State has institutional strengths as evidenced by its 2108 ranking in the top fifty schools in the nation for humanities research and development expenditures.

While nutrition and translational health are two emerging research areas for Texas State, the university has a well-established biomedical research program. The main mission of the Xiphophorus Genetic Stock Center, an NIH-funded university-level center, is to utilize Xiphophorus fish hybrids as animal models in the study of melanomas (skin cancer). The center has been consistently funded from NIH and other granting agencies for over 20 years. The nutrition program within the School of Family and Consumer Sciences engages in research into a variety of areas. The College of Health Professions provides a wide range of research opportunities and curriculum aimed at various health-care related issues; notably the Doctorate in Physical Therapy, professional and university resources for health information technology program in health information management and the nursing program. In 2013, the St. David's School of Nursing received approval to begin offering a Family Nurse Practitioner-Master of Science in Nursing track at Texas State University's Round Rock Campus, which was expanded to accommodate three additional departments: communication disorders, physical therapy, and respiratory care.

Applied Anthropology demonstrates how academic programs are coupled with the research enterprise. In 2018, the Texas Higher Education Coordinating Board and the Southern Association of Colleges and Schools Commission on Colleges approved Texas State University's new Ph.D. in Applied Anthropology. This program is the first applied anthropology doctoral program in the state of Texas and only the third in the nation, addressing the tremendous need for research-based information and pragmatic uses of anthropological knowledge and skills in the global economy. Recent awards have included multiple grants from the NSF and a five-year cooperative agreement with the U.S. Army Corps of Engineers, which brought in over \$2 million in external funding in its first year.

New doctoral programs will further advance our research priorities. Specifically, the university is exploring the feasibility of developing full proposals for a Ph.D. in Communication, a Ph.D. in Health and Rehabilitation Sciences, and a Ph.D. in Clinical Psychology. A doctoral program in communication will align with our Education priority, and doctoral degrees in Health and Rehabilitation Sciences and in Clinical Psychology will align with our translational health and nutrition priorities.

II.C. Allocation of Resources

During the period of fiscal years 2014 to 2018, the university has invested \$96.6 million toward enhancing its research enterprise, including new faculty positions, new and renovated research space, and new and/or upgraded research equipment, which accounts for a 73 percent increase compared to the \$55.9 million invested during the period of fiscal years 2009 to 2013. These investments were made in line with carefully-defined strategic planning goals focused on increasing research output and external research funding. Furthermore, the university has adopted the general strategy of hiring qualified people and investing in them, then building an infrastructure and support services that enable their success.

In developing its faculty, the university will continue to focus on allocating resources to hire quality faculty in priority research areas, with the aim of developing graduate programs, including specifically-targeted doctoral programs and conducting cutting edge research. Continued emphasis will be placed on hiring in areas with potential for growth in both doctoral enrollments and opportunities for external funding (see Section IV for specific doctoral programs update). To promote the research productivity of faculty, especially recently hired faculty, the university has allocated resources for workload and other incentives. See Section 5 for current initiatives.

Our Research Enhancement Program (REP) funding comes from two sources. First, it is funded by a steady \$350,000 allocation from facilities and administrative costs recovered on funded grants. Second, it is funded by a variable amount that comes from the annual Texas Research Incentive Program (TRIP) allocation comprised of 10 percent of all non-construction matches. Over the last five years, \$2.5 million was allocated to the REP including the following annual totals: fiscal year 2018, \$420,000; fiscal year 2017, \$630,000; fiscal year 2016, \$520,000; fiscal year 2015 \$420,000; and fiscal year 2014, \$450,000. TRIP match funds totaling approximately \$6.25 million were returned to departments for research support and investment.

The Office of Research and Sponsored Programs created the Multi-Disciplinary Internal Research Grant (MIRG) program in 2013. MIRG is an internally funded grant competition that supports multidisciplinary research projects that are ready or nearly ready for federal funding with the goal of enabling a greater success rate for research teams who seek federal awards. Since 2013, ORSP has funded 15 MIRG projects for a total investment of \$360,000. Since 2014, they have also allocated approximately over \$1.25 million for equipment matches.

Table 3. Total Allocation from Fiscal Year 2014 to 2018 for Key Research Support

Initiative	Total
REP	\$2.5 million over the past 5 years
MIRG	\$360,000 over the past 5 years
Accelerator	\$1 million over the past two years
Start-up	Over \$14 million over the past 5 years
Research Coordinators	\$2.7 million
Core Research Support Funding / Research Development Fund	\$16.1 million
Graduate Assistantships	\$1.1 million
Equipment	\$15.5 million
Undergraduate Research Fellowship	\$101,200

The university provides \$2.7 million to fund 16 research coordinator positions tasked with supporting research endeavors throughout the university.

In 2017, the Office of Research and Sponsored Programs also introduced the Research Accelerator strategy, whereby the university can make strategic investments with a clearly defined return on investment through external funding. Approximately \$1 million has been allocated in fiscal years 2017 and 2018.

Since fiscal year 2014, Texas State has received from the Texas Legislature more than \$16 million in core research support funding and research development funds, which it allocates to support research, including faculty salaries, start-up packages for new hires, and equipment.

Texas State has invested significant resources over the past 6 years to update buildings, to add research space, and to address rapid enrollment growth. Texas State has increased its infrastructure dedicated to research activities. Two new buildings (Ingram and Willow Halls) were recently opened and contribute to larger research footprint now totaling 238,962 square feet. This is more than 72,000 square feet in additional space research space (or a 43 percent increase) compared to the 2013 total of 166,773 square feet. (Examples include several other projects underway or completed at our San Marcos and Round Rock locations.) The university has completed, or has in progress, 67 percent of the projects listed in the original master plan and 33 percent of the projects listed in the current master plan. Our Campus Master Plan includes several new construction projects that will bolster research activity and productivity.

The university continues to increase funding for graduate assistantships, and, as with resources for capital items, allocations are tied closely to growth in graduate enrollment and the procurement of external funds by research units. The university has made a critical decision to provide additional full-time equivalent (FTE) staff personnel to support the increase research activity. For example, 16 new research administrative support positions have been allocated to provide both pre- and post-award support at the college and departmental levels. These personnel will assist with functions ranging from proposal submission to award management (purchasing, hiring, travel, budget adjustments, etc.). In addition, the Office of Research and Sponsored Programs has added new full-time employees (FTEs) to bolster the compliance area and a quality assurance coordinator for post-award management.

II.D. Student Participation

The university enhances student opportunities to participate in research activities at the graduate and undergraduate levels through concerted efforts to allocate both internal and external sources of funding.

Undergraduate research. Research and education are synonymous at Texas State since both activities provide a formal mechanism for students to engage in true mentor-mentee relationships with faculty and staff members. Traditionally, undergraduate students have enjoyed two ways to actively participate in research at Texas State. One way is via the for-credit curriculum courses offered by many

academic departments/schools in which undergraduate students work independently with faculty mentors on research projects. In some academic programs undergraduate research courses are a requirement of the degree plan. Another way is by active membership in a faculty member's sponsored research program whereby the student oftentimes can work in a group setting to solve real life problems as part of a team effort. Furthermore, internal funding and activities are provided to encourage student research. For example, the university has created an undergraduate research fellowship fund. See Section 5.

