CHAPTER 3

Career, Technical and Work Force Education in Texas

Texas and the nation are experiencing an increase in demand for jobs requiring some postsecondary education. In Texas, the gap between employer demand and work force supply is growing.

Texas has made considerable progress in increasing college attendance and graduation. The number of students taking academic courses at community colleges has risen, and many of these students go on to complete their academic careers at the state's universities. The state, however, is beginning to face a shortage of workers for jobs that do not require a bachelor's degree, but do require some postsecondary education or training beyond high school.

Texas career and technical education is offered through a variety of venues including public high schools, community colleges, technical colleges and work force training programs.

In Texas, several policy making bodies and initiatives are charged with providing guidance and support for career and technical education in public schools and for postsecondary success. The State Board of Education (SBOE) and the P-16 Council provide oversight and coordination of career and technology education efforts in Texas. AchieveTexas provides a framework for school districts to offer programs to students leading to postsecondary education or the work force in an efficient, relevant manner.

Administration and Oversight

The SBOE is an elected 15-member board that oversees the state public education system, adopting policy and standards for educational programs in Texas public schools. SBOE adopts the state curriculum and sets the passing scores for the state-mandated assessment program.

SBOE oversees the investment of the Permanent School Fund, approves the creation of charter schools and adopts regulations for the operation of adult education programs provided by public school districts, junior colleges and universities.[1]

Among the duties of SBOE is to serve as the State Board for Career and Technical Education, which is responsible for approving career and technical education (CTE) program standards, the CTE State Plan and administering the federally funded programs under the Carl D. Perkins Career and Technical Education Improvement Act of 2006. The objective of the Perkins Act is to support programs that provide students with the academic and technical skills necessary for postsecondary education and entry into the work force. The CTE State Plan provides direction for secondary and post secondary CTE programs in Texas, outlining the objectives for effective career and technology education. The development of the CTE State Plan is a requirement for the continuation of federal funding.

SBOE approves Texas' Perkins CTE funding, which is divided between the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB). Perkins Basic Grant funds currently are split 70 percent for secondary programs and 30 percent for postsecondary programs; at least 85 percent of these funds must be passed to local education agencies and community colleges.

TEA manages and disburses CTE Perkins funding and develops the five-year state plan for CTE. The current state plan, for years 2008 through 2013, includes components for both secondary and postsecondary CTE. TEA works with THECB to ensure the quality of state CTE programs.[2]

Local school districts can provide CTE instruction for their students on their own or may contract for it with other school districts, public and private postsecondary institutions or trade and technical schools regulated by the state.

P-16 Council

In 1998, the commissioners of TEA and THECB and the executive director of the State Board for Educator Certification formed the Public Education/Higher Education Coordinating Group. This

Pre-K in Texas

In 1984, the Texas Legislature required school districts to offer half-day pre-kindergarten for children deemed "at risk" (those who are unable to speak or understand English, come from low-income families or are homeless). The 2001 Legislature expanded required Pre-K offerings to full-day classroom time, to be reimbursed from tuition or paid for with district funds.[3] The 2005 Legislature, in turn, expanded the definition of "at risk" to include the children of an active or deceased member of the armed forces, while the 2007 Legislature added children who are or have been under the conservatorship of the Texas Department of Family and Protective Services.[4]

Current Texas Pre-K standards require a school district's program be "designed to develop skills necessary for success in the regular public school curriculum, including language, mathematics, and social skills."[5] TEA published prekindergarten guidelines in December 1999, setting goals for student achievement and aligning programs with the Texas Essential Knowledge and Skills.[6] Generally, the focus is on vocabulary, the use of books and listening comprehension. Students are also encouraged to explore fine arts, health, safety, physical fitness and social awareness.[7]

A recent Texas A&M study found every $1 invested in Pre-K produces $3.50 in benefits for the state.[8] Other research has found that Pre-K reduces the need for special education and retention programs and curtails behavioral problems.[9]

Studies have shown that early intervention in a child's developmental stages can promote schooling, reduce teen pregnancy, improve work force productivity and lower crime rates.[10] Effective Pre-K programs, then, have the potential to play a key role in ensuring that we remain able to meet long-term work force needs.

group, in turn, formed the basis for the "P-16 Council" created by the Texas Legislature in 2003. The council comprises the commissioner of Education, commissioner of Higher Education, executive director of the Texas Workforce Commission, executive director of Assistive and Rehabilitative Services and three public members appointed by the commissioners of Education and Higher Education.

The P-16 Council advises THECB and SBOE on the coordination of postsecondary career and technology education and related teacher education programs in Texas colleges and universities. State law also charges the council with advising SBOE on the development of the CTE State Plan.

Since its inception, the P-16 Council has collaborated with legislators and representatives of the Governor's Office, university systems, other state agencies, education associations and business coalitions on issues related to the Advanced Placement/International Baccalaureate (AP/IB) Incentive Program, college readiness projects, the role of community colleges, teacher recruitment and retention, dual/concurrent enrollment and minority enrollment and assessment.[11]

AchieveTexas

AchieveTexas is the state's college and career pathways system, an initiative designed to prepare students for high school and postsecondary education, work life and citizenship. The aim of AchieveTexas is for students to begin taking courses in high school that will serve as the foundation for postsecondary education and the work force. The program is intended to deliver a curriculum that combines demanding academics with relevant career education.

AchieveTexas uses 16 federally defined "career clusters" and the Governor's six targeted industry clusters as a foundation for schools to develop and deliver their instructional programs. Career clusters are groups of similar occupations and industries developed by the U.S. Department of Education as a way to organize educational planning for students for future careers.[12] Each of the career clusters has an associated program of study detailing a recommended sequence of coursework for secondary and postsecondary education based on a student's interest or career goal.[13]

In High School

According to the U.S. Bureau of Labor Statistics and U.S. Census Bureau, a person who does not complete high school has 77 percent the earning lifetime potential of a high school graduate. Additionally, students without a high school diploma can not proceed to postsecondary education. As noted earlier in this report, the U.S. Department of Education projects that about 80 percent of the fastest-growing jobs added in the future will require some postsecondary education.[14]

Several existing educational programs provide students with educational opportunities in high school that can be used to save them time and money in achieving their career goals. The programs are designed to keep students engaged in

Career Pathways Models

Several states have used a "pathways" model to help prepare a skilled work force. The Workforce Strategy Center (http://www.workforcestrategy.org), a national organization working with policymakers to maintain a modern, competitive work force, defines the pathways model as:

> …a series of connected education and training programs and support services that enable individuals to secure employment within a specific industry or occupational sector, and to advance over time to successively higher levels of education and employment in that sector.[15]

The pathways model suggests a "large-scale, flexible and open system" open to everyone from recent college dropouts to middle-aged displaced factory workers. Community colleges provide the most accessible foundation for this initiative.[16]

Pathways models support student achievement by promoting and encouraging services such as advising, course coordination and career planning. They recognize that students are more likely to graduate from a postsecondary program with additional support from student administrative and counseling units, as well as from peers within the program.

The U.S. has a number of ongoing programs based on the pathways concept. The social policy research organization MDRC, for instance, promotes an "Opening Doors" initiative "designed to help nontraditional students – including at-risk youth, low-wage working parents, and unemployed individuals – earn college credentials as the pathway to better jobs and further education." Opening Doors is used at six community colleges in four states: California, New York, Ohio and Louisiana.

- California: Chaffey College in Rancho Cucamonga, California implemented an intervention aimed at students on academic probation to help them retain their financial aid.
- New York: Kingsborough Community College in Brooklyn targeted incoming freshman by requiring that these students take three linked credit courses and receive enhanced advising and tutoring, and vouchers to pay for textbooks.
- Ohio: Lorain County Community College in Cleveland implemented a two-semester program (ending in spring 2006) that provided student services and a supplementary scholarship of $300 for low-income students who had not completed a majority of their coursework toward a degree or certificate. The program assigned a required academic counselor to students and gave them additional assistance via the financial aid office, as well as the supplementary scholarship.
- Louisiana: Various community colleges gave low-income parents a $1,000 scholarship across two semesters. Parents were required to maintain at least half-time enrollment, maintain a grade-point average of at least 2.0 and meet regularly with an advisor.[17]

Researchers evaluated the effectiveness of Opening Doors by comparing a random sample of students assigned to the program with a control group that did not participate. The evaluation found that "students in the program group were more likely than students in the control group to reenroll in college after one semester. They also registered for and earned more credits."[18]

Kentucky

Kentucky provides 22 career pathway programs in 16 community colleges, supporting the model through its Kentucky Community and Technical College System (KCTCS).[19] For the 2006-07 school year, KCTCS determined that its version of the pathways model, based upon a national model accepted by the KnowledgeWorks Foundation, had increased postsecondary credentials awarded per 100 students and boosted retention of its student population by 20 percent compared to its traditional programs.[20]

Career pathways provide "a framework for connecting a series of educational programs with integrated work experience and support services, thereby enabling students and workers to combine school and work and advance over time to better jobs and higher levels of education and training."[21]

The 22 career pathways in Kentucky include areas such as allied health, advanced manufacturing, construction and transportation. For example, the career pathways framework at West Kentucky Community and Technical College has 900 students in fields such as nursing and radiology. West Kentucky is developing its core curriculum to prepare students for an associate degree and other certificates in nursing and allied health. The framework includes many exit and entry points for students to obtain a credential.[22]

Ohio

In Ohio, large employers support six pathway models in health care and industrial settings. Under one such model, the Working with the Health Careers Collaborative of Greater Cincinnati and two large Ohio hospital systems offer programs that provide advanced training in the health care field to low-skilled hospital workers. These training programs offer classes at times that do not conflict with work or outside activities. Results of the programs include an 80 percent retention rate and an average GPA of 3.25, better than comparable groups, according to Health Careers Collaborative.[23]

Ohio does not use any new tax dollars to support the pathways model. Instead it relies on $400 million worth of state funds, along with grant funding from outside entities such as the United Way.[24]

high school by providing rigorous and relevant academics that allow students to earn college credit at little to no cost to them or their family.

