Strategic Planning and Funding

60x30TX

Texas Higher Education Coordinating Board

2016 Regional Plan for Texas Higher Education

August 2016

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Texas Higher Education Coordinating Board

Agency Mission
The mission of the Texas Higher Education Coordinating Board (THECB) is to provide leadership and coordination for the Texas higher education system and to promote access, affordability, quality, success, and cost efficiency through *60x30TX*, resulting in a globally competitive workforce that positions Texas as an international leader.

Agency Vision
The THECB will be recognized as an international leader in developing and implementing innovative higher education policy to accomplish our mission.

Agency Philosophy
The THECB will promote access to and success in quality higher education across the state with the conviction that access and success without quality is mediocrity and that quality without access and success is unacceptable.

Agency Core Values
Accountability: We hold ourselves responsible for our actions and welcome every opportunity to educate stakeholders about our policies, decisions, and aspirations.
Efficiency: We accomplish our work using resources in the most effective manner.
Collaboration: We develop partnerships that result in student success and a highly qualified, globally competent workforce.
Excellence: We strive for excellence in all our endeavors.

Citing this report
Please cite this report as follows: Texas Higher Education Coordinating Board. (2016). 2016 Regional Plan for Texas Higher Education. Austin, TX.

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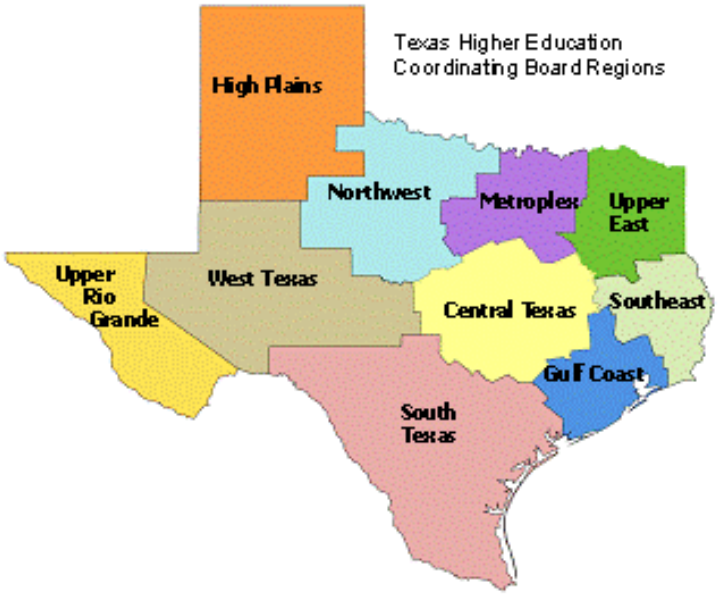
Executive Summary

Because each higher education institution in Texas has its own mission and goals and is responsible for meeting the needs of its students and broader community, coordinating state and institutional goals can be challenging. Regional planning can serve to bridge local planning efforts and state-level priorities by providing a scale that is neither so broad that local considerations are lost, nor so narrow that common goals are overlooked.

Regional higher education planning is also important for reaching state and national economic and societal goals. When the colleges and universities in a region work together and collaborate with other key community partners to develop a coherent vision – a vision that fosters growth, innovation, and the balanced use of resources – they send a clear message to policymakers and others who can advance regional progress.

Coordinated planning efforts are vital to meeting higher education goals and objectives in Texas, including those outlined in the state's new strategic plan, *60x30TX*. As demonstrated by the significant achievements made under the prior strategic plan, *Closing the Gaps by 2015* (*CTG*), a collaborative approach to aligning statewide planning activities with institutional and regional efforts ensures that stakeholders have the information, data, and tools necessary for integrating statewide and regional goals. Regional involvement also can help the state be more efficient and effective as it works toward its vision to increase higher education attainment and completion, identify and promote the development of marketable skills, and limit student debt.



As in previous versions of this report, the 2016 Regional Plan for Texas Higher Education embraces increased access to data and the strategic use of data to guide change. In 2010, the Regional Data Portal was introduced on the Texas Higher Education Coordinating Board's (THECB) website to augment the Regional Plan. Updated for 2016, the data available through the portal are organized both by higher education topic area and by each of the THECB's 10 higher education regions.

Much of the regional data and many of the recommendations highlighted in the Regional Plan focus on state-level planning priorities identified in *60x30TX*, including improvements in the postsecondary attainment of Texans; significant continued growth in college-level completions, especially for students from groups that traditionally have not earned certificates or degrees in large numbers; identification of marketable skills developed in degree programs and communication about those marketable skills to students, families, and the workforce; the management of student loan debt levels; and support for the alignment of workforce and educational needs.

In addition, data show regional applications for other state-level strategic planning efforts that continue to be critical. These include strengthening collaboration, increasing student participation and persistence, expanding efforts to improve statewide transfer, strengthening community and technical colleges, understanding and analyzing state versus local higher education perspectives when framing and implementing long-term planning goals, and strengthening dual credit offerings.

The following data and topics are included in the 2016 Regional Plan:

- Regional Population Trends
- Using Workforce and Occupational Data to Assess Regional Needs
- An Examination of High-Demand Programs by Region
- 60x30: Attainment
- Completion, broken into sections that address:
    - Higher Education Enrollment
    - Higher Education Persistence and Completion
    - Case Study: 8th Grade Cohort
- Marketable Skills
- Student Debt

Some regions of the state are growing rapidly and workers with postsecondary credentials are in demand. New research developed for the regional plan identifies a number of high-demand, low-supply occupations by region. While opportunities for study at the certificate, associate, bachelor's, and graduate levels are plentiful, effective and efficient means to meet current demand and accommodate future growth in critical fields must be a priority. For regions more sparsely populated and growing less quickly, there are less extensive postsecondary opportunities, but many programs identified as "high demand" are offered. In addition, distance education programs continue to be available statewide and provide many options for satisfying student demand in lower-growth regions.

When population growth and projections are disaggregated by ethnicity, the importance of efforts to enroll and graduate more students who are traditionally underrepresented becomes clear. For example, although the Hispanic student population grew faster than any other during the *CTG* plan years, Hispanic students still did not meet *CTG* enrollment targets. Among African Americans, the participation rates for males trail female participation rates by 25 percent at four-year institutions and 22.6 percent at two-year institutions. The gender gap in enrollment for African Americans continues to be the largest gender gap for any major ethnic group in Texas. The *60X30TX* plan sets ambitious new completion targets for 2020, 2025, and 2030 for underrepresented students, including Hispanics, African Americans, males, and those who are economically disadvantaged.

The Regional Plan provides comparisons of student populations by several factors to highlight differences in students' backgrounds and progress. The differences in student preparation, participation, and success that occur *within and across* higher education regions merit the attention of regional planners. Providing well-designed academic and support programs for at-risk students in all regions, and allocating resources in accordance with regional and institutional circumstances, will help the state progress toward the goals of *60x30TX*. Ensuring ease of transfer for the many students who begin higher education at community colleges, whether at-risk or not, is also a critical issue with a regional component.

State and regional data highlight areas of progress. African American and Hispanic students met final *CTG* success targets. In the most recent student cohort, community and

technical college persistence rates improved for students from all race/ethnic groups, and in some regions, Hispanic students have the highest university persistence rates compared to other race/ethnic groups. Data collected following the adoption of *60x30TX* show initial progress statewide in attainment and completion. There also has been progress in graduates found working and enrolled within one year of receiving their award and in managing student debt.

Institutional and regional planners and other stakeholders should carefully examine regional trends related to workforce and occupational needs, program demand, and the goals of *60x30TX,* and make use of the regional data workbooks in the Regional Data Portal. These resources can help illuminate how statewide trends and developments might impact local and regional data.

The THECB, higher education institutions, K-12 educators, business and community leaders, and policymakers must work together to ensure continued progress toward the goals of *60X30TX* and the needs of each region. The following recommendations are made in the Regional Plan based on an analysis of the regional data and the consideration of state goals:

- The higher education sector should collaborate with workforce development boards, institutional and other researchers, and business and community leaders to review carefully the data in this report and the associated data portal. Groups and forums with a regional purview, such as P-16 councils, regional higher education consortia, workforce development boards, and state leaders, should foster opportunities for discussion and shared inquiry, as well as promote better use of workforce data in planning processes.
- The higher education sector should consider leveraging new, commercial, workforce analysis tools that provide data from real-time job postings and information from publicly available workforce databases. With the support of the THECB or in institutional consortia, regions should investigate ways to access these tools to ensure they are affordable for smaller institutions of higher education.
- The THECB should support regions to incorporate more systematically workforce data into higher education planning. Regional planners should examine information about population projections, regional workforce needs, higher education program availability, and high school-to-college readiness and success data as an integrated whole to help ensure that student, employer, and state needs are met. Gaps and areas of alignment should be identified.
- Decisions about new programs should be carefully made with an understanding of workforce needs, including those in existing, evolving, and emerging fields, and also in the context of regional and state population and enrollment data. This decision-making process also applies to the development of new campuses or schools. Expansion that does not serve regional and/or state needs or unnecessarily duplicates efforts ultimately could harm efforts to provide affordable educational options to targeted and growing at-risk populations.
- Every region has areas of relative strength and weakness in terms of student outcomes. Regional and institutional planners should compare data across regions to identify areas for improvement, establish benchmarks, and set goals and targets for improvement informed by peers. Beginning in 2017, planners should also take advantage of a new *60x30TX* website that will present higher education data by region, by institution, and for the state.

- To achieve the goals of *60x30TX*, all regions – especially the fastest growing areas of the state (the Metroplex, Gulf Coast, South Texas, and Central Texas) – must increase student persistence, completion, and attainment through efforts such as effective student advising and support practices, accelerating developmental education, utilizing competency-based education, and employing electronic degree plans. Regional needs must be evaluated when adopting strategies designed to increase the attainment and completion of Hispanic, African American, male, and economically disadvantaged students. Community and institutional resources should be gathered to help these students prepare for, pay for, and succeed in college.
- *60x30TX* also will focus on identifying marketable skills and limiting student debt to ensure students have the skills they need in the workforce to secure employment, and that students can choose programs based on their talents and aspirations and not solely based on the starting salary for a particular field. Regions should provide targeted financial literacy that reflects the factors that drive borrowing in a region, such as cost of living, cost of attendance, and borrowing preferences. Regions also should enact policies supporting on-time degree attainment and efficient financial aid packaging.
- Outreach activities related to *60x30TX* goals should be balanced and collaborative among K-12 public schools, community colleges, four-year institutions, and the workforce across the state; these collaborations should be encouraged to ensure all perspectives are considered in the development of regional initiatives.
- Higher education institutions in a region must prioritize transfer success by providing aligned programs and clear pathways for all types of students. Voluntary transfer compacts, regional articulation agreements, vertical alignment, career and technical education (CTE) programs of study, fields of study (FOS), adult degree completion (Grad TX), and reverse transfer are means to improve transfer student outcomes.
- Tracking student mobility within and across regions is essential for planning. Providing regional analyses of out-of-state enrollment using National Student Clearinghouse data can provide insight on changing patterns of enrollment. Identifying resources to continue making out-of-state enrollment data available will help facilitate longitudinal study.

The 2016 Regional Plan for Texas Higher Education promotes alignment between statewide goals and regional initiatives by emphasizing the regional aspects and applications of workforce and occupational data, high-demand program data, and the goals of *60x30TX*.

Introduction

Coordinated planning efforts continue to be vital to the success of higher education in Texas. Integrating statewide planning activities with institutional and regional efforts must remain a priority as the state transitions from its former strategic plan for higher education, *Closing the Gaps by 2015* (*Closing the Gaps* or *CTG*) to a new, student centered plan, *60x30TX*. Ongoing economic, societal, and environmental changes necessitate that the state's higher education institutions look carefully at their missions, goals, and priorities to ensure the needs of the state and its students are met through deliberate and sustainable efforts. Providing stakeholders with the information, data, and tools they need to incorporate statewide goals and actions into regional planning contexts is an important Texas Higher Education Coordinating Board (THECB or Coordinating Board) function.

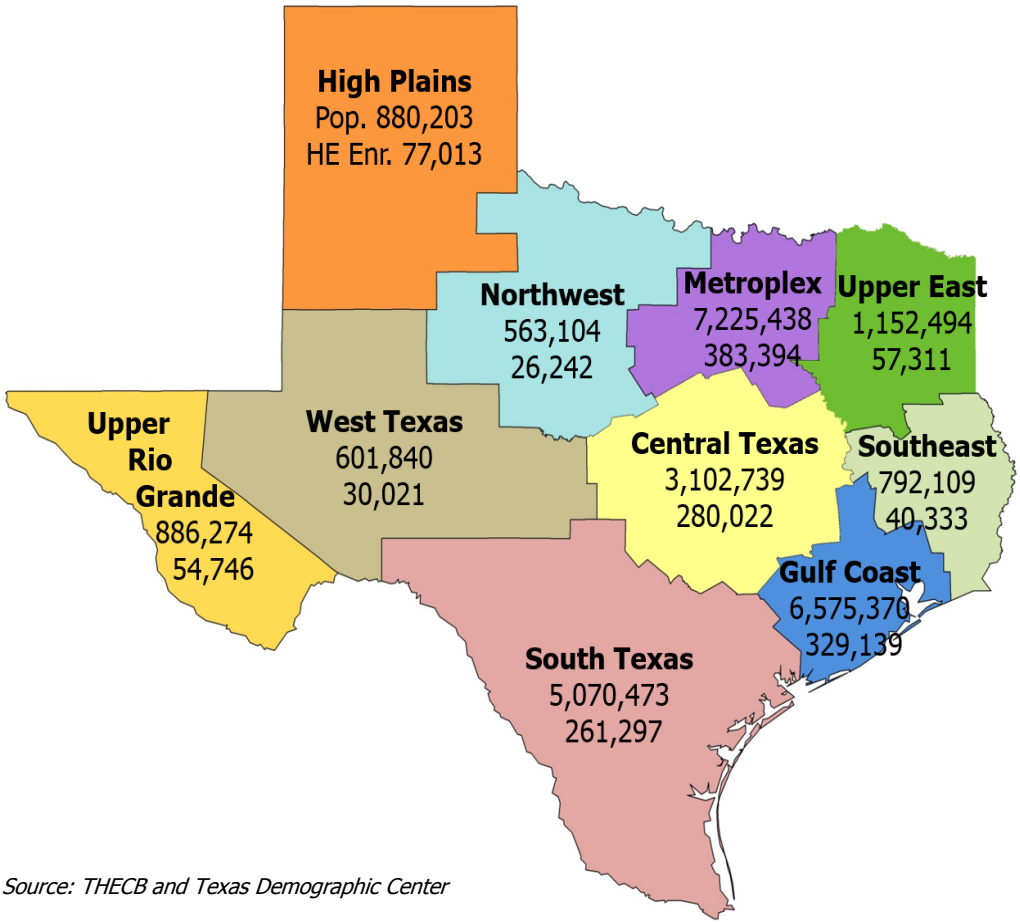
Thinking regionally about population trends, workforce needs, and the challenges students face in obtaining a higher education is essential for Texas to achieve its goals of increasing postsecondary attainment and developing a globally competitive workforce. Higher levels of postsecondary attainment are critical for the economic and social well-being of the state and its people.

This plan is part of a continuing effort to encourage and support regional approaches to higher education planning. It is designed to assist not only those who are involved directly in regional planning efforts, but also planners and policymakers who might benefit from a regional perspective. By emphasizing regional applications of the state's *60x30TX* plan, the 2016 Regional Plan for Texas Higher Education (Regional Plan) promotes alignment between statewide goals and regional activities.

To facilitate planning efforts, the Texas Higher Education Data website houses the Regional Data Portal. The regional portal has been updated with current region-specific data. Those recent data, along with regionally focused longitudinal trend data, support the analysis in this plan. The portal allows stakeholders to target regions or topics for analysis and provides an efficient means to make comparisons across areas.

Background

Texas is divided into 10 higher education regions that vary considerably in size and population. Just as it is important to understand the similarities and differences among the many types of higher education institutions in the state, it is also important to understand regional differences and commonalities. Figure 1 shows each of the higher education regions. The affiliated colors are consistent throughout the report and on the Regional Data Portal to help readers easily identify regions. The 2015 population and fall 2015 higher education enrollment for each region are included. The population figures are projections derived from the Texas Demographic Center (formerly, the Texas State Data Center), based on the 2010 Decennial Census. Enrollment includes flex-entry students, but it excludes career school students because of regional reporting limitations for some career institutions.



Source: THECB and Texas Demographic Center

Figure 1. 2015 Population and Fall 2015 Enrollment by Higher Education Region

Why Regional Planning is Important

Texas is a large and diverse state with over 140 public and private institutions of higher education. The new strategic plan for higher education in the state, *60x30TX*, calls for (1) ambitious improvements in the postsecondary attainment of Texans; (2) significant continued growth in college-level completions, especially for students from groups that traditionally have not earned certificates or degrees in large numbers; (3) identification and communication of marketable skills developed in degree programs to students, families, and the workforce; and (4) the management of student loan debt levels.

The state shares a responsibility with regions and institutions to support the achievement of *60x30TX* goals. A key focus of the report is the critical role regions play in bridging local planning efforts and state-level priorities at a scale that is neither so large that local considerations are lost, nor so narrow that common goals are overlooked.

Common student enrollment patterns, economic and workforce factors, and shared community identity explain why a regional approach is an important strategy for improving student success statewide. First, the vast majority of students from every Texas region attend institutions of higher education within their home region. The needs and assets of students in the region often are known best through the well-worn pathways students take between

proximate high school districts and institutions of higher education. Second, Texas public institutions are relatively autonomous and higher education governance is decentralized in nature. Some strategies that are resonant and adopted in one region, or for a particular student population, may be infeasible or undesirable in another region or on a statewide basis. Having the flexibility to customize and identify strategies that address local demand enhances ownership. Furthermore, local funding and tuition have replaced state funding as the primary sources of revenue for institutions of higher education, suggesting institutions are increasingly sensitive to the needs of their local stakeholders. Third, as the Texas Workforce Commission (TWC) reports, the primary industry and workforce needs vary significantly by region. Therefore, the mix of institutional offerings and student demand reasonably should vary to align postsecondary offerings with the needs of the local economy.