Undergraduate research is an important metric in the university's proposed Quality Enhancement Plan (QEP), which is charged with creating a strategic plan aimed at enhancing the role of undergraduate research at Texas State University. Thus far, the QEP process has required meeting with constituent groups, assembling a task force, developing the program framework, and developing and refining student outcomes and assessment plans. Student outcomes will be reported in 2021 to demonstrate that our students design and implement a research, inquiry, or creative project appropriate to their discipline; effectively communicate and disseminate the results of a research, inquiry, or creative project; understand ethical aspects of research, inquiry, or creative expression appropriate to their discipline; value of research, inquiry, or creative expression appropriate to their discipline, and evaluate and synthesize a body of research.

Faculty are rewarded and encouraged to include graduate and undergraduate student research assistants in their own research agendas. The funding sources may be both internal (for example, the REP and MIRG) or external (federal, state, and private sponsors). Through these opportunities, many undergraduate students have gained invaluable and practical experience that greatly enriches their educational experiences at Texas State, raises the academic bar, and motivates students to enroll at the university.

These programs were expanded to increase student research. For example, in the last three years, on average, 252 undergraduate students have been involved with research projects funded by the REP across all disciplines. Additionally, approved undergraduate students have utilized their research experiences as the basis for the undergraduate thesis program in the Honors College. The number of honors theses completed have more than doubled. In the 2013-2014 academic year, there were a total of 37 honors theses completed; in 2018, there were 72. The university's investment in undergraduate student research through the mechanism of the Undergraduate Research Fund (URF) has substantially

increased. In total, from fiscal years 2014 to 2018, the URF awarded \$101,200 in grants to undergraduate researchers.

To help disseminate the outcomes of research conducted by our undergraduate students, the *Texas State Undergraduate Research Journal*, an annual peer-reviewed digital publication, was launched in 2013. Eight issues have been published, each of which containing at least 6 undergraduate research submissions. The journal is administered and edited by undergraduate researchers.

The Rising S.T.A.R. program, funded by the Associated Student Government, provides research travel support for students presenting work at conferences. In 2013, 43 awards were bestowed, amounting to \$6,021 in total funds. In 2018, 65 awards amounted to \$21,956 in total funds.

Under its recent designation as a Hispanic Serving Institution (HSI), Texas State has received awards from the NSF, USDA, Department of Education, and other agencies to provide innovative opportunities for underrepresented undergraduates to participate in relevant research for chemistry, computer science, mathematics, agriculture, and biology. For example, the HSI STEM IMPACT program is administered by University College. The HSI STEM IMPACT Program enhances and strengthens the STEM success pipeline through high-impact practices and outreach. High-impact services are provided to new freshmen, transfer, and continuing students in STEM baccalaureate programs.

Since 2013, the university has also hosted nine NSF Research Experiences for Undergraduates (REU) Awards totaling about \$2.4 million. The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program.

Graduate Research. Texas State has programs specifically designed to facilitate graduate student research. The Dean of The Graduate College has committed \$50,000 annually to fund a Doctoral Research Stipend program, which was implemented in 2012. Doctoral students who have advanced to candidacy are eligible to apply. Supplemental stipends in the amount of \$2,500 to \$5,000 are awarded to fund dissertation research. In addition, the Office of the Provost partners with the College of Education to support a dissertation completion initiative, providing \$30,000 annually toward the effort. Another program to support graduate research is the Freeman Fellows Program administered by the Freeman Center. This internal grant program primarily serves graduate students in the disciplines of forensic anthropology, biology, agriculture, and geography who conduct their research on the Freeman

Center property. Typically, four or five awards up to \$3000 each are made annually. These and other programs and initiatives provide opportunities for expansion, leading to increased graduate student research. During the period of FY2014-18, Texas State raised over \$10 million for graduate student scholarships from philanthropic donors.

III. Plan to Improve Master’s Degree Level Education

III. A. Evaluation of the institution’s master’s degree programs and how they fit into the institution’s strategic plan for research

III. A. 1. Evaluation

Texas State’s strategic approach to master’s education has enabled the university to build programs that meet state and regional needs. As of November 1, 2018, the Texas Higher Education Coordinating Board (THECB) Program Inventory listed the following master’s degrees offered by the university.

Table 4. Types of degrees offered at Texas State

Degree Title	Number of Degrees Offered
BBA/MACY	1
MA	27
MACY	1
MAGEO	3
MAIS	2
MBA	1
MED	15
MFA	3
MHA	1
MHIM	1
MM	2

MPA	1
MS	26
MSCD	1
MSCJ	1
MSIS	1
MSN	3
MSRC	1
MSRLS	2
MSW	3
SPP	1

The overall enrollment in the abovementioned master's programs has been flat from fall 2013 to fall 2018. (See Table 5.) Graduate enrollment is most susceptible to fluctuations in the economy; here, a weak national economy translates to greater enrollments, and a stronger economy, especially in Central Texas, translates into fewer enrollments.

Table 5. Enrollment in master's programs by college

College	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018
Applied Arts	456	496	448	532	561	580
Bus. Admin.	374	407	400	392	361	300
Education	1,066	991	966	971	906	921
Fine Arts & Com	217	209	222	241	205	197
Health Prof.	150	191	216	241	254	270
Liberal Arts	894	793	776	739	755	766
Science & Eng.	348	413	432	399	404	411
Total	3,505	3,500	3,460	3,515	3,446	3,445

The relatively flat overall enrollment despite the creation of new master's degrees can also be partially accounted for by improved graduation rates. Graduate programs on campus undergo regular academic program review, in which departments conduct a self-study and an external review team

provides input on the program's performance. The Graduate College also conducts regular reviews of programs with declining enrollments. As is evident from the university strategic plan, it is a goal of the university to increase graduate enrollment by 3 percent. The university plans to achieve this goal by both increasing the enrollment in existing graduate programs, and by creating new graduate programs in some key areas where there is workforce need and student demand. (See Section III. B.)

Key statistics concerning the 5-year graduation rate, time to degree, student retention, student GPAs, and student diversity provide evidence for the high quality of graduate degrees at Texas State University:

Master's Graduation Rate: High quality graduate education is one of the possible criteria for earning NRUF eligibility status. One of the metrics for offering a high-quality graduate education is the master's graduation rate. In order to meet this metric, 56 percent or more of new master's students must have graduated within 5 years of starting their program. Texas State has regularly exceeded this metric (ranging from 71.2 percent to 78.5 percent from 2012 to 2017); it has, in fact, increased its graduation rate by 7.3 percentage points from 2012 to 2017.

Time to degree and retention rates: The grade point averages (GPAs) of the incoming classes of master's students have improved continuously over the past 5 years, from 3.41 in 2014 to 3.47 in 2018. During this same period, retention rates have also improved. The fact that 51 percent of new master's students who entered in fall 2016 have graduated with a master's degree in two years is remarkable given that 42 percent of our students are part-time.

Diversity: Texas State parallels the national trend of females participating more in graduate education than males. In academic year 2013-2014, females constituted 63.6 percent of all graduate students at the master's level; in 2018-2019, they make up 66.5 percent of the student body at the master's level. The higher participation of females holds across all colleges except for business and for science and engineering (41 percent and 43.8 percent, respectively). *Strategic Goal:* The university strives to recruit more men to graduate education in general, particularly to the health professions and education, and to increase the participation of women in Business and in Science & Engineering master's degrees.