Texas students can earn college credit while in high school in a variety of ways. The college course work earned while in high school can be used toward earning a degree at two-year or four-year institutions. Among the options for Texas high school students earning college credit are:

- Dual Credit/Concurrent Enrollment;
- College Tech Prep of Texas;
- Early College High Schools; and
- Texas Science, Technology, Engineering and Math Initiative.

"Numerous students are getting lost in the shuffle. We have a young man here who works in our warehouse moving boxes. He asked, 'what do I have to do to be a machinist?' Never in his high school was it proposed to take machining."

—Vern Huriburt
Production Manager
Raytheon Network Centric Systems
Precision Tech & Components

Dual Credit/Concurrent Enrollment

Texas students may earn high school credit and college credit by taking college coursework that fulfills the requirements for both high school graduation and college course completion.

This coursework must be part of a dual credit agreement between the student's high school and the college providing the instruction. The college coursework can be provided on a high school or college campus and can be administered by high school teachers with the appropriate education credentials.[25] Dual credit or concurrent enrollment coursework can be used to meet the requirements for technical or certificate programs. Dual credit programs allow students to potentially save time and money in receiving a postsecondary degree because college work is completed prior to high school graduation at little or no cost to the student.

In the 2007-08 school year, 56,518 students attending 789 Texas school districts earned dual college credit while enrolled in high school. In all, 99,912 dual credits were earned by Texas high school students in 2007-08.[26]

Beginning in Fall 2008, school districts are required to implement programs that allow students the opportunity to earn 12 college credit hours while in high school. College credit can be earned through dual credit, advanced technical courses, Advanced Placement (AP) courses or International Baccalaureate (IB) courses.[27]

Dual credit programs are generally funded by local school districts, through agreements with institutions of higher education. In some cases, colleges waive tuition for dual credit students. Students also pay college tuition for some dual credit courses. Students enrolled in dual credit courses are counted towards the school district's enrollment for state funding calculations as long as the student is not charged for either tuition or textbooks required for the course.[28]

College Tech Prep of Texas

Tech Prep is a college-preparatory program for high school students that highlights technical career education. Tech Prep initially was authorized as a federal education initiative in 1990.[29] Tech Prep allows students to begin coursework for a two-year associate of applied science degree, an apprenticeship program or a baccalaureate degree while in high school. Participating students can gain the technical skills needed for immediate entry-level employment after high school while also attending college and can earn college credit through dual credit/concurrent enrollment agreements or through articulation agreements between their high school and postsecondary institutions.

A key feature of Tech Prep is program articulation, an agreement between a school district and a technical college or university that aligns courses and majors between the institutions. Articulation agreements permit students to move from high school to higher education without course duplication, allowing them to receive college credit through "Advanced Technical Credit" for high school courses that contain the same content as equivalent college courses. Unlike dual credit courses which are generally academic in nature, coursework in articulated agreements is for technical or work force education only.

Texas has 26 regional consortiums that develop local Tech Prep programs. These groups include representatives of schools and colleges, business and industry. TEA must approve all Tech Prep program plans.

In 2007-08 more than 54,000 high school seniors participated in Tech Prep in Texas.[30] About 860 of the state's public school districts have Tech Prep program agreements with a Texas college.[31]

Tech Prep 2007-08 seniors each earned credits equivalent to an estimated three college courses, resulting in a potential average savings of $859 in tuition and fees. Multiplying the $859 by the number of Tech Prep seniors in 2007-08 means a potential total savings for individual students of nearly $46 million. Tech Prep programs also can yield savings for the state by reducing contact hour appropriations to colleges. In 2007-08, the potential savings to Texas in state reimbursement for contact hours for senior students in Tech Prep was about $44 million.[32]

TEA data indicate that high school students enrolled in Tech Prep programs graduate at a higher rate and are less likely to drop out of school[33] than those students who do not participate in Tech Prep.[34] Tech Prep students have a 93.3 percent graduation rate compared to 83.2 percent for other students.[35]

Tech Prep provides local business and industry with employees who are educated, trained and ready to work. It also allows local businesses to provide students with internships, giving them real-world training.

Early College High Schools

Early College High Schools (ECHS), established through grants from TEA and the Communities Foundation of Texas, allow students who are at risk of dropping out, economically disadvantaged or first-generation college-goers to earn a high school diploma and 60 college credit hours simultaneously at no cost to the student. It is possible for students enrolled in ECHSs to save up to $24,000 by earning an associate degree while still enrolled in high school.[36]

School districts partner with higher education institutions to provide their students with this program. The ECHSs generally are located on a college campus or use college facilities for instruction. They are relatively small schools, with enrollment at each restricted to 400 students.

ECHS students receive rigorous, personalized instruction and intense academic counseling. Upon graduation, they receive a high school diploma through the partnering school district. If the student also earns an associate degree, he or she also graduates from the partnering college, usually in a separate ceremony.

A New Approach to High School

Manor New Technology High School in Manor, Texas is modeled after the New Tech High School in Sacramento, California. The school's major instruction method is Project-Based Learning, a system based on the idea that students are better learners when they can see the relevance of skills or content.[37] In line with this principle, the school offers a more hands-on curriculum than traditional high schools, providing students with opportunities to work with practical applications of scientific and technical knowledge.

Manor New Technology is one of the Texas Science, Technology, Engineering and Math Initiative (T-STEM) Academies of the Texas High School Project (THSP), a public-private partnership created to enhance graduation rates. In addition, the THSP was created to better prepare students for postsecondary opportunities, whether it be a community college, four-year degree or military career. THSP focuses its resources in areas such as redesigning approaches for low-performing schools and promoting T-STEM academies.[38] The school first opened its doors on August 27, 2007, with 160 ninth- and tenth-grade students. A year later, 20 students have transferred to more traditional high schools.[39] All other students remain in the program. For the 2008-09 school year, the school plans to admit 250 students.[40]

The high school is open to any interested eighth-grade Manor ISD student. Students fill out an application and are randomly selected for admittance. While the school's primary mission is to prepare its students for college, some students have shown an interest in entering the work force directly after graduation.[41] Classes offered at the school focus on science, technology, engineering and mathematics.

In place of traditional electives, every student at Manor New Technology High School must take two years of engineering. In mathematics classes, students are exposed to the application of math through real-life projects, helping them to better understand and devise creative applications of mathematical concepts.[42]

At this writing, Texas has 27 ECHSs, with more slated to open throughout the state next year.[43] Students enrolled in ECHSs generally attain academic college credit. One exception is Panola Early College High School, a stand-alone charter school in Marshall that offers high school students the option of earning technical certificates in addition to academic degrees.[44]

Texas Science, Technology, Engineering and Math Initiative (T-STEM)

T-STEM is intended to improve Texas students' achievement in mathematics and science, and ultimately to increase the number of students who enter careers in the critical needs areas of science, technology, engineering and mathematics.

Texas Academy of Mathematics and Science

The Texas Academy of Mathematics and Science (TAMS) is a unique residential program at the University of North Texas (UNT) for high-achieving Texas high school students. TAMS offers a rigorous two-year academic program of college coursework taught by regular university faculty. High school courses are not taught at TAMS.[45]

TAMS applicants must be enrolled in the tenth grade or equivalent and have completed geometry and algebra I and II by the end of their sophomore year. Prospective students must take the SAT during the sophomore year of high school and must receive a score competitive with those of Texas college-bound students to be eligible.[46]

About 375 students attend TAMS annually, with about 200 students admitted each year. Students served at TAMS represent a cross-section of Texas cultures and ethnicities. The current student population is about 55 percent male and 45 percent female.[47]

Upon completion of the program, students will have earned at least 57 college credits, the equivalent of two years of college coursework. Students can continue their education at UNT or transfer to another university in or out of state.[48]

The program cost is about $7,580 annually, excluding personal expenses such as travel to UNT. Students pay about $6,220 per year for housing, a program charge of $1,300 per student and a student activities fee of $60. The program estimates yearly personal expenses including travel at $2,170.[49] The program compares favorably with the average annual estimated college cost for Texas public four-year institutions of $17,494.[50]

Mathematics and Science Academy

The Mathematics and Science Academy (MSA), established by the 2005 Texas Legislature, is a commuter program at the University of Texas at Brownsville (UTB) and Texas Southmost College (TSC) for high school-aged students who are interested mathematics and science. Students take classes from UTB/TSC faculty alongside regular college students.[51]

MSA enrollment is open to Texas high school students who meet the program's eligibility requirements, including completion of geometry and algebra I and II, by the end of their sophomore year. Prospective students must receive an SAT score that is competitive with those of Texas college-bound students and be able to offer evidence of interest in mathematics, science or engineering as a career.[52]

The academy has a total enrollment of 65 students, and admitted its first class of 30 students in fall 2007. MSA will graduate its first class in Spring 2009. Graduating students will have an average of 60 college credits upon completing the program.[53]

UTB, TSC and the state's Foundation School Fund provide funding for the MSA. MSA pays for students' tuition, fees, and books. Students must cover their meal costs.[54]

To date, the T-STEM Initiative has funded 38 T-STEM academies and seven T-STEM centers throughout the state.