The Texas Legislature created the THECB to ensure the efficient and effective use of state resources in higher education. While tuition and fees collected from students have become an increasingly larger share of revenue for institutions, state formula funding is still an important revenue source. The THECB has determined that one of its goals in the new higher education strategic plan is to maintain overall student debt at its current level. The unnecessary duplication of degree programs results in inefficiencies that may put upward pressure on tuition and fees to pay duplicated fixed costs of operating degree programs. Thus, the THECB approves all courses and/or programs offered at off-campus sites by general academic teaching institutions. It is required that all other institutions within a 50-mile radius be notified of an institution's intentions to offer new programs at least 60 days prior to enrolling students. If any institution objects, the proposing institution is asked to resolve the differences. If no agreement can be reached, the conflict goes to the Assistant Commissioner for Academic Quality and Workforce for adjudication.

When colleges and universities in a region work together, however, and collaborate with other key community partners to develop a coherent vision – a vision that fosters growth, innovation, and balanced use of resources – they send a clear message to policymakers and others who can advance regional progress.

How the Regional Plan is Organized

The Regional Plan and the Regional Data Portal are designed to work in conjunction with each other. The plan presents information, analysis, and recommendations from a regional point of view. After a discussion of statewide planning that focuses on the regional implications of *60x30TX* and its predecessor *Closing the Gaps*, the Regional Plan covers the following key topics, which cross regional boundaries and should be considered from a regional scope:

- Regional Population Trends
- Using Workforce and Occupational Data to Assess Regional Needs
- An Examination of High-Demand Programs
- *60x30TX*: Regional Insights and Perspectives in Achieving Statewide Goals
- Attainment, Completion, Marketable Skills, and Student Debt

Throughout the Regional Plan, interactive links to the Regional Data Portal provide the option to access more extensive data, most of which are spreadsheet-based to allow users the capacity to manipulate the contents.

A section that describes the structure of the Regional Data Portal also is included in this plan. Following the portal description, the "Conclusions and Recommendations" section includes highlights from the regional analysis and provides recommendations.

Statewide Planning for Higher Education in Texas: From *CTG* to *60x30TX*

The *60x30TX* strategic plan for higher education in Texas was adopted in July 2015 and builds on the considerable success of the previous plan, *Closing the Gaps by 2015,* which had guided state higher education policy since its adoption in October 2000. *Closing the Gaps* led to significant increases in participation and success levels throughout Texas. This section provides a statewide summary of the final *CTG* outcomes and introduces the new goals adopted in *60x30TX*. An in-depth look at *60x30TX* goals from a regional perspective follows later in this report.

The goal of *CTG* was to close educations gaps within Texas, as well as between Texas and other states, by focusing on the critical areas of participation, success, excellence, and research. The Coordinating Board tracked yearly statewide progress on the plan. A primary way the agency evaluated the success of efforts related to the plan was by measuring how institutions contributed to reaching the goals of *CTG*.

The final *CTG* progress report of 2015 demonstrates that the state successfully closed the gaps in most, but not all, areas. In some areas, such as overall student success, the state exceeded *CTG* targets by wide margins. In other areas, where gaps were not fully closed, the state was often close to its target. Figure 2 shows Texas came within about 25,000 students of reaching the ambitious statewide participation goal of enrolling approximately 630,000 more students in fall 2015 than in 2000. The actual increase of more than 605,000 students was 96 percent of the targeted increase.

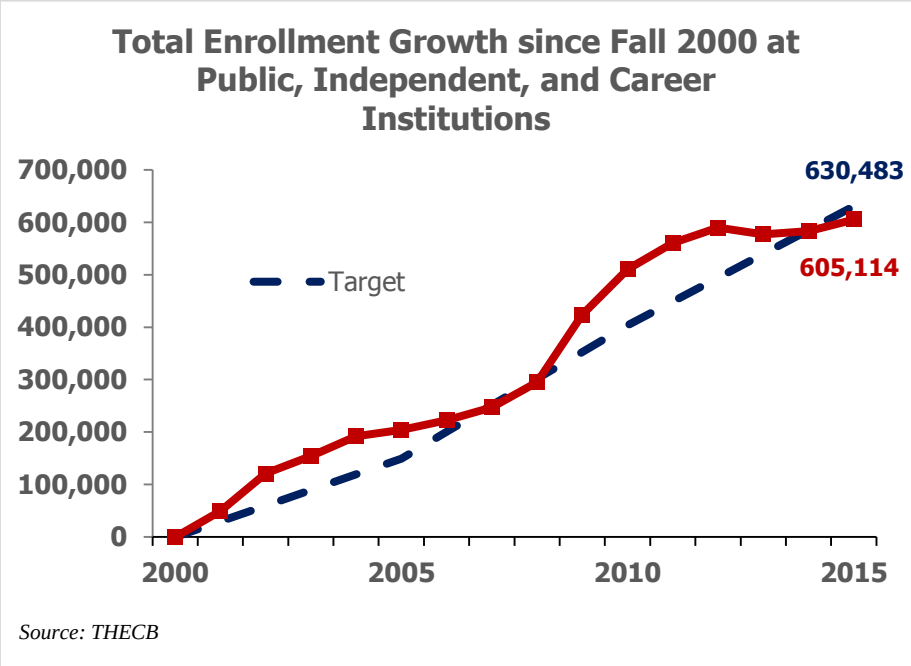


Figure 2. Total Enrollment Growth

Regarding the *CTG* student success goal to award 210,000 undergraduate degrees and certificates by 2015, the state exceeded its final target for credential completion by nearly 50,000 credentials. In fiscal year (FY) 2015, Texas institutions awarded over 258,000 bachelor's degrees, associate degrees, and certificates (BACs). Hispanic students reached their 2015 target in FY 2012, and African American students surpassed their final target in FY 2011. Completions of BACs by Hispanic and African American students increased nearly fourfold and threefold, respectively, from 2000 to 2015. Hispanic students earned nearly 30 percent of all bachelor's degrees awarded by public institutions in FY 2015, up from 18.5 percent in FY 2000. African American students also increased their share of bachelor's degrees in the same period, from 7.4 percent to 10.7 percent.

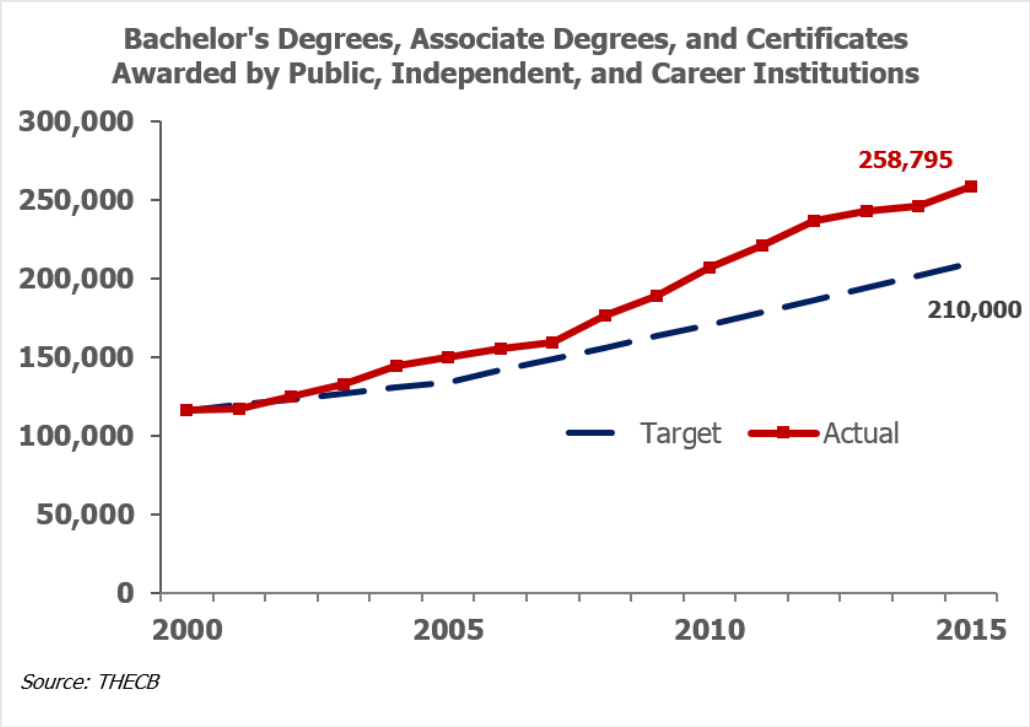


Figure 3. Awards Granted from 2000 to 2015

In adopting *60x30TX*, the state is building on the successes of *CTG* and continuing to focus on how higher education can support the educational needs of all Texans. The overarching goal of *60x30TX* strives for 60 percent of Texas residents ages 25-34 to hold a certificate or degree by 2030. The goal focuses on the percentage of credentials needed to supply workforce demand in Texas to remain globally competitive. The 60x30 overarching goal is an indicator of the economic future of the state that helps measure the capacity of its population to meet current and future workforce needs. When the plan was developed, higher education attainment for 25-34 year olds in Texas was at 38.3 percent. The most current data, presented in **Table 1**, show that attainment has increased to 40 percent.

The second goal of *60x30TX* states that at least 550,000 students in 2030 will complete a certificate, or an associate, bachelor's, or master's degree from an institution of higher education in Texas. The state's plan has a special focus on reaching student populations who are at risk of forgoing or failing to obtain a degree, including Hispanic, African American, male, and economically disadvantaged student populations. The completion goal differs from the

60x30 attainment goal in that the completion goal focuses on the contributions of Texas institutions of higher education and the awards given to students of any age at those institutions. As of 2015, the number of students completing a certificate, or an associate, bachelor's, or master's degree from an institution of higher education was 311,126, an increase of 4 percent over the prior year.

The third goal of *60x30TX* states that all graduates from Texas public institutions of higher education will have completed programs with identified marketable skills. To achieve this goal, institutions will create and implement a process to identify and regularly update marketable skills for each of their programs, in collaboration with business and other stakeholders, so that students are aware of the marketable skills affiliated with their programs. The THECB will also track the percentage of students who are found working or enrolled within one year after earning a degree or certification. As of 2013, 77.1 percent of Texas completers who remained in the state were employed or were pursuing additional education. The state goal is to maintain a level of 80 percent.

The fourth and final goal addresses student debt. It states that, by 2030, undergraduate student loan debt will not exceed 60 percent of first-year wages for graduates of Texas public institutions. Texas student debt is below national levels; however, it is on the rise at a rate of 8 to 9 percent annually. To ensure student debt will not become a deterrent to Texas students interested in pursuing higher education, the state seeks to maintain student debt as a percentage of first-year wage, at or below the 60 percent level – the level of debt-to-wages at the onset of the plan.

Table 1. Progress on *60x30TX* Goals and Targets

Goal	Target	Published in *60x30TX* Plan	2015 Baseline
60x30	60x30 (Attainment)	38.3%	40.3%
Completion	Overall	298,989	311,126
	Hispanic	89,355	96,650
	African American	37,658	38,785
	Male	122,744	130,956
	Economically Disadvantaged	107,419	114,003
	TX High School Grads Enrolling in TX Higher Ed	54.2%	52.7%
Marketable Skills	Working and Enrolled Within One Year	77.1%	78.8%
Student Debt	Student Loan Debt to First Year Wage Percentage	60%	60%
	Excess SCH Attempted	21	20
	Percent Completing with Debt	50.7%	49.2%

Source: THECB

In the sections that follow, the analysis begins with the end in mind by examining the forces that will shape future higher education offerings and participation – changes in population, demographics, and workforce. In a 2012 survey by UCLA, 88 percent of entering college students identified getting a better job as the motivation for going to college – the number one answer chosen. Understanding how education and workforce forces interact,

including the degrees that institutions choose to offer and students choose to pursue, and the economic conditions that contribute to those choices, is important from both a state and regional planning perspective. This report examines current higher education offerings, including which programs are high demand from an enrollment perspective. Later, the status of attainment, completion, student marketable skills, and student loan debt is addressed on a regional basis. Together, these analyses will inform regional planners about the alignment between workforce demand and higher education, as well as possible activities to meet the economic needs of the state and achieve the goals of *60x30TX* over the next 15 years.

Regional Population Trends

Regional planning for higher education must include analysis of population demographics to inform future demand for facilities and services. The U.S. Census Bureau estimates that Texas is the second most populous state in the nation, with 27.4 million residents in 2015. This number represents 2.3 million, or 9.2 percent, more Texas residents than in 2010 and represents the largest numerical increase and second fastest rate of population increase growth of any state; only North Dakota grew at a faster rate. Most of this growth occurred in the state's largest metropolitan areas, with other portions of the state growing at a slower pace.

Population Estimates and Projections

Table 2 shows population estimates and projections according to higher education regions in Texas for 2000, 2010, 2015, and 2020. The 2000 and 2010 figures were derived from Decennial Census data. The Texas Demographic Center (TDC) projected the 2015 and 2020 figures using 2010 Decennial Census data.

Ninety percent of the state population growth between 2000 and 2015 occurred in four regions: the Metroplex, the Gulf Coast, Central Texas, and South Texas. These regions are projected to account for 88 percent of the growth from 2015 to 2020. Central Texas has the largest percent change between 2015 and 2020 for all ages, while the Upper Rio Grande has the largest percent change for the population of 18-34 year olds during that same period.

Table 2. Regional Population Estimates and Projections

Regional Population Estimates and Projections 2000, 2010, 2015, 2020										
	All Ages					Ages 18 Through 34				
Region	2000	2010	2015	2020	% Change 2015-2020	2000	2010	2015	2020	% Change 2015-2020
High Plains	780,733	839,586	880,203	922,887	4.8%	194,250	217,508	225,207	232,547	3.3%
Northwest	549,267	550,250	563,104	576,162	2.3%	126,117	129,967	134,834	137,786	2.2%
Metroplex	5,487,477	6,733,179	7,225,438	7,735,274	7.1%	1,460,688	1,626,111	1,705,130	1,802,601	5.7%
Upper East	1,015,648	1,111,696	1,152,494	1,193,621	3.6%	218,007	235,465	249,507	262,197	5.1%
Southeast	740,952	767,222	792,109	817,678	3.2%	167,448	172,644	179,894	185,925	3.4%
Gulf Coast	4,854,454	6,087,133	6,575,370	7,075,093	7.6%	1,252,198	1,506,393	1,585,548	1,644,846	3.7%
Central Texas	2,309,972	2,948,364	3,199,811	3,461,078	8.2%	698,056	836,781	852,891	870,820	2.1%
South Texas	3,884,115	4,710,347	5,070,473	5,449,490	7.5%	950,832	1,120,900	1,221,272	1,324,383	8.4%
West Texas	524,884	571,871	601,840	631,614	4.9%	117,598	139,772	146,213	148,920	1.9%
Upper Rio Grande	704,318	825,913	886,274	950,385	7.2%	175,770	200,901	225,733	246,221	9.1%
Statewide	**20,851,820**	**25,145,561**	**26,947,116**	**28,813,282**	**6.9%**	**5,360,964**	**6,186,442**	**6,526,229**	**6,856,246**	**5.1%**

* 2000 & 2010 data from US Census, QT-P2, Single Years of Age and Sex and SF1 100% Data.
* 2015 & 2020 data are projections based on .5 migration scenario from Texas Demographic Center, http://osd.texas.gov/Data/TPEPP/Projections/
* Note: Most recent ACS 5-year estimates available are from 2014, TDC projections are used for 2015.

Sources: U.S. Census Bureau, Texas Demographic Center

The Regional Data Portal provides Regional population estimates by ethnicity for 2000, 2010, 2015, and 2020. Figures for 2015 and later are TDC projections based on the 2010 Decennial Census. Data comparing all regions are located in the Population and Educational Attainment workbook (see Regional Portal 2016: Population and Educational Attainment), and population flow charts with regional highlights are included in each regional workbook.

Hispanics are expected to have larger numerical growth and a faster growth rate between 2015 and 2020 than African Americans and whites of the same age groups in every region of the state. The African American population is projected to grow faster than the white population between 2015 and 2020 in all regions. Although the total number of whites is expected to increase modestly (1.2%) between 2015 and 2020 – compared with 12.2 percent for Hispanics and 6.2 percent for African Americans – the 18- to 34-year-old subset of whites is projected to decline by 89,286. As these data indicate, estimates of overall population growth, as well as demographic shifts, are expected to be significant over the next five years and should be central to regional planning efforts.

Using Workforce and Occupational Data to Assess Regional Needs

Population changes have a significant impact on workforce and educational needs statewide and within each region. This section reviews workforce and occupational data using two approaches to assist higher education regional planners in identifying likely areas of employment need locally and statewide. The first approach is a review of employment projections that focuses on identifying specific occupations with high-projected demand in the future. The second approach focuses on comparing projected growth rates of demand for specific occupations against growth rates in supply, using data developed for the RAND Corporation study "Using Workforce Information for Degree Program Planning in Texas." Together, and in combination with other workforce and occupational data already used by regional planners, this information can assist in the determination of what types of educational programs are most, or least, needed within each region.

Employment Projections

The Texas Workforce Commission (TWC), in conjunction with the U.S. Bureau of Labor Statistics (BLS), generates 10-year employment projections every two years for Texas, by industry and occupation. These projections are derived at the state level and for each of the 28 TWC workforce development areas (WDAs), which are made up of one or more counties. The most recent projections for Texas cover the period from 2012 to 2022. For the Regional Plan, the Coordinating Board aggregated WDA-level occupation data to the regional level. (Each region is comprised of one or more WDAs). Employment projections are included in the regional workbooks available through the regional portal (see Regional Portal 2016: Occupational Data and Workforce Projections). State-level projections are located in the topic area section of the workforce workbook. For all projections, only the top occupations' data are displayed – those adding the most new jobs or growing the fastest. The portal also includes employment data for high school seniors who did or did not graduate (see Regional Portal 2016: Occupational Data and Workforce Projections).

The TWC projects that employment in Texas will grow by more than 2.4 million new jobs (21%) from 2012 to 2022. Another 2.8 million replacement jobs (replacing individuals who will exit their occupations by 2022) will bring the total job openings between 2012 and 2022 to approximately 5.2 million. Statewide employment projections in this plan are broken out by the level of postsecondary education typically required for entry, then subdivided into the top 10 fastest growing occupations and the top 10 occupations adding the most new jobs (where there were 500 or more jobs in 2012). Some occupations are projected to be fast growing, as well as add the highest number of jobs. Levels of education are broken out by doctoral or professional degree, master's degree, bachelor's degree, and associate degree or other postsecondary award.