Nationally, non-Hispanic whites account for 60.8 percent of enrollment, non-Hispanic Black/African American students for 12.36 percent and Hispanics for 7.11 percent. Our master's level student body is more diverse than national trends. Non-Hispanic whites account for just under 52

percent of enrollment. On our campus, 26.8 percent of master's students are Hispanic (versus 20.2 percent in 2013), 8.4 percent are Black/African American (versus 6.4 percent in 2013), and 3.2 percent are Asian (versus 2.6 percent in 2013). However, the diversity of the master's student body still does not reflect the diversity of the population of the state of Texas. *Strategic Goal:* It remains a goal in master's education to increase the participation of underrepresented groups, particularly in the STEM disciplines.

Professional development: The success of our master's students is due to both the excellent training that they receive in their home departments, and the institutional support that they enjoy. For instance, Texas State provides master's students with financial support through teaching assistantships (TA), instructional assistantships (IA), and research assistantships (RA), and it offers opportunities for professional development to promote academic excellence both at the department/school and Graduate College levels. The university also provides training and professional development workshops. In addition, The Graduate College employs its own research coordinator (i.e., external funding coordinator) who assists graduate students identifying potential external sources of funding and apply for external fellowships, grants, and scholarships. Texas State provides master's students with the same travel funds as doctoral students to present their research at professional conferences. The Graduate College also sponsors an International Research Conference for Graduate Students, and a 3-Minute Thesis® competition, a contest in which students have exactly three minutes to present their research and its impact on society to a lay audience.

III. A. 2. How programs fit into the university's strategic plan for research

Graduate students are incubators of research; they create new knowledge which allows society to solve problems and to advance our understanding and interpretation of the world around us. Master's students are also our future leaders, thinkers, innovators, and scholars. Masters-level education is central to Texas State's teaching and research missions. Graduate students contribute directly to the culture of inquiry and creative expression through their own MA/MS research activities. Fifty-one of our master's programs offer a thesis option, and all integrate applied research projects, capstone projects, or specific research courses into their curricula. The Graduate College has also awarded about 25 competitive fellowship per year for up to \$2,000 for research expenses directly related to the thesis research. Master's students make regular use of conference travel funding provided by The Graduate College, and students in all colleges regularly publish their research in refereed venues. Six of our master's students have also won thesis awards at Conference of Southern

Graduate Schools. In 2017-2018, 67 graduate students applied for \$1.5 million in external support. Of these, 55 percent (or 38 students) were master's students. Master's students also serve as research assistants in science labs, in research projects in the social sciences, and in creative works in the arts and humanities. In 2017-2018, a total of 146 students (both master's and doctoral students) are directly supporting the research of grant-funded faculty members on campus. *Strategic Goal:* It is of great importance to increase the number of master's students supporting faculty in their research over the course of this strategic plan for research.

III. B. The areas the institution plans to focus on in the development of new master's degree programs.

Texas State employs a robust strategic planning process for developing and implementing new academic programs in alignment with our strategic plan objectives and goals. The following master's programs are currently on the university's 2017-2023 strategic plan: M.S. in Leadership and Administration in Nursing (implemented in Spring 2018); M.S. in Nursing - Family Psychiatric and Mental Health Nurse Practitioner (implemented fall 2018); M.S. in Integrated Agricultural Sciences (implemented fall 2018); Executive Master of Science in Health Administration (implemented fall 2018); M.S. in Data Analytics and Information Systems (currently under review at the THECB with a start date of fall 2019); M.S. in Marketing Research and Analysis (currently under review at the THECB with a start date of fall 2019); M.S. in Quantitative Finance and Economics; Joint M.B.A./M.S. in Engineering; Engineering concentration in M.B.A.; M.S. in Construction Management; M.F.A. in Dance. In line with its strategic plan, the list of possible new degree programs may be updated at the halfway point of the university's strategic planning cycle.

IV. PLAN FOR DOCTORAL PROGRAMS

IV. 1. Existing Doctoral Programs

IV. 1. A. Summary of Existing Programs

Texas State's strategic approach to doctoral education has enabled the university to build programs that meet state and regional needs. As of November 1, 2018, the THECB Program Inventory listed 14 doctoral degrees offered by the university:

Degree Title	Number of Degrees Offered
Doctor of Education	1
Doctor of Philosophy	12
Doctor of Physical Therapy	1
Total Doctoral Programs Offered	14

Since the early 1990s, Texas State has implemented sound strategic planning in proposing new doctoral programs. The university currently offers the following twelve Ph.D. programs (implementation date shown in parenthesis):

- Ph.D. in Geography – Environmental Geography (1996); name changed to “Geography” (2015).
- Ph.D. in Geography – Geographic Education (1996).
- Ph.D. in Geography – Geographic Information Science (2002).
- Ph.D. in Education – School Improvement (2002).
- Ph.D. in Education – Adult, Professional, and Community Education (2002).
- Ph.D. in Aquatic Resources (2003); name changed to Aquatic Resources and Integrative Biology (2018).
- Ph.D. in Mathematics Education (2008).
- Ph.D. in Criminal Justice (2009).
- Ph.D. in Developmental Education (2011).
- Ph.D. in Materials Science, Engineering, and Commercialization (2012).
- Ph.D. in Computer Science (2017).
- Ph.D. in Applied Anthropology (2018).

Enrollment in the university’s Ph.D. programs increased 19 percent from fall 2012 to fall 2018. Enrollments have grown over time and have now reached a relatively steady state in most of the well-established programs. Enrollment in the two most recently approved Ph.D. programs, Computer Science (implemented fall 2017) and Applied Anthropology (implemented fall 2018), is expected to increase as the programs become established and build national reputations.

Table 6. Enrollment Trends in Existing Ph.D. Programs (Fall Data)

Year	E(G)	GE	GIS	SI	APCE	AR	ME	CJ	DE	MSE C	CS	AA
2014	26	11	19	74	57	27	32	41	18	30		
2015	25	7	20	76	56	28	29	37	20	32		
2016	34	5	19	79	55	37	26	37	29	34		
2017	30	5	17	76	62	37	27	33	28	35	9	
2018	34	3	20	84	56	32	26	33	26	40	21	3

Program abbreviation: EG=Environmental Geography; GE=Geographic Education; GIS=Geographic Information Science; SI=School Improvement; APCE=Adult, Professional, and Community Education; AR=Aquatic Resources; ME=Mathematics Education; CJ=Criminal Justice; DE=Developmental Education; MSE=Materials Science, Engineering and Commercialization; CS=Computer Science; AA=Applied Anthropology.

Texas State’s current doctoral programs resulted from a strategic planning process and adherence to decision criteria established internally and externally by the THECB. This systematic approach, which will continue to be employed, yielded new academic initiatives that fit into the institution’s near-term and long-range plans. Six themes characterize the initial group of doctoral programs at Texas State: 1) emerged out of sustained success and quality at the baccalaureate and/or master’s level in the same or related discipline; 2) represented departments and faculty members already prominent in research, grant funding and educational excellence and with the capacity to continue; 3) developed in response to employment, economic and cultural needs in niche and applied areas that other universities would not or could not fulfill; 4) demonstrated the ability to attract a critical mass of superior students; 5) proceeded through a rigorous development process, including a “proof of concept” review by out-of-state faculty members and consultants; and 6) reflected the university’s mission, vision and shared values and demonstrated the capacity to further the institution’s long-term impact on Texas and beyond.

