CLOSING the GAPS
Strategies that Shaped Improvements in Texas Higher Education
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Executive Summary

In 2000, the Texas Higher Education Coordinating Board adopted Closing the Gaps by 2015, a plan formulated to address Texas’ long-range higher education needs. This comprehensive plan includes four overarching goals—to close the gaps in participation, success, excellence, and research—plus targets and statewide implementation strategies for each of the overarching goals. As the end of the plan draws near, reflection on these statewide strategies, their implementation, and their effectiveness can offer direction for the development of the next long-range plan for higher education in Texas. This report will review those comprehensive strategies and highlight some of the initiatives that have been implemented under each strategy.

Most of the strategies in the Closing the Gaps plan have required approval by the Texas Legislature for statewide implementation. However, the plan also calls on the state’s higher education community to apply their own creative initiative to developing appropriate programs, projects, and other responses for meeting the challenges represented by the goals of Closing the Gaps. These institutions have responded with outstanding campus-based efforts that, in addition to the statewide strategies discussed in this report, are helping Texas to address its higher education challenges.

Measuring Progress

Key to the Closing the Gaps plan was the development of a performance system to determine progress in meeting the plan’s goals and targets. In 2004, the Coordinating Board developed the Texas Higher Education Accountability System to track institutions' progress toward meeting the goals and targets of Closing the Gaps. This online accountability system, available at http://www.txhighereddata.org, provides a wide range of current and historical data for each institution in addition to statewide data.

Since 2011, the Coordinating Board has compiled the most relevant data from the accountability system into the Texas Public Higher Education Almanac, an annual publication designed for higher education officials, policymakers, and other stakeholders. In 2013, the Coordinating Board launched CompareCollegeTX.com, an interactive website for students, parents, and other stakeholders, which allows users to compare Texas public institutions side by side based on data reported in the Almanac.

Annual progress reports are available on the Coordinating Board’s website at http://www.thecb.state.tx.us/closingthegaps
GOAL 1  Close the Gaps in Participation.

By 2015, close the gaps in participation rates across Texas to add 630,000 more students into the higher education pipeline.

Strategy I: Make the Recommended High School Program (college-preparatory courses) the standard curriculum in Texas public high schools and make it a minimum requirement for admission to Texas public universities by 2008.

Establishing the Recommended High School Program, which promotes college and workplace readiness, as the default curriculum for all public high school students was among the first Closing the Gaps strategies to be formally implemented by the Texas Legislature. Texas has taken additional legislative steps to improve student academic preparation in recent years. For example, Texas College and Career Readiness Standards, developed collaboratively by vertical teams of public and higher education faculty and administrators, ensure that the high school curriculum contains the rigorous academic standards that will prepare students for college or the workforce. Also, the commonly called 4x4 curriculum, requiring high school students to take four years of English, math, science, and social studies as part of the Recommended High School Program, was put into place by the Texas Legislature, which modified the curriculum in 2013 in response to concerns about the need for more flexibility for some students.

Strategy II: Recruit, prepare, and retain additional well-qualified educators for elementary and secondary schools.

As more students take college-preparatory courses in high school, more highly qualified teachers are needed to teach those students, especially in science, math, and technology. Teacher education programs at universities across the state have increased enrollment and graduates in their traditional teacher preparation programs, thus increasing the number of certified teachers in Texas. Also, within a few years of the adoption of Closing the Gaps, alternative certification programs, which allow people who already hold bachelor’s or advanced degrees to earn a teaching certificate, became a new pathway for producing certified teachers, helping to boost their numbers.

Programs administered by the Coordinating Board that support this strategy by providing professional development to both current and future teachers are described below.

