Compiled here is a series of 10 background briefs, with material for each contributed by key stakeholders at the university who are the most familiar with the individual topics. The environment within which higher education, particularly Texas State, operates is a challenging maze of constantly changing influences. The President’s Cabinet has chosen select topics mostly likely to affect and inform this cycle of strategic planning.

These two- or three-page documents are designed to support you in your planning by providing a general assessment of a specific environmental facet that should give some sense of the “lay of the land” and the anticipated changes and other challenges. Though they are mostly separate topics, they should not be viewed or consumed as independent vertical “smokestacks.” There are many overlaps and cross-influences apparent here and it is recommended that you consider all of the topics as potentially useful. For instance, the National Research University Fund (NRUF) brief has as many implications for undergraduate admission, graduate program development and faculty development as it does for direct research areas. And the same is true for the other topics, too.

Though the variations in topics mean variations in content, each brief starts with a concise overall concept of what is included, followed by an Overview summarizing the state of affairs in general. The Status section then talks specifically about where Texas State is in the context of the overall environment and Implications covers what the expected ramifications are for the university over the term of the next strategic plan. Finally, the contributors include some additional resource material/websites, and contact information for the contributors themselves is included.

The brief topics include:

- College Affordability & State Funding
- Changes in Students
- Student Life
- Student Success
- Engaging Alumni
- Create, Understand, Reveal, Teach
- Hire, Inspire, Retain
- Charting a Path to NRUF
- Emerging Technologies and Digital Learning Environments
- The Space Deficit

Please view these briefs as a resource to be used by all involved in the planning process in your unit.
Texas State should continue to place college affordability among its highest priorities in order to make progress towards the Texas Higher Education Coordinating Board’s plan to have sixty percent of Texas’ 25- to 34-year-old workforce holding postsecondary credentials by 2030. This will require achieving a delicate equilibrium among student finances, external funding, costs and time to degree.

Overview
The economic resources of college-bound Texas students are forecast to decline over the coming decade. That prediction is compounded by the expectation that state funding of higher education will continue to shrink as a percentage of the revenue necessary to run the university, as it has for the past two decades.

This convergence of factors places the university in a challenging position. It needs to remain focused on providing a first-rate education and advancing its own strategic goals, but that cannot come at the expense of unsustainable increases in the cost of attendance.

While the goal of student affordability is sometimes portrayed as incompatible with the pursuit of excellence, these two goals can be aligned. Texas State’s plans and processes can allow progress on both.

Status
The notion of providing an affordable college education is hardly new. Indeed, President Lyndon Johnson confronted it head on when he signed the Higher Education Act 51 years ago right here on the campus of Texas State University. In his remarks that day, President Johnson said that the Act, “means that a high school senior anywhere in this great land of ours can apply to any college or any university in any of the 50 States and not be turned away because his family is poor.”

Despite the progress made since 1965, the financial challenges facing families and students seeking to complete a college degree remain daunting. In fact, the distance between affordability and financial ability has perhaps increased. Not only poverty, but even lower income status has become a barrier to higher educational opportunity. The largest federal aid program, Pell Grants, today covers only approximately 30 percent of the cost of a four-year public college education for the neediest students - the lowest proportion in history and less than half of what it covered in 1980.²

The effect of affordability on ability to access higher education is stark: while half of Americans from high-income families hold a bachelor’s degree by age 25, just 1 in 10 people from low-income families attain that level of education.¹

The patterns at Texas State mirror national trends – student financial support has not increased as a percentage of costs of college attendance. In 2005, tuition, fees, room and board added up to $10,142 while student aid averaged roughly 75 percent of that ($7,554). By 2015, costs totaled $17,356 while student aid still only met 75 percent ($12,952). The fact that 76 percent of that student aid is in the form of loans that must be repaid can place an extra burden on the initial income years of Texas State grads. So not only support, but the form of support becomes a critical factor.

Data back the contention that a university degree is becoming not merely desirable but a necessity for success. College graduates will earn, on average, more than a million dollars more in their lifetimes than non-graduates. Perhaps more importantly, nearly two-thirds of the jobs in the State of Texas (and nationally) are projected to require the completion of a program of higher education by 2020. Unfortunately, two-thirds of prime working-age Texans lack an associate’s degree or higher. That ranks Texas 40th in the nation and creates a significant impediment to the state’s future prosperity.³
Implications
How can the university help?

~While affordability has often been tied to access in the past, it is also linked to degree completion. Students with some college education really do not do perceptibly better from a financial standpoint than those with no college at all. It is the completion of a degree program that brings meaningful rewards and job eligibility.

Therefore, programs and processes that help to retain students and move them toward completion can be productive targets for consideration. A student who manages to complete only two or three years of college with very little or even no debt is not better off financially than the student who borrows an average amount in order to complete a degree on time.

~Discussions about living-learning communities and initiatives tied to affinity groups can be useful because these are good examples of programs that enhance student engagement - an important factor in progress toward a degree.

~Academic support services that include academic advising and career counseling, tutoring, supplemental instruction, and peer-assisted learning enhance student success and may also be considered.

~Careful scheduling of classes, particularly required classes, can afford students optimal opportunities to complete required courses in sequence and on time. Creative packaging of degree offerings that shorten the time spent in earning a degree can reduce costs while increasing degree completion. These are but a few examples of programs and processes that improve student success and could be considered and discussed during the planning process.

In addition to making sure that students are getting both financial and academic support, the university can ensure that it is a responsible steward of costs.

~Not only is it important for deans, chairs, directors, supervisors, administrative assistants and accounting clerks to carefully scrutinize every expense, it can be productive to consider cost reduction during the planning process and to suggest initiatives whose prime purpose is to either reduce costs or shift costs from needs of lesser priority to those more likely to affect the university’s strategic needs.

~Finally, ensuring student success and being efficient in fiscal operations does not preclude excellence. While it may be true that Texas State has already raised doing more with less to an art form, there is also room to make what is better into best. Is there a better and more efficient way to deliver a service? Is there a more appropriate way to deliver or schedule a course? Is technology being used to lower the cost of services, course materials, products and supplies? These are all questions that can be an important part of any planning process.

Affordability doesn't just mean becoming less expensive, for students or the rest of the university, it means becoming better and then best.

Further Reading
1Keeping College Within Reach
http://forabettertexas.org/images/EO_2015_04_Kee pingCollegeWithinReach.pdf
2College Affordability and Completion: Ensuring a Pathway to Opportunity
http://www.ed.gov/college
Texas Higher Education Strategic Plan 2015-2030
http://www.thecb.state.tx.us/reports/PDF/6862.PDF
How three higher education leaders think about student success

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The university has become, is becoming and will continue to become more diverse in the composition of its freshman class, and eventually across everything that is Texas State. Even the nature of that diversity will keep changing. But changing freshmen cannot be looked upon as an isolated challenge separate from other elements of strategic planning. A diversifying and changing freshman class is linked to National Research University Funding (NRUF), and to college affordability, space and faculty/staff needs, scholarship resources, alumni engagement, student success and student life, etc.

Overview
The changes in freshmen start with changes in the pipeline – national and state high school graduates. Three interrelated demographic themes will influence the composition of higher education over the next decade – growth in the number of public high school graduates, their increasing diversity, and their changing socioeconomic makeup.

According to a study by the Western Interstate Commission for Higher Education (WICHE), the annual number of high school graduates is expected to increase from 2.97 million in 2015 to 3.26 million by 2025. But those national figures mask the fact that graduation rates have declined in the Northeast and much of the Midwest, while growing in many southern and western states. Texas, in fact, is expected to have a significant increase in high school graduates, from 287,749 in 2015, to a projected 348,466 by 2025. That’s 21 percent growth.

(Notes: WICHE will release an updated version of this study later this year or early in 2017. The new edition is expected to provide important information about the number of immigrant students that have entered the kindergarten-12th grade pipeline.)