T-STEM academies are model schools that provide rigorous science, technology, engineering and mathematics instruction, with the goal of producing at least 3,500 Texas high school graduates annually who are prepared to pursue college-level coursework. They serve as demonstration sites to showcase best practices in science and technological teaching and learning. T-STEM academies can be operated by school districts as well as open-enrollment charter schools.

Each T-STEM academy serves no more than 100 students per grade at any site. The academies provide students with access to between 12 and 30 college credits through multiple educational pathways such as dual credit, the International Baccalaureate program, concurrent enrollment, articulated agreements and/or advanced placement. They are also charged with providing students with courses that address the governor's targeted economic work force clusters, including the semiconductor industry, information and computer technology, microelectro-mechanical systems, manufactured energy systems, nanotechnology and/or biotechnology.[55]

T-STEM Centers support the T-STEM academies and other Texas schools by developing curricula for science, technology, engineering and mathematics; providing professional training for teachers; and creating partnerships between businesses, higher

education and school districts to support science, technology, engineering and mathematics studies.[56]

Two-Year Colleges

Of about 1.2 million students enrolled in Texas' public and private higher education institutions in 2007, 48 percent or 587,244 students were enrolled in public two-year institutions.[57] Enrollment at these institutions is growing more rapidly than at public universities. Between 2000 and 2005, enrollment at public two-year institutions grew by 26.4 percent compared to 17 percent at public universities.[58]

Texas has a variety of public two-year institutions, including 50 community college districts, three two-year campuses (two-year Lamar colleges) in the Texas State University System and a public technical college system (the Texas State Technical College System) with four campuses.

Community colleges account for the vast majority of students—96.8 percent—enrolled at Texas public two-year institutions (**Exhibit 3-1**). Texas' 50 community college districts have multiple campuses scattered throughout the state and cater to students taking both academic (for eventual transfer to four-year institution) and technical courses. The Texas State Technical College System (TSTC) and the Lamar colleges combined accounted for the remaining 3.2 percent and are located in only a few areas of the state.

In 1978, more females than males enrolled in U.S. colleges and universities for the first time ever, and the gap has continued to widen. The same pattern has occurred in Texas. Numerous reasons have been given for this trend; on average, females outperform males in high school, graduate from high school at higher rates and are more likely to continue on to college.[59]

In general, more females than males are enrolled at Texas public two-year institutions. This is consistent with the pattern at Texas public universities, where females account for 55.2 percent of total enrollment.[60]

TSTC is the lone exception; more men — 59 percent — than women attended TSTC colleges in Fall 2007. The share of women attending TSTC, however, is on the rise, from 35.6 percent in 2000 to almost 41 percent by fall 2007. Men may outnumber women at TSTC because they offer programs that have traditionally appealed primarily to men, such as engineering technology, transportation, manufacturing and aviation.

The fact that only TSTC has higher male participation rates may indicate that male students are more likely than women to show interest in purely technical courses. In 2003-04, men nationwide earned more associate degrees in mechanics and repairs (94 percent), engineering technology (85 percent) and computer and information science (69 percent).[61] In recent years, an increased emphasis strictly on academics may have contributed to male dropout rates in high school and lower postsecondary participation rates. Increased technical course offerings might help slow these trends.

Of the 587,244 Texas students enrolled in two-year colleges in 2007, 53.5 percent or 314,267 students were minority members, up from 47.2 percent in 2000. Anglos accounted for 46.5 percent of students enrolled in public two-year colleges in 2007, down from 52.8 percent in 2000

Exhibit 3-1

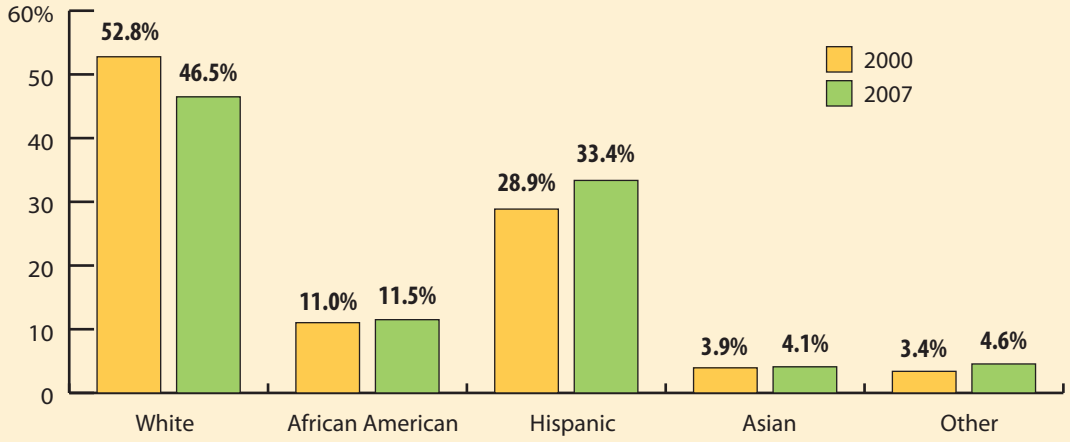
Enrollment at Texas Public Two-Year Institutions, Fall 2007

College	Enrollment	Percent of Total Enrollment	Percent Male Students	Percent Female Students
Community Colleges	568,760	96.8%	40.9%	59.1%
TSTC System	11,610	2.0	59.5	40.5
Two-Year Lamar Colleges	6,874	1.2	39.5	60.5
TOTAL	**587,244**	**100.0%**		

Source: Texas Higher Education Coordinating Board.

Exhibit 3-2

Texas Public Two-Year College Enrollment by Race/Ethnicity, 2000 and 2007



Source: Texas Higher Education Coordinating Board.

(**Exhibit 3-2**). Hispanics, the state's fastest-growing minority population, accounted for 33.4 percent of student enrollment in 2007, up from 28.9 percent in 2000. Blacks comprised 11.5 percent of enrollment in two-year colleges in 2007, only slightly more than their 11 percent share in 2000. Asians and "Others" each continue to account for less than 5 percent of student enrollments at the various two-year colleges.

The racial/ethnic composition of students in public two-year institutions tends to reflect the campus service areas.[62] For example, Hispanic students accounted for 85.6 percent and 93.6 percent of student enrollment at El Paso Community College and South Texas Community College, respectively — both in areas with large Hispanic populations. In the TSTC system, which has its largest campus in Harlingen, Hispanics accounted for 48.2 percent of enrollment in 2007. By contrast, blacks were the largest minority group — accounting for 25.4 percent of student enrollment — at the two-year Lamar colleges in Southeast Texas, an area with a relatively high share of black residents.

Exhibit 3-3

Historical and Projected Changes in Fall Enrollment, Texas Public Higher Education Institutions (2000-2020)

Institution	2000-2005	2005-2010*	2010-2015*	2015-2020*
Public Universities	17.0%	6.4%	3.4%	3.0%
Public 2-Year Colleges	26.4	9.0	3.9	6.2

*All projections are based on Texas State Data Center population forecasts. THECB's most recent forecast uses net migration rates half as high as those experienced from 1990 to 2000.
Source: Texas Higher Education Coordinating Board.

Enrollment at Texas' public two-year institutions generally has expanded more rapidly than at universities since the mid-1960s.[63] In fall 2007, two-year institutions accounted for 61 percent of the annual enrollment increase in Texas colleges and universities, or 11,532 students.[64] And THECB expects enrollment growth at two-year institutions to continue exceeding that at public universities through 2020 (**Exhibit 3-3**).

Reasons cited for this pattern include lower tuition costs, the availability of part-time attendance, high-

er Hispanic student participation and the growth of dual credit courses offered to high school students through arrangements with community colleges.[65]

The increasing enrollment at publicly funded two-year institutions, however, largely comprises students taking academic rather than technical courses (**Exhibit 3-4**). From 2001 to 2007, the difference between academic and technical contact hours (that is, hours spent with an instructor in a classroom) rose steadily. This may be due to the fact that many students who attend community and technical colleges are preparing themselves to transfer to a four-year university. In addition, a growing proportion of community and technical college students may be preparing themselves for non-technical careers in business or legal industries, for example.

As mentioned earlier, the number of Texas graduates with technical skills is not sufficient to meet the number of jobs available in many technical fields. If this trend continues, it will exacerbate the acute shortages of skilled technical workers in Texas and affect the overall economic competitiveness of our state in the global marketplace, in the near and distant future.

Community Colleges

Texas has 50 public community college districts. Five of these — Alamo, Dallas, Howard, Lone Star and San Jacinto — have multiple colleges that are independently accredited. The remaining 45 community colleges are accredited as a single district. Accreditation, the independent review of a school's educational program to determine that they meet academic standards, is used to determine whether a college or university is eligible to participate in federal and state financial aid programs and facilitates the transfer of college credits from one institution to another.