Evaluating Existing Programs

Texas State assesses strengths and weaknesses of its doctoral programs annually using the THECB’s 18 Characteristics of Public Doctoral Programs. These characteristics are considered indicators of program

quality. Texas State has also submitted annual progress reports to the THECB for doctoral programs approved since 2008. Given the annual progress reports and 18 characteristics, a summary of strengths and weaknesses of Texas State's doctoral programs is provided below.

Number of Degrees per Year. This indicator represents an area for possible improvement. Data from fiscal years 2015 through 2018 reveal that all doctoral programs awarded fewer than ten degrees per year, which seems related to low recruitment numbers since our ten-year graduation rate for doctoral programs has exceeded the ERU average for each of the past three years. The Graduate College is continuously working with doctoral program directors to review and improve recruitment, program structure, student funding, and mentoring activities that will lead to higher degree numbers.

Diversity. The existing Ph.D. programs are attracting a diverse student population, with 49 percent white, 21 percent Hispanic, 6 percent black, 3 percent other minority, 20 percent international, and about 1 percent of unknown race/ethnicity in fall 2018. This is consistent with the THECB-stated interest in increasing the higher education participation rate for the Hispanic population of Texas. In recent years, women have outpaced men nationally in earning doctoral degrees except for in the STEM disciplines. However, at Texas State female enrollment exceeds male enrollment in STEM Ph.D. programs. The university offers three STEM Ph.D. programs, Aquatic Resources & Integrative Biology, Mathematics Education, and MSEC, which have been in existence for more than three years. Combined, more than half (52 percent) of the 98 students in these programs are women. MSEC is our only program in which women are underrepresented. Texas State has a goal of continuing to increase the number of underrepresented students in doctoral programs. To achieve this goal, The Graduate College is developing plans to improve recruitment of underrepresented students. Increased diversity will further strengthen the university's doctoral programs.

Student Financial Support. Texas State provides financial support to doctoral students through teaching assistantships, instructional assistantships, and research assistantships. The majority of full-time doctoral students receive financial support, ranging from 64 percent to 100 percent per program. This represents the strength of our doctoral programs. However, the extent of support offered to doctoral students in adult, professional, and community education, and school improvement lags the other doctoral programs and needs improvement.

Employment Profile. Texas State awarded its first Ph.D. degree in academic year 1999-2000. The number of Ph.D. degrees awarded per year has increased steadily with between 40-53 degrees awarded

per year since 2013 (with the addition of our two most recent Ph.D. programs, this number is expected to rise in future years). Graduates of existing Ph.D. programs are successful in securing employment in the field, generally ranging from 80 percent to 100 percent placement per program. Most doctoral programs show a 100 percent employment rate, which is an obvious strength of our programs. The employment profile that the doctoral programs have achieved demonstrates that our doctoral programs are offering an education that includes the knowledge and skill sets employers are seeking in making hires.

Quality Faculty. Texas State's doctoral faculty are prolific scholars recognized nationally in their fields. The programs have made progress in three years (fiscal years 2015, 2016, and 2017) average number of core doctoral faculty discipline-related peer-reviewed publications, the average number of core doctoral faculty receiving external grants, and the average external grant expenditures by program. The research contributions made by our doctoral faculty are considered a strength of the doctoral programs. Between our programs, three-year averages of discipline-related publications range from 1.8 to 3.7 publications per faculty FTE; three-year averages of number of faculty receiving external funding range from none to 17; and three-year averages of external grant expenditures per doctoral program range from \$0 to \$4.8 million.

Regional Impact. Strong doctoral programs tend to have strong regional impact. Existing doctoral programs have established ties to the community that are of mutual benefit. For example, the Department of Geography, our oldest Ph.D.-granting programs has provided numerous well qualified Ph.D. graduates for the increasing number of higher-education and urban / environmental consulting positions in the region. Much of the research conducted by doctoral students has been focused on regional geographic phenomenon in Texas and the region. Texas State geography students have not only improved the region's higher-education workforce through their efforts, they have produced a large volume of new knowledge on Texas and the Gulf Coastal region in the process. Furthermore, the doctoral program in Criminal Justice also positively impacts the region in a number of ways: 1) The program has current and former doctoral students who work full-time in local/regional criminal justice agencies as practitioners; 2) the ALERRT center funds doctoral research assistants to strengthen ties between our doctoral students and the community; and 3) faculty and doctoral students are actively engaged in researcher-practitioner partnerships with local criminal justice agencies doing community-engaged research and scholarship. Finally, one of our newest programs, the Computer Science doctoral program provides training of technical leadership and entrepreneurship for information technology

industry to help alleviate the critical shortage of graduates with skills to sustain the dynamic technology-driven economy in the Austin-San Antonio high-tech corridor.

IV. B. Quality Control for Existing Doctoral Programs

Of the 12 Ph.D. programs offered by Texas State, seven have been in existence for at least 10 years as of fall 2018. Using graduation data from fiscal years 2013 to 2017 and the projected number of graduates in fiscal year 2018, all of the programs should meet the Low-Producing Programs standard, adopted by the THECB in April 2010, of graduating more than 10 students in five years. In an annual report, programs use the *18 Characteristics of Public Doctoral Programs* the institution produces as an assessment tool for quality control. Additionally, The Graduate College has formed a Doctoral Council, consisting of the program director of each doctoral program, which meets regularly with the dean and associate dean of The Graduate College to discuss best practices in doctoral education.

IV. C. Quality Enhancement for Existing Doctoral Programs

Texas State provides doctoral students with financial support through teaching assistantships (TA), instructional assistantships (IA), and research assistantships (RA), and it offers opportunities for professional development to promote academic excellence. The Office of Research Integrity Compliance provides the online Collaborative Institutional Training Initiative (CITI) course in Responsible Conduct of Research, which is available to all students and faculty. The Graduate College offers a host of professional development workshops “Shop Talks” centered on degree success, research development, and career. In addition, The Graduate College employs its own research coordinator (i.e., an external funding coordinator) who helps graduate students identify potential external sources of funding and apply for external fellowships, grants, and scholarships.

Texas State provides doctoral students with travel funds to attend professional conferences to make research presentations. The Graduate College also sponsors the International Research Conference for Graduate Students on campus each fall. The Graduate College also holds a 3-Minute Thesis® competition, which is a research communication competition each Spring.

The university has programs designed to improve dissertation completion rates. The Dean of The Graduate College has committed \$50,000 annually to fund doctoral students who have advanced to candidacy to assist with completion of their dissertations. Supplemental stipends in the amount of up to \$5,000 are awarded to fund dissertation research. Furthermore, the Office of the Provost partners with

the College of Education to support a dissertation completion initiative, providing \$30,000 annually toward the effort.