Seven of the 10 fastest growing occupations in Texas that typically require a doctoral or professional degree are projected to be in health-related fields, such as postsecondary health specialties' teachers (projected to add nearly 8,000, or 41% of new jobs between 2012 and 2022), audiologists (350, or 37% of new jobs), and physical therapists (3,750 or 32% of new jobs). Eight of the occupations that will add the most new jobs are also in health-related fields and include physicians and surgeons (adding 5,110, or 28% new jobs) and pharmacists (4,700, or 24% more jobs in 2022 than in 2012); both occupations also are projected to be among the fastest growing. Lawyers are projected to add nearly 11,000, or 22 percent of new jobs by 2022, the largest increase in this group.

Among occupations typically requiring a master's degree, the top four fastest growing are projected to be health-related: physician assistants (44% projected increase), postsecondary nursing instructors and teachers (42%), nurse practitioners (41%), and orthotists and prosthetists (40%). Fast growing, nonhealth-related occupations will include statisticians (36% increase) and economists (31%). The top occupations to add the most new jobs will be school counselors (adding 4,850, or 22% of new jobs) and elementary/secondary school education administrators (4,600, or 21% of new jobs).

TWC projects fast growing occupations that typically require a bachelor's degree will include interpreters and translators (2,210 or 49% of new jobs by 2022), information security analysts (2,990, or 45% of new jobs), and food scientists and technologists (680, or 43% of new jobs), but most new jobs for bachelor's degree holders are expected in other occupations: elementary school teachers (39,890, or 28% of new jobs), general and operations managers (38,400, or 22% of new jobs), accountants and auditors (25,410, or 24% of new jobs), and

secondary and middle school teachers (each adding about 20,000 new jobs). Two computer-related occupations, computer systems analysts and applications software developers, are projected to add about 14,000 and 10,000 new jobs, respectively, between 2012 and 2022.

TWC projections also estimate occupations for petroleum engineers to grow by 8,730 (45% growth). This anticipated high growth rate may not reflect the recent downturn in oil and gas prices and highlights that workforce projections may sometimes lag rapidly changing economic conditions. This lag demonstrates how data from real-time job posting review services or from regional efforts to connect with employers and study the most current employment trends can provide invaluable context for planners.

Every one of the top 10 fastest growing occupations that typically requires an associate degree or postsecondary nondegree award is in a health-related field, such as diagnostic medical sonographers (2,520, or 58% projected growth), skincare specialists (2,490, or a 49% increase), cardiovascular technologists and technicians (1,750, or a 44% increase), and occupational therapy assistants (1,190, or a 44% increase). The occupation projected to add the most new jobs – registered nurses – is expected to add far more jobs (53,480) than the top fastest growing occupations but at a lower overall rate of growth due to the substantial number of nurses present in the state. The next largest-growing occupation that typically requires an associate degree or postsecondary nondegree award is heavy and tractor-trailer truck drivers, projected to add about 37,000, or 23 percent new jobs by 2022. This occupation is followed by more nursing jobs: nursing assistants (about 24,000 or 28% more) and licensed practical and vocational nurses (about 20,000 or 28% more).

The "Regional Highlights" section of this plan lists occupations that typically require an associate degree or higher for entry. Each region's table lists the top five occupations projected to add the most new jobs and the top five projected to grow the fastest. As with statewide data, some occupations fall into both lists. Only occupations with 500 or more jobs in 2012 are displayed; so, some occupations that lead in growth rate statewide, but have a relatively small number of workers, may not be included in a regional list. Regional workforce data for occupations that typically require an associate degree or higher include these key findings:

- Three occupations are projected to be among the top five in number of new jobs in every region: registered nurses, elementary school teachers, and general and operations managers. Not surprisingly, these well-dispersed occupations also lead in adding new jobs at the statewide level.
- Accountants and auditors are in the top five occupations expected to add the most new jobs in six regions; middle school teachers are in the top five in five regions.
- Diagnostic medical sonographers and information security analysts are among the fastest growing occupations in four regions.
- Postsecondary health specialties' teachers, petroleum engineers, computer systems analysts, registered nurses, interpreters and translators, and physician assistants are each in the top five fastest growing occupations in three regions.

The TWC projects that the Metroplex will add the most new jobs (719,600) of any region by 2022. Occupations with the largest expected growth in the region are registered nurses (16,120, or 32% of new jobs) and general and operations managers (11,530, or 22% of new jobs). The Gulf Coast should have almost as many (712,430) new jobs by 2022, with registered nurses and general and operations managers also leading the way in adding jobs.

The Gulf Coast should have the fastest regional growth, with 24 percent more jobs projected for 2022 than in 2012. Fast growing jobs include diagnostic medical sonographers (59% increase), petroleum engineers (49% increase), and interpreters and translators (48% increase). West Texas should have the next fastest growth (22%, or 66,170 of new jobs), although the economic changes that have limited demand for petroleum engineers may drop the region's growth lower than other regions with more diverse economies.)

Workforce Supply and Occupational Demand

RAND researchers developed a methodology for the THECB to compare growth rates (percentages) in the demand for workers (based on the 2012-22 TWC employment projections) with growth rates in the supply of workers. This section broadly describes the methodology. For details, see RAND Corporation, "Using Workforce Information for Degree Program Planning in Texas," published in 2015. The supply growth rates (percentages) are based on population estimates, such as the number of people with a bachelor's degree in a particular field of study, from the American Community Survey (ACS) conducted monthly by the U.S. Census Bureau. The supply growth-rate percentages are calculated based on changes between the ACS three-year population estimates for 2005-07 and 2010-12. The demand growth rates measure percentage changes between the 2012 and 2022 TWC estimates.

Because it was infeasible to compare the demand and supply growth rates directly, RAND researchers classified the growth percentages into three equal-sized groups: high-, medium-, and low-growth. They further classified supply growth rates into a fourth ("uncertain") category if they had low precision (i.e., if they had a relatively high ACS sampling error). They could not classify demand growth rates into an uncertain category because sampling errors were not available for TWC estimates.

Using the above information, researchers were able to compare the supply and demand growth rate percentages in a three-by-four matrix layout of 11 matrices – one state-level and 10 regional-level. These are available through the Regional Portal (see Regional Portal 2016: Occupational Data and Workforce Projections). **Table 3** presents the state-level matrix.

The RAND report suggests focusing on occupations that "fall below the diagonal" (see dotted red diagonal line in the matrix on the next page) of the supply and demand matrices to identify occupations with unmet workforce needs, in particular the following cells:

- *High demand, low supply.* Statewide, occupations were religious workers, other construction related workers, and air transportation workers.
- *High demand, medium supply.* Statewide, occupations were financial specialists; computer specialists; engineers; primary, secondary, and special education teachers; and health technologists and technicians.

The report also suggests, "because of the uncertainty," examining occupations in the following cell of the matrix:

- *High demand, uncertain supply*. Statewide, occupations in this cell were mathematical science occupations; architects, surveyors, and cartographers; physical scientists; legal support workers; and occupational therapy and physical therapist assistants and aides.

Table 3. Statewide Supply and Demand Growth Matrix

DEMAND \ SUPPLY	Low	Medium	High	Uncertain
Low	Drafters, engineering, and mapping technicians (1730) First-line supervisors/ managers, protective service workers (3310) Transportation, tourism, and lodging attendants (3960) Supervisors, sales workers (4110) Communications equipment operators (4320) Material recording, scheduling, dispatching, and distributing workers (4350) Other office and administrative support workers (4390) Electrical and electronic equipment mechanics, installers, and repairers (4920) Supervisors of production workers (5110) Plant and systems operators (5180)	Art and design workers (2710)	Fire fighting and prevention workers (3320) Law enforcement workers (3330) Other production occupations (5190)	Life scientists (1910) Social scientists and related workers (1930) Media and communication workers (2730) Media and communication equipment workers (2740) Supervisors, personal care and service workers (3910) Vehicle and mobile equipment mechanics, installers, and repairers (4930)
Medium	Entertainers and performers, sports and related workers (2720) Sales representatives, services (4130) Sales representatives, wholesale and manufacturing (4140) Supervisors, office and administrative support workers (4310) Secretaries and administrative assistants (4360)	Top executives (1110) Advertising, marketing, promotions, public relations, and sales managers (1120) Other management occupations (1190) Other education, training, and library occupations (2590) Financial clerks (4330) Information and records clerks (4340)	Operations specialties managers (1130) Counselors, social workers, and other community and social service specialists (2110) Other teachers and instructors (2530) Other healthcare support occupations (3190) Entertainment attendants and related workers (3930) Other personal care and service workers (3990)	Life, physical, and social science technicians (1940) Lawyers, judges, and related workers (2310) Librarians, curators, and archivists (2540) Other sales and related workers (4190)
High	Religious workers (2120) Other construction related workers (4740) Air transportation workers (5320)	Financial specialists (1320) Computer specialists (1510) Engineers (1720) Primary, secondary, and special education school teachers (2520) Health technologists and technicians (2920)	Business operations specialists (1310) Postsecondary teachers (2510) Health diagnosing and treating practitioners (2910) Other healthcare practitioners and technical occupations (2990) Other protective service workers (3390) Personal appearance workers (3950) Other installation, maintenance, and repair occupations (4990)	Mathematical science occupations (1520) Architects, surveyors, and cartographers (1710) Physical scientists (1920) Legal support workers (2320) Occupational therapy and physical therapist assistants and aides (3120)

Note: SOC minor group numbers are in parentheses.

RAND Corporation, "Using Workforce Information for Degree Program Planning in Texas," 2015.

At the regional level, far more occupations fell into the uncertain column than for the statewide analysis, because of the smaller ACS sample sizes and resulting lower precision. All occupations in this analysis were classified as "uncertain" for West Texas, and all but two occupations were considered uncertain for the Northwest; these regions are more sparsely populated and have fewer jobs than most other regions. The RAND methodology identified and recommended the following occupations in the cells of the supply and demand matrix for special focus (see **Table 4**):

- *High demand, low supply.* Just one occupation, secretaries and administrative assistants, fell into this cell for more than one region; it was identified for four regions. There was no apparent pattern to the other occupations identified. Examples include health technologists and technicians (High Plains), air transportation workers (Metroplex), top executives (Gulf Coast), and entertainers and performers (Central Texas).
- *High demand, medium supply.* Two occupations, health diagnosing and treating practitioners and computer operations, were placed in this cell for three regions. Other occupations identified were financial specialists, and secretaries and administrative assistants (Metroplex); preschool, primary, secondary, and special education teachers; and health technologists and technicians (Central Texas). Five regions had no occupations in this cell: Northwest, Upper East, South Texas, West Texas, and Upper Rio Grande.
- *High demand, uncertain supply.* Thirty-eight occupations fell into this category across the 10 regions. Two occupations, computer operations and health technologists and technicians, were placed in this cell for six regions. Two other occupations, engineers and postsecondary teachers, appeared in this cell for five regions. South Texas had the most occupations placed in this cell, 16, and the Upper Rio Grande had the fewest, six.

Table 4. High-Demand and Low-Supply Occupations by Region

High-Demand/ Low-Supply Occupations by Region		
High Plains	**Northwest**	**Metroplex**
Health Technologists and Technicians (2920) Secretaries and Administrative Assistants (4360)	Other Management Occupations (1190)	Other Construction Related Workers (4740) Air Transportation Workers (5320)
Upper East	**Southeast**	**GulfCoast**
Religious Workers (2120)	Secretaries and Administrative Assistants (4360)	Top Executives (1110) Sales Representatives, Wholesale and Manufacturing (4140)
Central Texas	**South Texas**	**Upper Rio Grande**
Engineers (1720) Legal Support Workers (2320) Entertainers and Performers, Sports and Related Workers (2720)	Financial Specialists (1320) Secretaries and Administrative Assistants (4360)	Secretaries and Administrative Assistants (4360)

* West Texas region had no occupations meeting RAND selection criteria.
Source: RAND Corporation, "Using Workforce Information for Degree Program Planning in Texas," 2015.

In addition to the analysis presented on the prior page, one key comment in the RAND report noted, "there are generally no processes to systematically incorporate" workforce data produced by some regions into higher education planning. Chapter 5 of the RAND report recommended addressing this void by using workforce data for regular strategic planning: "By more systematically and regularly analyzing workforce data, the state and institutions may be able to identify unmet needs earlier and can mobilize resources to meet those needs … To address these shortages [in particular fields of study], it may be appropriate to provide institutions with extra support to start or expand programs."

An Examination of Programs by Region

High-Demand Certificate and Degree Programs

The *Regional Plan* statute calls for the Coordinating Board to identify regions with unmet needs for services and programs and provide recommendations for how those needs can be met efficiently. Careful analysis of program availability, enrollments, and degrees earned can help regions and institutions be more responsive to workforce and student demands. However, program planning also must utilize a range of additional resources, such as environmental scans, reviews of workforce projections and other data, an inquiry process to identify evolving

and emerging fields, and feedback from the business community and other groups of stakeholders.

Collaborative solutions can emerge when the focus of planning efforts extends beyond institutional walls and the need for programs is considered from multiple perspectives. Although the ability to adapt program offerings to local and regional needs is more commonly viewed as a goal for community colleges, universities must also be nimble in meeting student, workforce, and societal needs. Thinking regionally can help advance broader goals, even for the state's large universities. Conversely, community colleges must look not only within their own boundaries, but also far beyond them as they plan for the future.

As part of the development of the 2016 Regional Plan, two analyses were conducted that overlap by region and provide insight into program availability and enrollments. The first is an analysis of FY 2015 awards and degrees conferred by program (also called fields or majors), by degree level, and by region to highlight awards in high-demand areas. In addition, a state-level analysis of degrees awarded from 2011-15, by program code, illustrates trends over time and provides a broader context for regional analyses. These program-area analysis reports are available through the Regional Data Portal (see Regional Portal 2016: Degrees Awarded by High Demand Program Area).

High-Demand Program Analysis

In 2015, 90.6 percent of degrees and certificates awarded by Texas public colleges and universities were in areas identified as high demand, as determined by the number of degrees and certificates awarded per program area. This reflects a steady upward trend. In 2013, 88.8 percent of all awards fell into high-demand categories, an increase from 2011 when 87.3 percent of all degrees were concentrated in these areas.

Table 5. Summary of High-Demand Areas by Award Level

Summary of 2015 High-Demand Award Areas by Award Level							
Type	**Total Awards**	**Total Awards in High-Demand Majors**	**Percent High-Demand Awards**	**High-Demand Definition[A]**	**Total Majors with One or More Awards**	**Total High-Demand Majors**	**Percent High-Demand Majors**
Certificate [B]	35,691	32,167	90.1%	>=100	211	66	31.3%
Associates	71,802	67,310	93.7%	>=100	301	73	24.3%
Bachelor's	99,258	88,739	89.4%	>=200	324	87	26.9%
Master's	38,461	35,075	91.2%	>=50	349	111	31.8%
Doctorate	4,201	2,721	64.8%	>=30	220	37	16.8%
Total	**249,413**	**226,012**	**90.6%**		**1,405**	**374**	**26.6%**

[A]The total statewide awards in a major/program exceed or are equal to the number listed.
[B] Certificate programs reviewed in this report refer to Level 1 (15-42 SCH), Level 2 (43-59 SCH), and Technology Certificates (16-50 SCH).
Source: THECB.

Source: THECB

Enrollments have increased since 2013 and the high-demand award level thresholds have remained constant, which may be responsible for the increase. However, the phase-out of several low-producing programs during this time also may have contributed to this pattern. In 2013, 354 areas out of 1,389 (25.5%) were identified as high demand; therefore,

approximately 89 percent of the degrees and certificates earned were awarded in 26 percent of the available majors. In 2015, almost 91 percent of all degrees were in 26.6 percent of fields available.

Although many certificate and degree programs with small enrollments make an important contribution to the state and several emerging new fields show real potential for growth, weighing program benefits and costs should be a priority for institutions. Reviewing both the data about high-demand programs, which may influence where funding is concentrated, and information about the production levels of all programs can help add clarity to the planning process.

When the first Regional Plan was published in December 2002, many gaps existed in the availability of high-demand programs in the five high-growth regions of the state. Over the next 14 years, additional face-to-face programs, combined with online programs, have filled most of those gaps. There are rare cases where no face-to-face or online programs are available in these growing regions. In 2015, for example, there were no biochemistry graduates in West Texas. Overall, though, the growth of face-to-face and online programs has led to multiple opportunities for students to access high-demand programs.

Based on available data, the THECB has identified 1,016 online degree and award programs offered around the state. The following online programs were available by broad program fields (reported by two-digit CIP, i.e., Classification of Instructional Programs Code):

- 345 online certificate programs in 13 fields, including 176 in business-related areas
- 337 online associate degree programs in 28 fields, including 90 in business-related areas and 51 in liberal arts and sciences, general studies, and humanities
- 86 online bachelor's degree programs in 14 fields, including 17 in health professions and related programs, and 15 in business-related areas
- 239 online master's degree programs in 22 fields, including 81 in education
- 9 online doctoral programs offered in 2 fields, including 5 in health professions and related programs, and 4 in education

Institutions can use the data provided in this plan to review program availability by degrees awarded and by region. Although it is important to review regional data about program availability and demand when considering institutional changes to program offerings, it is also important to consider local context. A lack of, or low number of programs in a region should not be assumed to represent unmet need. A program with high enrollments in one area of the state may be popular because of area industries and workforce needs or because of unique regional characteristics, such as proximity to the coast or ranch land. For example, industrial and instrumentation technology awards are not available in all high-growth regions but are popular on the Gulf Coast. Institutions can determine if programs are needed by using enrollment data in conjunction with workforce information and regional labor force needs.

Specific program considerations also must be taken into account when assessing need. For example, doctoral programs can be expensive to offer and tend to produce graduates who are mobile in the job market. For some technical or professional programs, the expense of facilities or equipment might outweigh other considerations, especially if the program is already available within a reasonable geographic range. The Regional Plan analysis only addresses degree attainment in programs at public higher education institutions. However, part of the

planning process also should consider the availability of programs at private nonprofit and for-profit colleges and universities.