- The federally funded Teacher Quality Grants program provides grants to higher education institutions to train elementary and secondary school teachers in effective techniques for teaching math and science.
- The Math, Science, and Technology (MST) Teacher Preparation Academies program, established in 2007 by the Texas Legislature, provides specialized training in MST for both certified teachers and students enrolled in teacher certification programs. The goal of the Teacher Preparation Academies is to increase effective MST teaching by increasing the number of Texas teachers who become Master Teachers or who obtain Master of Education degrees in math, science, or technology.

Strategy III: Ensure that all students and their parents understand the benefits of higher education and the necessary steps to prepare academically and financially for college.

a. Carry out a sustained statewide public awareness campaign on the value of a college education, the preparation required, and the financial aid available.

Efforts to establish statewide public awareness began with the “Education: Go Get It!” campaign, and many related “Go” centers (centers where high school
Enrollments at Texas public, independent, and career institutions have increased by 57% since 2000. At the end of FY 2012, Texas added almost 590,000 more students to college campuses around the state. While preliminary data for fall 2013 suggests slower growth in enrollments over the last two years, Texas is still on track to meet the Closing the Gaps participation goal by 2015.

The news in Texas is particularly good for African Americans. To date, Texas has far exceeded Closing the Gaps enrollment targets for this group of students. However, much of this enrollment growth is among African American females, who enroll at Texas higher education institutions at the highest rate of any gender or ethnic group.

Among Hispanics, the fastest growing segment of the Texas population, the results are mixed. Since 2000, enrollments among Hispanics have more than doubled. Unfortunately, in spite of this impressive increase in enrollments, higher education enrollments for Hispanics continue to lag behind targets established for this group in Closing the Gaps. At the 2012 mark, Hispanics enrollments had only achieved 86% of the target set for that year.
students can find information on applying to college) remain in operation on Texas high school campuses. That campaign has now evolved into the Generation TX (GenTX) campaign, launched in 2010. Sponsored by the Coordinating Board, GenTX is building a grassroots social movement aimed at developing a college-going and career-ready culture across the state. GenTX.org is a collaborative website where schools, P-16 councils, and education service centers create their own regional microsites to promote GenTX-related events happening locally. The campaign hosts statewide GenTX events throughout the year in which schools, businesses, and community organizations team up to host college application drives and financial aid information sessions.

Other web tools developed collaboratively by the Coordinating Board to guide students and their parents through the college exploration and application processes include:

- **CollegeForAllTexans.com** provides important information regarding admissions, placement testing, and financial aid.

- **CompareCollegeTX.com** allows students to compare public institutions and first-year-earnings data by academic major.

- **ApplyTexas.org** houses the Texas Common Application which is used when applying to the majority of public universities or community colleges in Texas.

b. **Establish coordinated P-16 informational, motivational, and academic programs to prepare students for college.**

Texas has developed a strong, collaborative system of P-16 councils—a state-level organization and a system of regional councils—that are now a vital part of the state’s educational mainstream. They help to ensure that long-range education plans and programs, from early childhood education through postgraduate study, support the goals of **Closing the Gaps**.

The State P-16 Council, established by the Texas Legislature in 2003, is made up of representatives from the Coordinating Board, Texas Education Agency, Texas Workforce Commission, Texas Department of Assistive and Rehabilitative Services, and Texas Department of State Health Services. Six additional members represent education professionals, agencies, business, or other stakeholders. The P-16 regional councils across the state are each made up of leaders from regional education service centers, public school districts, community colleges, public or private universities, business representatives who are members of local workforce boards or chambers of commerce, and representatives from civic and community organizations. In addition to other collaborative efforts to support education regionally, the councils play a vital role in the GenTX public awareness campaign.

Noteworthy programs that support this strategy include the following:

- **Summer bridge programs** decrease the need for students to enroll in developmental education courses and help to improve student persistence and success in college. Participating students (11th and 12th graders who are not college-ready, recent high school graduates who are not college-ready, and first-year college students who are at high risk of dropping out) receive at least 80 hours in English/language arts or math including 10 to 20 hours of college-going and college-success information and activities.