Texas State will continue to expand the professional development offered for doctoral students and will seek increased funding to support graduate student research in a concerted, strategic effort to increase the quality of doctoral programs with the goal of achieving national prominence. The 2017-2023 University Strategic Plan includes a focus on increasing support for graduate assistant stipends, scholarships, and fellowships. One planned new initiative is the Texas State University Research Fund to recognize and support graduate education using designated philanthropic funds to develop graduate fellowship programs to be administered by the dean of The Graduate College.

Achieving a level of national prominence will also require that significant resources be directed to attracting and maintaining highly competent faculty. The 2017-2023 University Strategic Plan includes an initiative to increase the number of full-time tenured and tenure-track faculty. To attract the highest quality faculty, the plan specifies increased starting salaries and competitive startup packages for new faculty hires, as well as support for high achieving faculty through annual merit raises based on performance and targeted salary adjustments. The plan also includes expanded efforts to promote diversity among faculty, students, staff, and administrators. Over the past five years, Texas State has added six new endowed chairs and professorships which enables the recruitment of high achieving, research-active faculty members.

IV. D. 1. Comparisons with National Peers

Texas State used a comprehensive matrix including Integrated Postsecondary Education Data System (IPEDS) to select national aspirant institutions to use in benchmarking existing doctoral programs. Short-term and long-term aspirants were selected from public universities that do not have a medical school. The short-term and long-term aspirational peers remain the same for this strategic plan. Short-term aspirants include New Mexico State University, Clemson University, the University of Oregon, and the University of Central Florida. Long-term aspirants include the University of Nebraska-Lincoln, the University of Oklahoma, the University of California Santa Barbara, Arizona State University, and the University of Arkansas.

IV. D. 2. New Doctoral Programs

New doctoral programs will further advance our research priorities. Specifically, the university is exploring the feasibility of developing full proposals for a Ph.D. in Communication, a Ph.D. in Health and Rehabilitation Sciences, and a Ph.D. in Clinical Psychology. A doctoral program in communication will align with our Education priority, and doctoral degrees in Health and Rehabilitation Sciences and in Clinical Psychology will align with our Health and Nutrition priority.

IV. E. Areas of Emphasis/Strategic Planning for New Doctoral Programs

Texas State employs a strategic planning process for developing and implementing new academic programs, including doctoral programs. Based on its strategic plan, the university prioritizes and supports doctoral proposals that can 1) document demand for the program, 2) demonstrate capacity to offer a program with high quality, and 3) detail how the program can be cost effective. Indicators--such as faculty quality and research productivity, opportunity for multidisciplinary collaboration, economics of scale and scope, competitive climate, and potential to impact the state of Texas and beyond--are used to determine the proposed doctoral programs included in the strategic plan for future development.

Texas State's strategic priorities drive resource allocation, so the university can make significant investments in proposed doctoral programs by hiring faculty with national and international reputations; by providing competitive salaries and startup packages; by making renovations to accommodate new offices, lab space, and technology; and by authorizing other expenditures to ensure that a department or school is properly supported for success in receiving THECB approval and in implementing a high-quality program.

Texas State has a policy of conducting an external review of a proposed doctoral program during the proposal development phase. Typically, a team of external experts is brought to campus for a two-day visit to view facilities and meet with faculty, students, and administrators to assess the proposed program. The review team provides a report, recommendations from which are incorporated in the proposal. This process has strengthened programs proposed by the university.

Of the three programs listed in the previous plan for research, two (Computer Science and Applied Anthropology) have been approved and have started to enroll students. A third program (Public Administration) was not put forward for approval, as it proved difficult to document sufficient workforce

need for the program using the databases and resources required by the THECB. No other Ph.D. program proposals have otherwise been put forward.

In line with the 2017-2023 University Strategic Plan, Texas State is in the process of exploring the feasibility of proposing additional Ph.D. programs. Specifically, the university is exploring the feasibility of developing full proposals for a Ph.D. in Communication, a Ph.D. in Health and Rehabilitation Sciences, and a Ph.D. in Clinical Psychology. The feasibility studies concentrate on workforce need, student demand, and faculty qualifications. By the mid-point of the university's strategic plan, the institution hopes to decide for which of these programs to seek preliminary authority and to subsequently develop full proposals.

IV. F. Plan for Assessment of New Doctoral Programs

Texas State conducts regular, rigorous reviews of all academic programs in order to maintain and strengthen their quality, productivity, and effectiveness. The process for an academic program review is spelled out in an Academic Affairs Policy and Procedure Statement and is intended to support academic units in 1) recognizing strengths and achievements, 2) promoting goal setting and planning, and 3) identifying areas for improvement. The review process includes the following: 1) a self-study culminating in a report that provides a detailed picture of the academic unit and all of its degree programs; 2) a site visit by a program review team, ordinarily consisting of three members including two external experts in the discipline and one Texas State faculty member residing outside the college of the program under review, culminating in the program review team report(s); and 3) a follow-up response and action plan from the academic unit for each degree program in consultation with the college dean and the provost and vice president for Academic Affairs.

IV. G. Regional Impact of New Doctoral Programs

Texas State is widely known for offering doctoral programs with an applied focus. Graduate education must embrace change in preparing students for careers of the 21st century. University faculty positions will remain a viable career path for holders of the Ph.D. However, the global job market clearly demonstrates that careers outside academia are becoming increasingly viable for doctoral graduates. Training graduate students for non-academic career paths requires partnerships among graduate faculty, graduate administrators, and business and industry professionals. Entrepreneurship training is

sorely needed in graduate education to build workforce knowledge to meet the demands of a changing world. Several of our current Ph.D. programs, such as Aquatic Resources, Criminal Justice, and Materials Science, Engineering, and Commercialization, Computer Science, and Applied Anthropology are filling this need. Training in entrepreneurship and providing doctoral students with skills to enter non-academic positions leads to a direct positive economic impact for the state.

Our future Ph.D. programs Texas State will strengthen this impact. All three doctoral programs that are currently being explored fall into areas of need identified by a *RAND* study commissioned by the THECB. In particular, the potential Ph.D. programs in Clinical Psychology and in Health and Rehabilitation Sciences would address a dire need in the state of Texas for graduates in the areas of health and mental health services. The university is especially cognizant of the need in Texas for Hispanic and African-American doctoral training. Texas is already a majority-minority state. Notwithstanding these demographics, Hispanics and African Americans are poorly represented in doctoral programs nationally and in Texas. One goal is to achieve inclusiveness and diversity in doctoral graduates of our current and proposed Ph.D. programs.

V. Plan for Faculty and Student Development

V. A. Faculty Research

The university has implemented several plans and programs to assist faculty in becoming more productive, innovative, and effective in their work.

Faculty research scholarship and teaching excellence program

In moving toward the Carnegie Classification R1 (highest research activity) status and National Research University Fund (NRUF) eligibility, Texas State employed a multi-layered strategy aimed at enhancing research productivity, innovation, and faculty efficiency. The university has made progress in the following areas:

- *Faculty support services reduce the administrative burden associated with grant administration, including allocation/reallocation of staff to aid grant activity at the college, school, and department levels.*

The Office of Research and Sponsored Programs (ORSP) was reorganized to create clear leadership over key support areas, including Pre- and Post-Award Support, Research Integrity and Compliance, Technology Transfer and Contracts, Research Records and System Services, Strategic Research Initiatives, and Methodology, Measurement and Statistical Analysis. Collectively, these support service areas have upgraded and enhanced their electronic systems for managing proposals for external awards, submitting and reviewing compliance-related protocols, providing institutional data for proposal submissions, and providing consultation to strengthen the methodology of qualitative and quantitative research. In addition, every college now has at least one research coordinator and an associate dean for research to provide direct assistance and to serve as liaison to research support services on behalf of researchers. Additional FTE has also been added to Research Compliance and Integrity. Each unit has a unique budget to support their activities.