Finally, the high-demand program data illustrate differences in how programs are structured. Scanning the information in the high-demand analysis, taking careful note of both observed deficiencies and regional and statewide degree patterns in those identified fields, can serve as one means for institutions to identify demand. For example, from 2013 to 2015, awards in the field of computer science at all levels, except doctoral, substantially increased. Focusing on the certificate level, awards grew from 2,599 to 3,229 over the two years. Growth in this area mostly stems from certificates for computer programming, which increased by 179 percent (213 awards). Although all regions either grew or remained steady in computer science, the number of certificates awarded for computer science increased the most in the Metroplex region, rising from 575 in 2013 to 996 in 2015.

Emerging, high-demand degrees, as well as decreases in demand, also are apparent by reviewing 2013 and 2015 program data. For example, among 2015 bachelor's degrees, the field of digital communication and media/multimedia was identified as a new area of high demand. Conversely, dental assisting/assistant certificates decreased by almost 15 percent, and associate degrees in dental hygiene decreased by 7.5 percent from 2013 to 2015. Patterns in awards granted in certain fields may reflect Texas workforce needs. For example, awards for bachelor's degrees in general engineering increased by 8 percent from 2013 to 2015, while master's degrees awarded in the same area increased by more than 125 percent. According to workforce data, the statewide demand for engineers is high, while the supply of workers is only at a medium level, possibly resulting in an increased demand for engineering degrees (see Regional Portal 2016: Degrees Awarded by High Demand Program Area).

Regional Analysis of Program Production Levels

The Regional Data Portal includes information about program production. Organized by region, detailed program level, institution, and degree awarded, the data in the portal include degree and award counts by region, grouped to allow institutions and regional stakeholders to more readily make regional comparisons and better understand regional program availability and enrollment patterns for similar programs.

Five-Year Trend Analysis of Degrees Awarded

In the analysis of five-year trends (2011-15), the number of certificates, associate degrees, and bachelor's degrees awarded shows variability from year to year for some program areas, but consistent upward or downward trends for others. Regional trends in growth must be viewed in light of the overall statewide change in the number of degrees awarded; a flat trend line at the regional level, paired with stagnant statewide growth, could suggest declining interest in a field (see Regional Portal 2016: Degrees Awarded by High Demand Program Area).

The five-year trend analysis shows that most STEM fields have increased awards. Awards in the physical sciences show a steady growth trend since 2011 (36% increase in degrees awarded). Mathematics and statistics degrees also have increased over the past five years, growing by 29 percent. Engineering degrees have increased considerably in the last five years, adding over 1,700 degrees between 2011 and 2015. The steepest growth occurred for associate degrees in engineering (143%). Engineering technologies awards also increased, with a large jump between 2011 and 2015 of 1,144 credentials; 46.8 and 39.7 percent of that

increase was due to certificates and associate awards, respectively. Two other workforce award areas, precision production and mechanic and repair technologies, showed notable growth during the five-year period studied. All growth in these fields is due to increases in certificate and associate awards, as there are no bachelor degree programs for these areas. Finally, health professions and related programs added the most awards of any at the program level, with 4,474 more awards in 2015 than in 2011; most of this increase (55%) was in baccalaureate degrees.

As with undergraduate degrees, regional considerations are important when analyzing program availability and future needs related to professional degrees. The high expense of offering these programs and their significance to the health and well-being of the state are good arguments for a close examination of enrollment and degree trends over time. The majority of professional degrees in the state are awarded in five regions: Gulf Coast, Central Texas, the Metroplex, High Plains, and South Texas. **Table 6** (on the next page) provides five-year trends in professional degrees. As shown, the number of law degrees awarded has been on a generally downward trend over the last five years. The exception was Central Texas with 199 more graduates in 2015 than in 2011. This downward trend is surprising given the TWC projection that attorneys will be one of the fastest growing fields requiring a professional degree through 2022. This is an example of when further analysis of contradictory trends is warranted by regional planners.

For health-related professional degrees, trends show only slight variation in most areas. Limited capacity in several medical areas, such as slots for medical doctor (MD), doctor of osteopathic medicine (DO), and doctor of veterinary medicine (DVM), can affect degree production. **Table 6** highlights professional programs in law and in medical-related fields around the state. The number of medical degrees awarded has slightly decreased or remained stagnant in most regions, except for the Metroplex, Central Texas, and Upper Rio Grande regions where awards have increased over the past five years. Dentistry degrees awarded also have remained relatively flat in the three regions where there are public institutions that award those degrees. The new medical schools that will open at The University of Texas at Austin (UT-Austin) and The University of Texas Rio Grande Valley (UTRGV), will add capacity to train medical doctors in Texas, but other considerations, such as providing adequate residency slots for Texas-trained physicians, must be considered.

Table 6. Professional Degrees Awarded by Region (Public Institutions), 2011-2015

Professional Degrees Awarded by Region (Public Institutions) 2011-2015						
Region	**Program Name**	**2011**	**2012**	**2013**	**2014**	**2015**
High Plains	Law	199	216	238	213	211
	Communication Sciences and Disorders, General	6	0	0	0	0
	Audiology/Audiologist	0	10	11	7	12
	Medicine	144	130	189	136	138
	Pharmacy	117	130	119	158	150
	Physical Therapy/Therapist	78	82	79	67	75
Metroplex	Audiology/Audiologist	13	21	20	17	18
	Medicine	207	227	221	222	242
	Osteopathic Medicine/Osteopathy	159	166	172	205	222
	Physical Therapy/Therapist	154	136	168	187	188
Southeast	Audiology/Audiologist	1	9	6	9	5
Gulf Coast	Law	443	441	423	430	371
	Dentistry	81	79	86	82	83
	Medicine	632	616	646	618	624
	Optometry	102	91	107	94	94
	Pharmacy	238	238	199	220	219
	Physical Therapy/Therapist	53	63	84	75	98
Central Texas	Law	382	373	378	583	581
	Audiology/Audiologist and Speech-Language Pathology/Pathologist	9	4	12	7	6
	Dentistry	101	97	97	99	106
	Medicine	100	117	134	157	189
	Pharmacy	186	215	196	205	207
	Physical Therapy/Therapist	39	40	40	37	38
	Veterinary Medicine	121	129	129	133	128
South Texas	Biophysics	0	0	0	0	1
	Dentistry	107	92	97	109	104
	Medicine	216	207	225	220	202
	Physical Therapy/Therapist	40	37	63	51	56
West Texas	Physical Therapy/Therapist	0	19	18	23	18
Upper Rio Grande	Medicine	0	0	0	53	73
	Physical Therapy/Therapist	14	13	21	24	20

** Programs shown here are affiliated with a home institution, but may be offered in a different region or online. Nursing practice is generally reported as a doctoral degree, not a professional degree. Physical therapy in the West Texas and Upper Rio Grande regions were new programs in 2012 and 2011, respectively.*

Sources: THECB, CBM009.

60x30TX: Regional Perspectives in Achieving Statewide Goals

The Coordinating Board is committed to increasing student success in Texas and supporting institutions and regions to align higher education with projected changes in population, demographics, and the workforce. In the first portion of this section, state and regional educational attainment data are presented to highlight regional differences in workforce preparation. The second portion of this section examines higher education enrollment, persistence, and completion. The end of the section focuses on marketable skills and student debt. As regions strategize about how to achieve the statewide goals of *60x30TX*, the analysis provided in this section will help them and the state identify areas of strength and needed improvement.

Attainment

Educational attainment is an indicator of the economic future of the state. When aligned with the requirements to perform specific occupations, it sheds light on the capacity of a population to meet current and future workforce needs. Postsecondary attainment measures the percentage of a population that holds a credential, i.e., a certificate or degree, from an institution of higher education. The attainment measure counts residents who receive a credential in Texas, as well as those who migrate into Texas with credentials.

The importance of attainment is reflected in *60x30TX*. The overarching goal of *60x30TX* is for 60 percent of 25- to 34-year-olds in Texas to hold a certificate or degree by 2030, resulting in a globally competitive workforce as a state. As of 2013, the attainment of the 25- to 34-year-old population in Texas was 38.3 percent. By 2014, that figure had risen to 40.3 percent. Reaching 60 percent by 2030 presents an ambitious statewide goal and will require strategic planning at all levels, including statewide and regional efforts. While acknowledging the 60x30 overarching goal in its purview, the Regional Plan approaches attainment more broadly. The analysis that follows is a statewide and regional exploration, which considers Texas residents ages 25 and older. This approach allows for understanding the attainment level of the larger adult population in Texas, not only the 25- to 34-year-olds targeted in the 60x30 goal, and helps highlight the need for more understanding about the importance of completion among older adults, in addition to younger adults who may be in the workforce longer.

State and Regional Educational Attainment

Educational attainment varies widely across the state. Central Texas led the state in educational attainment based on the 2010-14 American Community Survey (ACS), with 33.6 percent of all residents age 25 and over holding a bachelor's degree or higher, 40.6 percent holding an associate degree or higher, and 86.9 percent holding a high school diploma (or equivalent) or higher (see **Table 7**). It is important to note that while ACS does not collect data on residents holding a certificate, certificate holders are approximated based on ACS data for purposes of tracking statewide progress toward the 60x30 overarching goal. The high rates of educational attainment in this region may correlate with the high degree of completion rates at Central Texas universities and the many employment opportunities in the area that require a postsecondary degree. In addition, Texas' strong economy has attracted individuals with degrees from other parts of the country and the world to the state's metropolitan areas, including Central Texas.

As shown in **Table 7**, the state's two largest metropolitan areas, the Metroplex and Gulf Coast regions, had the next highest percentages of residents age 25 and over with a baccalaureate degree or higher; the Southeast and the Upper East regions had the lowest percentages. The statewide percentage of Texans age 25 and over with a high school diploma (or equivalent) or higher increased substantially from 2000 to 2010-14, from 75.7 percent to 81.5 percent. The increase was greatest in the Upper Rio Grande region, which had a 9.2 percentage point increase to 74.8 percent. Some regions, such as the Southeast and Upper East, had populations with relatively high percentages for high school credentials but relatively low percentages for higher education credentials. With a larger number and percentage of

Table 7. Educational Attainment by Region

Texas Educational Attainment in 2000 and 2010-2014 Composite by Region								
	Population 25 Years and Over		Percent HS Diploma (or GED) or Higher		Percent Associate Degree or Higher		Percent Bachelor's Degree or Higher	
Region	2000	2010-2014	2000	2010-2014	2000	2010-2014	2000	2010-2014
High Plains	607,037	525,887	75.0%	80.9%	24.1%	28.3%	18.8%	21.7%
Northwest	350,250	359,130	76.1%	83.1%	21.4%	25.1%	16.7%	18.7%
Metroplex	3,416,273	4,455,560	79.8%	84.0%	33.4%	38.0%	27.8%	31.4%
Upper East	665,553	748,368	75.1%	82.9%	20.8%	24.9%	15.3%	17.6%
Southeast	476,816	509,338	75.2%	82.6%	18.4%	22.0%	13.9%	15.6%
Gulf Coast	2,972,716	4,017,661	76.2%	81.5%	31.1%	35.9%	26.1%	29.7%
Central Texas	1,274,317	1,954,110	82.1%	86.9%	35.2%	40.6%	29.6%	33.6%
South Texas	2,304,306	2,977,216	68.0%	75.7%	22.7%	27.9%	17.8%	21.3%
West Texas	317,012	374,177	71.2%	77.0%	21.3%	24.1%	16.4%	18.0%
Upper Rio Grande	406,613	505,283	65.6%	74.8%	21.7%	27.9%	16.7%	20.9%
Statewide	**12,790,893**	**16,426,730**	**75.7%**	**81.5%**	**28.5%**	**33.6%**	**23.2%**	**27.0%**

Source: U.S. Census Bureau, 2000 Decennial Census and 2010-2014 American Community Survey.

students completing high school in the state, increasing the percent of those who enroll directly in higher education to 65 percent by 2030, as targeted in *60x30TX*, is essential in reaching the ambitious *60x30TX* completion and overarching attainment goals. Based on the 2010-14 ACS estimates, Texas ranked number 50 among the 50 states, the District of Columbia, and Puerto Rico in the percentage of residents age 25 and over with a high school diploma (or equivalent) or higher, above only California and Puerto Rico. The state performed better in the attainment of an associate degree or higher, ranking 41st, just behind Ohio. Texas performed the best in the percentage of residents age 25 and over holding a baccalaureate or higher, in 31st place, tied with Arizona. The number one and two areas for baccalaureate or higher attainment were the District of Columbia and Massachusetts, respectively. In 2013, Texas attracted into the state a net of about 56,000 people ages 25-34 who had a postsecondary credential.

Additional ACS estimates, broken down within regions by categories of educational attainment and gender, are available in the Regional Data Portal (see Regional Portal 2016: Population and Educational Attainment). These estimates show that the percentage of adults age 25 and over with an associate degree was higher for females than males in every region. Males, however, had a higher percentage of graduate or professional degree attainment in every region but the Upper East, Southeast, and West Texas. With the traditional patterns of degree attainment by gender changing at all levels, including professional degrees, these relationships are likely to change over time. Focused effort to reach the *60x30TX* target for

equal numbers of men and women completing by 2030 may help balance attainment rate patterns by gender over time.

Completion

Completion measures the number of students who are awarded a credential after enrolling in an institution of higher education in Texas. Completion differs from attainment in that it focuses on whether students are successful at completing the requirements to earn a degree or certificate in a given year rather than measuring how many individuals in a population have ever attained a credential. The importance of completion to achieving state strategic goals for higher education was recognized in *Closing the Gaps* and continues to be emphasized in *60x30TX*. The second goal of *60x30TX* is that at least 550,000 students in 2030 will complete a certificate, associate, bachelor's or master's from an institution of higher education in Texas. As of 2014, the number of students completing a certificate, associate, bachelor's, or master's from an institution of higher education in Texas was 298,989. By 2015, that number had risen to 311,126. As with attainment, reaching the goal of 550,000 by 2030 is an ambitious statewide goal; achieving it will require regional, as well as statewide and institutional planning. What follows in this section is a review of the many components that influence successful completion from a state and regional perspective, including:

Higher Education Enrollment

- High School Graduates Immediately Enrolling in Higher Education
- Total Higher Education Enrollment
- Higher Education Enrollment In/Out of Regions
- Dual Credit Programs

Higher Education Persistence and Completion

- Persistence
- Student Rates of Completion
- Completions Awarded by Institutions of Higher Education
- Transfer Success

The section also includes a case study on the 8th Grade Cohort which provides insights into the student pipeline from grade 8 through college completion.

Higher Education Enrollment

The transition from high school graduation to enrollment in higher education is a key step toward successful student completion. There are significant differences in the numbers and rates at which students make this transition among regions. While legitimate reasons may exist for these differences based on the needs of individual regions, the success of *60x30TX* and the development of a globally competitive workforce across all areas in Texas requires regional planners to focus on increasing the levels of enrollment in higher education in all regions.

High school graduates immediately enrolling in higher education. High school students who enroll in higher education immediately after graduation tend to be better prepared for college-level work than those students who delay enrollment. This may be because less time has passed since they were in a classroom environment or because better prepared students are more likely to enroll directly from high school. **Table 8** provides a summary of

higher education enrollment rates for recent high school graduates and illustrates the variability across regions.

In 2015, 49 percent of Texas public high school graduates enrolled in a public institution of higher education in Texas the first fall after their high school graduation. This represents a slight decline from 49.8 percent in 2013. The decline was larger for two-year institutions than universities. Two-year institutions enrolled only 26.0 percent of 2015 high school graduates, compared to 27.5 percent of 2013 graduates. University enrollment for these groups increased slightly during the same two-year period, from 22.2 percent to 22.9 percent.

As part of the targets for *60x30TX*, the state aims to reach a direct enrollment rate of 58 percent by 2020 and 65 percent in 2030, including both public and private institutions of higher education. Including enrollment in private institutions, the total percentage of students enrolling directly in higher education in Texas in 2015 was 52.7 percent. This represents a decrease from 54.2 percent in 2014, a trend that will need to be addressed by both K-12 and higher education partners to reach statewide goals.

Regionally, the Upper Rio Grande region has consistently increased enrollment of high school graduates directly into higher education. The increase has been larger for universities than for two-year institutions. In 2000, only 41.8 percent of Upper Rio Grande high school graduates enrolled immediately in higher education. By 2015, that number had risen to 54.1 percent. In contrast, the Northwest region reported in 2015 that 41.2 percent of high school graduates enrolled in higher education the year of their graduation. The direct enrollment rate for the Northwest region has been relatively unchanged since 2000.

Table 8. High School Graduates Enrolled in Public Higher Education the Following Fall

Texas Public High School Graduates, 2000, 2013 and 2015 Percent Enrolling in Public Higher Education the Following Fall												
	High School Graduates			Percent University			Percent Two-Year			Percent All		
Region	2000	2013	2015	2000	2013	2015	2000	2013	2015	2000	2013	2015
High Plains	9,311	9,350	9,576	20.6%	18.4%	19.1%	23.9%	28.6%	28.2%	44.4%	47.1%	47.3%
Northwest	6,424	5,968	6,165	22.9%	20.8%	20.2%	18.6%	23.2%	21.1%	41.5%	44.0%	41.2%
Metroplex	49,049	80,970	85,246	20.7%	21.3%	22.0%	25.5%	28.3%	27.0%	46.3%	49.6%	49.0%
Upper East	10,915	11,956	12,047	12.2%	13.3%	13.3%	32.3%	34.5%	31.4%	44.4%	47.8%	44.7%
Southeast	8,253	8,073	8,135	23.7%	22.5%	21.7%	20.9%	26.7%	25.3%	44.5%	49.1%	47.0%
Gulf Coast	47,905	72,823	76,546	25.6%	23.5%	24.7%	25.7%	29.2%	26.5%	51.3%	52.7%	51.2%
Central Texas	21,408	31,481	33,301	19.8%	22.3%	22.9%	25.2%	25.1%	24.2%	45.0%	47.5%	47.2%
South Texas	44,156	62,642	64,048	20.2%	23.6%	23.8%	24.8%	25.1%	24.7%	45.0%	48.6%	48.5%
West Texas	6,721	6,098	6,223	21.8%	19.8%	23.4%	23.8%	27.2%	24.3%	45.6%	47.0%	47.7%
Upper Rio Grande	8,783	12,057	12,110	22.9%	27.5%	28.8%	18.9%	26.9%	25.3%	41.8%	54.4%	54.1%
Statewide	**212,925**	**301,418**	**313,397**	**21.4%**	**22.2%**	**22.9%**	**24.9%**	**27.5%**	**26.0%**	**46.4%**	**49.8%**	**49.0%**

Source: TEA and THECB.