- **Advancement Via Individual Determination (AVID)** is a promising college-preparatory program aimed at first-generation-in-college students and students who rank academically in the middle of their class. AVID has a 30-year record of success in secondary education, and a pilot program to try the AVID approach at 15 Texas colleges and universities is employing research-based practices and pedagogy to develop a systemic structure supporting student acceleration, persistence, and completion.

- **Advise TX** is a federally and privately funded effort through which recent college graduates are placed in 125 high-need public high school campuses across the state as near-peer college advisers for low-income and prospective first-generation-in-college students. Advisers work one-on-one with high school students to help them find and apply to institutions where they will be most likely to persist and succeed.
Strategy IV: Establish an affordability policy that ensures students are able to participate and succeed in higher education:

a. Provide grants and scholarships to cover tuition, fees, and books for every student with financial need.

The Texas Legislature established the Toward EXcellence, Access, and Success (TEXAS) Grant program a year before adopting Closing the Gaps by 2015, and the grant program quickly became a key factor in helping financially needy Texans pay for college. Today, the TEXAS Grant program is the state's major student aid program, contributing significantly to the success of Closing the Gaps. In an effort to better align student access with student success, the Texas Legislature in 2011 amended the TEXAS Grant program to give priority to students with financial need who also meet certain academic qualifications proven to predict student success in college. The new requirements take effect fall 2014. By the end of the 2014–2015 biennium, Texas students will have received more than $3.3 billion in grants through this program.

In addition, the state's Tuition Equalization Grant program contributes to the success of Closing the Gaps by helping students pay college costs at the state's independent institutions. Without independent institutions, there would be a much greater need for state-funded higher education resources. Also, the B-On-Time program, established by the Texas Legislature in 2003, offers attractive college loan options to students. For example, loans are provided at no interest, and borrowed amounts are forgiven if the participating student earns a 3.0 grade point average while completing a bachelor’s degree within four years or an associate’s degree within two years. ²

b. Set tuition and fees in a manner that closes gaps in participation and success.

Governing boards for Texas colleges and universities have wide latitude in setting tuition rates and fees, which have increased in recent years as institutions work to provide students with state-of-the-art education, facilities, and services. Despite recent tuition increases, Texas remains competitive with other states, ranking in the middle for tuition and fees at public four-year universities. Texas two-year institutions are some of the most affordable in the nation, ranking third among states in average tuition and fees.

Nevertheless, many efforts are aimed at satisfying the premise that tuition and fees must be affordable if the state is to close the gaps in student participation and success. For example, the Texas Legislature in 2013 passed a law requiring public universities to offer a fixed tuition price plan to entering undergraduate and incoming transfer students. Under the new law, institutions must agree not to increase semester-credit-hour tuition charges for an enrolled student during the first 12 consecutive semesters after the student’s initial enrollment.

Responding to increases in the cost of college, Governor Rick Perry in 2011 challenged the Coordinating Board and institutions to develop an affordable baccalaureate degree (also known as the $10k bachelor's degree). One promising response to this challenge has been the Texas Affordable Baccalaureate Project, a joint project of South Texas College, Texas A&M University-Commerce, and the Coordinating Board. With funding from the nonprofit organization EDUCAUSE, these institutions are collaborating with the Coordinating Board to develop a competency-based, low-cost Bachelor of Applied Sciences degree in Organizational Leadership, designed to improve college access and completion by reducing educational costs and time-to-degree. The program will award credits based on measurable competencies. Additionally, several institutions have established low-cost baccalaureate degree programs by packaging dual credit and Advanced Placement courses, financial aid, and year-round enrollment.

c. Establish incentives that increase affordability through academic and administrative efficiencies in the higher education system.