- *Incentive programs encourage the innovation and productivity of faculty through buyouts of faculty time and access to research funds for field expenses.*

For example, our new faculty incentive compensation for externally-funded sponsored programs policy affords more flexibility for faculty to invest more time and resources to their research projects. In October 2018, an Academic Affairs Provost Policy Statement for addressing research incentive compensation was approved. Research incentive compensation is calculated on a semester basis (fall or spring only) and serves as a one-time supplement to the faculty member's regular compensation.

- *Tenure and promotion policies were reexamined specifically related to funded research and scholarly endeavors.*

The Office of the Provost updated the tenure and promotion review policy in 2018. Each college has its own set of discipline-specific expectations that inform their tenure and promotion policies and requirements; however, all acknowledge funded research and sponsored programs as evidence of a continued track record of scholarly and creative activity, or as a faculty distinction.

- *Faculty development opportunities to enhance faculty research skills are offered through the Office of Research and Sponsored Programs and Faculty Development.*

The Office of Faculty Development assists faculty to enhance research and creative expression, and to fulfill their responsibilities and goals. Toward that end, the Faculty Development Advisory Committee was established to assist the Associate Provost and is comprised of representatives from each college. The committee assists in identifying and prioritizing faculty development programs, promoting initiatives that enhance excellence and opportunities for faculty and addressing other issues to the career development of faculty in the areas of teaching, research and scholarship and service. Faculty Development works in tandem with the Office of Research and Sponsored Programs, to coordinate grant writing workshops, private consultations, and other training designed to improve and support their efforts toward procuring external funds.

- *Opportunities exist for faculty to adjust faculty workload and allow for increased engagement in research and creative activities.*

The entire academic community within the university now grants a reduced teaching load (from four to three classes each semester) for all tenured and tenure-track faculty. However, several departments and programs within colleges also use research funds to afford faculty additional teaching load reductions. Depending on the department or academic program, (e.g. doctoral programs), many faculty members maintain even higher research workload ratios. Specific external sponsored programs that allow for offsetting faculty salary afford additional adjustments.

- *A culture of mentoring faculty research begins with faculty orientation and continues through the first-year faculty program, as well as learning communities and peer mentoring relationships fostered through faculty development and academic units.*

Creating a culture of successful faculty development is an ongoing goal. Each college has a wide range of mentoring activities, including assigning senior faculty to help non-tenure-track and tenure-track faculty, providing funds for professionalization workshops and conferences, offering workshops and events for training and development, as well as programs that reward

mentors with small stipends. At the university level, the Mariel M. Muir Excellence in Mentoring Award honors one faculty member and one staff member for their dedication to mentoring students, faculty, or staff. Each honoree is recognized at a luncheon and receives \$2,500.

- *University-level awards, such as the Presidential Award for Excellence in Scholarly/Creative Activities and the Presidential Seminar, and promotion, tenure, and annual evaluation promote research accomplishments.*

The Office of the President awarded 12 Presidential Awards for Excellence in Scholarly/Creative Activities and six Presidential Seminar Awards from 2013 to 2018 through a nomination and evaluation process that starts at the department level and includes selections at the college level to proceed to the university level competition. The Chief Research Officer chairs the committee that ultimately recommends winners. The program recognizes the achievements made by two categories of faculty: assistant professors and associate/full professors. The same committee that selects the Excellence in Scholarly/Creative Activities Award is also charged with determining the annual The Presidential Seminar.

- *Innovative research grant proposals and projects earn seed grants through the Research Enhancement Program, the Multi-Disciplinary Internal Research Grant, the Accelerator strategy, as well as through the appropriation of 25 percent of returned indirect funds in the fiscal year.*

From 2014 to 2018, the Research Enhancement Program (REP) disseminated \$2.5 million in funding to support projects from across the disciplines, which is a 28 percent increase compared to the prior five years. In 2013, the Office of Research and Sponsored Programs (ORSP) created the Multi-Disciplinary Internal Research Grant (MIRG) program, which supports multidisciplinary research projects that are federal-ready or near federal-ready with the goal of enabling a greater success rate for research teams who seek federal awards. Overall, ORSP has funded 15 projects for a total investment of \$360,000. In 2017, ORSP also introduced the Research Accelerator strategy, whereby the university can make strategic investments with a clearly defined return on investment through external funding. In fiscal years 2017 and 2018, ORSP allocated approximately \$1 million to this strategy. Texas State has received a steady \$350,000 allocation from indirect costs on funded grants, as well as a variable amount that comes from

the annual Texas Research Incentive Program (TRIP) allocation, which is comprised of 10 percent of all non-construction matches. Ten percent of all TRIP matches — except for matches that apply to new construction — are allocated toward our REP program.

- *Faculty apply for development leave opportunities to launch new research initiatives and to apply for supplemental assistance to offset research expenses while on a development leave.*

From academic years 2013-2014 to 2019-2020, 356 faculty were awarded faculty developmental leave. Of the faculty developmental leave recipients during this time, 70 of them also received supplemental funding to enhance their research agendas. Supplemental funding allows the faculty member to either take two semesters of leave at full pay or receive additional funds to support travel, equipment, and other expenditures related to the research project. The total financial investment in supplemental funding is approximately \$750,000 each semester.

- *The university employs graduate assistants, when possible, to support faculty research endeavors.* Between fiscal years 2014 and 2018, 52 net new graduate student assistants have been assigned, which reflects \$1.1 million in research support.

V. B. Faculty Recognition

Texas State continues to employ faculty who are nationally and internationally known for scholarly excellence. This is demonstrated in the number of high-quality faculty who have received awards eligible for NRUF purposes. Twelve faculty have received the prestigious National Science Foundation CAREER award, seven of which were awarded since fiscal year 2013. In addition, one faculty member has received the prestigious PECASE award and another was named a Cottrell Scholar. Our faculty also includes three Guggenheim Fellowship winners and three National Endowment for the Humanities fellows.

Over the next 10 years, the university will continue to enhance current efforts to increase the visibility of our high-quality faculty. Some of those efforts include funding workshops that specifically focus on submitting competitive NSF-CAREER and other types of prestigious awards, increasing the number of endowed chairs and professorships, institutionalizing a practice of nominating faculty for prestigious awards and prioritize resources for faculty hiring and retention and ensuring strategic emphasis in faculty development activities.