Total higher education enrollment. Total statewide enrollment in higher education for all institutions increased by more than 40,000 from the fall of 2013 to the fall of 2015. **Table 9** summarizes fall 2015 enrollment by region and ethnicity at Texas institutions of higher education and highlights differences across regions. Between fall 2013 and fall 2015, the number and share of African American enrollment statewide fell from 201,521 to 198,247, from 13.4 to 12.9 percent, respectively, with seven of 10 regions reporting a decline in the percentage of African American student enrollment. Similarly, since 2013, nine of the 10 regions saw declines in the number and share of students identified as white. In 2015, white students accounted for 37.7 percent of all enrollments (580,644 students), down from 40.4 percent in fall 2013 (603,201 students). During the same period, Hispanic enrollment increased from 33.2 to 35.3 percent and grew as a share of all enrollment in nine of 10 regions. Tables for 2013 enrollment are available online (see Regional Portal 2016: Higher Education Locations, Institutional Enrollment, and Financial Aid).

Table 9. Enrollment by Race/Ethnicity, All Institutions

Higher Education Enrollment by Ethnicity, All Institutions* Fall 2015								
Region		**All**	**White**	**Percent of All**	**African American**	**Percent of All**	**Hispanic**	**Percent of All**
	High Plains	77,013	42,564	55.3%	5,451	7.1%	20,521	26.6%
	Northwest	26,242	14,426	55.0%	2,570	9.8%	4,926	18.8%
	Metroplex	383,394	162,237	42.3%	60,613	15.8%	91,980	24.0%
	Upper East	57,311	32,182	56.2%	11,961	20.9%	8,865	15.5%
	Southeast	40,333	21,412	53.1%	8,794	21.8%	6,396	15.9%
	Gulf Coast	329,139	96,676	29.4%	67,312	20.5%	106,550	32.4%
	Central Texas	280,022	144,246	51.5%	24,927	8.9%	67,889	24.2%
	South Texas	261,297	49,246	18.8%	13,234	5.1%	178,747	68.4%
	West Texas	30,021	12,455	41.5%	1,720	5.7%	13,358	44.5%
	Upper Rio Grande	54,746	5,200	9.5%	1,665	3.0%	44,150	80.6%
Statewide		**1,539,518**	**580,644**	**37.7%**	**198,247**	**12.9%**	**543,382**	**35.3%**

*Excludes for-profit and career schools and Amberton University.
Source: THECB.

Gender differences by ethnicity are an important consideration when studying enrollment data. **Table 10** and **Table 11** show the gender gap in enrollment for major ethnic groups broken out by region. **Table 10** shows the rates for public universities and **Table 11** shows the rates for two-year institutions, identified here as Community and Technical Colleges (CTCs). Male participation rates in all major ethnic categories trail female rates statewide. A concern for several years now, the gender gap for African American students is still considerable. In 2013, the participation rates for African American males trailed female participation rates by 25 percentage points at both two- and four-year institutions. In 2015, those numbers remained the same at four-year institutions but, promisingly, declined slightly at the two-year institutions to 22.6 percent. Nevertheless, the gender gap in enrollment for African Americans continues to be the largest gender gap for any major ethnic group in Texas. Apart from the African American enrollment at two-year institutions, enrollments by gender and

ethnicity statewide at two- and four-year institutions have remained relatively constant during the six-year period from 2009 to 2015.

When comparing enrollment rates across regions, gender gaps at Gulf Coast schools closely match statewide figures. However, enrollment by gender and ethnicity vary considerably among other regions in the state. For example, the High Plains' university population was relatively gender-balanced across ethnic groups, while in the Metroplex, the Upper East, and the Southeast regions, more than two-thirds of the African American university population was female. Notably, these regions have large African American populations, relative to the total population for each region.

Table 10. Enrollment by Race/Ethnicity and Gender, Public Universities

Higher Education Enrollment by Ethnicity and Gender Public Universities* Fall 2015						
	White		African American		Hispanic	
Region	M	F	M	F	M	F
High Plains	49.1%	50.9%	53.9%	46.1%	48.7%	51.3%
Northwest	39.3%	60.7%	44.6%	55.4%	41.8%	58.2%
Metroplex	41.1%	58.9%	32.6%	67.4%	39.3%	60.7%
Upper East	39.7%	60.3%	29.9%	70.1%	42.9%	57.1%
Southeast	36.9%	63.1%	31.6%	68.4%	35.6%	64.4%
Gulf Coast	45.8%	54.2%	37.2%	62.8%	41.5%	58.5%
Central Texas	48.3%	51.7%	40.7%	59.3%	44.9%	55.1%
South Texas	47.4%	52.6%	41.7%	58.3%	42.4%	57.6%
West Texas	42.6%	57.4%	49.6%	50.4%	41.1%	58.9%
Upper Rio Grande	48.8%	51.2%	52.8%	47.2%	44.4%	55.6%
Statewide	**45.1%**	**54.9%**	**37.3%**	**62.7%**	**42.6%**	**57.4%**

*Includes health-related institutions.
Source: THECB.

Table 11. Enrollment by Race/Ethnicity and Gender, Public CTCs

Higher Education Enrollment by Ethnicity and Gender Public Community and Technical Colleges Fall 2015						
	White		African American		Hispanic	
Region	M	F	M	F	M	F
High Plains	42.4%	57.6%	42.3%	57.7%	39.8%	60.2%
Northwest	41.8%	58.2%	51.5%	48.5%	44.4%	55.6%
Metroplex	44.2%	55.8%	37.3%	62.7%	41.2%	58.8%
Upper East	40.8%	59.2%	40.2%	59.8%	42.7%	57.3%
Southeast	40.9%	59.1%	36.5%	63.5%	43.9%	56.1%
Gulf Coast	44.9%	55.1%	36.4%	63.6%	42.4%	57.6%
Central Texas	47.1%	52.9%	44.0%	56.0%	44.4%	55.6%
South Texas	43.9%	56.1%	44.0%	56.0%	42.7%	57.3%
West Texas	42.7%	57.3%	44.9%	55.1%	40.0%	60.0%
Upper Rio Grande	47.1%	52.9%	50.6%	49.4%	43.1%	56.9%
Statewide	**44.3%**	**55.7%**	**38.7%**	**61.3%**	**42.4%**	**57.6%**

Source: THECB.

Higher education enrollment in/out of regions. Understanding student movement within and across regions can help inform regional planning for Texas higher education. The Regional Data Portal includes a list of in-region enrollments by institution, as well as regional summaries of enrollment from within and from outside of the region, by institution type. The 2015 within/outside data reveal both new trends, as well as changing trends in the movement of students within the state as they transition from high school to higher education.

Table 12 illustrates student enrollments by region and type of institution. The percentage of students from a region attending in and out of their home region, the total number of students in a region, and the educational opportunities available in the region are important factors to consider in planning. The Northwest and Upper East regions have the largest percent of university students enrolling from outside their regions. These two relatively small regions enroll 71.8 percent and 62.3 percent out-of-region students, respectively. Mid-sized regions, including High Plains and Upper Rio Grande, have the lowest percentage of university students in the state enrolling from other regions, with 17.3 percent in each region. University enrollment in the High Plains region has increased by 7,265 students, or 48 percent since 2014, with in-region enrollment growing faster (56%) than out-of-region enrollment (21%).

The tables also show that students enrolled at two-year institutions are more likely to attend within their home region. Among two-year students, institutions in the Southeast region enroll the largest percentage of students from other regions. Collectively, a quarter of the student body enrolled in the Southeast region's two-year institutions is now from outside of the region. Examining these data over time in the Southeast region, out-of-region participation in two-year institutions grew by 18 percent in the period from 2009 to 2013. From 2013 to 2015, out-of-region enrollment in those institutions continued at a more modest 2 percent increase, while those same schools saw a 4 percent decline in enrollment overall. The High Plains and Upper Rio Grande have the lowest out-of-region enrollment, with just 3.7 percent and 2.1 percent of two-year enrollment from outside the region.

Table 12. Public Higher Education Participation In or Out of Region

Texas Public Higher Education Participation In or Out of Region, Fall 2015												
	Universities				Two-year Institutions				Total			
		Out of Region				Out of Region				Out of Region		
Region	In Region	Number	Percent of Total	Total	In Region	Number	Percent of Total	Total	In Region	Number	Percent of Total	Total
High Plains	18,396	3,861	17.3%	22,257	19,704	763	3.7%	20,467	38,100	4,624	10.8%	42,724
Northwest	2,427	6,175	71.8%	8,602	8,621	1,795	17.2%	10,416	11,048	7,970	41.9%	19,018
Metroplex	95,204	51,274	35.0%	146,478	181,822	15,496	7.9%	197,318	277,026	66,770	19.4%	343,796
Upper East	5,890	9,745	62.3%	15,635	29,152	1,451	4.7%	30,603	35,042	11,196	24.2%	46,238
Southeast	9,119	5,787	38.8%	14,906	11,366	3,700	24.6%	15,066	20,485	9,487	31.7%	29,972
Gulf Coast	77,867	66,714	46.1%	144,581	184,120	10,573	5.4%	194,693	261,987	77,287	22.8%	339,274
Central Texas	34,791	23,032	39.8%	57,823	68,980	4,363	5.9%	73,343	103,771	27,395	20.9%	131,166
South Texas	72,809	36,385	33.3%	109,194	138,154	4,939	3.5%	143,093	210,963	41,324	16.4%	252,287
West Texas	6,046	4,394	42.1%	10,440	13,462	1,166	8.0%	14,628	19,508	5,560	22.2%	25,068
Upper Rio Grande	20,833	4,347	17.3%	25,180	27,022	593	2.1%	27,615	47,855	4,940	9.4%	52,795
Total from Texas	343,382	211,714	38.1%	555,096	682,403	44,839	6.2%	727,242	1,025,785	256,553	20.0%	1,282,338
Total Outside Texas	0	68,907	100.0%	68,907	0	37,849	100.0%	37,849	0	106,756	100.0%	106,756
Total Enrollment	**343,382**	**280,621**	**45.0%**	**624,003**	**682,403**	**82,688**	**10.8%**	**765,091**	**1,025,785**	**363,309**	**26.2%**	**1,389,094**

*In/out of region data is based on individual student enrollment patterns instead of headcount enrollment figures reported by institutions.
*Health-related institution enrollment is not included in this analysis.
Source: THECB.

Dual credit programs. Dual credit, the opportunity for high school students to earn both high school and college credit for completing college coursework, is a growing program that provides an avenue for smoothing P-16 pathways for a large number of high school students. In fact, dual credit enrollment has increased from approximately 12,000 students in fall 1999 to over 133,000 in fall 2015. It is important for the K-12 community and higher education institutions to work in partnership to ensure consistent rigor and quality across dual credit courses and to provide access to dual credit courses that apply to students' programs of study. Since dual credit programs cross institutional and system-level boundaries, stakeholders must work together to ensure both that course offerings meet student needs and that standards are met.

The availability of dual credit is not equal across regions. **Figure 4** shows the percent of students taking dual credit by region for fall 2015 (with all 10 regions adding up to 100 percent). To provide some context, **Figure 4** also shows the percent of fiscal year (FY) 2015 public high school graduates by region. The data show, for example, that in many of the less populated regions, dual credit participation percentages were higher than the percentage of the state's high school graduates. Traditionally, dual credit opportunities have allowed rural students better access to rigorous coursework than might have been available in these more sparsely populated areas Also, students may now enroll in dual credit in 9th through 12th grades, which also may explain the increase in some areas. Overall, South Texas has the largest share of dual credit enrollments in the state, with 27.8 percent. The largest growth in the share of dual credit enrollment since fall 2013 occurred in the Gulf Coast and West Texas regions. In West Texas, the number of dual credit enrollments actually exceeded the number of high school graduates in the 2015 cohort. The largest decrease in the share of dual credit enrollment is found in the Metroplex, where the share of dual enrollment dropped 1.9 percentage points.

More detailed dual credit enrollment information is available for each region online (see Regional Portal 2016: Eighth Grade Cohort and High School to College).

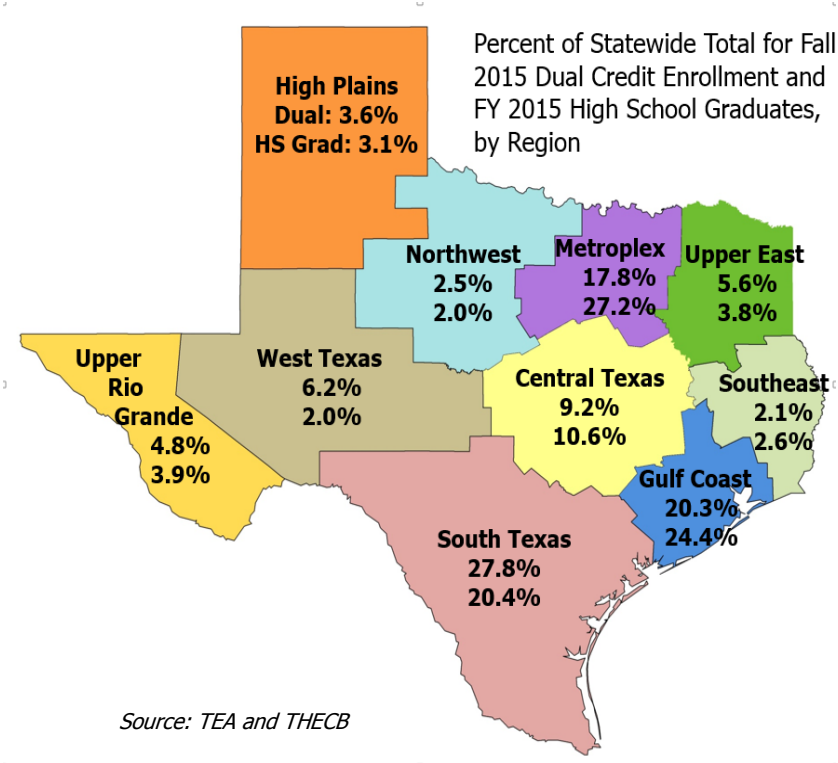


Figure 4. Dual Credit Enrollment and High School Graduates

Higher Education Persistence and Completion

Building on increasing enrollments in higher education, improvement in student completion is central to the goals *of 60x30TX*. Analyzing completion data and the persistence data that precede completion by region is, therefore, a critical component of regional planning efforts and can inform decisions about what efforts need to be strengthened or reconsidered.

Persistence. One-year persistence data, sorted by ethnicity, gender, and type of institution, are provided through the Regional Data Portal (see Regional Portal 2016: Student Success - Persistence, Transfer, and Graduation). Statewide, 88.9 percent of female and 85.0 percent of male first-time, full-time, degree-seeking students who entered in fall 2014 at universities were still enrolled after one year. This is a slight increase from the persistence rates of the 2012 cohort and nearly equivalent to the rates of the 2010 cohort. Texas needs to work to continue to support student momentum and ensure students get on a path to completion.

The rates by ethnicity for the fall 2014 cohort, persisting through fall 2015, ranged from 75.5 percent for African American males to 95.3 percent for Asian females. Not unexpectedly, given Central Texas' flagship institutions, students enrolled in Central Texas had the highest persistence rates for all university students and for all but one demographic category. Only Asian male students in the Gulf Coast region had higher rates of persistence than students in

the Central Texas region. On average, students in West Texas had the lowest rates of persistence.

Students of color tend to have lower rates of persistence relative to white students. Statewide, the disparity is 12 percent for African American male students and 8 percent for African American female students. In some regions with a low percentage of African American enrollment overall, such as the South Texas and Northwest regions, the disparity is zero or close to zero, while in other regions, including the Gulf Coast, persistence rates for African American males trail those of white students by 18 percent. Persistence gaps between white students and Hispanic students also are present statewide, although they are smaller than those for African American students and white students. Notably, in the Metroplex and Upper Rio Grande regions, both male and female Hispanic students now have higher rates of persistence than white students.

For the 2014 first-time, full-time community and technical college cohort, 69.0 percent of females and 63.9 percent of males persisted for one year, statewide. These rates represent an increase from the 2012 cohort, in which 66.5 percent of females and 61.8 percent male students persisted. The Southeast region had the highest persistence rate, compared to other regions, at 72.1 percent, while the Upper East region had the lowest persistence rate with 57.8 percent.

Community and technical college persistence improved for students from all race/ethnic groups, which is a very encouraging finding. Disparities between student populations persist, however, with wide variation across regions. For example, African American males in the High Plains and Central Texas regions persist at rates 26 percent and 24 percent lower than white students, respectively, while the difference is 3 percent in the South Texas region. All regions will need to continue to improve persistence rates to reach the completion goal of *60x30TX*.

Student rates of completion. For success measures, earlier cohorts must be studied. Of fall 2009 university first-time, full-time students, 59.3 percent earned a bachelor's degree in six years or less. This is a decrease from the 2007 cohort, which had a 59.7 percent six-year degree completion rate. For community and technical college students, three-year success rates are examined using the 2012 cohort. Statewide, 19.5 percent of community and technical college students who entered college-ready completed a certificate, associate, or bachelor's and above in three years. This is an increase of 1.8 percentage points since the 2010 cohort. Graduation rate data, sorted by ethnicity, gender, and type of institution, are provided online (see Regional Portal 2016: Student Success - Persistence, Transfer, and Graduation).

Tables showing comparisons for six- and 10-year graduation rates, by region for regional residents, are also available via the Regional Data Portal in the 10 regional workbooks. Students from the fall 2005 cohort of higher education enrollees are tracked through FY 2011 and 2015. Both full- and part-time students are included in the analysis. Statewide, white females had the highest six- and 10-year graduation rates at public community and technical colleges and universities. Six-year graduation rates ranged from 70.7 percent for white females at public universities to 29.0 percent among African American males at public universities. A notable number of students completed more slowly, within a 10-year timeline. For example, at public universities, graduation rates for Hispanic males increased from 41.6 percent to 53.0 percent (11.4 percentage point increase) and rates for African American females increased from 40.5 percent to 50.2 percent (9.7 percentage point increase) between six and 10 years after enrollment.