On several occasions, the Coordinating Board has identified and reported on the cost efficiencies in place on Texas college campuses. The November 2010 Report on Higher Education Cost Efficiencies was produced in response to Governor Rick Perry's directive for a comprehensive review of and recommendations for higher education cost efficiencies. Also, the November 2012 Survey on Institutional Implementation of Cost Efficiencies was produced in response to Governor Perry's request for information on progress toward the implementation of cost efficiencies. Many

² In 2013, the Texas Legislature amended the B-On-Time program to limit awards to university students seeking a bachelor's degree.
Texas has met and surpassed the Closing the Gaps success goal three full years ahead of 2015. In 2012, Texas institutions of higher education awarded almost 237,000 undergraduate degrees and certificates to students—a 104% increase in annual awards over 2000 levels. The state is also on track to meet 2015 targets for annual degrees and certificates awarded to African Americans and Hispanics—two critical demographics in the state’s efforts to close the educational attainment gap.

Unfortunately, the news is not all good. The state lags significantly behind targets set for degrees and certificates awarded in Science, Technology, Engineering and Mathematics (STEM). As of 2012, Texas only experienced a 51% increase in annual undergraduate STEM degrees and certificates and is more than 10,000 annual awards behind the 2015 goal for STEM. The state established a STEM target for success because these degree fields are critical for future economic development in Texas as we compete in an increasingly global high tech economy. Based on current trends, it is not likely Texas will meet this success target.
of the efficiencies identified in these and other reports, especially those tied to outsourcing certain services and increasing collaborations among institutions, have offered opportunities for quick payback and long-term savings when replicated elsewhere. Others have led to statewide initiatives for promoting large-scale efficiencies, such as:

- Linking some state formula funding to performance-based criteria
- Prioritizing TEXAS Grant awards to students who meet academic criteria
- Requiring students to file a degree plan after completing 45 semester credit hours
- Limiting most bachelor’s degrees to a maximum of 120 semester credit hours
- Limiting most associate’s degree programs to a maximum of 60 semester credit hours

**GOAL 2** Close the Gaps in Success.

By 2015, annually award 210,000 undergraduate degrees, certificates, and other identifiable student successes from high-quality programs.³

Strategy I: Focus college and university efforts on increasing graduates in education, engineering, computer science, math, physical science, allied health, nursing and other critical fields.

a. *Increase graduates in science, technology, engineering, and math (STEM) and related disciplines.*

More than half of the 30 occupations projected to be fastest growing through 2016 require significant knowledge of math and science, indicating the need for this strategy to keep Texas competitive with other states. More progress is needed in this area, although limited success has been achieved through a variety of efforts. For example:

- **The Texas Science, Technology, Engineering and Math (T-STEM) Initiative**, designed to increase the number of students who study and enter STEM careers, was launched in 2005 with support from state and federal government as well as philanthropic donors.
  
  - **The T-STEM Challenge Scholarship Program**, established in 2011 with an $8.5 million grant from the Texas Guaranteed Student Loan Corporation, has enabled community and technical colleges to provide merit-based scholarships to qualifying, high-achieving, full-time students pursuing careers in STEM and related fields. Participating colleges partner with business and industry to identify local STEM employment needs and develop part-time employment opportunities for scholarship recipients.
  
  - **The STEM Centers for Teacher Professional Learning** were created by the Texas Legislature in 2011. Three STEM Centers received funds from the Coordinating Board to provide professional development for K-12 STEM teachers and mid-career degreed individuals committed to becoming certified as teachers in a STEM course area. In addition, the three STEM Centers coordinate related statewide research, aid in related policy development, and plan and implement STEM teacher preparation curriculum.

b. *Increase graduates in science, technology, engineering, and math (STEM) and related disciplines.*

Several programs are aimed at meeting the continuing need for healthcare professionals. For example:

- **The Coordinating Board dedicates funds available through the Nursing, Allied Health and Other Health-Related Education Grant Program** to support innovative models of education that will increase enrollment capacity, educate more nursing faculty, and improve student retention rates in nursing programs.