The 1995 Texas Legislature's Senate Bill 390 established community college service areas and allocated the majority of counties to 50 existing community college taxing districts (**Exhibit 3-5**). As a result of this legislation, many of the state's community colleges serve areas of the state that fall outside of their taxing district (**Exhibit 3-6**). A few areas of the state were not assigned to a particular service area, but most of these have other colleges serving their populations. For example, in far southeast Texas there is no community college

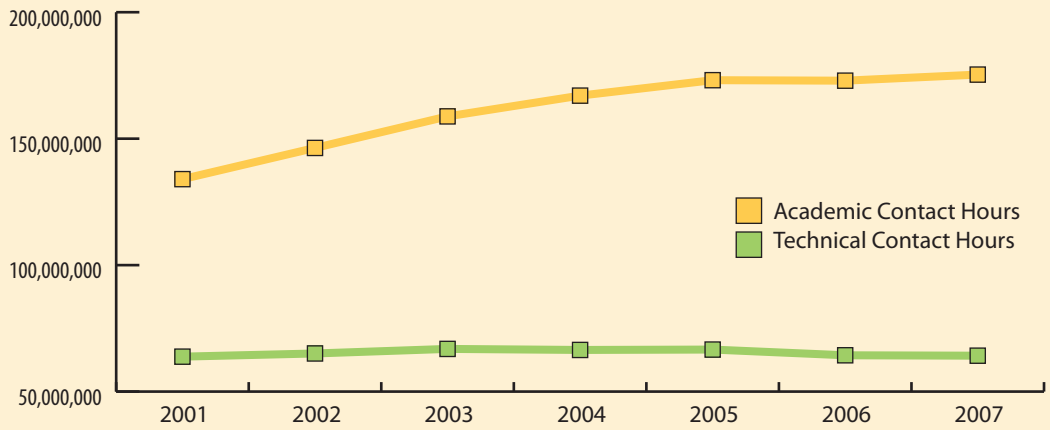
The number of Texas graduates with technical skills is not sufficient to meet the number of jobs available in many technical fields.

"One of our biggest work force issues is the availability of qualified technical people in science and engineering. At one time, we were very successful in bringing in VOE [Vocational Office Education] student employees and recruiting directly from area high schools. It is now difficult to recruit students in VOE programs that at one time provided students with technical and clerical skills. This is certainly an area of concern."

—Tony Magaro, Assistant Director of Human Resources, Southwest Research Institute, San Antonio

Exhibit 3-4

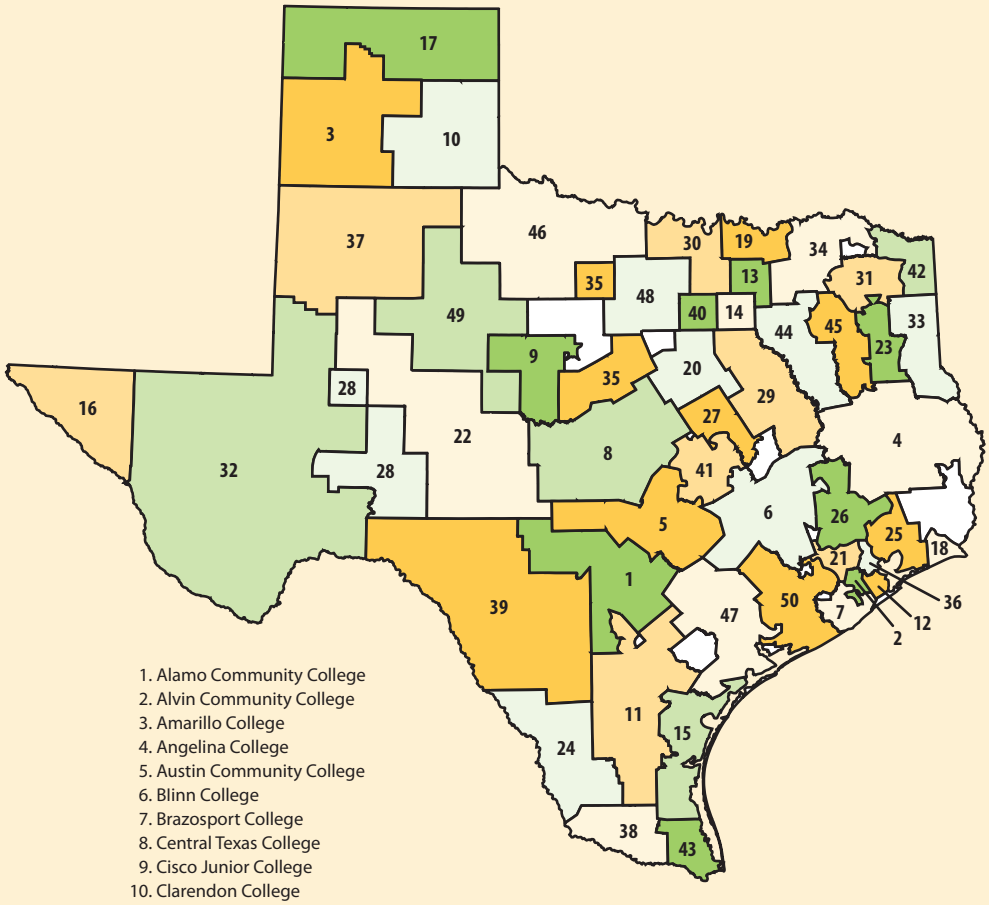
Technical and Academic Contact Hours Taken, Texas Two-Year Colleges



Source: Texas Higher Education Coordinating Board.

Exhibit 3-5

Texas Community College Service Districts

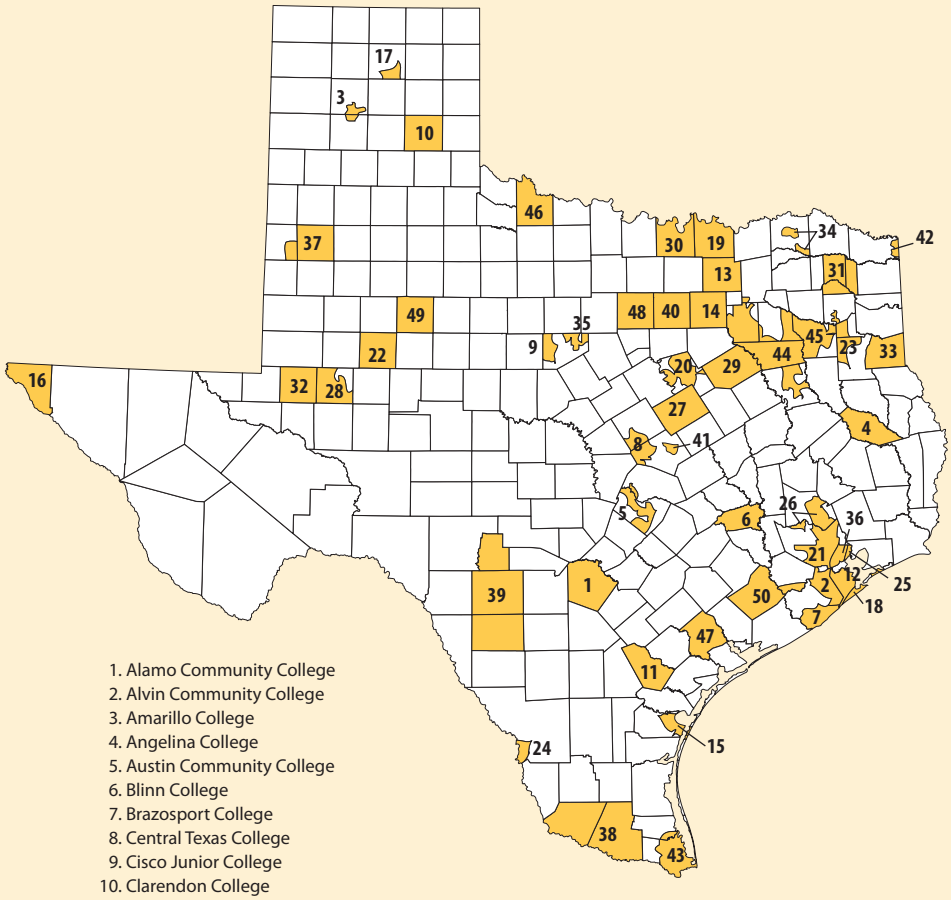


1. Alamo Community College
2. Alvin Community College
3. Amarillo College
4. Angelina College
5. Austin Community College
6. Blinn College
7. Brazosport College
8. Central Texas College
9. Cisco Junior College
10. Clarendon College
11. Coastal Bend College
12. College of the Mainland
13. Collin County Community College
14. Dallas County Community College
15. Del Mar College
16. El Paso Community College
17. Frank Phillips College (Borger Junior College District)
18. Galveston College
19. Grayson County College
20. Hill College
21. Houston Community College
22. Howard County Junior College
23. Kilgore College
24. Laredo Community College
25. Lee College
26. Lone Star Community College
27. McLennan Community College
28. Midland College
29. Navarro College
30. North Central Texas College
31. Northeast Texas Community College
32. Odessa College
33. Panola College
34. Paris Junior College
35. Ranger College
36. San Jacinto College
37. South Plains College
38. South Texas Community College
39. Southwest Texas Junior College
40. Tarrant County Junior College
41. Temple Junior College
42. Texarkana College
43. Texas Southmost College
44. Trinity Valley Community College
45. Tyler Junior College
46. Vernon Regional Junior College
47. Victoria College
48. Weatherford College
49. Western Texas College
50. Wharton County Junior College

Source: Texas Higher Education Coordinating Board.

Exhibit 3-6

Texas Community College Taxing Districts



1. Alamo Community College
2. Alvin Community College
3. Amarillo College
4. Angelina College
5. Austin Community College
6. Blinn College
7. Brazosport College
8. Central Texas College
9. Cisco Junior College
10. Clarendon College
11. Coastal Bend College
12. College of the Mainland
13. Collin County Community College
14. Dallas County Community College
15. Del Mar College
16. El Paso Community College
17. Frank Phillips College
18. Galveston College
19. Grayson County College
20. Hill College
21. Houston Community College
22. Howard County Junior College
23. Kilgore College
24. Laredo Community College
25. Lee College
26. Lone Star Community College
27. McLennan Community College
28. Midland College
29. Navarro College
30. North Central Texas College
31. Northeast Texas Community College
32. Odessa College
33. Panola College
34. Paris Junior College
35. Ranger College
36. San Jacinto College
37. South Plains College
38. South Texas Community College
39. Southwest Texas Junior College
40. Tarrant County Junior College
41. Temple Junior College
42. Texarkana College
43. Texas Southmost College
44. Trinity Valley Community College
45. Tyler Junior College
46. Vernon Regional Junior College
47. Victoria College
48. Weatherford College
49. Western Texas College
50. Wharton County Junior College

Source: Texas Association of Community Colleges.