Those graduates will be increasingly nonwhite nationally, a trend that is already underway at Texas State. Statewide, the number of Hispanic graduates is expected to considerably more than double by 2025, African American graduates to grow slightly, and Asian/Pacific Islander graduates to more than double.

An increasing number of college-bound students, and their families, will have insufficient financial resources to meet increasing educational costs. Between 1999 and 2010, the number and proportion of Texas Whites, Hispanics, African Americans and Asian-Pacific Islanders living below the poverty line all increased. And this translates to college attendance. Between 2005 and 2015, the percentage of undergraduates receiving Pell Grants, rose from 26.1 percent to 37.4 percent.

Status
Given even Texas State’s cost of attendance, which is a relative bargain compared to other public institutions, current federal, state and institutional financial aid programs may be insufficient to meet the needs, particularly of low income students. Students dependent on grants and loans will need to more financially literate. Nor will the impact be entirely on students. Current rates of enrollment, retention and graduation may be affected.

For more than a decade, Texas State has experienced record enrollment growth, fueled by sustained increases in the size of the freshman class.

• In Fall 2015, the university enrolled 37,979 students. Of these, 32 percent were Hispanic and nine percent were African American.
• That figure included a record 5,724 freshmen of whom 38 percent were Hispanic and 13 percent African American.
• 48.5 percent of entering freshmen graduated in the top 25 percent of their class.
• The mean SAT was 1028.2 and the mean ACT was 23.

Implications
Given their potential impact on student recruitment and student success and its trickle down effects on enrollment, retention and graduation, the growth of increasingly diverse and increasingly financially stressed freshmen is a broad area that could yield productive consideration.

The vision of more incoming students who are more diverse, but have fewer financial resources suggests several related topics for discussion.

The consideration of anticipated resources versus anticipated growth for the university and constituent academic programs, leading to potential growth targets.

The not unrelated issues of freshman retention and graduation rates since the overall capacity of the university is partially determined not only by the number coming in, but also by the number staying and the number earning degrees. Methods could include changes in academic and other student support services to match the profile of entering freshmen.

The larger proportion of lower socioeconomic status students (and their supporting families) may lead to consideration of economically-efficient changes in academic programs, more available financial or financial literacy support.

These involve reacting to the incoming pool but there are also potentials to shape it, keeping in mind other aspects of the planning process.

Making progress toward the National Research University Fund (NRUF) freshman class metric of 50 percent in top 25 percent of their high school graduating class (or average SAT/ACT score at least 1210/26), suggests discussions about attracting higher-ability students. This could be via expansion of merit-based scholarship opportunities, availability of individual scholarly activities or a number of other actions.

In summary, the significantly increased number of high school graduates over the next decade (+21 percent), their increasing diversity, and the rising number from low income families present predictable challenges, which can and should be viewed as opportunities.

The growth in applicant pool will allow the achievement of enrollment growth goals, but the increasing size of freshman classes suggests that consideration could also be given to the potential impact on retention and graduation benchmarks. As family means are increasingly stretched to meet college costs, this too can have an effect on recruitment, retention and graduation without proactive planning. NRUF goals related to freshman class quality may lead to more competition for high ability students, which may in turn suggest not only financial, but imaginative and innovative academic incentives.

The impact of the new generation of freshmen on strategic planning is clear, inescapable, and in many ways, can be a catalyst to desirable change.

Further Reading
Michael Heintze and Stephanie Anderson, “Demographic Profile of Future Students at Texas State,” Texas State University President’s Cabinet Retreat, San Marcos, 10 May 2016.
Steve Murdock, “Population Change in Texas: Implications for Education and the Socioeconomic Future of Texas,” Hobby Center for the Study of Texas, Rice University, April 2014.

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**College students are changing, not only in diversity and socioeconomic makeup, but also in the ways in which they interact with each other, the university, and eventually, the world. This is the largest and most diverse generation in U.S. history and one of the most disenchanted with the American Dream. Its members boast eclectic interests and complex characteristics, ranging from religious beliefs and social identities to political ideas and workplace behaviors. They are attracted to the social sciences and applied fields, and are activists, socially conscious, less religious, self-promoting and report more disabilities than previous generations. Since employers of recent college graduates lament that many new hires are not ready for the workforce, universities and employers are collaborating to determine and define career readiness. Much of this and other adaptations necessary to accommodate and serve this changing clientele fall in the realm of student life: a dynamic menu of activities and opportunities that supplements and informs the academic experience.**

**Overview**

Traditional students who enter college over the next 5-7 years are truly digital creatures, subconsciously viewing technology and social media as integral and necessary parts of their lives, much as their grandparents accepted electricity as a given. They like to receive (and give) constant feedback and consider their education to be a cooperative venture between the institution and themselves. Colleges are expected to provide resources when they wish to access them, 24-7, because they like to communicate frequently, needing either face-to-face or technological connection much of the time. Despite this, these students like to learn on their own at their own pace. They have a preference for learning through video, rather than through words alone, and that means lectures alone are not well received. Basic or foundational information is tuned out because they believe they can always Google it. A tendency toward innovation and entrepreneurial activity, leads them to respond to problem solving and critical analysis opportunities better than answering conventional test questions. Despite this, the ease of information access may have decreased their tendency to question things, as well as shortened their attention span, both key to critical analysis. Many of them want their college to help them master the entrepreneurial skills needed to start and run their own business, meshing well with experiential learning activities.

Economic concerns related to the recession have influenced a trend among these students to want to save more than to spend. This trend, along with the increasing cost of higher education, has resulted in anxiety over the cost of college and their ability to afford it. Students with financial concerns indicate a preference to pay only for direct education/classes while accessing other services (housing, health, recreation, etc.) on their own.

**Status**

- The preceding characteristics mean that students view higher education as an investment and a direct link to employment. While the current 5.5 million job vacancies, is a near historic high, and having many job openings is certainly better than no job openings, it is best to know what career competencies are sought. The National Association of Colleges and Employers (NACE) found these included:

  - Critical Thinking/Problem Solving
  - Oral/Written Communications
  - Teamwork/Collaboration
  - Information Technology Application
  - Leadership
  - Professional/Work Ethic
  - Career Management

Note that many of these, particularly the first four, are among the outcomes incorporated in Texas State’s general education core curriculum.

In addition, increasing awareness and articulation of career readiness competencies and marketable skills will not only address the
job vacancy and talent gap that currently exists, but also aid in marketing and recruiting.

• The effects of advancing technology and computing innovation go beyond the potential impact on students’ academic activities. Parents or other significant adults are a part of their lives in ways not seen for several generations, and this too is due at least in part to the pervasiveness of technology. Many report that their parents are their best friends - through technology, they readily access and enjoy staying in constant contact with them. Parents, like never before, are part of the college experience. They are likely to email the university president, board of regents or state representative directly about a professor they don’t like, a program they don’t agree with, or to share some other idiosyncratic displeasure, idea, or opinion. However, parents are not the only influential force. Because of their technological bent and electronic savvy, students claim friendships and relationships with millions of acquaintances and communities they have contacted through social media.

• In contrast to increased social engagement, this generation of students is less religious. According to the data, students are not only much less interested in organized religion, but also less interested in spirituality in general. The research found that religious involvement is low when individualism is high, and individualism places less emphasis on social rules. Religion, for example, tends to frown upon such things as queer identity, which is something most of the current generation accepts. This decreasing religious affiliation has curiously coincided with an increasing activism. There are even activist terms for engaging in organizing through social media. Not only do students feel compelled to organize but to support their peers in organizing, i.e. #blacklivesmatter.

• When the Americans with Disabilities Amendments Act of 2008 made significant changes to the definition of the term disability, this meant that medical conditions not previously protected are now included - there will be a continuing increase of college students in need of academic and housing-related accommodations. Furthermore, because students have had very actively involved parents as their advocates, they have the expectation that institutions will readily accommodate them in a seamless and convenient manner, through the use of technology.