- **The Professional Nursing Shortage Reduction Program**, established by the Texas Legislature in 2001, provides grants to public and private institutions of higher education to increase enrollment in and graduation from nursing programs.

- **The Coordinating Board also dedicates funds available through the Minority Health Research and Education Grant Program** to eligible institutions of higher education to conduct research

³ This goal was revised in 2005 after the original goal—to increase the number of degrees and other successes by 50 percent by 2015—was determined to be not ambitious enough. A 20 percent gain was recorded by 2004. Also, a numerical goal is clearer.
The Legislature adopted outcomes-based funding for public community colleges (SB 1)

10% of community college formula funding is allocated based on student success outcomes after $500,000/per year is appropriated to each community college district for core operations; the remaining 90% is allocated based on enrollments.

<table>
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<th>Category</th>
<th>Points</th>
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<tr>
<td>Developmental Education</td>
<td>1/0.5</td>
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<tr>
<td>Gateway Course</td>
<td>1/0.5</td>
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<tr>
<td>College Credit Attainment</td>
<td>1</td>
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<tr>
<td>Credentials Awarded¹</td>
<td>2/2.25</td>
</tr>
<tr>
<td>Transfer to a General Academic Institution</td>
<td>2</td>
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- **Developmental Education**: Completion of developmental education in math, reading and writing. 1 point for math; 0.5 points each for reading and writing.
- **Gateway Course**: Completion (with a C or better) of first college level math, reading or writing course. 1 point for math; 0.5 points each for reading and writing.
- **College Credit Attainment**: Completion of first 15 college credits and first 30 college credits. 1 point each.
- **Credentials Awarded¹**: Completion of an associate degree, certificate, or bachelor’s degree (where offered). 2 points each; 2.25 for STEM² credentials.
- **Transfer to a General Academic Institution**: Transfer to a general academic institution after having completed 15 hours of coursework. 2 points.

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¹ Students completing common core will be counted in this category.
² STEM includes Science, Technology, Engineering, Math, or Allied Health.

This information is current as of February 2014.
and educational programs on public health issues affecting one or more minority groups in Texas. The Texas Legislature first established and funded this competitive grant program as a result of the state’s Tobacco Lawsuit Settlement in 1999.

Strategy II: Carry out the state’s Uniform Recruitment and Retention Strategy and other efforts aimed at making college and university enrollment and graduation reflect the population of Texas.

The Coordinating Board’s 2010 Accelerated Plan for Closing the Gaps by 2015 calls for increased focus on improving African American and Hispanic participation and persistence in college. And even though the law establishing the Uniform Recruitment and Retention Strategy was repealed by the Texas Legislature in 2011, institutions’ progress toward enrolling and graduating students who reflect the demographics of each institution’s service area continues to be monitored through data reported to the Accountability System. Additionally, the Texas Higher Education Star Awards, presented annually by the Coordinating Board since 2001, recognize successful programs that improve student recruitment, preparation, and persistence—many of which specifically aim to increase African American and Hispanic participation and success in college. By recognizing these excellent programs, which can be replicated at other institutions, the Coordinating Board promotes proven methods for increasing student enrollment and success across the state.

Strategy III: Fund colleges and universities to reward increases in retention and graduation from high-quality programs.

Outcomes-based formula funding can encourage the state’s higher education institutions to focus more intensely on efforts that lead to achieving the goals of Closing the Gaps. Since 2009, the Coordinating Board has advocated for outcomes-based funding models for universities, community colleges, and state technical colleges. In 2013, the Coordinating Board successfully worked with the Texas Association of Community Colleges to earn legislative support for an outcomes-based model for community colleges. As a result, the Texas Legislature now requires that 10 percent of state formula funding for community colleges be based on certain student success points (see figure left). In addition, the legislature adopted a “return-value” funding model for state technical colleges. Through it, 100 percent of funding to the Texas State Technical College (TSTC) System is allocated based on the additional direct and indirect state tax revenues generated as a result of the education provided to students by the TSTCs. Although the legislature has not yet adopted an outcomes-based funding model for universities, it may consider such models in the next legislative session.