Among public community and technical colleges, six-year graduate rates ranged from 19.6 percent for white females and 4.3 percent for African American males. White females also had the largest increase in completions between six and 10 years after initial enrollment, increasing graduation rates from 19.6 to 28.7. An additional 8.6 percent of white male students completed on this longer time horizon, from 15.1 percent to 23.7 percent.

Completions awarded by institutions of higher education. One of the goals of the new *60x30TX* strategic plan is to increase completion of credentials, including certificates and associate, bachelor's, and master's degrees (CABM) to 550,000 in 2030. As shown in **Table 13**, in 2015, institutions of higher education awarded 311,126 CABMs statewide. Certificates made up 16 percent of the statewide total. Associate degrees comprised 26 percent of awards. Bachelor's and master's degrees made up 41 and 17 percent respectively.

Based on region of residence prior to enrollment in higher education, students from the population centers of the Metroplex, Gulf Coast, and South Texas regions earned the largest number of total awards – 68,554, 63,600, and 50,863 respectively. Regions with smaller populations, the Northwest and West Texas regions, had the fewest completions. *60x30TX* attends to overall completion with a special focus on key subpopulations, including Hispanic, African American, male, and economically disadvantaged students. Not surprisingly, given their large populations, the Metroplex, Gulf Coast, and South Texas regions generally have the largest number of students in each target subpopulation as well.

Table 13. 2015 Completions by Region of Residence and 60x30 Target Populations

Completions by Region						
Region		**Overall**	**Hispanic**	**African American**	**Male**	**Economically Disadvantaged**
	High Plains	8,666	2,511	375	3,608	4,054
	Northwest	4,723	872	263	1,953	2,242
	Metroplex	68,554	13,334	10,903	27,998	26,937
	Upper East	11,246	1,477	1,751	4,883	5,467
	Southeast	6,116	861	1,173	2,523	2,665
	Gulf Coast	63,600	17,560	11,544	26,208	25,826
	Central Texas	26,830	5,402	3,016	11,475	10,572
	South Texas	50,863	33,777	2,121	20,743	25,354
	West Texas	4,626	1,777	160	1,803	1,797
	Upper Rio Grande	10,047	8,496	262	4,034	5,317
Statewide		**311,126**	**96,650**	**38,785**	**130,956**	**114,003**

Source: THECB.

Table 14 shows that, in terms of award production at each separate award level, some regions produced more of one type of award than other types. The Metroplex region awarded the largest number of certificates, at 9,151, while the Upper East region awarded the largest proportion of certificates (28% of awards) compared to all other regions in the state. The Gulf Coast region produced the largest number of associate degrees, at 19,022, while the Upper Rio Grande region had the largest proportion of associate degrees (34% of awards). Students from the Metroplex also earned the largest number of bachelor's and master's degrees in the state,

with 30,586 and 10,276 respectively. Proportionately, students from Central Texas earned the largest proportion of bachelor's degrees (50% of awards) compared to other regions, as well as the largest proportion of master's degrees (16% of awards) across the state.

Table 14. 2015 Completions by Region of Residence and Award Level

Awards by Region of Student Residence Prior to Enrollment in Higher Education												
		Overall			Certificates		Associates		Bachelor's		Master's	
Region		2014	2015	% Increase	2015	% of Total	2015	% of Total	2015	% of Total	2015	% of Total
	High Plains	7,814	8,666	10.9%	1,792	21%	2,085	24%	3,590	41%	1,199	14%
	Northwest	4,797	4,723	-1.5%	955	20%	1,066	23%	2,091	44%	611	13%
	Metroplex	67,123	68,554	2.1%	9,151	13%	18,541	27%	30,586	45%	10,276	15%
	Upper East	10,868	11,246	3.5%	3,119	28%	3,722	33%	3,444	31%	961	9%
	Southeast	6,216	6,116	-1.6%	1,383	23%	1,453	24%	2,576	42%	704	12%
	Gulf Coast	59,811	63,600	6.3%	8,295	13%	19,022	30%	28,148	44%	8,135	13%
	Central Texas	26,212	26,830	2.4%	2,845	11%	6,474	24%	13,308	50%	4,203	16%
	South Texas	47,322	50,863	7.5%	8,157	16%	15,261	30%	21,240	42%	6,205	12%
	West Texas	4,605	4,626	0.5%	871	19%	1,199	26%	1,924	42%	632	14%
	Upper Rio Grande	10,385	10,047	-3.3%	1,584	16%	3,429	34%	3,968	39%	1,066	11%
Statewide		**298,989**	**311,126**	**17.4%**	**50,641**	**16%**	**81,153**	**26%**	**126,961**	**41%**	**52,371**	**17%**

*Awards to students from institutions not physically located in a single region, such as online programs serving Texas residents, are not assigned to a region but are included in the statewide totals.
Source: THECB.

Transfer success. Whether a community and technical college (CTC) student completes a bachelor's degree depends in part on successful transfer to a university. Creating effective transfer pathways for Texas undergraduates should be a priority in all regions but particularly in areas with large community college populations. Figure 5 shows the percent of fall 2009, first-time-in-college (FTIC) students who first enrolled at a two-year institution and transferred to a senior institution within six years, by region. Students could have transferred at any time during the six-year timeframe and at any level of credit accumulation. These data indicate that the Gulf Coast and Upper Rio Grande regions had the highest percentage (24%) of FTIC students who transferred within six years. The Southeast region had the lowest transfer rate, at 14 percent. This represents a substantial decrease since the 2007 cohort, in which 26 percent of Southeast Texas students transferred.

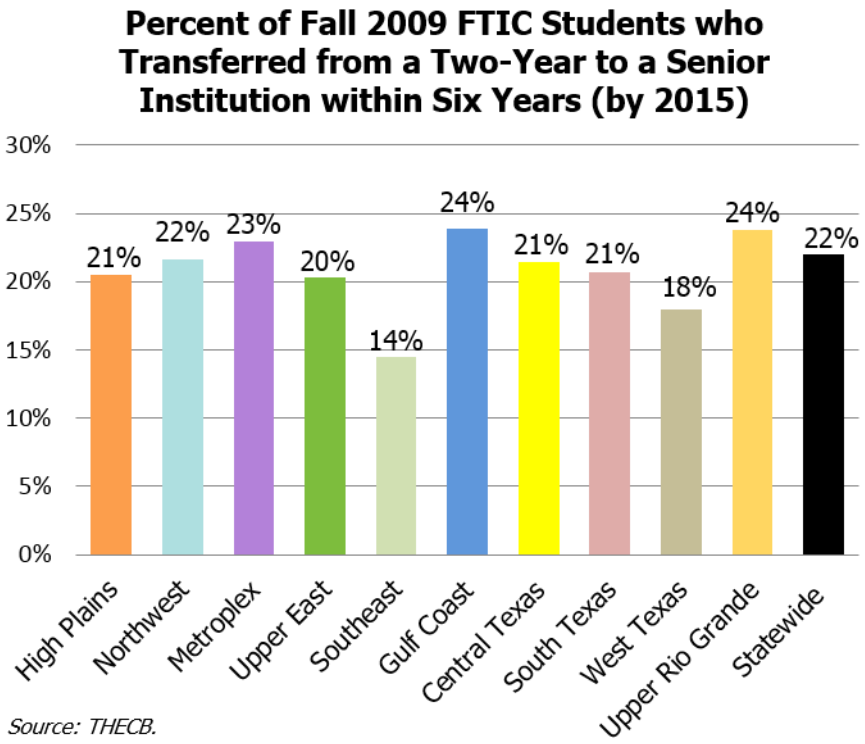


Figure 5. Transfers from a Two-Year to a Four-Year Institution within Six Years

Statewide, transfer rates dropped 3 percentage points from the fall 2007 to the fall 2009 cohort. This continues a decreasing trend over the last six years in which transfer rates among the fall 2003, 2005, 2007, and 2009 cohorts were 28 percent, 27 percent, 25 percent, and 22 percent, respectively. This trend warrants further study, given that the vast majority of CTC students indicate they intend to transfer. Some contributing factors may be the increasing participation of high school students in dual credit, a shift in initial enrollment from two-year institutions to universities, and the growth in enrollment in career and technical education programs that are not designed primarily for transfer.

As shown in **Table 15**, regional transfer patterns varied by the number of semester credit hours (SCH). The Gulf Coast region had the highest transfer rate for the 0-12 SCH category. The Northwest region had the highest rate for the 13-24, 25-29, and 30-42 SCH categories. Most transfers were with 43 SCH or more, and the South Texas and the High Plains regions had the highest rates for that category. Few students from any region completed the core curriculum. Regions, as well as the state, should investigate why so few institutions and students are taking advantage of this important transfer policy, then develop strategies for improvement.

Table 15. Transfers from Two-Year to Four-Year Institutions by SCH Accumulation

Transfers from Two-Year to Four-Year Institutions by SCH and Region for Fall 2009 Cohort Tracked Trhough 2015											
Region		FTIC Cohort	0 - 12 Hours	13 - 24 Hours	25-29 Hours	30 -42 Hours	43+ Hours	Total Percent Trans-ferred	% Award (did not transfer)	% No Award (did not transfer)	% Comp-leted Core
	High Plains	4,360	0.8%	2.1%	1.3%	2.2%	14.1%	20.5%	14.4%	65.1%	3.2%
	Northwest	2,743	2.2%	3.4%	1.6%	4.2%	10.3%	21.7%	16.3%	62.1%	3.7%
	Metroplex	29,459	2.8%	2.0%	1.4%	3.1%	13.6%	22.9%	4.9%	72.2%	7.5%
	Upper East	8,324	1.5%	2.0%	1.4%	2.5%	12.8%	20.3%	12.8%	66.9%	8.8%
	Southeast	2,747	1.6%	2.2%	1.4%	1.7%	7.5%	14.5%	17.0%	68.5%	1.7%
	Gulf Coast	27,220	4.1%	2.2%	1.2%	2.9%	13.5%	23.8%	7.9%	68.3%	8.0%
	Central Texas	15,062	1.7%	2.3%	1.6%	2.9%	13.0%	21.4%	8.7%	69.9%	3.7%
	South Texas	22,367	1.5%	1.8%	0.9%	2.4%	14.1%	20.7%	9.1%	70.2%	6.9%
	West Texas	2,590	1.0%	1.8%	1.4%	2.8%	10.9%	18.0%	10.9%	71.1%	6.8%
	Upper Rio Grande	5,117	1.3%	1.3%	0.5%	2.4%	18.2%	23.8%	4.6%	71.6%	14.6%
Statewide		**119,989**	**2.4%**	**2.1%**	**1.2%**	**2.8%**	**13.5%**	**22.0%**	**8.4%**	**69.7%**	**7.0%**

*FTIC cohort does not include students with dual credit hours who initially enrolled in higher education at a four-year institution.
Source: THECB.

Case study: 8th grade cohort

Although the majority of Coordinating Board student flow analyses track students from high school graduation to and through higher education, for several years the Coordinating Board has tracked eighth grade students through higher education to better understand student pathways. In these analyses, students enrolled in the eighth grade at a Texas public school are tracked through important educational milestones: enrollment in tenth grade, graduation from high school, enrollment in higher education, and completion of a higher education degree or certificate. Each cohort is tracked for a total of 11 years.

Table 16. Eighth Grade Cohort by Region

2005 8th Grade Cohort Tracked through 2015 Higher Education, by Region[1]						
Region		**Cohort Size 2005**	**Enrolled in 10th Grade 2007**	**HS Grad 2008-2010[2]**	**Enrolled in Higher Ed**	**Higher Ed Degree or Certificate in Texas[3]**
	High Plains	11,438	85.0%	71.1%	52.9%	20.7%
	Northwest	7,345	82.5%	72.3%	53.2%	23.7%
	Metroplex	85,069	78.8%	68.4%	53.8%	20.7%
	Upper East	14,448	83.3%	71.9%	54.4%	20.2%
	Southeast	10,333	81.3%	69.2%	52.1%	19.4%
	Gulf Coast	79,265	77.9%	67.4%	54.8%	21.4%
	Central Texas	32,690	79.8%	69.8%	54.7%	21.1%
	South Texas	67,431	74.2%	66.2%	53.4%	19.3%
	West Texas	7,988	82.4%	66.0%	49.9%	19.9%
	Upper Rio Grande	13,088	71.1%	64.8%	55.1%	17.0%
Statewide		**329,095**	**78.1%**	**68.0%**	**53.9%**	**20.5%**

*[1]Students are reflected throughout the tracking process as a member of their original region (assigned in 1998) although they may have resided in more than one region.
*[2]It is not known how many students may have left Texas, or graduated from a private or home high school.
*[3]Education services provided near Mexico and/or other states may be affected by student movement outside of the region.
Sources: TEA and THECB

The statewide data for the 2005 cohort reveal that 68 percent of the cohort's students graduated from a Texas public high school (**Table 16**). Although low, this is two-tenths of a percentage point higher than for the 2003 cohort, of which 67.8 percent of the students graduated. Of these high school graduates, more than three-quarters enrolled in higher education during the next six years; less than 40 percent of them completed a degree or certificate program by 2015. This means that, 11 years after entering eighth grade, only 20.5 percent of the original cohort had completed a degree or certificate. It is also important to note that the source of eighth grade cohort data is limited to Texas secondary and postsecondary institutions. Students who attend and/or graduate from out-of-state institutions are not included in this analysis.

Other statewide findings show that approximately 64 percent of eighth graders who eventually entered higher education (113,458 of the 177,527 college enrollees) matriculated at public two-year colleges. Differences in achievement by ethnicity and gender also are notable. Students in the "other" category for ethnicity, which includes Asians, Native Americans, and Hawaiian/Pacific Islanders, graduated from high school and enrolled in higher education at the highest rates, with 39.3 percent completing a degree or certificate within 11 years of eighth grade enrollment. Of the other demographic groups, 28.7 percent of white students, 13.9

percent of Hispanic students, and 12.6 percent of African American students completed a degree or certificate in 11 years.

Males outnumbered females in the initial eighth grade cohort, with 51.2 percent of the total population. Although more females than males from the cohort graduated from high school, the gender differences were small (50.6% of the high school graduates were female). However, the gender differences were more distinct when comparing college certificate and degree attainment: 58.3 percent of those who earned an award within 11 years of enrollment in eighth grade were female.

Regional differences also emerge when studying the eighth grade cohort data. For example, the Gulf Coast region performed below the statewide rate for high school graduation for the cohort (67.4% compared to 68%), but surpassed the statewide rate for higher education enrollment and completion (54.8% and 21.4%, compared to the state at 53.9% and 20.5%). The Metroplex region had the largest number of eighth graders, yet it kept pace with statewide rates in all pipeline categories. The West Texas region had the lowest college enrollment rate at 49.9 percent of the cohort.

The greatest discrepancy between higher education enrollment levels and completion rates is seen in the Upper Rio Grande region, with the highest percentage of cohort enrollment of all regions (55.1%) but the lowest completion rate (17%). Statewide enrollment and completion data from the eighth grade cohort and other sources highlight the fact that, in all 10 regions, there is a disconnect between enrollment and completion rates. As seen in the statewide trend data, although a higher percentage of high school graduates are enrolling in higher education, completion remains low. For the goals of *60x30TX* to be met, regions must focus on both continuing improvements in enrollment rates and providing students who do enroll with the support they need to be successful.

Disaggregating eighth grade cohort data by gender and ethnicity can help inform regions about which students are least likely to navigate successfully through the system. For example, **Table 17** shows data on African American and Hispanic male progress through the pipeline for the 2005 cohort. The completion rates for these groups were considerably lower than for the total cohort and for African American and Hispanic females. Additional regional data for the eighth grade cohort, including data by ethnicity and gender, are available online (see Regional Portal 2016: Eighth Grade Cohort and High School to College). The Coordinating Board and TEA have partnered with the *Texas Tribune* (with support from Houston Endowment) to publish these data online.

Table 17. Eighth Grade Cohort by Region, African American and Hispanic Males

2005 8th Grade Cohort Tracked through 2015 Higher Education, by Region[1]						
African-American and Hispanic Males						
Region		Cohort Size 2005	Enrolled in 10th Grade 2007	HS Grad 2008-2010	Enrolled in Higher Ed	Higher Ed Degree or Certificate in Texas
African-American Males						
	High Plains	397	77.1%	54.7%	36.8%	3.3%
	Northwest	287	69.7%	59.6%	40.4%	9.1%
	Metroplex	8,054	69.5%	57.5%	50.3%	9.5%
	Upper East	1,461	77.1%	66.1%	50.2%	8.8%
	Southeast	1,399	74.6%	62.5%	45.2%	7.9%
	Gulf Coast	8,256	70.2%	57.7%	48.8%	9.4%
	Central Texas	2,514	70.5%	60.5%	49.7%	8.8%
	South Texas	1,378	65.7%	56.9%	48.2%	10.1%
	West Texas	226	73.9%	52.2%	46.9%	8.4%
	Upper Rio Grande	158	60.8%	55.1%	51.3%	6.3%
Statewide		**24,130**	**70.5%**	**58.6%**	**48.9%**	**9.1%**
Hispanic Males						
	High Plains	2,454	79.5%	62.4%	36.2%	9.9%
	Northwest	856	71.5%	59.9%	34.3%	10.9%
	Metroplex	12,500	66.8%	55.4%	32.5%	8.3%
	Upper East	994	72.5%	59.7%	29.8%	10.5%
	Southeast	614	73.5%	57.7%	34.4%	11.2%
	Gulf Coast	14,904	67.7%	55.5%	37.9%	10.2%
	Central Texas	5,034	69.6%	57.9%	35.6%	8.5%
	South Texas	25,795	69.5%	61.9%	47.1%	13.1%
	West Texas	2,078	75.6%	56.6%	36.7%	10.0%
	Upper Rio Grande	5,860	67.8%	62.2%	52.3%	13.1%
Statewide		**71,089**	**69.1%**	**58.9%**	**41.1%**	**11.0%**

Source: TEA and THECB

Marketable Skills

Marketable skills embedded in academic programs are key to the value of higher education in the workforce. For purposes of this report and *60x30TX*, marketable skills are defined as:

> "Those skills valued by employers that can be applied in a variety of work settings, including interpersonal, cognitive, and applied skill areas. These skills can be either primary or secondary to a major and are acquired by students through education, including curricular, co-curricular, and extracurricular activities."