V. C. Collaborations and Partnerships

Texas State continues to encourage internal and external cross-disciplinary and multidisciplinary collaboration among faculty and students in order to enhance research efforts. Some changes and progress are noted here:

- *Strategic Research Initiatives*: This research support service within the Office of Research and Sponsored Programs assists faculty in identifying collaborative partners in other Texas State colleges and departments/schools; at outside universities, community colleges, and school districts; at private/commercial entities; and even at other local, state, and federal agencies. The strategic plan identified the Texas State University System, HSI partnerships, Multi-disciplinary Internal Research Grant Program (MIRG), and intra- and inter-college collaborations. All these efforts remain active, with some notable expansions.
- *STAR Park*: The Science, Technology, and Advanced Research (STAR) Park hosts STAR One, Texas State's first building dedicated to the university's research and commercialization efforts. The incubator program at STAR One is designed to foster the collaborative development of new commercial ventures in applied research. This building hosts "spin-offs" from research conducted and intellectual property generated by university faculty, and "spin-ins" from companies outside the institution that want to strategically work with the university.
- Faculty are afforded opportunities for advancement where there is overlap and synergy with their research and those of the STAR Park clients. The research environment at Texas State is advanced by the mission of STAR Park: to leverage existing and new assets at Texas State as catalysts to promote and support innovation, commercialization, and entrepreneurial opportunities to grow the regional ecosystem and contribute to the goal of becoming NRUF-eligible and an R-1 Research University under the Carnegie Classification.
- *LBJ Institute*: The LBJ Institute for STEM Education and Research works toward improving access and opportunity for participation in science, technology, engineering, and mathematics education by facilitating projects that engage multiple audiences at many levels including K-12 students, university students, teachers (current and future), and university professors. It is supported by more than \$20 million in funding from agencies such as NASA, NSF, and the United States Department of Education. The LBJ Institute is an example of sustained intramural

collaborations primarily involving the Colleges of Education and Science and Engineering which leverage the knowledge of discipline specific content and pedagogical expertise.

- *Community and Interdisciplinary Research Groups (CIRG)*: CIRG supports researchers in forming multidisciplinary teams and in conducting community engaged research. CIRG focuses on four group themes: Community Health Research, Education Policy and Outcomes, Urban Innovations and Sustainability and Food Systems and Policies.
- *The Translational Health Research Initiative (THRI)*: The THRI seeks to transcend existing disciplines and boundaries to create and apply new knowledge that will improve health outcomes for our students, community, and the world. Translational health research seeks ways to improve the health and wellness of humans in clinical, institutional, community and public settings. THRI hosts an annual Health Scholar Showcase that supports faculty seeking to attract new grant funding, build their research teams, develop research tools, or move forward on multidisciplinary programs.
- *Speed Networking Events*: The Office of Research and Sponsored Programs hosts an annual Speed Networking Event that connect researchers from all colleges and institutes who are interested in developing multidisciplinary teams of investigators to conduct research.
- *CoSearch*: Initiated by the College of Fine Arts, the CoSearch program is a two-day intensive retreat where multidisciplinary teams of researchers and artists will collaborate to develop research plans.
- *Corporate and Foundation Relations*: The Corporate Relations Team in University Advancement is focused on fostering philanthropic partnerships with corporations and foundations to support dynamic research opportunities.

V. D. New Faculty

The university continues to make progress in hiring and retaining faculty who are nationally recognized in their fields and will maintain our recruitment strategies, while implementing additional measures.

- *Startup Funds*: Start-up funds are committed to faculty members at the point of hire in order to build, develop, and enhance scholarly efforts and outcomes that are important to the ongoing mission of Texas State University. These funds represent a clear investment in the professional careers of faculty and are provided to ensure that new faculty obtain the necessary equipment, instrumentation, supplies, or other resources required to initiate a competitive research,

scholarly, or creative agenda that will generate externally-funded grants or contracts. The Office of the Provost has invested over \$14 million over the past five years in faculty start-up packages, in addition to over \$ 120 million expended to build new or enhance existing research facilities

- *Hiring Success:* During the period of FY14-18 Texas State added 46 new tenure-track faculty lines which were hired at or above their respective CUPA salary median. This suggests that Texas State is offering competitive salaries to recruit the best faculty.

V. E. Student Awards

Texas State continues to support graduate and undergraduate research with a variety of scholarships, fellowships, and grants.

Founded by the Honors College and the Office of Research and Sponsored Programs (ORSP), the Undergraduate Research Fellowships (URF) Program awards fellowships of up to \$1,000 to undergraduate researchers in all fields. The program enjoys university-wide support. For example, during the 2017-2018 academic year, a total of \$23,462 was distributed to 25 of 52 applicants (48 percent acceptance rate) from the entire campus community. Program sponsors included the ORSP, the Office of the Provost and all academic colleges.

The URF Program aims to improve recruitment and retention of all undergraduate students, with particular attention to high-achieving, at-risk, underrepresented, and veteran students; develop qualified graduating students who can move on to graduate enrollment; foster a community of student scholars; integrate undergraduate students into the culture of research at Texas State; coordinate with existing programs and other efforts that involve undergraduates in research partnerships with faculty; and increase donations from both nonprofit and business institutions to contribute to and endow specific research-related scholarships and awards.

Two URF presentations are selected by judges to represent Texas State at the state and national levels in the Texas Undergraduate Research Day at the Capitol in Austin, Texas, and Posters on the Hill in Washington, D.C., which is sponsored by the Council on Undergraduate Research. Engagement with the program has maintained and improved.

V. F. Student Diversity

The 2012-2017 Diversity Plan and the 2012-2017 University Plan are aligned with the goal of recruiting and graduating a more diverse graduate student population to contribute to the state's diversity goals in "Closing the Gaps." Although the enrollment growth of graduate students at the master's and doctoral level has remained relatively flat from fall 2013 to fall 2017, there has been continuous growth in the diversity of our master's and doctoral level student population. The increased growth of a more diverse graduate student population has led to an increase in the number of degrees awarded to graduate students from a more racially and ethnically diverse student background.

Our plans are to continue to provide procedures for merit and competitive awards for master's and doctoral level students; to increase the availability of academic employment for graduate students, i.e., Teaching Assistantships, Instructional Assistantships, Research Assistantships, and tutor appointments; and to continue to recruit a racially and ethnically diverse graduate student population to mirror the growth of the state of Texas and meet the goals of "Closing the Gaps."

VI. OTHER RESOURCES

VI. A. Research Facilities

Texas State continues to make significant progress in developing its 491-acre San Marcos campus, its 101-acre Round Rock campus, the Science, Technology, and Advanced Research (STAR) Park on a 58-acre tract in San Marcos, as well as the 3,500-acre Freeman Center and the 160-acre Mueller Farm. Major new projects include Bruce and Gloria Ingram Hall that will facilitate space reallocation and renovations of the Roy F. Mitte Building, the University Events Center, Willow Hall, Elliot Hall repurposing, Encino Hall renovation, Jowers Center renovation, Albert B. Alkek Library and Wittliff Gallery renovations, Blanco Hall renovation, Family and Consumer Sciences Vivarium, Hilltop Residence Hall, and LBJ Student Center Expansion.

Texas State has increased its infrastructure dedicated to research activities. Two new buildings (Ingram and Willow Halls) were recently opened and contribute to larger research footprint now totaling 238,962 square feet. This is more than 72,000 square feet in additional space research space (or a 43 percent increase) compared to the 2013 total of 166,773 square feet.