Strategy IV: Create incentives and requirements for seamless student transitions among high schools, community and technical colleges, universities, and health-related institutions.

For many college students, the process of transferring credits from one institution to another can be confusing. Many institutions have one-to-one transfer or “articulation” agreements for certain degree pathways with other nearby institutions (for instance, a university may have an articulation agreement with a nearby community college). One promising program trying to make the transfer process more simple and efficient by creating statewide “transfer compacts” is the Coordinating Board’s Tuning Texas Initiative. Tuning is a faculty-led process by which representatives from community colleges and universities throughout the state work collaboratively to “tune” a particular degree pathway. The tuning and fine-tuning processes drill down into each degree pathway to map out the required courses for each degree and learning outcomes for each course. Beginning with the mechanical engineering discipline, with grant support from Lumina Foundation, the Coordinating Board now has tuned 12 disciplines in engineering, science, math, and business, resulting in 12 statewide transfer compacts for those disciplines. Currently, 18 universities and 64 community and technical colleges have agreed to participate in one or more of the voluntary “transfer compacts” eliminating the need for potentially hundreds of institution-to-institution articulation agreements. Tuning activities have improved communication among academic administrators, employers, students, and policy makers, resulting in policy changes, curricular revisions, and greater institutional efficiencies for credit transfer.

In a related effort, Coordinating Board staff participates in the Academic Course Guide Manual Learning Outcomes Project, a faculty-led project to develop student learning outcomes for some of the most frequently taught first- and second-year courses approved for general academic transfer. And yet another example is the Texas Pathways Project, which is a data-driven effort to answer critical questions about student preparation and achievement at the local level. Through this project, local educational partnerships between secondary and postsecondary institutions collaborate to
identify course-taking patterns that are predictors of success, identify specific campuses or classes where the level of academic rigor may not be preparing students for college-level courses, work together on curriculum alignment between high school and postsecondary institutions, and develop and evaluate the effectiveness of academic interventions to improve student success.

Strategy V: Make partnerships and collaborations between the business community and higher education institutions a part of the culture of these organizations.

The business community has been an instrumental partner in several Closing the Gaps efforts. Members from the Texas Workforce Commission and the Austin Chamber of Commerce are represented on the State P-16 Council. In recent years, businesses including Neebo, HEB, Univision, Frost Bank, AT&T, and Chilí’s, along with local chambers of commerce and regional workforce development boards, have helped to foster a college-going culture in Texas by conducting college application drives and other related efforts during statewide GenTX events. Earlier in the life of the Closing the Gaps plan, business partners helped to launch the “Education: Go Get It!” campaign by serving on local steering committees across the state. The business community’s expertise was also solicited when a set of “Cool Jobs” videos were developed to showcase career opportunities in Texas.

Partnerships between businesses, community organizations, school districts, and public and independent institutions of higher education that work toward reaching at least one of the goals of Closing the Gaps are eligible for consideration of a Star Award. For example, the Alamo Area Academies, a partnership between local manufacturers and Alamo Colleges, won a Star Award in 2012 for its program to provide college students with state-of-the-art training followed by paid internships with local businesses such as Boeing Co., Lockheed Martin, Standard Aero, Toyota, Chromalloy, and others.

Strategic Plan I: Establish ladders of excellence for different types of institutions.

a. Require each public college and university to identify one or more programs or services to improve to a level of nationally recognized excellence and prepare a strategic plan to accomplish this goal.

Texas institutions have taken this Closing the Gaps challenge seriously and have reported many successes. For example, the undergraduate and graduate accounting programs at The University of Texas at Austin (UT-Austin) are top-ranked by U.S. News & World Report. In fact, nearly all of UT-Austin’s undergraduate business and engineering programs rank in the top ten. UT-Austin also has several top-ten ranked graduate programs including education, computer science, earth sciences, library and information studies, pharmacy, and social work. Currently, TAMU has two undergraduate and three graduate engineering programs ranked in the top ten by U.S. News & World Report, and their veterinary medicine program is ranked eighth. The University of Houston also has two top-ten ranked law school programs.