• Mental health can have a significant impact on academic performance. The National College Health Assessment, conducted during the spring of 2014, asked Texas State students what factors they felt had impacted their academic performance during the past year. Fifty-three point one percent of students indicated they felt overwhelming anxiety and 31.2 percent felt so depressed it was difficult to function during the past year. Of even greater concern is that 9.2 percent of students indicated they had seriously considered suicide and 1.4 percent had attempted suicide during the past year. Undiagnosed and untreated mental health disorders are likely to continue to have a significant impact on student academic performance and retention.

• Additionally, perhaps due to reliance on technology, students have a highly sedentary life style, which contributes to increases in obesity rates. This is considered to be a relatively unhealthy generation. While rates of drug use are lower than those of previous generations, technology addiction may replace substance addiction as a leading concern. They have been exposed vicariously via social media to numerous instances of violence, economic recession, and war, all of which have contributed to stress.

• Where and how they live while on campus can contribute both cause and solution to many of these issues. Until recently, the most important thing college students wanted was privacy. But the emphasis on privacy carried with it the potential to foster isolation, particularly if the residence hall had limited common areas for socializing. Today, some are reverting to an older university housing model: double rooms with bathrooms and common areas shared by larger groups of students. Residence hall design is also being jolted by technology. Mobile computing, ubiquitous Internet connectivity, and distance learning - including massive open online courses - are having a profound effect on how, when, and where students learn.

Design features that reduce isolation and promote socialization are also helping resident assistants gain more opportunities to interact with their charges, particularly important for those responsible for freshmen. Additionally,
holding down costs is the primary motivator for shared bath facilities.

Designers are starting to see hallways as social spaces, not just conduits. They’re bringing in creating nooks and crannies for students to use as impromptu study areas, or just to chill.

**Implications**

~In view of changing student demands and interests, consideration could be given to making on-campus residences flexible spaces - featuring common areas with large, open spaces that could easily be repurposed to meet tomorrow’s needs. Also, the emphasis of the on-campus experience can only partially counter the creature comforts offered by off-campus private housing, but the integration with the academic experience can be a powerful marketing and student development tool that can be discussed.

~Curricular and co-curricular efforts may be able to collaborate in identifying and articulating how students can acquire career readiness competencies and marketable skills. And considerations could be given to encouraging them to infuse their academic experience with co-curricular experiences that will enhance their competencies and skills.

And, documenting the results may be also considered. Not surprisingly, parents’ expectations demand more evident results pertaining to graduates getting a satisfying job. Not only the university, but individual programs, may want to consider how to support documenting graduating students’ success in this regard, and equally to support their family’s sense of Return on Investment.

~New students with new demands suggest other areas for expansion. More students with mental health issues lead to possible consideration of more mental health services available and extended over time (e.g., evenings and weekends) and online via technology. Additionally, screening for mental health disorders and to ensure that those with a diagnosed mental health disorder seek care might be expanded. Such efforts may themselves lead to an increased demand for mental health services.

~The 24/7 expectations of all students may lead to discussions about similar expansion of other resources (e.g., academic advisors, financial aid counselors, etc.).

~The move of more Health Professions academic programs to the Round Rock campus may suggest consideration of the impact on academic and student services there.

~Students’ desire for more entrepreneurial skills suggests consideration of additions to academic programs, including more experiential learning opportunities.

The emerging and future generations of college students will change and provide a constant challenge for Texas State’s academic and student services. But it is important to remember that these changes are mostly predictable, allowing for proaction, which is always more effective than reaction.

**Further Reading**


Corey Seemiller and Megan Grace, Generation Z Goes to College (San Francisco: Jossey-Bass, 2016).

Jean Twenge, Millennials and Religion, Huffington Post (2016).

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Student success stems not merely from a student’s individual ability, motivation and effort, but also from an environment that nurtures and encourages success and teaches students how to be successful. Stimulating that environment is an integral part of the Texas State University culture. The university is committed to helping students succeed within and outside the classroom on the way to productive citizenship, successful careers and fulfilled lives. But what constitutes student success and what it takes to nurture this success is a moving target. Students are becoming more numerous, more diverse, less financially able, and the university must realize that though the goal – success – remains unchanged, the environment must continually adapt.

Overview
Academic achievement, co-curricular involvement, and the development of skills leading to successful careers and fulfilling lives are foundational to the university’s student-centered mission. These learning outcomes are especially important given the university’s commitment to serving an increasingly diverse student body, including those traditionally under-served by higher education.

Although increased retention and graduation rates are direct measures of student success valued by students, families, and a variety of audiences beyond the university, increasing costs and decreasing family financial resources provide other constraints. Student success must also be measured by degree completion in a timely and cost-effective progression while avoiding unnecessary accumulation of student debt.

Development of the 2017-2023 Texas State strategic plan begins as the State of Texas has implemented its new strategic plan for higher education, 60X30TX. Goals and outcomes of this new plan will affect the university’s planning.

• By 2030, at least 60 percent of Texans ages 25-34 will have a certificate or degree;
• By 2030, at least 550,000 students in that year will complete a certificate, associate, bachelor’s, or master’s from an institution of higher education in Texas;
• By 2030, all graduates from Texas public institutions of higher education will have completed programs with identified marketable skills; and
• By 2030, undergraduate student loan debt will not exceed 60 percent of first-year wages for graduates of Texas public institutions.

In addition to the state’s framework, Texas State is pursuing National Research University Fund (NRUF) eligibility as an Emerging Research University, and student success plays a role in the achievement of that designation. Metrics for eligibility include the number of doctoral (Ph.D.) degrees awarded, institutional commitment to improving the participation and success of underrepresented students, and master’s and doctoral graduation rates.

Status
Texas is experiencing a time of significant and dramatic growth and other change. Plans include expectations for improving the success of historically under-served populations, some of the fastest-growing groups in the state. Furthermore, Texas State is an Hispanic-serving institution and has observed substantial increases in Hispanic and African American student populations over the past decade, to the point at which these two groups together formed a slight majority of the most recent freshman class. And Asian American high school graduates in Texas (combined with Pacific Islanders in Western Interstate Commission for Higher Education data), will more than double in the next decade.

This demographic change has implications for the student success environment over the timeframe of the new strategic plan and it is
essential that programs and services support the achievement of all Texas State students.

These general areas are often identified as valuable targets for increasing student success. (See resources listed at the end of this document).

• Transition to college: admission processes, freshman seminars, new student convocations, orientations, welcome weeks.
• Advisement: academic advising and coaching, career counseling, early alert systems, mental health counseling, financial counseling, faculty/staff/peer mentoring.
• Learning engagement: common experience/reading, content-specific discussion groups, freshman interest groups, learning communities, on-campus employment, peer-led team learning (i.e. supplemental instruction), service learning, tutoring, undergraduate research.
• Instruction: collaborative learning, developmental education, early and regular feedback, faculty development, leadership development, technology.
• Campus climate: assessment for continuous improvement, diversity and inclusion initiatives, residential experiences, student activities and engagement, student perceptions of instruction, etc.

Implications
The 2017-2023 university plan will address the academic and social needs of a variety of populations while seeking to improve academic achievement, persistence, retention, and graduation rates. Although efforts should not be limited, groups particularly in need of emphasis are: entering freshman and transfer undergraduate students; entering graduate students; continuing students at all educational levels; students from underrepresented populations (particularly subgroups that are more vulnerable, such as male students of color); students at risk of attrition due to socioeconomic factors; and new Science, Technology, Engineering and Mathematics (STEM) majors.

General aims for undergraduate students that may be considered include:

~Successfully complete 15 degree-applicable semester credit hours each long semester.
~Increase freshman retention rates over time.
~Increase four- and six-year graduation rates for native freshmen.
~Increase three- and five-year graduation rates for transfer students.
~Reduce and eventually eliminate achievement gaps among all student groupings.