Texas Career Schools

In Texas, a "career school" or "career college" is a private business that offers training or educational courses in business, trade, technical or industrial occupations, through classroom instruction or distance education technologies.

Examples of career school instruction programs in Texas include computer design and maintenance; health professions such as licensed vocational nurses, nurse aides, ultrasound techs, medical assistants, dental assistants and surgical technicians; business and office programs; paralegals and legal assistants; criminal justice; court reporting; culinary training; automotive maintenance and repair; dog grooming; welding; heating and air conditioning repair and service; truck driving; auctioneering; and commercial diving.

One such career school is the Texas Culinary Academy (TCA), which offers an Associate of Applied Science Degree Program in Le Cordon Bleu Culinary Arts; TCA is part of only a small percentage of American-based cooking schools affiliated with Le Cordon Bleu. The program provides a solid foundation for success in the food service industry, and the curriculum was developed based on student interest and industry demands.

TCA also has two restaurants, run by the Academy's students, providing them with real experience in the industry. In 2008, TCA expects to graduate approximately 464 students with associate of applied science degrees. Historically, these students enjoy an employment rate of nearly 94 percent with industry employers.

In fiscal 2007, the greatest number of certificates awarded in Texas were in health professions and related clinical sciences (20,414), followed by business, management, marketing and related support services (10,350) and mechanic and repair technologies/technicians (7,390).[66]

The Texas Workforce Commission (TWC) reports that slightly more than 75 percent of those completing certificate programs find jobs related to their training.[67]

TWC enforces standards for and regulates career schools or colleges not overseen by another state agency. (Schools regulated by other boards and commissions include cosmetology schools, barber colleges, massage therapy schools and defensive driving schools, for example.)

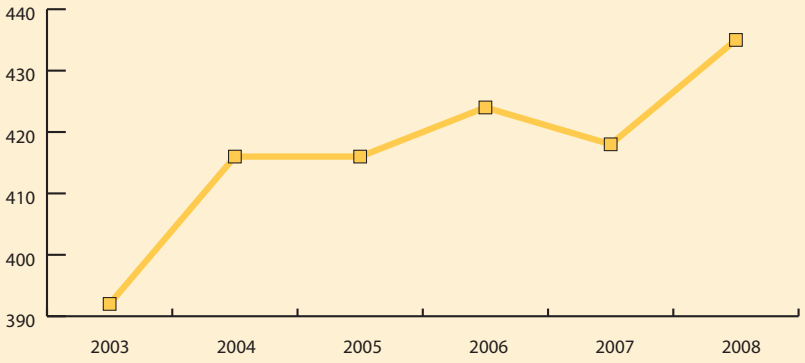
As of August 2008, Texas had 435 licensed career schools with a total enrollment of more than 153,000 students in seminar or vocational programs. (TWC defines "vocational training" as being sufficient for entry into a new occupation, and "seminar training" as that which provides or enhances continuing education for a current occupation.)

The number of career schools and colleges in Texas rose by 11 percent over the last five years, increasing by 43 institutions.

To operate a career school or college in Texas, its operators must receive a "Certificate of Approval" from TWC. To acquire this, they must submit proposed courses of instruction and personnel for approval. Prior to approval, TWC must inspect and approve the school's facilities and equipment. Schools also must submit an audited financial statement establishing their solvency.

During the enrollment year of September 1, 2006 through August 31, 2007, these schools awarded 53,299 diplomas, certificates and credentials.

Number of Texas Career Schools and Colleges



Source: Texas Workforce Commission.

Texas Career School and Colleges Annual Enrollment 2002-03 to 2006-07 School Years

	2002-03	2003-04	2004-05	2005-06	2006-07
Vocational Enrollees	109,801	143,078	142,897	135,247	130,630
Seminar Enrollees	53,421	72,618	58,612	35,491	23,133
Total Enrollment	163,222	215,882	201,587	170,237	153,605
Completers	46,095	60,867	56,945	55,762	54,662

Note: Completers are tracked for vocational training only. All completers receive a diploma, certificate or credential.
Source: Texas Workforce Commission.

service area because the population is served by the two-year Lamar colleges.

Some community college districts have as many students as the state's largest universities, while others are the size of high schools. Dallas Community College, with a Fall 2007 enrollment of 59,476, is the state's largest; the smallest is Ranger Community College in North Central Texas, with 813 students.

Fall 2007 enrollment at Texas' public community colleges was 568,760, up by 31.7 percent from 2000. THECB expects community college enrollment to rise by 16.2 percent between 2007 and 2020 (**Exhibit 3-7**).[68] See **Appendix A** for profiles of every Texas community college, and the TSTC and two-year Lamar colleges.

Texas State Technical College

The Texas State Technical College System consists of four colleges, TSTC Harlingen, TSTC Marshall, TSTC Waco and TSTC West Texas, the latter of which has campuses in Abilene, Breckenridge, Brownwood and Sweetwater (**Exhibit 3-8**).

In 2007, 11,610 students were enrolled in TSTC campuses. The Harlingen campus was largest, with an enrollment of 4,957, followed closely by the Waco campus, with 4,308 students. The West Texas campus has 1,640 students, and the smallest campus, with just 705 students, is in Marshall. Between 2003 and 2007, overall fall enrollment in TSTC rose by 9.6 percent, from 10,588 to 11,610 students, although with considerable variance from year to year (**Exhibit 3-9**).

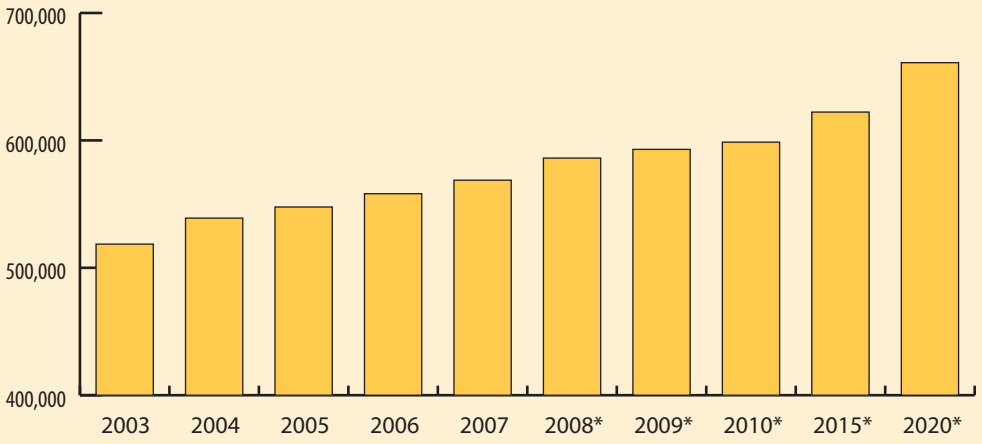
Two-Year Lamar Colleges

The two-year Lamar colleges, part of the Texas State University System, include the Lamar Institute of Technology in Beaumont, Lamar State College in Port Arthur and Lamar State College in Orange, all three located in Southeast Texas.

In Fall 2007, 6,874 students were enrolled in the three Lamar colleges. Between 2003 and 2007, fall enrollment at the three institutions rose by less than 1 percent, from 6,820 to 6,874. This is in part attributable to hurricane damage to Lamar facilities in 2005, reducing student enrollment in 2006. Slow growth is expected to continue, however; THECB estimates that enrollment at the

Exhibit 3-7

Texas Current and Projected Community College Enrollment, 2003-2020

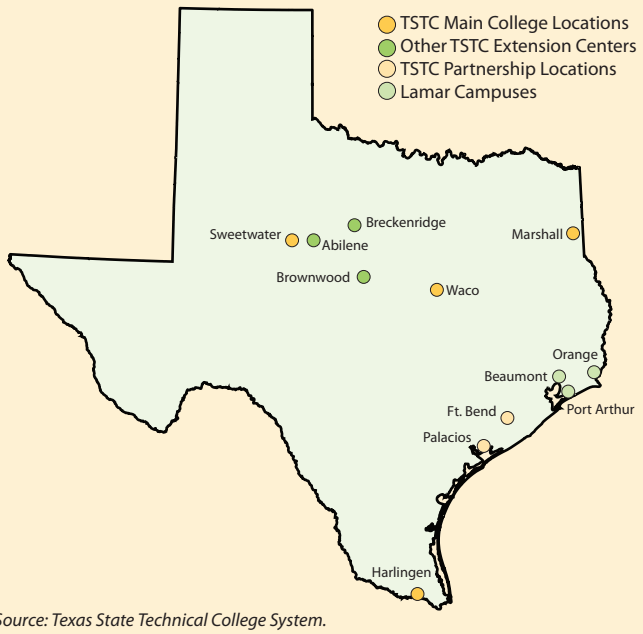


*Projected.

Sources: Texas Higher Education Coordinating Board and Texas Association of Community Colleges.

Exhibit 3-8

Texas State Technical Colleges and Two-Year Lamar Colleges



Source: Texas State Technical College System.

three Lamar colleges will rise by just 1.1 percent between 2008 and 2020 (**Exhibit 3-10**).