Other examples of excellence include:

• TAMU was named one of three National Biosecurity Centers.
• UT-Pan American established the first medical Spanish minor to allow participants to sit for the medical interpreter’s exam.
• Richland College was the first community college in the nation to receive the Malcolm Baldrige National Quality Award.
• Collin College was named a Center of Excellence in Nursing Education by the National League of Nursing.

b. Identify peer institutions for each public institution and establish excellence benchmarks.

Because the educational missions of Texas’ colleges and universities vary from institution to institution, the Coordinating Board has established benchmarks that allow each institution’s progress to be measured against that of its statewide and national peers, enabling more accurate data comparisons to be made and appropriate benchmarks of excellence to be established. Universities are classified as either research, emerging research, doctoral, comprehensive, or master’s institutions. Community
Federal Science and Engineering R&D Obligations and Share of U.S. Total for Top Seven States

In constant (base FY 1998) dollars

Expenditures for R&D at Public Universities and Health-Related Institutions

In current dollars

Closing the Gaps goal is related to federal science and engineering obligations for research and development to higher education (not total S&E obligations).
colleges are classified by the size of the student body and are classified as either very large, large, medium, or small institutions. The classifications are neither permanent nor prescriptive and are subject to revision as institutions evolve. Out-of-state institutions are also designated with these classifications in the Accountability System for comparison purposes.

Strategy II: Fund competitive grants to community and technical colleges and universities to match business contributions for acquiring equipment and software and maintaining high-tech instructional laboratories.

The Texas Research Incentive Program (TRIP) was established in 2009 to fund research at emerging research universities. State matching funds are based on the amount of private gifts and endowments to enhance research activities at each of the eligible institutions. Emerging research institutions in Texas have been so successful in soliciting private donations that the program has had difficulty matching the private funds with state dollars. By the end of the 2014–2015 biennium, TRIP will have provided $348 million ($153 million in general revenue and $195 million in private donations) to the eight emerging research institutions.

GOAL 4 Close the Gaps in Research.

By 2015, increase the level of federal science and engineering research and development obligations (in constant dollars) to Texas institutions to 6.5 percent of obligations to higher education institutions across the nation.  

Strategy I: Permit universities, like health science centers, to retain all overhead income from grants and contracts.

Since this practice was implemented by the Texas Legislature in 2003, the state’s universities have realized an estimated additional $710 million for research activities. Previously, the universities were allowed to retain only 50 percent of research grant amounts designated for overhead costs.

Strategy II: Establish the Texas Science and Engineering Collaborative to expand research in focused areas through collaboration among universities.

Although the Texas Science and Engineering Collaborative has yet to be established, a 2008 Coordinating Board report, Joint Partnerships between Institutions of Higher Education, found that such joint or collaborative research projects are already commonplace among universities and health-related institutions.

Strategy III: Increase funding for the Advanced Research/Advanced Technology programs.

State appropriations for the Advanced Research Program, known as the Norman Hackerman Advanced Research Program (NHARP), and the Advanced Technology Program (ATP) have seesawed with nearly every biennium since Closing the Gaps was adopted. While the Texas Legislature appropriated $1 million for the NHARP in the 2012–2013 biennium, there has been no appropriation for the ATP since the 2004–2005 biennium. By the end of the 2014–2015 biennium, these two programs will have provided approximately $545 million in research funds to Texas universities since 1987, although most of those expenditures occurred early in the life of the Closing the Gaps plan.