Other areas that could be the topics of planning discussions include:
~Increased emphasis and rapid growth in the STEM disciplines, plus lagging retention and graduation rates there, indicate that discussions about student access and success in that area could be productive.
~The predicted increased proportion of entering freshmen from financially-stressed circumstances, are a sign that not only increased financial support, but consideration of how to best integrate financial literacy into the array of student support services could be considered.
~Special academic and student support mechanisms targeted at minority students, who are no longer a minority of Texas State’s entering freshmen, may also be a topic of consideration.

These are not challenges isolated to particular departments or offices or disciplines. Collaboration across divisions, colleges, departments, and programs will be key to achieving success for all students.

Further Reading

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Engaging Alumni
Providing Opportunities to Become Part of the Strategic Future

Much of the focus of strategic planning for a university, and particularly Texas State University, is on predicting, anticipating and adapting to change – change in students, change in career markets and demands, change in technology, change in physical facilities and needs, changes in ways the university serves its communities. That change can be both a challenge and an opportunity when making plans to engage alumni.

Retaining, or re-establishing, contact with graduates beyond their college years is a key to engagement. And, though methods of engagement, and communication, have changed, alumni engagement has traditionally focused on reminding them of the past – of their college days, lifelong friendships, following the fortunes of Bobcat athletic teams, and emphasizing the value of their degree. Inviting alumni to “come home again” was also fairly feasible given their limited career and/or address changes.

Today, alumni are much more mobile, seeking faster, more frequent, and real-time information. Returning to campus is only one way of keeping them engaged and in fact only a somewhat low percentage visit in any year. Since change is at the hub of the campus environment, and strategic plans are all about change, it’s time to expand opportunities for alumni to experience, and participate in, the changes taking place at their alma mater, as well as savor the familiarities and comfort of the past. Today, alumni are much more likely to contribute, and be engaged, if they are encouraged to cherish the past, while also being given the opportunity to be involved with, and make a difference in, the strategic future.

Overview
As of 2016, there are more than 170,000 living Bobcat alumni, many of whom show an increased sense of pride and connection that can be measured by their growing culture of philanthropy regarding Texas State.

More than 46,000 alumni contributed to the university’s Pride in Action campaign that ended in 2014. Their gifts were critical to the transformational impact of this historic campaign, funding 19 new buildings and providing nearly $120 million for student scholarships, programs, and faculty research.

This philanthropic support helped the university to earn state designation as an Emerging Research University (ERU), a significant step on the path to eventual Carnegie Tier One status. As an ERU, Texas State now aims for National Research University Fund (NRUF) eligibility. Strong alumni support can be crucial to this and play a central role in supporting the growth of Texas State as the university launches a new fundraising campaign.

According to the Council for the Advancement of Education, growth in alumni giving at public universities averaged nine percent at large public universities in 2015. The total growth in the value of contributions from Texas State alumni far exceeded this national average, growing by 40 percent from 2012-2014 over the prior three-year period, and by over 200 percent in fiscal year 2015. Overall fundraising has followed a similar upward trend, with record years for philanthropic support in fiscal years 2015 and 2016.

Status
A number of strategic investments have undergirded the increase in alumni contributions over the past five years. These have included improvements in alumni engagement efforts, strengthened fundraising activity, and new software and systems. Each has played a role in building relationships between Texas State and its alumni, and enlarging the capacity to engage alumni and other donors.

The Alumni Association has introduced a number of new and enhanced programs and communication efforts, some in partnership with the Athletics Department. Many of these concentrate on current students, attempting to foster the loyalties that will keep them engaged as alumni.

• **Trade Up** offers current students an opportunity to exchange t-shirts from other universities for a Texas State shirt so they can demonstrate their loyalty.
• The Student Bobcat Club, which has grown to over 200 members in 2016, provides an avenue for Bobcat athletic team support, establishing a pattern that should last after graduation.
The **Gold Book** program leads students through activities to become familiar with Texas State history, landmarks, and traditions.

A partnership between the Athletics Department and the Alumni Association hosts **tailgates** at all football games and select other sporting events.

The incoming freshman class poses for a picture in the football stadium as part of the Bobcat Preview portion of New Student Orientation.

The **Ring Ceremony**, continues to set annual attendance records, as graduates dip their class rings in water from the San Marcos River.

New software has improved the tools available to manage alumni information and communication, including a new Alumni Association website (http://alumni.txstate.edu/).

**Hillviews** magazine began publishing three issues per year in 2013 and is mailed to approximately 20,000 alumni and donors.

But particular efforts have been started to bring back alumni, particularly recent ones, and involve them in the dynamic life of today’s evolving campuses and involve them in the university’s strategic future.

- **Recent Grad Weekend** brings Bobcat grads from the last five years back to campus.
- A **Young Alumni Leadership Council**, convened by the Alumni Association, assists with developing and implementing a plan to connect recent graduates back with the university, and each other.
- **Cats Caravan** events take university leadership and representatives from across campus to five of the largest Texas cities to share university updates and future plans with alumni each spring.

Strategic investments in fundraising have also been made.

- The firm of Ruffalo Noel Levitz has been contracted to manage the call center. This has contributed to updating contact information for over 35,000 alumni and doubling phone-a-thon giving since 2012.
- Increased major gift fundraising activity has yielded a 100 percent increase in the value of proposals submitted from fiscal year 2014 to fiscal year 2015.
- New development officers have focused on foundation and corporate relations, helping establish and increase philanthropic partnerships.
- Thompson & Associates was engaged to provide confidential estate planning services to alumni and has contributed to an increase in planned gifts from 14 valued at $1.4 million in calendar year 2014 to 24 valued at $5.5 million in 2015.

**Implications**

~In 2015, an outside consultant was contracted to complete a campaign feasibility study to test future fundraising priorities with alumni and donors. Parts of the campaign planning could also be integrated with college and department/school planning. For example, there will be a special appeal to more recent alumni, featuring **crowdfunding** and an annual day of **giving**. Also, an expansion of corporate fundraising efforts may be a useful topic for discussion, particularly for programs that have continuing contacts with different industries and businesses.

~Establishing loyalties and affinities among current students is an effort by the alumni association that could benefit from academic program participation. Programs that create a group spirit and interest among students in various majors could then be linked to program alumni efforts.

~The Young Alumni Leadership Council may provide a springboard for departmental/school and college efforts to involve more recent graduates via membership in advisory boards, as guest speakers, etc. Organized and regular guest alumni lecturerships could be expanded to cross-campus availability, especially if the speaker covers a topic of interdisciplinary importance and interest.

~Cats Caravan could be a potential link between cutting-edge scholars and alumni, bringing them back into the action of today’s campus.

These efforts, to create a bond with current students, link with recent graduates, and attract alumni support for the university’s increasing needs, recognize that Texas State’s alumni are changing as Texas State changes. The challenge and opportunity is to bring them into the future together.

**Further Reading**

100 Years of Alumni Relations  
http://www.case.org/About_CASE/CASE_History/100AnniversaryAAS.html

Alumni Association 2013-2018 Strategic Plan  

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A vital component of Texas State’s past and present has always been a student-centered, intellectually vigorous professoriate. An equally vital component of its strategic future is expanding upon the capacity of that faculty by adding both young and established talented researcher/scholars who will help the university achieve National Research University Fund (NRUF) eligibility, a significant step on the road from the current Emerging Research University status to eventual Carnegie Tier One ranking.

Adding such faculty is not a simple task since Texas State is hardly the only university or even industry competing for these diverse and talented researchers. Successfully competing means providing resources (graduate students, lab facilities, career development, salaries, etc.). But it also means offering a supportive environment – one that includes a current faculty eager to collaborate, even across disciplines, and those who seek new ways to participate in the intellectual synergy that is Texas State. In turn, new active researcher/scholars from diverse backgrounds will stimulate creative approaches and provide different perspectives, competing ideas, and critical inquiry – much of which will be necessary to challenge and fulfill the needs of new generations of students.