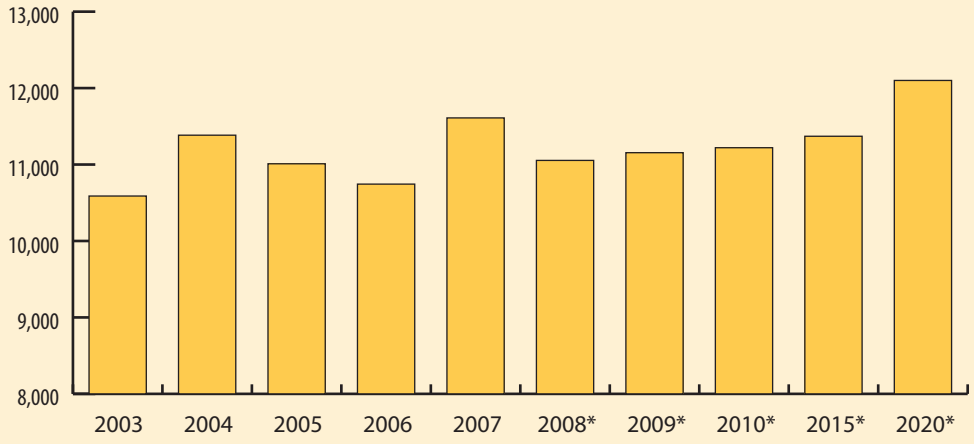
Funding

Community colleges are funded primarily by a combination of state appropriations to fund operations and local tax dollars to fund facilities, supplemented by tuition and fees. Under the Texas Education Code, state appropriations for community colleges can be used only for instructional and administrative costs.

The state funding formula system for Texas community colleges is based on student contact hours. In its *Report of Fundable Operating Expenses (RFOE)*, THECB calculates the median cost of 26 academic and technical programs in the 50 community college districts. The costs include total instructional expenses and contact hours for these programs and the total expenses for administration, including institutional support, student services, library, instructional administration, organized activities and instructional staff benefits. The expenses for instruction and administration include all unrestricted sources of funds, including appropriated general revenue, tuition and

Exhibit 3-9

Current and Projected Texas State Technical College System Enrollment, 2003-2020



*Projected.

Sources: Texas Higher Education Coordinating Board and Texas Association of Community Colleges.

fees, contract instruction, other educational and general revenue and local tax revenue.[69]

State appropriations to community colleges are based on contact hour expenses during the "base year," or the 12-month period from the summer term of even years through the following spring semester.[70]

The state funding formula is designed to ensure equitable funding among institutions. Each institution, therefore, receives the same rate for each of the 26 academic and technical programs identified by THECB. In other words,

Appropriation for program =
Contact hours per program X Program rate

Exhibit 3-11 shows 26 program areas THECB has identified for the funding formula system and the associated rate for fiscal years 2008 and 2009.

THECB bases funding recommendations on the program expenditures from the RFOE study, minus tuition and fees. For this reason, the rates recommended by THECB equaled 67 percent of RFOE for fiscal 2008 and 2009, as **Exhibit 3-11** demonstrates. The Legislature appropriated 75.1 percent of THECB's recommended formula for community colleges.[71]

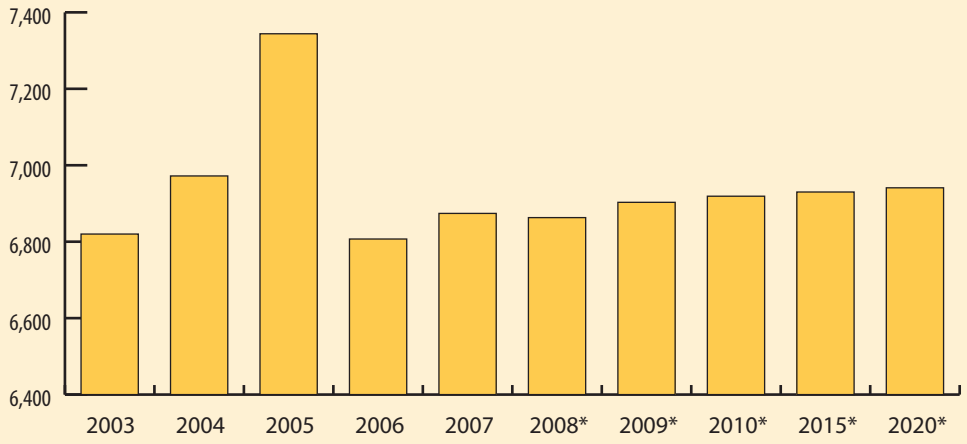
TSTC and the two-year Lamar colleges also use contact hours to determine funding for instruction and operations. For fiscal 2008 and 2009, two-year Lamar colleges received 80 percent of THECB's recommended funding rate from the Legislature, while TSTC received 100 percent.[72] Unlike community colleges, however, TSTC and Lamar are state institutions and therefore receive state appropriations for physical plant and facilities, as do four-year institutions.

Funding Trends

State appropriations for community colleges are not keeping pace with the demand of increased student contact hours, placing a larger demand on local resources. The last decade has seen a 30 percent increase in total contact hours, from about 186 million to 242 million, and a 27.7 percent increase in state appropriations, from $1.3 billion to nearly $1.7 billion, for instruction and operations (**Exhibit 3-12**). In *real* terms, however — after inflation is removed — formula funding

Exhibit 3-10

Current and Projected Two-Year Lamar Colleges Enrollment, 2003-2020



*Projected.

Sources: Texas Higher Education Coordinating Board and Texas Association of Community Colleges.

appropriations *declined* by 23 percent per contact hour over this time.[73]

Nearly 570,000 students were enrolled in Texas public community colleges in 2007, about 39 percent more than in 1997. Enrollment increased 3.4 annually over these 10 years, while state spending per student increased by only 1 percent per year. Adjusted for inflation, state spending per community college student *fell* by 17.8 percent from 1997 to 2007 (**Exhibit 3-13**).[74]

As a result, community colleges rely increasingly more on local funds such as tuition, fees and local

Exhibit 3-11

Texas Community College Formula Rates, Fiscal 2008 and 2009

Discipline	Report of Fundable Operating Expenses Formula Rates	THECB Recommended Rates	Rates Funded to Community Colleges by Legislature
Agriculture	$7.25	$4.86	$3.66
Architecture and Precision Production Trades	8.82	5.92	4.45
Biology, Physical Sciences and Science Technology	6.19	4.15	3.12
Business Management, Marketing and Administrative Services	6.58	4.41	3.32
Career Pilot	23.45	15.73	11.83
Communications	7.30	4.90	3.69
Computer and Information Sciences	7.57	5.08	3.82
Construction Trades	8.20	5.50	4.14
Consumer and Homemaking Education	6.14	4.12	3.10
Engineering	10.30	6.91	5.20
Engineering Related	6.82	4.58	3.44
End Language, Literature, Philosophy, Humanities and Interdisciplinary	6.48	4.35	3.27
Foreign Languages	5.97	4.01	3.02
Health Occupations-Dental Asst., Medical Lab and Assoc. Degree Nursing	9.96	6.68	5.02
Health Occupations – Dental Hygiene	14.87	9.98	7.51
Health Occupations – Other	7.39	4.96	3.73
Health Occupations – Respiratory Therapy	9.26	6.21	4.67
Health Occupations – Vocational Nursing	6.89	4.62	3.47
Mathematics	6.11	4.10	3.08
Mechanics and Repairers – Automotive	7.60	5.10	3.84
Mechanics and Repairers – Diesel, Aviation Mech. and Transport Workers	9.31	6.25	4.70
Mechanics and Repairers – Electronics	8.52	5.72	4.30
Physical Education and Fitness	7.42	4.98	3.75
Protective Services and Public Administration	6.81	4.57	3.44
Psychology, Social Services and History	5.63	3.78	2.84
Visual and Performing Arts	7.54	5.06	3.81

Note: For each discipline, THECB recommended rates equal to 67 percent of RFOE formula rates.
Source: Texas Higher Education Coordinating Board.

Exhibit 3-12

Texas Community College Appropriations and Contact Hours

Biennium	THECB Formula Recommendations	Legislative Formula Recommendations*	Percent Formula Funded	Base Period Contact Hours	THECB Formula Funding Per Contact Hour	Legislative Formula Appropriations Per Contact Hour
1998-99	$1,519,078,489	$1,325,767,315	87.3%	185,877,715	$8.17	$7.13
2000-01	2,039,114,816	1,447,716,805	71.0	193,703,636	10.53	7.47
2002-03	1,906,103,952	1,569,157,590	82.3	203,528,018	9.37	7.71
2004-05	2,038,673,162	1,501,275,021	73.6	233,829,584	8.72	6.42
2006-07	1,844,983,027	1,616,585,935	87.6	244,044,489	7.56	6.62
2008-09	2,253,776,967	1,693,556,066	75.1	242,041,913	9.31	7.00

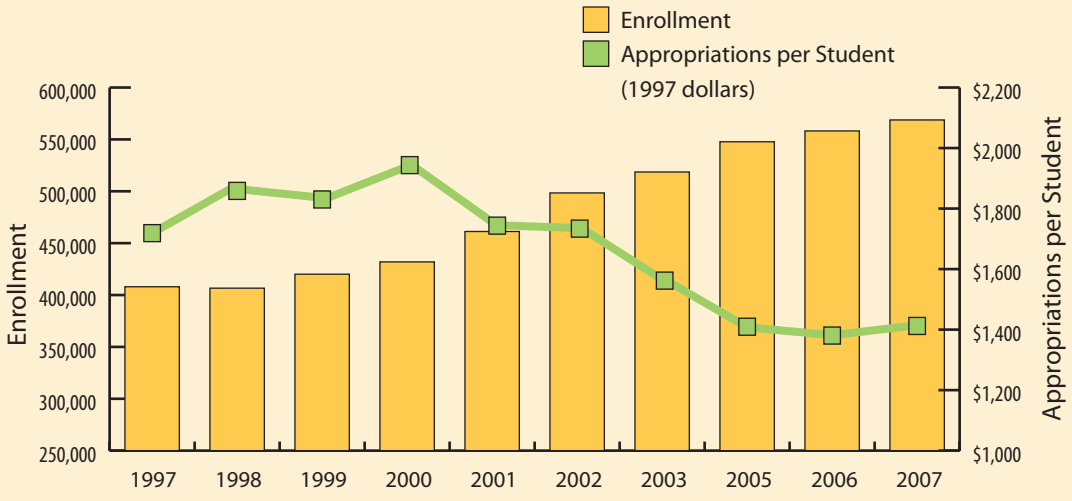
*Excludes Special Items Appropriations and Southwest Collegiate Institute for the Deaf.
Source: Texas Higher Education Coordinating Board.

property taxes. In 1997, state average tuition and fees for 12 semester credit hours and one laboratory class were $347 for in-district students; by 2007, this amount had almost doubled, to $683.[75] By contrast, the consumer price index, a standard measure of inflation, rose by 29.2 percent over the same period.