But because the need for state research funds has been deemed vital to the success of Closing the Gaps, several new well-funded efforts to support research have been created. For example, the Texas Excellence Fund and University Research Fund, which support laboratories and other research facilities at public universities, were created by the Texas Legislature in 2001 and then combined by that body in 2005 to become the Research Development Fund (RDF). The RDF supports all public universities except Prairie View A&M University (although the RDF will begin supporting Prairie View in 2015), TAMU, and UT-Austin, which are otherwise supported by the state’s Permanent University Fund. By the end of the 2014–2015 biennium, the RDF will have provided $343 million to eligible universities.

4 This goal was revised in 2005 after the original goal—to increase the level of federal science and engineering research funding to Texas institutions by 50 percent to $1.3 billion in constant dollars by 2015—had been achieved only five years into the 15-year plan.
In addition, the state-funded Emerging Technology Fund (ETF), established in 2005, emphasizes public and private collaboration, matches grants to innovators, and attracts top research talent to Texas while supporting activities that create high-quality jobs or produce scientific breakthroughs. Through February 2013, the ETF will have provided $216 million in grant-matching and research-superiority funds to Texas higher education institutions and $200 million in funds to 140 early-stage companies that collaborate with Texas institutions. An appropriation of $57 million has been allocated to the ETF for the 2014–2015 biennium. Also, the Competitive Knowledge Fund, established in 2007 to support instructional excellence and research among faculty at TAMU, Texas Tech University, UT-Austin, and the University of Houston, will have provided $472 million to those institutions by the end of the 2014–2015 biennium.

Strategy IV: Establish a competitive grant program to expand research and research capacity at developing research universities in current and projected major urban areas.

This Closing the Gaps strategy is met largely through the state’s National Research University Fund (NRUF), established by the Texas Legislature in 2009 to support research at institutions designated as emerging research universities. To be eligible for these funds, a university must be designated as an emerging research university in the Accountability System and spend at least $45 million annually on research. Additionally, they must meet four of the following criteria: possess an annual endowment of $400 million; award 200 doctoral degrees annually; demonstrate high academic achievement among students in the freshman class; manifest high quality among the faculty; exhibit a commitment to high-quality graduate education; and retain membership in the Association of Research Libraries, Phi Beta Kappa, or an equivalent nationally recognized organization.

Texas Tech University and the University of Houston became eligible for the NRUF in 2012. By the end of the 2014–2015 biennium, those institutions will have received $72 million through the NRUF. Another six universities have been designated as emerging research universities but have not reached $45 million annually in research expenditures: Texas State University, Texas Tech University, UT-Arlington, UT-Dallas, UT-El Paso, UT-San Antonio, University of Houston, and University of North Texas.

Conclusion

Texas is on its way to meeting the four overarching goals for improving higher education set forth in Closing the Gaps by 2015 thanks in part to the implementation of some of the strategies discussed in this report. Most importantly, credit for the progress made toward achieving the goals of Closing the Gaps goes to the administrators, faculties, and staffs of Texas’ diverse colleges and universities who have embraced the plan and marshaled their resources effectively to meet the needs of their unique and changing student bodies. For example, despite considerable growth in the number of non-traditional students (i.e. first-generation-in-college students and students of low socio-economic status) who need more support services and financial aid, Texas universities have been able to increase their six-year graduation rates steadily over the course of the Closing the Gaps plan. The plan has also helped to shape a culture in which Texans understand the need to embrace higher education and to do a better job of helping students to participate and succeed in college.

The improvements to the state’s educational system, brought about by achieving the goals of Closing the Gaps by 2015, are expected to strengthen Texas’ economic base, attract more innovative businesses and top-flight faculty, generate more research funding, and improve Texans’ quality of life. In fact, a study by the Perryman Group found that achieving the goals of Closing the Gaps will significantly boost the Texas economy. According to the study, by 2030, the state’s economy will see an estimated $489 billion increase in total spending, a $194 billion increase in gross state product, a $122 billion increase in personal income, and the creation of over 1 million new jobs—the majority of which will require some type of higher education credential.