This scan describes the challenges, efforts, and resources, both financial and environmental, needed to hire, and retain, this new talented group of teacher/researchers.

Overview
Texas State’s steady increase in full-time and part-time faculty has accompanied its growth in students enrolled. In fall 2015, total faculty numbered 1,815, up by 21 percent since 2010. Of this number, 72 percent were full-time faculty, an institutional high point. Tenure-line faculty (both tenured and tenure-track) represented 44 percent of full-time faculty. When funding is available, a call is made for net new tenure-track positions. The 21 percent growth in the last five years (320 new positions) has come from this, annual funding of new positions to address enrollment increases, and positions added to support new academic programs.

Not only hiring, but also retaining, high quality faculty is important, and Texas State has been successful in retaining a significant percentage of tenure-line hires. Retention rates for tenure-line faculty during the last three fiscal years averaged 95.2 percent. Excluding retirements, the average was 97.8 percent.

In terms of faculty diversity, in fall 2015, 26 percent of full-time faculty were from underrepresented ethnic and racial groups. Among tenure-line faculty, the percentage was 31 percent. Currently, the percentage of underrepresented groups among all faculty is 21 percent. Although there have been increases in the number of underrepresented faculty (275 in fall 2011 to 382 in fall 2015), the increase in the number of faculty overall has kept the percentage relatively unchanged.

Status
- Faculty salaries at Texas State are tied to medians derived from College and University Professional Association (CUPA) surveys. Periodically, the comparison group used to benchmark faculty salary medians at Texas State is revised so that the university is being compared to those with similar missions. As Texas State has changed, becoming an Emerging Research University, for instance, its peer group has been adjusted. However, the context may also vary based on the size of hiring pools, the competitive nature of the process, programmatic needs that are time-sensitive, and variations in academic disciplines. Thus, though CUPA provides a framework, these and other factors necessitate flexibility in salary offers.
- Senior Leadership has sought to encourage a culture of shared governance. The president, as well as the provost and vice president for Academic Affairs, speak frequently of their commitment to this important value; they meet once a month with the Faculty Senate to address faculty concerns and issues. The provost reiterates this message to new academic administrators, with academic departments during regular visits, and in workshops with new faculty.
Texas State University encourages entrepreneurship and innovation. Faculty have the opportunity to engage in interdisciplinary collaboration through centers, degree programs, initiatives, and informal partnerships. Entrepreneurship and commercialization are at the focus of new doctoral programs in the College of Science and Engineering, an undergraduate program in the McCoy College of Business Administration, and at Texas State’s STAR Park technology incubator. This campus-wide identity has led the university to seek Innovation and Economic Prosperity Designation from the Association of Public and Land-Grant Universities.

Faculty at Texas State are offered multiple opportunities for development of both teaching and research proficiencies. These include the Program in Teaching and Learning for new tenure-track faculty; workshops throughout the school year sponsored by the Information Technology Division, the Office of Academic Development, and the Office of Research and Federal Relations; Fulbright workshops; professional development through Human Resources; grant workshops; multiple training through Institutional Technology Services (ITS), distance education training, and others. These opportunities are important to retaining faculty and enhancing their effectiveness and productivity.

Faculty are recognized and rewarded for their work. The administration is committed to providing regular merit salary increases and has awarded them annually since 2002. These regular raises are a key factor in helping to be competitive with universities within and outside Texas. Recognition of faculty includes Presidential Awards for teaching, scholarship, and service, and awards for nontenure-line faculty, part-time faculty, and online teaching. These awards include public recognition, a symbolic commemoration, and compensation.

Recruitment and retention of faculty from underrepresented groups receives institutional engagement and support. Texas State’s Office of Equity and Access, a component of the division of the President, includes the diversity of faculty in its strategic plan. This office, as well as the Office of the Provost and Vice President for Academic Affairs, encourages and supports and regularly meets with the Hispanic Policy Network and the Coalition of Black Faculty and Staff. Additionally, administrators stay mindful of the national pipeline of candidates and make sure that colleges, departments and schools have that information available to inform interview/hire decisions.

Implications
In order to attract and retain high quality, diverse faculty, Texas State needs to employ a diversified strategy that consists of both adequate financial resources and a cultural/environmental context that encourages and promotes teaching, research and shared governance. The following hiring statements are intended to provide suggestions that may point to more specific ideas for implementation during the planning process.

Competing in a national and international market often requires hiring at a senior level (sometimes with tenure) or offering incentives to keep those already here. Competition requires competitive salaries as well as research support incentives. And, sometimes counteroffers must be designed to match or exceed those of others attempting to recruit a promising or established Texas State researcher. Suggestions or consideration of specific incentive ideas could be a focus of departmental implementation.

Hiring and retaining high quality faculty also includes fostering an environment where they can feel empowered and engaged in academic life. It means offering them the opportunities to grow and nurture new perspectives, pursue knowledge, and collaborate with others. It means that research and scholarship should not be viewed as restricted to designated individuals or groups or disciplines. Consideration of cross-disciplinary initiatives could be productive.

Attracting top researchers in many disciplines requires comprehensive start-up packages that allow new hires to establish labs and purchase necessary equipment. Total university start-up funding from both the Higher Education Fund (HEF) and Core Research Funding has averaged $2,683,430 annually for the last three years. These recruitment, hiring and retention strategies are increasingly costly in each case, but the number of cases should also increase as efforts to meet the metrics of National Research University Funding become more intense. Again, discussion of implementation strategies and programs could be useful.
However, faculty recruiting, hiring and retention is not just the responsibility of a few specialized offices or departments, it requires the participation of the entire campus and the recognition that neither National Research University Fund eligibility nor Carnegie Tier One Status happen by chance, but by plan.

Further Reading
College of University Professional Association (CUPA), Faculty Salary Survey for Four-Year Colleges and Universities By Discipline, Rank and Tenure Status
http://www.cupahr.org/surveys/fhe4.aspx
Race on Campus, Chronicle of Higher Education, November 2015
http://images.results.chronicle.com/Web/TheChronicleofHigherEducation%7B7800ba5a7e-5cd3-41de-987f-49a70fbc5338%7D_AD-CHE-Content-RacialTension.pdf
Colleen Flaherty, “Why They Stay and Why They Go,” Inside Higher Ed (14 March 2016)
Doctorates by Discipline, Fall 2014
(available as Excel spreadsheet from the Office of Institutional Research

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Staffing a business effectively so that it houses a stable, motivated and productive workforce takes a challenging balance of resource use against profit. Doing so for a nonprofit such as a large university can take even more creative balancing of scarce resources. Though a number of factors, both local and national, are straining resources, and forcing hard decisions, the challenge remains the same for Texas State as for any organization: attracting and retaining a highly qualified and effective staff is necessary to help the university reach the potentials envisioned in its strategic plan.

Overview
Even given the fact that many areas of the university have fewer positions than they would like, perhaps even fewer than they need, Texas State is still a very large employer with over 3,100 staff positions spread across 734 job titles. Assuming normal turnover, simply maintaining current employment levels means filling hundreds of vacancies annually.

The difficulty in finding highly qualified people to fill each of those vacancies continues to increase. Therefore, efforts to retain existing employees pay significant dividends as opposed to the challenges of hiring in the existing job market. Furthermore, retaining current personnel is often less resource-intensive than training and otherwise bringing a new hire up to speed.

It should be kept in mind that resources are not limited to pay or other monetary benefits. The incentives that motivate staff to stay with the university often may come in terms of promotion, training opportunities, increased responsibility, special classes, amenities, or other nonmonetary rewards.

Status
A number of metrics show the depth of personnel challenges the university faces.
- The number of staff job postings is increasing each year, but applicant pools are shrinking.