Even with these large increases, tuition rates at universities continue to rise even faster than community college rates. Average statewide tuition per semester at universities increased from $1,658 in Fall 2002 to $2,952 in Fall 2007, a 78 percent increase. Community college average tuition per semester increased 50 percent during this period, to $683 in 2007.[76]

Exhibit 3-13

Texas Community College Enrollment and State Appropriations per Student



Sources: Texas Higher Education Coordinating Board and Texas Comptroller of Public Accounts.

FAFSA Assistance

The college application process includes a number of hurdles. One of the most important of these is completing the Free Application for Federal Student Aid (FAFSA), the federal application that determines student eligibility for Pell grants, Stafford loans, PLUS loans and work-study programs.

A recent University of Chicago study suggested that students who do not complete the FAFSA are less likely to enroll in college. The study noted that "students who reported completing a FAFSA by May and had been accepted into a four-year college were more than 50 percent more likely to enroll than students who had not completed a FAFSA." Furthermore, the authors concluded that "this strong association holds even after we control for differences in students' qualifications, family background and neighborhood characteristics, and support from teachers, counselors, and parents."[77]

All too many prospective higher education students simply do not know about the form and its importance. In 2007, the Central Texas Futures Project, a research effort spearheaded by the University of Texas' Ray Marshall Center, surveyed 6,616 Texas high school seniors in eight school districts and found that "more than 60 percent of low-income students indicated that they did not know about the financial aid process."[78]

Furthermore, a significant minority of the nation's community college students do not think they qualify for financial aid, according to a recent report produced for the U.S. Department of Education.[79] This is important because many of these students are in fact eligible for financial aid.

Researchers at Harvard University, Case Western Reserve University and the University of Toronto recently initiated an experiment to see whether making the FAFSA easier to complete can combat this trend. The tax preparation firm H&R Block is providing services for this project. Participants are family members of college-eligible students in Ohio and North Carolina whose family income is less than $45,000.

Reasons Full-Time Community College Students in 2007-08 Did Not Apply For Federal Financial Aid

Reason	All Students	Those Seeking Transfer*
Did not think I would qualify for financial aid	39%	39%
Did not need financial aid	35	35
Form was too complex	6	6
Did not want to provide sensitive information	2	2
Other	18	18

*This represents students with either a primary or secondary goal of transferring.
Source: The Advisory Committee on Student Financial Assistance.

The experiment allows participants to complete the FAFSA with a tax professional as their annual tax return is prepared. In Cleveland, H&R Block helped 1,700 low-income families, including older students without a prior degree, transfer data from their federal return to the FAFSA at no charge.[80] Applicants receive an estimate of their potential financial aid award along with information on local colleges and universities, including their costs and available aid.

The researchers hope that their effort "will answer key questions about the importance of information and financial barriers in college access and persistence," and "provide concrete examples of ways to improve college access for low-income students and the effectiveness of financial aid policies."[81]

VITA Program

The Volunteer Income Tax Assistance (VITA) program, a collaborative effort between the Internal Revenue System and the Federal Deposit Insurance Corporation, offers lower-income individuals free assistance with the preparation of their income tax returns.[82] Volunteers provide this assistance at sites such as libraries, community centers and facilities of nonprofit organizations. In 2007, community VITA programs in Texas assisted in completing about 71,000 tax returns.[83]

Foundation Communities, a nonprofit group that provides VITA tax assistance in Austin, began providing assistance with the FAFSA application as well. In 2007, the organization assisted 500 low-income families with the FAFSA while providing income tax assistance.

The VITA program could provide a useful vehicle for helping low-income students throughout the nation with the FAFSA.

Exhibit 3-14

Texas Community College and University Average Tuition and Fee Rates Per Semester as Share of Statewide Median Household Income, 2002-2007

Year	Statewide Median Income	Average Community College Tuition and Fees for In-District Residents	Average University Tuition and Fees for Resident Undergraduate Students	Average Community College Tuition and Fees as Percent of Median Household Income	Average University Tuition and Fees as Percent of Median Household Income
2002	$40,149	$456	$1,658	1.14%	4.13%
2003	39,271	531	1,934	1.35	4.92
2004	41,397	569	2,284	1.37	5.52
2005	41,422	618	2,464	1.49	5.95
2006	43,307	648	2,713	1.50	6.26
2007	46,053	683	2,952	1.48	6.41

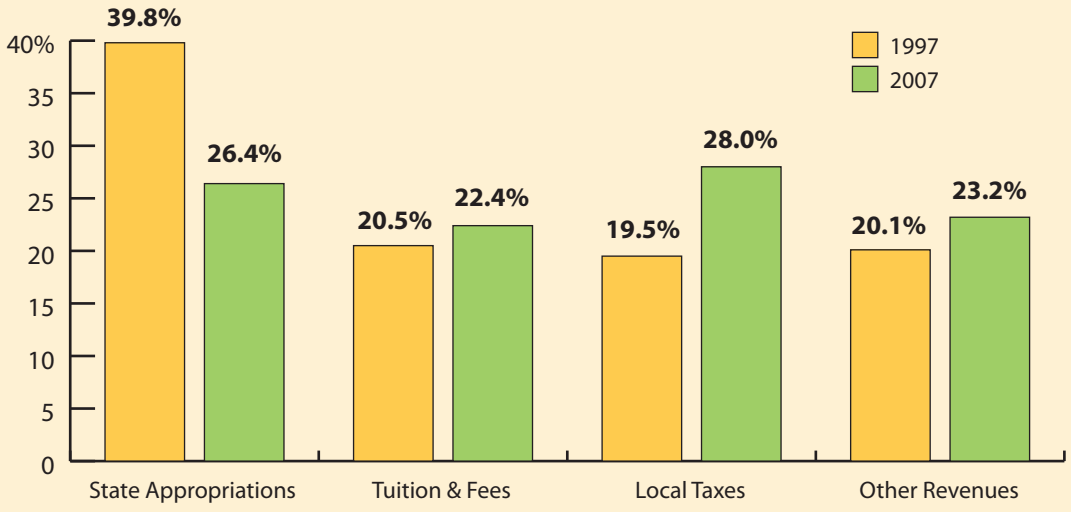
Note: Tuition and fee estimates by the Texas Higher Education Coordinating Board are based on average costs of 12 semester credit hours and one lab for community colleges and 15 semester credit hours for universities.
Sources: U.S. Census Bureau, Texas Higher Education Coordinating Board and Texas Association of Community Colleges.

Tuition rates as a share of median household income are also rising. Tuition at four-year universities accounted for 6.4 percent of median household income in 2007, up from 4.1 percent in 2002. The share of community college average tuition rates for in-district students increased from 1.1 to 1.5 percent during this period (**Exhibit 3-14**).[84]

In fiscal 1997, state appropriations accounted for 40 percent of community college revenue. In fiscal 2007, the state funding share fell to 26 percent, as revenue from local taxes exceeded state support (**Exhibit 3-15**). By contrast, state appropriations accounted for 34 percent of revenues received by public universities in Texas.

Exhibit 3-15

Texas Community College Revenues by Source, 1997 and 2007



Source: Texas Higher Education Coordination Board.

As the exhibits demonstrate, state funding is lagging behind demand in an era of rapidly increasing enrollment in community colleges. The result has been higher tuition and fees and a greater burden on local taxpayers.

Performance Funding

State performance funding is delivered based on institutional progress toward certain state and regional priorities. The goal of performance funding is to reward institutions on student success and outcomes rather than enrollment.

The goal of performance funding is to reward institutions on student success and outcomes rather than enrollment.

The 2007 Legislature appropriated $100 million in this incentive funding for fiscal 2009. The Governor's Task Force on Higher Education Incentive Funding recommended that the state allocate $20 million for scholarships for the "top 10 percent" of high school graduates enrolled in state two- and four-year institutions. THECB will determine the criteria for eligibility and distribution. The remaining $80 million will be distributed to four-year general academic institutions.[85]

"If we don't provide adequate funding to community colleges, then we won't get the talent that Texas employers need."