Looking ahead, the construction of new space and the renovation of existing space to support research remain important strategic goals of the institution. These goals are guided by the

2017- 2027 Campus Master Plan Update, which builds on the original 2012-2017 plan. The Campus Master Plan also establishes new, near-term goals for the physical campus and identifies projects for the 2017-2027 window based on near- and long-term recommendations from consultant reports.

- *The Archives and Research Center (ARC)*. The ARC is a repository located near the Texas State campus at STAR Park that will house decades of university treasures and library resources. Construction of the ARC is facilitating reconfiguration of research and learning space in the Alkek Library, where renovation of the first to fourth floors, as well as expansion of the seventh floor Wittliff Gallery, is currently underway.
- *Wittliff Collections*. The Wittliff Collections presents major exhibitions year-round; hosts readings, artist talks, lectures and other events; publishes significant books from its holdings; and makes its collections available to statewide, national, and international researchers.
- *Vivarium*. Construction of a 2,000 square-foot vivarium, a small-animal facility to support research within the existing Family and Consumer Sciences Building, was added to the Board of Regents approved list of capital improvements in May 2012. The estimated cost is \$3.6 million. The design and construction documents are in progress, and we will begin construction in early 2019.
- *Round Rock Health Professions Building-Esperanza Hall*. Texas State plans to relocate the entire College of Health Professions to our Round Rock Campus and needs one more building to make that plan a reality. Already located in Round Rock are four units in Health Professions: communication disorders, physical therapy, respiratory care, and nursing. The construction of Esperanza Hall will allow the remaining Health Professions departments to move to the Round Rock Campus. These departments include radiation therapy, clinical laboratory science, health information systems, and health administration. In addition to supporting our continued growth as a national leader in translational or applied health care education and research, Esperanza Hall will complete the vision of positioning Texas State as the nucleus of a health care education and provision cluster in Round Rock that will be among the best in Texas. The re-programmed building, cost estimate, and project budget for

the 70,431 square-foot building were completed and forwarded to the Texas State University System (TSUS) for possible funding by the Texas Legislature during the 2019 session. The program document served to guide Texas State in the preparation of a Tuition Revenue Bond (TRB) funding request for the Legislative Appropriations Request in August and October 2018. A request was submitted with a total project cost of \$75,000,000 to be fully funded with the TRB funds. The project remains on hold pending funding.

- *Music Building.* A new music building to address the pressing need for a music facility, classrooms, and rehearsal space will be located in close proximity to the new university performance facility. The re-programmed building, cost estimate, and project budget for the 109,582 square-foot building were completed and forwarded to TSUS Office. The estimated cost is \$70 million.
- *R.F. Mitte Renovation.* This project will focus on the repurposing of vacated spaces after selected departments/schools relocate to Ingram Hall in spring 2019. Roy F. Mitte Building space reconfigurations has a total project cost of \$6.0 million. Design began in fall 2018, and construction will begin in summer 2019 with completion in summer 2020. The university selected Brown Reynolds Watford (BRW) Architects of Dallas as the design team and the CMR is Hill Wilkinson and is under contract.
- *Alkek Library Renovations.* The Albert B. Alkek Library has a total project cost of approximately \$8.3 million for Phase One to repurpose 66,400 square-feet of space on the second floor, and portions of the first, third, and fourth floors of the library. BRW is the design team, and JE Dunn Construction is the CMR. The project progressed to the Board of Regents and was approved in August 2018. The design development phase is underway.
- *Infrastructure Research Laboratory at STAR Park.* This project will support the new Bachelor of Science in Civil Engineering program, which began in fall 2019. These students will be using these facilities with laboratory design that includes smart infrastructure instrumentation. The total project cost is targeted at \$15.4 million.

In order to accommodate growth and build on its successes as an Emerging Research University, Texas State must focus special attention on its electrical systems. High-performance computers and other sophisticated research equipment demand uninterrupted power supplies, electricity that is not subject to surges or sags, and maintenance of specific environmental criteria.

VII. National Visibility

In the long term, national visibility is achieved largely by the academic success of a university: the reputation and stature of the faculty it hires and retain, the patents that they secure, their publications and other creative outcomes, and the achievements of graduates in their careers and public lives. The success of non-academic programs is also critical for creating visibility, e.g., public outreach projects, services for students and alumni, and athletics.

To highlight these and other areas of achievement, the university will continue to implement a coordinated marketing and communication plan designed to enhance national visibility. The plan focuses on enhancing the image and brand equity of the university by highlighting university features, unique benefits, and credible outcomes that are valued by both internal and external constituents. Effective promotional tools are one part of an integrated marketing communication strategy to deliver accurate, clear, consistent, and continuous messages about the university.

Specific marketing goals for improving national visibility include the following: 1) strengthening the Texas State brand by ensuring that the university's brand identity, brand elements, and marketing themes are cohesive, centralized, and valued; 2) enhancing Texas State's image among internal audiences to foster employee commitment and dedication to the university's goals and values; 3) enhancing Texas State's image among external audiences to enhance the reputation of Texas State and its divisions, departments, and programs.

Brand Research Initiative: A comprehensive brand and reputation research study is being conducted to document the essence of what makes Texas State special, why people come to Texas State, and what makes them stay. Study results will help inform an authentic messaging platform to all audiences.

Connecting on Stories: The Office of University Marketing and the Office of Communications meet annually with the deans of all colleges to collect research project details, student success stories, faculty accomplishments, and alumni successes. In addition, the email channels are open throughout the year for collecting the same types of stories.

Research Storytelling: Starting in 2018, marketing teams will travel beyond the borders of Texas, out into other states, and around the world. A strategic decision was made that encourages the marketing team to embed with the faculty and student research teams out in the field, to capture the critical working being conducted by the Texas State faculty and students.

Texas State University Newsroom Website: The Office of Media Relations has launched a Newsroom website where external media audiences can find stories covered by public relations staff and links to coverage of Texas State faculty, staff, students, and alumni in local, state, national and international news outlets.

Innovation/Innovation Corridor: Texas State is situated at the center of the Innovation Corridor, a region that spans from Austin to San Antonio along the I-35 corridor. The region includes many innovative companies, from Dell to Whole Foods, and Army Futures Command to H-E-B Super Marketing Chain.

Specific communication goals for improving national visibility include the following:

- Advertising on the most effective media platforms, including social media channels, television, radio, billboards, magazines, newspapers, airport signage, etc.
- Implementing a strategic media relations campaign that includes consistent outreach to national and regional media channels. This includes the division of University Advancement engagement with a national public relations firm to increase national media coverage.
- Promoting Texas State through enhanced state and federal government relations activities.
- Enhancing web-based services, website design, content and usability.
- Using emerging digital technology such as social media to market the university to broader audiences and communicate with stakeholders daily.

Texas State's commitment to academic excellence, status as a Hispanic-Serving Institution, membership in the Sun Belt Conference, student success in national and international competitions, and faculty

research activities and recognitions in national associations are all expected to provide sustained progress toward generating increased publicity and enhancing the national visibility of the university.

The University Marketing Advisory Committee helps to ensure a consistent and unified marketing effort at both the San Marcos and Round Rock campuses. The committee serves as an advisory body for the associate vice president for Enrollment Management and Marketing. The committee supports ongoing marketing efforts and provides input concerning additional marketing strategies or needs that may influence student enrollment, donor giving, student and alumni support, and institutional reputation.