While it is difficult to discern clear patterns, the generally smaller applicant groups have a clear impact. Fiscal year 2015 saw 14.5 percent of all postings closed as no hire due primarily to the unacceptable quality of the applicant pool.

Further numbers flesh out these conclusions. Postings for fiscal year 2012 totaled 373 and drew 18,667 applicants, while postings for fiscal year 2015 totaled 468 but only drew 14,178 applicants. That is a decrease of almost 4,500 applicants overall (24 percent) and an average decrease from 50 applicants per posting to 30 applicants per posting (40 percent). This is due, in large part, to competition – an improved job market and many job opportunities in central Texas.

The impact is not equally spread across all divisions or all types of employment. Though the division of Finance and Support Services has seen a 73 percent decrease in applicant pools over the 2012-2015 period, the decrease has been 58 percent in nonexempt and 44 percent in exempt positions, while the difference between degree-required (89 percent) and nondegree (47 percent) is even more pronounced. Information Technology shows a similar pattern with an overall 56 percent shrinkage in applicants with 72 percent fewer in nonexempt and 34 percent in exempt applicants. The degree/nondegree split is more even with a 61 percent drop in degree-required and 55 percent in nondegree positions. Academic Affairs, on the other hand, is only down one percent overall. But even here, exempt applicants are up 23 percent while nonexempt are down 23 percent. Similarly, degree-required applicant pools are down 62 percent while nondegree pools are up 17 percent.

Compounding this challenge is the fact that almost 25 percent of Texas State’s current employees will be eligible to retire in the next five years. This figure is significantly greater in support positions where 33 percent will be eligible to retire.
Once again, this is not equally distributed across the divisions. Nearly one-third (33.1 percent) of Finance and Support Services employees will be eligible to retire over the next five years, with the number fairly evenly distributed between exempt and nonexempt positions. Information Technology and Student Affairs potential retirements are closer to one-fourth (approximately 24 percent in both cases) with exempt and nonexempt not notably different from one another. Academic Affairs is slightly below 20 percent with again no significant difference between exempt and nonexempt positions. (Note that in all cases the number of degree-required positions that are retirement-eligible is extremely small, so percentages are not reported.)

• Highlighting the retention portion of the hiring/retaining process, for the five-year period ending in 2015, about 930 benefits-eligible staff employees were hired; 44 percent of these employees subsequently left the university after an average employment time of only 1.6 years. Though significant portions were terminated due to poor performance, underscoring the difficulty of making qualified and capable hires from shrinking applicant pools, exit interviews suggest that over 40 percent left for higher paying positions.

• Related to that, the pay plan structure has not been adjusted based on market forces since May 2008. Seventy-nine percent of pay plan minimums are currently below their market benchmarks and 40 percent of staff employees are paid below their respective market benchmark.

Implications

Although the university remains committed to making progress on the competitiveness of compensation, raising all employee salary levels to their market benchmark in the near future is not likely. However, there are many things that can be considered to help mitigate these employment/retirement/retention challenges.

A few examples of these types of actions might include:

~ Considering ways to establish a culture of professional respect as well as a challenging, inclusive, and satisfying work environment;
~ Encouraging employee wellness in its most holistic interpretation;
~ Thinking of ways to implement mentoring and coaching as a foundation for performance reviews;
~ Remembering that every interview offers an opportunity to sell the university as a career home.
~ Considering low-investment, high-return ways to recognize, reward and appreciate employees and to offer them opportunities for self-improvement.
~ Perhaps asking those who supervise what knowledge, tools, and skills they need in order to help foster growth and promote retention of employees; and using that as a base for division/office planning.
~ And it can be helpful to remain aware of salary benchmarks when allocating increases and awards. This same information is useful in planning projects and programs so that they include salary expectations that are market-based and competitive.

Hiring and retention are challenges, but establishing and maintaining a rewarding environment can solve both.

Further Reading

Texas State Compensation Philosophy
http://www.hr.txstate.edu/compensation/Philosophy.html
Addressing Compensation Rates Below Market Value

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Charting a Path to NRUF
The Metrics of National Research University Funding

One significant signpost along the path from Emerging Research University (ERU) status to major Research University status is gaining access to National Research University Funding (NRUF). This document provides information on where the university is in regard to each of the NRUF eligibility metrics, where it needs to be to earn NRUF status, and what intermediate measures could indicate satisfactory progress toward the ultimate goal.

Overview
Since 2012, Texas State University has been a Texas Higher Education Coordinating Board Emerging Research University. As an ERU, the university is responsible for developing a long-term strategic plan for research and updating it every five years. That plan recognizes that ERU status is not a static achievement, but the beginning of a journey leading to major Research University status.

One of the significant “mile markers” along that path is meeting the Texas Higher Education Coordinating Board (THECB) metrics necessary to be eligible for National Research University Funding. NRUF is a pool of money designed to enable ERU’s (there are seven others in addition to Texas State) to achieve national prominence as major research universities.

There are two mandatory metrics. The first is designation as an ERU. The second is minimum expenditure of $45 million in restricted research for each of two years before NRUF eligibility is established.

In addition, there are six further metrics of which the university must achieve four. One of these, recognition of scholarly attainment and research capability, measured by the presence of a Phi Kappa Phi academic honor society chapter on campus, has been met.

The other metrics (must achieve three) are:

- A minimum endowment of $400 million for each of two years before NRUF eligibility is established.
- Awarding of at least 200 Ph.D. degrees in each of two years before NRUF eligibility is established.
- Entering freshman class demonstrates high academic achievement for each of two years before NRUF eligibility is established. (At least 50 percent are in top 25 percent of their high school class or average SAT score is equal to or greater than 1210/average ACT score is equal to or greater than 26) and composition of class shows progress toward reflecting the population of the state or region with respect to underrepresented students and shows a commitment to improving the academic performance of these students (i.e. TRIO programs, McNair Scholars).
- Demonstrated faculty of high quality in each of two years before NRUF eligibility is established. (At least five annual recognitions as members of National Academies or Nobel Prize recipients; or seven annual awards of national/international distinction from 25 exemplary organizations, including Cottrell Scholars, National Science Foundation CAREER Awards, National Endowment for the Humanities Fellows, Woodrow Wilson Fellows, Guggenheim Fellows, etc.).
- Demonstrated high quality graduate education. (At least 50 graduate-level programs; master’s graduation rate of at least 56 percent and doctoral graduation rate of at least 58 percent; demonstrate that commitment to five doctoral programs [including financial support for doctoral students] is competitive with comparable Association of American Universities public institution programs.)

Status
Texas State’s Executive Research Planning Committee determined in 2013 that NRUF eligibility was possible within a 2014-2024 time frame. Summaries of the metrics remaining to be achieved include:
• **Minimum $45 million annual research expenditure.** Restricted research expenditures in FY2015 were $27.2 million, which represents a 30 percent increase over the previous year and a net increase of $6.28 million. In comparison with the other ERUs during FY2011-FY2015, Texas State had the largest one- and five-year percentage increases and second largest net increases.

• **Minimum endowment of $400 million.**
  Texas State had an approximate $159 million in its endowment as of 2016. This represents an increase of $32.5 million since 2012. The University’s 2015 fundraising of $7.7 million was the highest of the six ERU’s who have not yet achieved all NRUF metrics.

• **Awarding at least 200 Ph.D. degrees.**
  As of 2016, the University has 10 Ph.D. programs that yielded 53 graduates in 2015.

• **Entering freshman class demonstrates high academic achievement.**
  Although the 2015 freshman class was comprised of 48.5 percent from the top 25 percent of their high school class, this figure has not met the NRUF metric of 50 percent since 2010. The alternative metric of a 1210 average SAT score is above Texas State’s 1028 (2015). The class is, however, representative of the state’s ethnic/racial composition, consisting of 37 percent first generation, 43.3 percent minority and seven percent other.