The value of these skills is reflected in the marketable skills goal of *60x30TX*, which states that, by 2030, all graduates from Texas public institutions of higher education will have completed programs with identified marketable skills.

The marketable skills goal challenges institutions to think more explicitly about the programs they offer and the job skills that students learn within those programs. It connects to the 60x30 attainment goal by aligning higher education with workforce needs. It relates to the completion goal by providing students with a clearer picture of how courses relate to jobs. It supports the student debt goal by providing students with the language to secure employment so they have the means to repay debt.

Efforts In Pursuit of Identifying Marketable Skills

Unlike other goals in *60x30TX*, decisions regarding how to record institutional efforts to identify and update marketable skills and track the achievement of this goal have not been finalized. Efforts have been underway at the state, regional, and local levels to allow institutions and stakeholders to provide insight and feedback on how to characterize and report on institutional efforts toward this goal. Three of these efforts are described below.

The Coordinating Board began hosting a series of regional meetings in early 2016 to learn what strategies local stakeholders could contribute to *60x30TX*. At the time of this report, five of seven scheduled meetings had taken place. A number of strategies that emerged regionally were similar to the strategies proposed in *60x30TX*, but new innovative strategies were also proposed. Attendees made recommendations related to marketable skills in several areas, such as how to provide better support to students and the role of faculty and higher education administration in contributing to this goal. Recommendations included:

60x30TX 2016 Regional Meetings:

- April, Arlington
- May, Nacogdoches
- June, San Antonio
- July, Houston
- August, El Paso
- September, Harlingen
- October, Lubbock

- Help students create an "elevator speech," so they can efficiently and accurately communicate their marketable skills to employers.
- Help students use E-portfolios to consolidate and communicate their marketable skills developed in curricular and co-curricular experiences.
- Better engage/involve Career Services staff to identify marketable skills and relate them to potential employers.
- Integrate the identification of marketable skills into the Coordinating Board's program approval process.

On April 12-13, 2016, the Coordinating Board hosted the Marketable Skills Conference at the AT&T Executive Education and Conference Center in Austin. Higher education institutions were encouraged to send a team that included provosts, deans, career services administrators, student services administrators, chief academic/instructional officers, and faculty senate presidents. There were over 350 attendees. Two- and four-year colleges and universities were represented equally at the conference, each making up about half of the registrants. During this conference, higher education institutions shared ideas, policies, and practices on how to achieve the marketable skills goal. The presentations and related materials are posted online at www.thecb.state.tx.us/msc/meeting_materials.

In addition, there are two institution-led initiatives to implement the marketable skills goal, which are coordinating statewide efforts. The Texas Council of Chief Academic Officers (TCCAO) is leading one effort. TCCAO plans to convene university faculty from similar disciplines to create a common set of marketable skills. TCCAO will share their lists with all universities in the state. TCCAO selected Communication and Journalism as its pilot project. The Texas Council of Chief Student Affairs Officers (TCCSAO) is leading the other effort. TCCSAO is working to provide its members a common framework and definitions of marketable skills by creating a crosswalk between the Texas Core Curriculum and in-demand skills, as established by the National Association of Colleges and Employers (NACE).

Working or Enrolled Within One Year

A key target under the marketable skills goal is to maintain at 80 percent, on a statewide basis, students found working or enrolled within one year after earning a degree or certificate. For 2013 graduates, that percentage was 77.1 percent statewide. By 2014, it was 78.8 percent. Having a substantial portion of completers find employment or pursue additional education within Texas is important for the state's future.

Table 18 shows the 2014 percentages of students found working or enrolled for each region. Students completing a degree or certificate are assigned to the region where they earned their award, and completers from career schools are not assigned to any region. Other than the Central Texas region, which is significantly below the 80 percent statewide target at 73.7 percent, each geographical region either exceeds or is within 2.5 percentage points of the target. The Central Texas percentage is likely due to the two flagship institutions located there and from which a larger percentage of students leave the state for employment opportunities elsewhere. The Southeast region leads all regions at 85.4 percent, and the South and West Texas regions also are well above the target at 83.5 and 82.6 percent, respectively. The number of graduates found working, as opposed to enrolled or working and enrolled, consistently comprises the largest percentage in each region, while the number found enrolled only consistently comprises the lowest percentage. Most graduates are seeking employment in their first year following graduation, and the majority of those who are enrolling to continue formal education are choosing to engage in some type of employment at the same time they pursue another credential.

Many students choose to remain in the region where they received their award, so it is particularly important that higher education and workforce stakeholders work together to identify and support the development of high-demand marketable skills. To support the achievement of the *60x30TX* goal, cross-sector participation in local and statewide efforts is encouraged to identify and communicate marketable skills to students, families, and employers, as well as strengthen activities to maintain or increase the relatively strong levels of students found working or enrolled within one year after earning a credential.

Table 18. Students Found Working or Enrolled

Students Found Working or Enrolled Within One Year After Earning a Degree or Certficate							
Region		Students Earning a Degree or Certificate	Working & Enrolled	Working Only	Enrolled Only	Total Working or Enrolled	Percent (%) Working or Enrolled
	High Plains	15,075	1,795	8,872	1,220	11,887	78.9%
	Northwest	5,150	730	2,811	459	4,000	77.7%
	Metroplex	61,571	9,580	33,920	5,660	49,160	79.8%
	Upper East	10,536	1,951	5,029	1,201	8,181	77.6%
	Southeast	8,268	814	5,850	396	7,060	85.4%
	Gulf Coast	46,377	7,077	25,895	4,424	37,396	80.6%
	Central Texas	49,148	4,526	27,827	3,876	36,229	73.7%
	South Texas	38,343	6,589	20,764	4,318	31,671	82.6%
	West Texas	3,889	719	2,159	368	3,246	83.5%
	Upper Rio Grande	8,343	1,567	3,700	1,260	6,527	78.2%
Statewide		**280,501**	**36,176**	**161,413**	**23,436**	**221,025**	**78.8%**

*Region determined by location of institution where student enrolled. Students earning a degree or certificate from institutions not physically located in a region, such as online programs serving Texas residents, are not assigned to a region but are included in statewide totals.
Source: Texas Workforce Commission, THECB.

Student Debt

Student debt surpassed credit card debt for the first time nationally around June 2010. In 2016, student debt topped $1.3 trillion nationally. Economists are concerned about the wider consequences this debt may have on the economy. Although student debt in Texas has not yet reached national levels, loan debt in the state is on the rise. It has the potential to undermine the perceived return on investment in higher education, thereby deterring potential students from pursuing a degree. Moreover, incurring excessive student debt is likely to affect life choices for many years beyond completion. Limiting student debt will lead to healthier finances for students completing a degree or certificate and also will support a stronger state economy, as students will have more disposable income to invest or to purchase goods and services.

The concerns are reflected in the student debt goal of *60x30TX*, which strives to maintain, on a statewide basis, undergraduate student loan debt at its current level of 60 percent of first-year wages for graduates of Texas public institutions who graduate with student loan debt. *60x30TX* also sets a statewide target to limit the percent of students who incur debt while earning an undergraduate degree or certificate to its current level of 50 percent. For those graduating with student loans, the amount of debt is critical. By necessity, regional planning must include an analysis of student loan debt to inform decisions about managing the costs of higher education.

Undergraduate Student Loan Debt as a Percentage of First-Year Wage

Table 19. Student Loan Debt as Percentage of First-Year Wage

Student Loan Debt as a Percentage of First-Year Wage, 2013 Completers			
Region		**Students Completing Degree or Certificate**	**Percentage (%)**
	High Plains	5,295	59.8%
	Northwest	3,181	57.6%
	Metroplex	40,477	61.2%
	Upper East	7,440	52.8%
	Southeast	4,318	63.2%
	Gulf Coast	40,008	56.7%
	Central Texas	16,441	66.9%
	South Texas	30,413	58.6%
	West Texas	3,386	43.1%
	Upper Rio Grande	6,170	63.9%
Statewide		**164,917**	**60.0%**

*Region determined by residence of student prior to enrollment in higher education.
*Students with unknown or out of state residence prior to enrollment are not assigned to region, but are included in statewide number.
Source: THECB

Table 19 presents student loan debt as a percentage of first-year wage broken down by the region where the student resided prior to enrolling in higher education. On a regional basis, this percentage varies between the low 40s to the upper 60s for graduates from 2013. **Table 19** shows that the West Texas region has the lowest debt-to-first-year-wage percentage, at 43 percent. The highest percentage appears in the Upper Rio Grande region at 64 percent. While the student debt goal in *60x30TX* is a statewide goal – and not an individual institution or student goal – the 60 percent threshold provides a useful benchmark for regional analysis.

Percent of Completers with Debt

Every fall more than one million students enroll in two- and four-year Texas institutions. As previously noted, 50 percent of undergraduates earning a degree or certificate currently complete with debt. Statewide, the percent of completers earning an associate degree with debt at two-year institutions is 36 percent. By comparison, 62 percent of completers earning a bachelor's degree at a four-year university have student debt. **Table 20** shows the percentage of completers with debt by region where the student enrolled, including percentages by race/ethnicity.

Table 20. Percent of Completers with Student Debt

Percent of Completers with Debt, 2015 Completers							
Region		Completers with Debt	White	African American	Hispanic	Asian	Other
	High Plains	57.7%	54.8%	73.6%	63.4%	54.7%	47.2%
	Northwest	60.4%	63.5%	73.4%	58.2%	69.1%	32.4%
	Metroplex	49.4%	50.2%	66.9%	46.0%	42.4%	28.7%
	Upper East	40.7%	40.2%	53.4%	29.6%	33.6%	37.3%
	Southeast	57.7%	52.5%	79.1%	48.6%	44.3%	55.3%
	Gulf Coast	46.3%	44.3%	74.3%	38.6%	41.6%	24.6%
	Central Texas	52.3%	48.3%	68.1%	63.9%	44.6%	39.6%
	South Texas	46.6%	46.8%	62.8%	46.7%	45.3%	31.3%
	West Texas	42.7%	47.2%	59.7%	38.5%	29.4%	23.4%
	Upper Rio Grande	47.4%	45.4%	55.5%	49.9%	46.9%	10.2%
Statewide		**49.2%**	**48.6%**	**69.0%**	**47.8%**	**43.2%**	**31.0%**

*Region determined by location of institution where student enrolled. Institutions without physical location in Texas such as online programs are not assigned to region,
but are included in statewide number.
Source: THECB.

Almost 70 percent of African American graduates have debt, compared to a statewide average of 49.2 percent for all students. The Northwest region has the highest percentage of completers with debt at 60.4 percent, while the Upper East region has the lowest at 40.7 percent and the West Texas region has the second lowest at 42.7 percent. When completers are assigned to regions based on their residence prior to enrollment in higher education, the pattern is similar. The Northwest region remains the region having the highest percentage of completers with debt at 61.9 percent, and the West Texas and Upper East regions have the lowest and second lowest percentages. However, in this scenario, the West Texas and Upper East regions switch order, with the West Texas region having the lowest percentage of completers with debt at 40.4 percent, and the Upper East region having the second lowest at 46.8 percent. Regional strategies for reducing the percent of students graduating with debt should consider how debt varies by ethnicity.

Student Debt Load

THECB tracks first-time, full-time university students for six years following their initial enrollment to examine patterns of average student debt for graduates versus nongraduates. Average student debt for nongraduates in the most recently available cohort, fall 2009, is presented by region in **Table 21**, including average student debt by ethnicity. For those who did not graduate and were not found enrolled in fall 2015, the statewide average loan debt per student was $19,496. This is 23 percent higher than the previously reported fall 2007 cohort average loan debt for nongraduates of $15,806. Nongraduates in the Central Texas region acquired the most debt, owing 36.5 percent more than the statewide average. Nongraduates in the Upper Rio Grande region incurred the least debt, owing 31.2 percent less than the statewide average.

Table 21. Average Student Loan of Nongraduates

First-Time, Full-Time Undergraduates Entering Universities, Fall 2009 Average Loan of Students Not Graduating by Fall 2015							
	Region	**Entering Under-graduates**	**White**	**African American**	**Hispanic**	**Asian**	**Other**
	High Plains	$ 20,462	$ 19,850	$ 23,919	$ 20,592	$ 21,713	$ 15,986
	Northwest	$ 18,186	$ 16,730	$ 22,537	$ 20,111	$ 19,397	$ 13,838
	Metroplex	$ 18,773	$ 18,561	$ 20,612	$ 17,193	$ 18,812	$ 17,250
	Upper East	$ 21,636	$ 23,165	$ 17,258	$ 18,865		$ 13,966
	Southeast	$ 20,332	$ 19,085	$ 21,476	$ 19,770	$ 18,258	$ 17,040
	Gulf Coast	$ 19,985	$ 17,696	$ 21,489	$ 14,833	$ 21,612	$ 21,968
	Central Texas	$ 26,610	$ 27,398	$ 28,852	$ 24,408	$ 28,852	$ 23,979
	South Texas	$ 16,365	$ 18,172	$ 23,734	$ 14,548	$ 21,196	$ 15,214
	West Texas	$ 13,724	$ 13,242	$ 16,501	$ 13,045	$ 14,080	$ 15,436
	Upper Rio Grande	$ 13,412	$ 12,453	$ 12,997	$ 13,569	$ 11,366	$ 31,377
Statewide		**$ 19,496**	**$ 20,221**	**$ 21,715**	**$ 16,631**	**$ 22,215**	**$ 18,584**

* Region determined by location of institution where student enrolled.
* First-time, full-time undergraduates enrolled in universities and health-related institutions are tracked for 6 years for graduation with a Bachelor's degree.
Source: THECB.

By comparison, for those graduating with a bachelor's degree by fall 2015, **Table 22** shows the statewide average loan debt per student was $31,868. Graduates from the Southeast region incurred the most debt ($38,194), followed by graduates from the Central Texas region ($35,184). As was the case for nongraduates, graduates from the Upper Rio Grande region had the least debt ($18,877). While nongraduates with debt have less debt on average than graduates statewide, incurring substantial debt without the higher salary associated with degree completion can lead to further economic hardship. An insufficient supply of educated workers can also negatively affect the economy.

Table 22. Average Student Loan of Graduates

First-Time, Full-Time Undergraduates Entering Universities, Fall 2009 Average Loan of Students Graduating by Fall 2015							
Region		**Entering Under-graduates**	**White**	**African American**	**Hispanic**	**Asian**	**Other**
	High Plains	$ 32,152	$ 32,257	$ 34,182	$ 31,782	$ 29,922	$ 28,401
	Northwest	$ 30,533	$ 30,193	$ 40,890	$ 28,552	$ 13,767	$ 29,824
	Metroplex	$ 29,896	$ 30,734	$ 36,051	$ 27,118	$ 21,505	$ 23,863
	Upper East	$ 29,329	$ 29,687	$ 32,788	$ 22,155	$ 17,441	
	Southeast	$ 38,194	$ 34,814	$ 44,576	$ 34,580	$ 31,651	$ 32,552
	Gulf Coast	$ 31,158	$ 30,096	$ 39,076	$ 24,303	$ 18,490	$ 29,496
	Central	$ 35,184	$ 36,565	$ 38,612	$ 33,436	$ 30,584	$ 33,079
	South Texas	$ 27,941	$ 35,340	$ 37,257	$ 24,013	$ 29,550	$ 18,413
	West	$ 27,251	$ 28,611	$ 33,954	$ 22,980	$ 32,226	$ 14,117
	Upper Rio Grande	$ 18,877	$ 22,376	$ 26,268	$ 18,123	$ 35,844	$ 91,443
Statewide		**$ 31,868**	**$ 33,808**	**$ 38,645**	**$ 27,375**	**$ 26,430**	**$ 28,460**

* Region determined by location of institution where student enrolled.
* First-time, full-time undergraduates enrolled in universities and health-related institutions are tracked for 6 years for graduation with a Bachelor's degree.
Source: THECB.

Excess Semester Credit Hours

A related emphasis of *60x30TX* is limiting student debt by decreasing the excess semester credit hours (SCHs) that students attempt beyond degree program requirements when completing an associate or bachelor's degree. These excess SCHs are a substantial contributor to educational costs and student debt. **Table 23** presents average excess SCHs attempted for graduates receiving an associate degree by region where students resided prior to enrolling in higher education. The Gulf Coast region has the highest excess, with graduates averaging 35 SCHs attempted in excess of their associate degree programs' requirements. By comparison, associate degree graduates in the West Texas region had the least excess, completing their degrees with an average of 19 SCHs attempted in excess of their degree program requirements.

Table 23. Average Attempted Excess Semester Credit Hours - Associate Degree

Associate Degree - Average Excess Semester Credit Hours (SCHs)				
Region		**Total Graduates**	**Average SCHs Attempted**	**Average Excess SCHs Attempted***
	High Plains	1,169	89	29
	Northwest	543	83	23
	Metroplex	10,095	90	30
	Upper East	2,133	86	26
	Southeast	885	88	28
	Gulf Coast	10,392	95	35
	Central Texas	2,858	94	34
	South Texas	8,031	89	29
	West Texas	772	79	19
	Upper Rio Grande	1,882	89	29
Statewide		**40,129**	**90**	**30**

*The excess semester credit hours represent the SCHs beyond the approved SCHs required for a student's degree program.
*Students with unknown or out of state residence prior to enrollment are not assigned to a region, but are included in statewide number.
Source: THECB.

Table 24 shows excess SCHs attempted for graduates receiving a bachelor's degree by region where students resided prior to enrolling in higher education. Statewide, students awarded a bachelor's degree attempted 14 SCHs in excess of their degree program requirements. The Upper Rio Grande region had the highest excess, with graduates attempting 20 SCHs in excess of that required for their degree. Graduates in the West Texas, Central Texas, and Northwest regions had the fewest excess semester credit hours attempted (11 SCHs). Bachelor's degree graduates tend to obtain their degrees with fewer excess SCHs attempted than associate degree graduates, a result that regional planners should consider as they plan for the overall reduction of excess SCHs attempted by all graduates.

Table 24. Average Attempted Excess Semester Credit Hours - Bachelor's Degree

Bachelor's Degree - Average Excess Semester Credit Hours (SCHs)				
Region		**Total Graduates**	**Average Credit Hours Attempted**	**Average Excess Credit Hours Attempted***
	High Plains	2,124	140	18
	Northwest	1,106	134	11
	Metroplex	17,641	138	15
	Upper East	1,901	135	13
	Southeast	1,742	138	14
	Gulf Coast	17,685	139	16
	Central Texas	7,248	135	11
	South Texas	12,561	139	15
	West Texas	1,189	133	11
	Upper Rio Grande	2,652	142	20
Statewide		**67,969**	**138**	**14**

*The excess semester credit hours represent the SCHs beyond the approved SCHs required for a student's degree program.
*Students with unknown or out of state residence prior to enrollment are not assigned to a region, but are included in statewide number.
Source: THECB.

Students Receiving Pell Assistance

Many of our students in Texas face economic challenges as indicated by the number of undergraduates that receive Pell awards. The percentage of students receiving federal Pell awards also differs by region in Texas. **Table 25** and **Table 26** show the percentage of white, African American, and Hispanic populations of full-time undergraduate students who received Pell assistance in 2015 at two- and four-year institutions, respectively. In two regions, the Upper Rio Grande and South Texas, a higher percentage of Hispanic students received Pell than any other ethnic group. This was true at both two- and four-year institutions. In each of the other eight regions, African Americans had the highest percentage of students receiving a Pell award. Regions with greater numbers of economically disadvantaged students may require institutions to adopt different strategies for success. Attention to financial aid assistance packages, for example, may be more critical for these areas.

Table 25. Pell Assistance, Two-Year Public Universities & Technical Colleges

Full-Time Students Receiving Pell Assistance, 2015 Two-Year Institutions						
Region		Total Students	Percent of Students Receiving Pell: All	White	African American	Hispanic
	High Plains	8,217	57.1%	45.9%	80.2%	68.2%
	Northwest	4,820	55.1%	51.4%	72.2%	62.1%
	Metroplex	39,870	46.1%	37.7%	70.9%	51.4%
	Upper East	17,028	60.8%	52.7%	80.1%	61.8%
	Southeast	4,796	54.1%	46.5%	73.4%	54.4%
	Gulf Coast	35,221	40.5%	29.1%	66.1%	44.1%
	Central Texas	28,681	43.4%	35.4%	71.5%	49.1%
	South Texas	34,228	61.9%	40.9%	54.9%	67.4%
	West Texas	2,827	41.7%	33.1%	57.9%	47.8%
	Upper Rio Grande	7,964	69.6%	62.9%	62.1%	73.2%
Statewide		**183,652**	**50.8%**	**39.6%**	**70.8%**	**59.2%**

* Region determined by location of institution where student enrolled.
* The "All" category includes white, African-American, Hispanic, Asian American, Native American, and international students, as well as those classified as Other.
Source: THECB

Table 26. Pell Assistance, Four-Year Public Universities

Full-Time Undergraduate Students Receiving Pell Assistance, 2015 Four-Year Public Universities						
Region		Total Students	Percent of Students Receiving Pell: All	White	African Amercian	Hispanic
	High Plains	31,166	30.7%	21.2%	59.8%	47.9%
	Northwest	3,775	42.8%	34.9%	70.1%	57.9%
	Metroplex	70,842	42.1%	31.8%	64.7%	54.5%
	Upper East	5,056	43.5%	38.1%	71.1%	55.8%
	Southeast	15,655	45.0%	30.6%	70.0%	55.1%
	Gulf Coast	60,653	48.3%	28.9%	67.3%	54.9%
	Central Texas	102,918	27.4%	15.5%	55.5%	47.1%
	South Texas	57,383	55.6%	31.3%	61.0%	65.6%
	West Texas	6,527	42.2%	32.8%	66.3%	52.4%
	Upper Rio Grande	14,267	62.6%	49.6%	63.2%	69.6%
Statewide		**368,242**	**41.1%**	**24.4%**	**64.6%**	**57.6%**

* Region determined by location of institution where student enrolled.
* The "All" category includes white, African-American, Hispanic, Asian American, Native American, and international students, as well as those classified as Other.
Source: THECB.

Table 27 shows Pell award amounts for each region in 2015 by region of student residence. The Gulf Coast region received the greatest number of Pell awards, with 130,033 students receiving $458,337,095 in assistance. The amount of the average award per student is similar across the state, with Upper Rio Grande region residents receiving the greatest average award and West Texas students receiving the least.

Statewide, Pell awards have decreased by $29,062,383 since 2013. Nearly 20,000 (19,492) fewer students received Pell awards in 2015 than in 2013. The largest decrease in Pell recipients was in Central Texas, followed by South Texas. Of note, Pell expenditures and number of Pell recipients have also declined nationally during this period. More comprehensive regional data on Pell assistance and loan debt are available through the Regional Data Portal (see Regional Portal 2016: Higher Education Locations, Institutional Enrollment, and Financial Aid).

Table 27. Students Receiving Pell Assistance by Region of Residence

Students Receiving Pell Assistance, 2015			
Region	**Total Students**	**Total Award**	**Average Award per Student**
High Plains	16,860	$ 58,333,691	$ 3,460
Northwest	9,252	$ 33,135,781	$ 3,581
Metroplex	126,168	$ 450,641,761	$ 3,572
Upper East	22,796	$ 83,363,035	$ 3,657
Southeast	13,204	$ 48,053,088	$ 3,639
Gulf Coast	130,033	$ 458,337,095	$ 3,525
Central Texas	50,289	$ 175,149,053	$ 3,483
South Texas	118,253	$ 446,455,033	$ 3,775
West Texas	6,947	$ 23,948,770	$ 3,447
Upper Rio Grande	29,777	$ 112,734,068	$ 3,786
Statewide	**523,579**	**$ 1,890,151,375**	**$ 3,610**

* Region determined by residence of student prior to enrollment in higher education.
* Students receiving Pell assistance at both a four-year and a two-year institution are only counted once.
Source: THECB.

Regional Planning Data Portal

The capability to gather, store, and manipulate higher education data continues to improve over time, and the volume of data available has increased substantially. With improved data resources, the focus on data-driven decision-making has intensified at the local, regional, and state levels. The ability to assess, interpret, and convey data in ways that effectively inform decision-making is a critical skill for policymakers, planners, and others striving to understand the higher education landscape and improve educational outcomes.

To allow for better access to more comprehensive regional data, the Coordinating Board developed a Regional Data Portal in 2010 (Regional Portal). The regional portal primarily includes data collected as part of the agency's standard data collection system through regularly scheduled institutional reports. Much of the data that are available through the portal have been presented in a different format in other Coordinating Board reports or through the interactive data systems. However, the portal also provides data from other sources, such as TWC, in addition to reports developed from available Coordinating Board data specifically for this report.

How the Regional Data Portal is Organized

Regional data in the portal can be accessed through the Texas higher education data home page (www.txhighereddata.org) or directly through the regional portal (Regional Portal). The data are grouped in two ways, by topic area and by region. There is an Excel workbook for each of the 10 regions in the state and seven workbooks that contain data related to the higher education topic area links on the home page. The home page of the portal also includes a link to the current and prior regional plans, as well as a "Tools for Regional Planning" section that includes an index to the data available through the portal.

The higher education topic area near the bottom of the portal page includes data organized under the following seven headings:

- Population and Educational Attainment
- Higher Education Locations, Institutional Enrollment, Financial Aid Data
- Residents' Enrollment In and Out of Region
- Eighth Grade Cohort and High School-to-College Data
- Student Success – Persistence, Transfer, and Graduation
- Degrees Awarded by High Demand Program Areas
- Occupational Data and Workforce Projections

The tools section of the portal provides an index to all of the data reports in the workbooks, and the portal includes archived workbooks published previously in the portal.

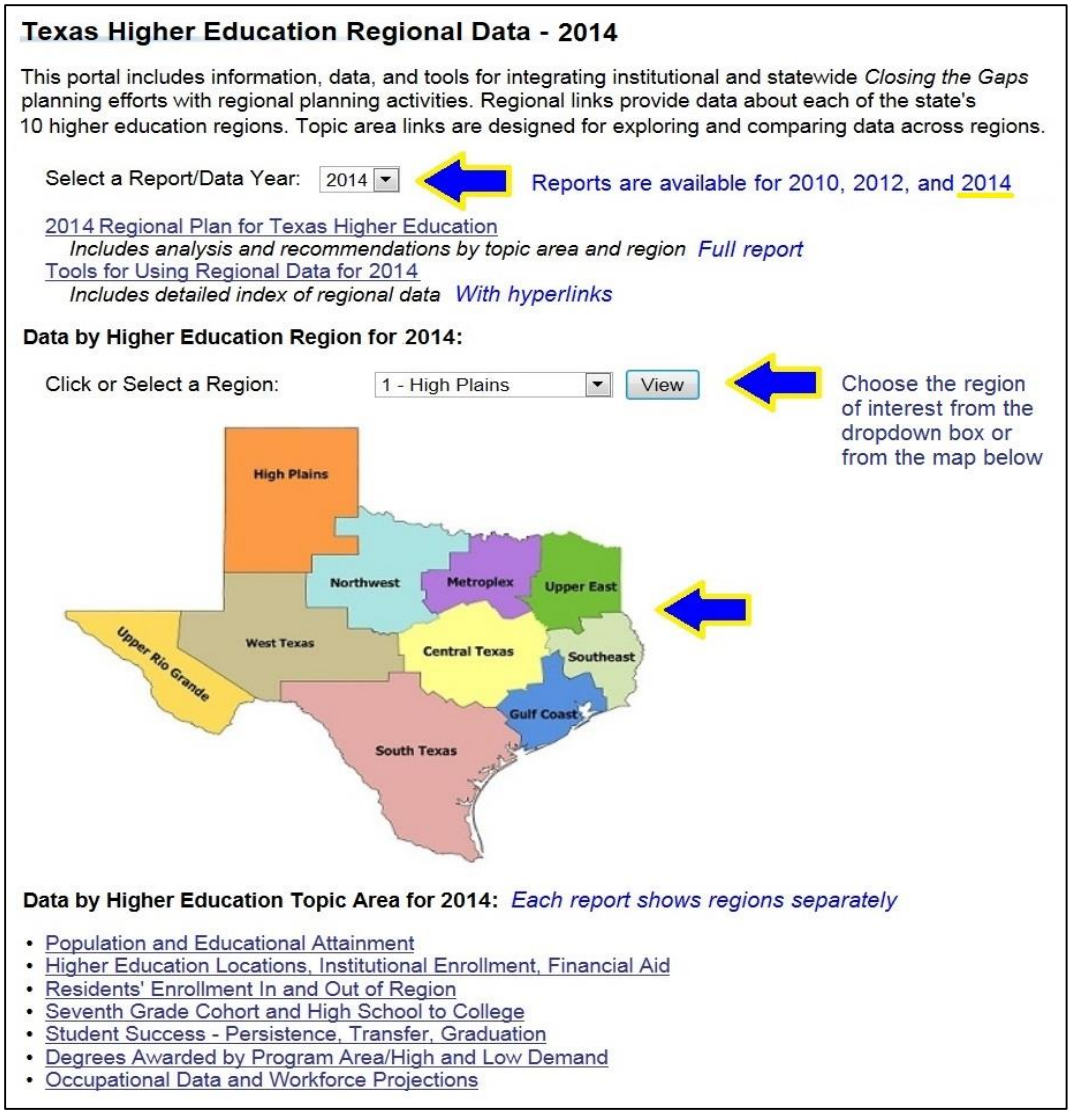


Figure 6. Navigation of the Regional Data Portal

Conclusion and Recommendations

The 2016 Regional Plan for Texas Higher Education promotes alignment between state planning efforts and regional planning activities. Recognizing the significant achievements made regionally and statewide through *Closing the Gaps* and related strategic planning efforts, this report focuses on regional applications of occupational projections, high-demand program analysis, and the state's new higher education strategic plan, *60x30TX*.

The Regional Plan links to the Regional Portal on the Texas Higher Education Data website to encourage the strategic use of data. Figure 6 provides a brief overview of the Regional Data Portal website.

Projections in the Regional Plan show ongoing changes in the size and demographic distribution of the Texas population. The Regional Plan and portal provide data disaggregated by ethnicity, gender, economic background, and other factors to highlight differences within

and across regions. Occupational needs analysis has been expanded in the Regional Plan and Regional Portal to include a new approach developed by the RAND Corporation, on behalf of the Coordinating Board, which couples employment projections with census data to produce occupational demand/supply matrices. The matrices can assist regional planners in more specifically pinpointing areas of workforce need. Data about program demand, program availability, and program productivity across regions are included in the Regional Plan to illustrate the need for creative solutions to provide students with the education and skills they need in a manner that uses state resources both effectively and efficiently. Analysis of regional population and occupational data, considered in conjunction with program demand and availability data, allows for integration of workforce needs into regional program planning efforts.

Regional conditions and needs also can and should inform strategies for achieving the goals and targets of *60x30TX*, especially efforts to improve student access and success, identify marketable skills, and limit student debt. Data on attainment, enrollment and completion, graduates found working or enrolled within one year of receiving an award, and student debt show overall progress in the short time since adoption of *60x30TX* and should encourage regional planners to continue addressing local needs while aligning with statewide goals.

Recommendations for region-focused planning and action are interspersed through the report and listed below. Higher education stakeholders – at the institutional, regional, and state levels – are encouraged to use the Regional Plan, Regional Data Portal, and other regional resources as they rise to the challenge of *60x30TX* and prepare Texas and its students for a bright future.

Recommendations

- The higher education sector should collaborate with workforce development boards, institutional and other researchers, and business and community leaders to review carefully the data in this report and the associated data portal. Groups and forums with a regional purview, such as P-16 councils, regional higher education consortia, workforce development boards, and state leaders, should foster opportunities for discussion and shared inquiry, as well as promote better use of workforce data in planning processes.
- The higher education sector should consider leveraging new, commercial, workforce analysis tools that provide data from real-time job postings and information from publicly available workforce databases. With the support of the THECB or in institutional consortia, regions should investigate ways to access these tools to ensure they are affordable for smaller institutions of higher education.
- The THECB should support regions to incorporate more systematically workforce data into higher education planning. Regional planners should examine information about population projections, regional workforce needs, higher education program availability, and high school-to-college readiness and success data as an integrated whole to help ensure that student, employer, and state needs are met. Gaps and areas of alignment should be identified.
- Decisions about new programs should be carefully made with an understanding of workforce needs, including those in existing, evolving, and emerging fields, and also in the context of regional and state population and enrollment data. This decision-making

process also applies to the development of new campuses or schools. Expansion that does not serve regional and/or state needs or unnecessarily duplicates efforts ultimately could harm efforts to provide affordable educational options to targeted and growing at-risk populations.

- Every region has areas of relative strength and weakness in terms of student outcomes. Regional and institutional planners should compare data across regions to identify areas for improvement, establish benchmarks, and set goals and targets for improvement informed by peers. Beginning in 2017, planners should also take advantage of a new *60x30TX* website that will present higher education data by region, by institution, and for the state.
- To achieve the goals of *60x30TX*, all regions – especially the fastest growing areas of the state (the Metroplex, Gulf Coast, South Texas, and Central Texas) – must increase student persistence, completion, and attainment through efforts such as effective student advising and support practices, accelerating developmental education, utilizing competency-based education, and employing electronic degree plans. Regional needs must be evaluated when adopting strategies designed to increase the attainment and completion of Hispanic, African American, male, and economically disadvantaged students. Community and institutional resources should be gathered to help these students prepare for, pay for, and succeed in college.
- *60x30TX* also will focus on identifying marketable skills and limiting student debt to ensure students have the skills they need in the workforce to secure employment, and that students can choose programs based on their talents and aspirations and not solely based on the starting salary for a particular field. Regions should provide targeted financial literacy that reflects the factors that drive borrowing in a region, such as cost of living, cost of attendance, and borrowing preferences. Regions also should enact policies supporting on-time degree attainment and efficient financial aid packaging.
- Outreach activities related to *60x30TX* goals should be balanced and collaborative among K-12 public schools, community colleges, four-year institutions, and the workforce across the state; these collaborations should be encouraged to ensure all perspectives are considered in the development of regional initiatives.
- Higher education institutions in a region must prioritize transfer success by providing aligned programs and clear pathways for all types of students. Voluntary transfer compacts, regional articulation agreements, vertical alignment, career and technical education (CTE) programs of study, fields of study (FOS), adult degree completion (Grad TX), and reverse transfer are means to improve transfer student outcomes.

Tracking student mobility within and across regions is essential for planning. Providing regional analyses of out-of-state enrollment using National Student Clearinghouse data can provide insight on changing patterns of enrollment. Identifying resources to continue making out-of-state enrollment data available will help facilitate longitudinal study.

Appendix A: Texas Education Code Requires Regional Plan

The Texas Education Code Section 61.051(i), as stated below, requires the Coordinating Board to publish a Regional Plan biennially.

"The board shall develop and periodically revise a long-range statewide plan to provide information and guidance to policy makers to ensure that institutions of higher education meet the current and future needs of each region of this state for higher education services and that adequate higher education services at all levels are reasonably and equally available to the residents of each region of this state.

The board in developing the plan shall examine existing undergraduate, graduate, professional, and research programs provided by institutions of higher education and identify the geographic areas of this state that, as a result of current population or projected population growth, distance from other educational resources, economic trends, or other factors, have or are reasonably likely to have in the future significantly greater need for higher education services than the services currently provided in the area by existing institutions of higher education.

The board shall also consider the higher education services provided by private and independent institutions of higher education in developing the plan.

The board shall identify as specifically as practicable the programs or fields of study for which an area has or is projected to have a significant unmet need for services. In determining the need for higher education services in an area, the board shall consider the educational attainment of the current population and the extent to which residents from the area attend institutions of higher education outside of the area or do not attend institutions of higher education.

The board shall include in the plan specific recommendations, including alternative recommendations, for administrative or legislative action to address an area's unmet need for higher education services as efficiently as possible. Not later than November 1 of each even-numbered year, the board shall deliver to the governor, the lieutenant governor, the speaker of the house of representatives, and the legislature a report of the current long-range plan developed under this section."

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This document is available on the Texas Higher Education Coordinating Board Website: http://www.thecb.state.tx.us

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