• **Demonstrated faculty of high quality.**
  In the last two years, two Texas State faculty have been recognized by NSF CAREER awards, plus one as a Cottrell Scholar and one as a NEH Fellow.

• **Demonstrated high quality graduate education.**
  Texas State houses 100 graduate programs, greatly exceeding the NRUF metric of 50. In addition, the master’s graduation rate of 68 percent average over the past six years (metric = 58 percent) and doctoral rate of 65 percent over the past seven years (metric = 56 percent) exceeds the NRUF requirement. This leaves the demonstrated commitment to five doctoral programs.

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**Implications**

• **Minimum $45 million annual research expenditure.** Based on FY2015 expenditures, Texas State can meet the $45 million mandatory metric in 2024 by maintaining an average annual research expenditure growth rate of 5.5 percent. Opportunities to support that growth include:

  “The Science, Technology and Advanced Research (STAR) Park research incubator offers expanded opportunities to accommodate a variety of startup companies, particularly those that mesh with Texas State areas of growth, emphasis or potential.

  “University criteria allow for centers of excellence that can serve as innovation leaders, contribute to economic development, catalyze trans-disciplinary efforts, generate knowledge and enhance student opportunities in many fields.

  “In addition to enhancing current partnerships with industry and business, Texas State’s areas of academic emphasis and expansion offer opportunities to develop new partnerships with industry.

• **Minimum endowment of $400 million.**
  Meeting the NRUF endowment metric by 2024 will require an annual increase in endowment of 14 percent, assuming a seven percent annual market growth for investments. Achieving this annual growth rate will require more than doubling the current pace of endowment contributions. Potential endowment-increasing actions include:

  “Academic Affairs partnering with the Division of University Advancement, which can yield opportunities for endowed chairs and endowed professorships associated with key research programs and programs with which donors have a special relationship. Endowed scholarships are also a potential expansion area.

  “The Texas Research Incentive Program (TRIP) is restricted to ERU’s. It matches gifts from foundations, corporations, and private donors intended for research support. Carefully tailoring gift solicitations to support the university’s areas of expansion and concentration can potentially double the impact on endowment growth.
• **Awarding at least 200 Ph.D. degrees.**

Achieving the NRUF metric by 2024 will require an increase of 18-20 doctoral graduates a year. That growth is dependent on accompanying growth in programs, reduction in time to degree, and increased student financial support.

Areas of planning potential include:

~ Continuing efforts to include doctoral student support in grant applications. This not only increases the number and amount of fellowships available, but maximizes the university’s funds.

~ Donor solicitations should be mindful that doctoral student tuition fellowships are a useful and marketable investment incentive. (Note: These are also eligible for TRIP-matching funds.)

~ Opportunities exist for doctoral programs that align with faculty strengths and market needs.

• **Entering freshman class demonstrates high academic achievement.** Since one of the elements of this metric is improving the academic performance of underrepresented students, enrollment in TRIO programs and Student Support Services is significant, but other program ideas could also be valuable.

~ Expanded merit-based scholarship funds could lead to increasing percentages of high ability students from upper high school ranks and with accompanying higher SAT/ACT scores.

~ Credit based on experiential/internship learning could draw higher ability students as could more use of SURF (Student Undergraduate Research Fund) which supports research and creative project proposals.

• **Demonstrated faculty of high quality.** Since the NRUF metrics for this area involve the quantity of faculty who achieve national academic recognition (five per year) or are awarded by one or more of 25 organizations (seven per year), initiatives might focus on those providing grooming, opportunities for current faculty or recruitment resources, and/or techniques for promising new faculty.

~ New staff and faculty position descriptions might be developed with a view toward complementing existing research expertise and/or building capacity in growth areas and/or adding unique new areas of potential and expertise.

~ Organized and coordinated college-level programs could be implemented to encourage, highlight, and promote the research activities of promising faculty members and facilitate their nomination for appropriate recognition and awards. This might include publicizing the availability of these recognition programs and actively matching them with qualified faculty.

• **Demonstrated high quality graduate education.** Since this includes financial support for doctoral students, there is overlap with the metric regarding number of Ph.D. degrees awarded. See also suggestions for student support under that section.

~ Additionally, since complete evaluation/assessments of five doctoral programs are part of the metric, initiatives that embody these comprehensive examinations could be useful within the 2014-2024 NRUF window.

**Further Reading**

Texas Administrative Code describing the National Research University Fund

Texas State University’s Strategic Plan for Research
http://gato-docs.tlxstate.edu/jcr:fb0942be-e0c-4150-81db-ac2fe4ca1584/Strategic%20Plan%20for%20Research.pdf

Texas Higher Education Coordinating Board’s website on the National Research University Fund
http://www.thecb.state.tx.us/index.cfm?objectid=0BF9081-E0AF-4768-F7F2C724847B209D&flushcache=1&showdraft=1

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Emerging Technologies and Digital Learning Environments

Meeting the Technological Challenge for More Effective Teaching/Learning and Better Prepared Graduates

Technological innovation is changing the career world Texas State’s graduates will enter, and it is also diversifying the ways in which they learn. Therefore, the integration of technology into the learning process should be a vital element of the university’s planning; but only effective and widespread use of technology’s teaching and learning potentials will make the most of this strategic investment. The ultimate goal is implementing technology as a campus-wide booster and multiplier of teaching effectiveness.

Overview

Each year, EDUCAUSE announces its Top 10 Information Technology (IT) issues for the year based on surveys from higher education IT leaders across the country. While the 2016 list contains information security and funding models, the majority of it focuses on student success technologies, business intelligence and analytics, optimizing educational technology, e-learning and online education.

Additionally, the New Media Consortia publishes its Horizon Report for higher education and categorizes issues by when (time frames) or how (difficulty in solving). Important developments in educational technology in particular have the greatest potential to change how Texas State continues to implement its core mission. In the most recent Horizon Report, learning analytics (data about learners and their contexts), adaptive learning, augmented and virtual reality, makerspaces (physical spaces supplied with 3D printers, software, electronics, craft and hardware supplies and tools), affective computing (systems that can simulate human affects, spanning computer science, psychology, and cognitive science), and robotics are at the top of the list.

Coupled with the inevitable trend of nearly all key services moving to cloud-based services, the future of education delivery and student engagement looks very different from what exists today. And the IT organization that supports these architectures will be equally transformed.

Additionally, consumers of higher education (especially incoming tech-savvy students) are not only more and more dependent on these services, but expect them to be more intelligent personal, and match what they are familiar with. For example, mobile devices are steadily becoming a smart endpoint where service providers can push information to consumers based on their geographic location and that location, on or off a college campus, is often beyond the traditional confines of the classroom or lab. While the higher education industry has not yet seen this become pervasive across campuses, it is expected to become a key strategy for making Texas State and other universities more efficient and effective. Much of this can be expected during the term of the upcoming strategic plan.

Status

The campus network, while in good condition, in some areas has just not kept pace with technology – affordable refresh cycles are quite lengthy compared to evolving industry standards. The standard today in wired network switching is 1 Gigabit to the desktop, the university still has a large number of switches at the 10/100 Mbps level (orders of magnitude slower) and many are over 10 years old. The university wireless infrastructure is not production-ready so that it can be used in classrooms or in applications where reliability and coverage are necessary.

This is not to say that Texas State hasn’t made significant advances in the applications of technology over the past several years. It has. But, the appetite for technology is high in academic, research, and administrative units; and the university is hitting a tipping point in regard to resources (human and financial)
available to both support existing technology and implement emerging and new technologies.

An area of concern is the feasibility of remaining on the existing Learning Management System (LMS), known better as TRACS. TRACS is an implementation of Sakai, an open source LMS that started in 2004. Over the past several years, the Sakai community has seen a decline in membership, with members opting for commercial LMS's such as Blackboard or Canvas. This poses a risk to future support and innovation in the platform. Additionally, other component options for the learning management ecosystem are somewhat limited due to lack of integration with Sakai.

**Implications**
Technology for instruction or general communication significantly changes every three to four years. Consequently, in the life of the next strategic plan there will be major change. Compounding the challenge are other major variables: changes in students, somewhat slower adaptability of faculty, and the rate of content change specific to each academic discipline.

~Evaluating which educational technology trends the university chooses to align itself with, is therefore a major commitment to a moving target. Discussions at all levels may be needed to contribute to thoughtful and deliberate evaluation of which technologies will provide the greatest return for varied purposes in different disciplines.

~Academic programs will also face consideration of the supporting technologies that facilitate learning interactions including flipped classrooms (where homework and lecture material is accessed by students outside of class, leaving class for discussion, activities, etc.), active learning environments, online education, and multi-way interactive video.

~The sophisticated capabilities of mobile computing have not become pervasive across campuses, but will become so and programs may want to set up mechanisms to address this.

In general, the use of technology outside the university will continue to have a significant influence on the technology landscape inside the university as expectations of students, faculty, and staff grow and Texas State seeks to fulfill this and future strategic plans.

**Further Reading**
Donald Paulson and Jennifer Faust, Active Learning for the College Classroom
http://www.calstatela.edu/dept/chem/chem2/Active/index.htm
Robert J. Beichner, “Making a Case for Interaction,”
“7 Things You Should Read About ... : Instructional Strategies for Active Learning,” EDUCAUSE Learning Initiative (ELI) (February 2015)
https://physics.ucf.edu/~bindell/PHY%202049%20SCALE-UP%20Fall%202011/Beichner_CommissionedPaper.pdf
“Top Technology Trends for 2016”, IEEE Computer Society,
“7 Things You Should Read About ... : Digital Divides and Today’s Technologies,” EDUCAUSE Learning Initiative (ELI) (September 2015)
“Top 10 IT Issues,” EDUCAUSE
http://www.educause.edu/research-and-publications/research/top-10-it-issues
NMC Horizon Report > 2016 Higher Education Edition,
“Top 10 Strategic Technology Trends for 2016,” Gartner
http://www.gartner.com/technology/research/top-10-technology-trends/
https://library.educause.edu/resources/2015/10/the-predictive-learning-analytics-revolution-leveraging-learning-data-for-student-success
"Infographic: Institutional and Learning Analytics 2015," EDUCAUSE Center for Analysis and Research (22 April 2016)

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The Space Deficit
Preserving, Repurposing, and Building for a Growing University

The Texas Higher Education Coordinating Board’s Space Planning Model (SPM) estimates the difference between an institution’s predicted space needs and its actual space, regardless of condition. That model shows Texas State University has the most severe space deficit of any public college or university in Texas. The university’s actual teaching space, for instance, is only 54 percent of the predicted need, for a space deficit of 46 percent; and the research space is 60 percent of the predicted need, for a space deficit of 40 percent. The SPM is used to assess the need for new construction; but the university also pays careful attention to maintenance, renovation and space reassignment in dealing with the space pressures created by a growing institution with an ambitious strategic plan.

Overview
In October 1992, the Texas Higher Education Coordinating Board (THECB) approved a Space Projection Model for Higher Education Institutions in Texas. The model predicts the net assignable square feet (NASF) of educational and general (E&G) space an institution needs in five categories: teaching, library, research, office, and support. Auxiliary space, such as residence halls, bookstores, athletics, or other auxiliary enterprises, is not included.

In 1997, the Legislature incorporated the model into the funding formulas for general academic institutions. It is also used in the legislative Higher Education Fund allocation formula. The model is under review by an advisory committee and changes will have an impact on what Texas State’s space deficit will be and will ultimately impact the allocation of Higher Education Funds and Tuition Revenue Bonds.

The base unit of the model is room types that are grouped into five categories and are associated with specific data that drive each particular type of space. For example, to calculate predicted research space, the model looks at both the number of and the NASF of non-class laboratories and service rooms available and the average of the last three years’ research expenditures at the university. These numbers are compared to the actual space each institution has to determine the overall need and the need by category. Since the data are developed from institutionally-provided information and certified state reports, it is very important that the building and room inventory reports submitted to the THECB are accurate.

Status
Texas State has been considered a space deficit institution since the model’s creation. In fall 2015, the university reported 1,936,678 NASF in E&G space and THECB projected that the university should have 3,292,226 NASF, resulting in an overall adjusted space deficit of 1,366,011 NASF, or 41.5 percent even though space currently under construction, but not in the inventory, is taken into consideration in the formula.

Space deficits for each category in fall 2015 were: teaching (46 percent), library (39 percent), research (40 percent), office (31 percent), and support (51 percent).

Texas State’s growing enrollment is an opportunity, but also a challenge not faced by most universities. The university started fall 2015 with roughly 38,000 students and has experienced a double-digit percentage increase in freshmen applications for 2016, giving every indication that another enrollment record will be set for the 19th straight year.

Texas State’s enrollment meshes well with the THECB’s strategic plan for state higher education which states that by 2030, at least 60 percent of Texans ages 25-34 will have a college-level certificate or degree. Also, enrollment growth helps fund salary increases for faculty and staff, new academic programs, and critical university operations, in the face of decreasing state support for ongoing needs.
However, enrollment growth is not a zero sum game; it does present many challenges. More students require more faculty and also more students require more staff to provide the array of services required to help make them successful and to maintain and operate the university.

Furthermore, growth is also occurring in grant-funded research programs. While the issue of having adequate personnel is a challenge, physical space is a significant constraint both in being able to serve more students, faculty and staff and also to increase research programs in order to achieve National Research University Funding and Tier One Research University status.

Despite the fact that the campus total square footage has grown from 4.6 million in fiscal year 2004 to 8.1 million in fiscal year 2015, Texas State still has the largest teaching space deficit of any school in the state of Texas, nearly three-quarters of a million square feet, and a total space deficit of over 1.3 million square feet.

While in-progress projects such as the Engineering and Science Building and the Health Professions #1 Building in Round Rock will add to the E&G space totals, they will only slightly improve the space deficit as enrollment grows, faculty and staff are added, and research programs increase.

**Implications**

Given these challenges, how can a manageable and appropriate growth rate be sustained from a physical plant standpoint?

~First is the consideration of steps to properly maintain the facilities already here. Because they are used more often and by more students than at any other university in the state, Texas State’s existing facilities require a great deal of maintenance, repair and renovation.

~Next is examining and proposing ways to make better and more creative use of existing space. There are many possibilities, but among them are: shared research facilities, classroom and office space; innovative scheduling so that classrooms are continually in use from 8 a.m. to 10 p.m. Monday-Friday; linking curriculum so that classes are offered in sequence by time and space and do not conflict with each other; scheduling coursework such as tests online so that class space is not used and making sure that space is used for something else during that time; and offering more courses online or in hybrid format to minimize classroom usage.

~Departments/schools may also consider offering courses (and programs) in intensive formats, perhaps even offering two linked courses in a Saturday a.m./p.m. format. This compression of time, not only maximizes classroom efficiency, but also has the potential to deal with affordability, time to degree, student success and graduation rate issues.

Implemented carefully, none of these measures should come at the expense of the traditional academic experience or quality that has long been a deserved part of the university’s reputation.

So, though expansion into more buildings and other spaces is certainly supported by the deficits revealed by the Space Projection Model, creative and judicious use of the current campus facilities is a more feasible route that, by stretching resources, will reduce costs for Texas State and its students.

**Further Reading**

Space Projection Model Instructions published by The Texas Higher Education Coordinating Board
(http://www.thecb.state.tx.us/reports/pdf/1215.PDF)
The Texas Higher Education Coordinating Board – Academic Space Projection Model – Fall 2015
(http://www.thecb.state.tx.us/reports/pdf/7604.PDF)

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