—Bob Zachariah, President, Laredo Hotel and Lodging Association

The task force also recommended that an additional $40 million be distributed in fiscal 2009 to public two-year institutions based on their average number of certificate recipients, associate degree recipients and students who transferred to a four-year or health-related institution in the three most recent fiscal years (as of this writing, these funds have not been allocated, according to the Legislative Budget Board). The funding is based on a weighted system: certificate 1 (programs at least 15 and no more than 42 semester contact hours) at 0.5, certificate 2 (programs at least 53 and no more than 59 semester contact hours) at 0.75, associate degree at 1.0, and transfer student at 1.0. An additional weight of 0.5 is awarded to a student considered "at risk" and another 0.5 for each certificate or associate degree awarded in a "critical field."

"At-risk" students are defined as those who have ACT/SAT scores below the national mean; are Pell Grant recipients; are 20 or older when entering college for the first time; entered college as a part-time student; or earned a GED within the past six years. Critical fields are identified in *Closing the Gaps*. For two-year colleges, these include engineering technology, computer science, math, physical science, allied health and nursing.

For the upcoming 2009 legislative session, the task force recommends that the state provide two-year colleges with $92.5 million annually in 2010 and 2011 for performance funding (as well as $185 million annually for general academic institutions), based on a combination of gains against productivity, progress and quality measures. *Productivity* incentives include rewards for graduations or completions in the three previous years; *progress* incentives include the increase in degrees/completions and transfers in the two most recent fiscal years compared to the previous two fiscal years; and *quality* incentives are based on the number of certificate or associate degree recipients who achieved an acceptable score on a standardized exam in the three most recent fiscal years, when an exam exists for the degree.

These funds will be weighted with larger rewards allocated to degrees awarded in critical fields; degrees awarded to at-risk students; and student performance on standardized exams.[86]

The current formula system rewards contact hours. Performance funding would emphasize outcomes, such as increased graduation or completions rates. Performance funding, however, could have adverse effects by penalizing colleges that have students hired away before completing a program. To account for these students, an alternative form of performance funding could consider allocating some funds based on the economic returns of students.

Funding for Career and Technology Education

Public secondary career and technology education is funded in part by the Foundation School Program, where it receives a weighted allotment of 1.35 for each full-time-equivalent student in a CTE program. A "full-time-equivalent" student is defined as one having at least 30 contact hours per week with career and technology personnel.

Community colleges provide most public postsecondary CTE in Texas. As noted earlier, community colleges are funded primarily by a combination of state appropriations for operations and local tax dollars, supplemented by tuition and fees, to fund facilities.

Texas Tuition Promise Fund

The Texas Tuition Promise Fund is an easy and affordable college savings plan that allows families to start paying for college now, while locking in current tuition prices. In effect, the plan shelters families from rising tuition rates. Families purchase "tuition units" that can be traded for college credits at all Texas public colleges and universities and can also be used toward tuition and required fees at Texas private colleges and universities and out-of-state colleges and universities. Families can purchase tuition units all at once, over time or through an installment plan.

The fund offers three types of tuition units. *All-Texas College Units*, the most expensive of the three, pay for undergraduate resident tuition and required fees at any Texas four-year public college or university regardless of its cost. *Texas Four-year College Units* are based on the weighted average cost of undergraduate resident tuition and required fees for in-state students at all Texas four-year public colleges or universities, while *Texas Junior College Units* cover the weighted average cost of in-district tuition and required fees for students at Texas two-year public colleges.

A minimum of one unit must be purchased to establish an account. One hundred *All-Texas College Units* pay undergraduate resident tuition and required fees for 30 semester credit hours at any Texas four-year public college or university; 100 *Texas Four-year College Units* pay the weighted average undergraduate resident tuition and required fees for 30 semester credit hours at any Texas four-year public college or university; 100 *Texas Junior College Units* pay the weighted average in-district tuition and required fees for 30 semester credit hours at any Texas two-year public college or university. Any type of unit can be used to pay tuition and required fees at accredited public and private schools in Texas and out of state; benefits will vary depending on the school attended and the type and number of units redeemed. The Texas Tuition Promise Fund is established and maintained by the Texas Prepaid Higher Education Tuition Board and managed by OFI Private Investments Inc., a subsidiary of Oppenheimer Funds, Inc. For further information, please visit www.texastuitionpromisefund.com or call 1.800.445.GRAD (4723), option #5.

Community college tuition and fees are generally lower than those levied by four-year institutions, but still vary depending on the student's residence; students living within a community college district where residents pay district taxes will pay lower tuition and fees than those living outside the district.

Again, the TSTC and the two-year Lamar colleges do not receive local funding and rely on state appropriations and tuition revenue.

Both secondary and postsecondary schools also receive federal funding under the Carl D. Perkins Career and Technical Education Improvement Act of 2006, which provides $1.3 billion to states according to a formula based on the state's population in certain age groups and the state per capita income. The act also includes $108 million for Tech Prep programs. This act, originally passed in 1988 as the Carl D. Perkins Vocational Education Act, focuses on academic achievement in career and technology. Texas received $95.4 million plus another $8.4 million for Tech Prep programs in 2007.[87] Again, at least 85 percent of these funds must be passed to the local level.

In November 2007, SBOE approved a controversial plan to split Perkins funding 70/30 percent between TEA and THECB, respectively. The split was formerly 60 percent for secondary school programs and 40 percent for postsecondary programs. This issue is discussed further in Chapter 5.

Work Force Programs

A number of organizations and programs are intended to help Texans acquire the skills they need to compete in the global marketplace. Though their target populations vary, all are intended to upgrade the skills of their participants and further the state's economic development and the competitiveness of its businesses.

Apprenticeship

Apprenticeship programs provide funding for job-related training programs designed to meet employer needs. These programs couple on-the-job training with classroom instruction.

One of the unique aspects of these programs is that participants are full-time, paid employees who earn a wage while they learn a skilled trade. These arrangements can last from three to five years and all participants, training program providers and apprentices must be registered with the U.S. Department of Labor's Office of Apprentice-

Apprenticeship programs provide funding for job-related training programs designed to meet employer needs.

"We need to put pride back into specialty trades. It is important to change the way we look at apprenticeships and put them back in the high schools."

—Jo Rae Wagner, President, CTO, Inc., Harlingen

AT&T University

In a rapidly changing business environment, companies must adapt and develop new business strategies. AT&T has created its own "university" to provide its employees with leadership and development training through a flexible learning environment that evolves with changing business needs.

AT&T University has five main campuses, including one in Irving, Texas. Students can participate from anywhere in the world through a wide variety of learning opportunities such as e-learning, virtual and traditional classroom training. Virtual classes allow students from all over the world to participate in the same training session. More than 100,000 managers have used the university's courses and resources. Its 2008 curriculum included more than 100 courses and resources.[88]

ship. The Texas Workforce Commission provides funds to local educational institutions for the related classroom instruction. Upon completing the training hours in a registered program, apprentices can become certified and skilled craftsmen.[89]

Skills Development Fund and Self-Sufficiency Fund

The purpose of Texas' Skills Development Fund and Self-Sufficiency Fund is to facilitate the creation of customized job training programs. Through partnerships with community-based organizations and public community and technical colleges, these state funds support customized training to satisfy local business needs. Though the overall purpose of the two funds is identical, their key objectives are different.

The Skills Development Fund (SDF) is intended to provide businesses with customized training solutions that result in workers earning wages higher than the prevailing wage for a given occupation. Local work force development boards collaborate to ensure that these funds are distributed throughout the state but prioritize grant requests from areas with higher-than-average unemployment rates.

The key objective of the Self-Sufficiency Fund (SSF) is to work with Temporary Assistance for Needy Families recipients, as well as those at risk of dependency on public assistance, to help them enter the work force and achieve self-sufficiency. These funds provide training for targeted employment opportunities that enhance worker skills and produce a positive economic impact in the area.

SDF grants generated 7,073 new jobs and upgraded the skills of 13,758 workers in existing jobs that paid an average hourly wage of $19.04, and assisted 281 Texas employers with customized training needs in fiscal 2007.[90] In fiscal 2007, TWC awarded 55 grants totaling $25,059,808. For fiscal 2008 and 2009, the Texas Legislature has appropriated a total of $50 million for SDF grants (**Exhibit 3-16**).

Exhibit 3-16

Performance Statistics for Skills Development Grants, Texas Fiscal 2005 to Fiscal 2007

Type of Activity	FY 2005	FY 2006	FY 2007
Businesses Served	95	125	281
Workers Trained	8,896	10,963	13,758
New Workers Supported	3,351	3,127	7,073
Amount of Funding Requested	$37,875,083	$29,406,084	$50,820,087
Grants Requested	69	50	113
Amount of Funding Awarded	$8,562,419	$10,384,566	$25,059,808
Grants Awarded	23	31	55
Average Grant Size	$372,279	$334,986	$455,633

Source: Skills Development Fund Annual Reports for Fiscal 2005-07.

In fiscal 2007, SSF grants created customized training for 28 businesses and 1,540 jobs that paid an average hourly wage of $11.20. During fiscal 2007, SSF awarded $3,452,886 in grants.[91]

Workforce Investment Act

Congress passed the 1998 Workforce Investment Act (WIA) to support state and local employment and training programs. Through WIA, Texas Workforce Centers provide:

- *employer services* – assisting businesses with job postings and matching them with potential applicants, and providing assistance to employers and employees alike during a plant closing;
- *universal or core services* – helping job seekers through outreach and eligibility determinations for WIA-funded services;
- *intensive services* – providing specialized skill assessments for people in need of additional employment assistance;
- *training services* – providing persons with on-the-job training, training for non-traditional employment and occupational skills training;
- *dislocated worker services* – assisting workers who have been laid off due to a plant closure with job searches, résumé writing, stress management, financial planning and vocational skills training referrals;
- *support services* – providing transportation, child care and assistance with work-related expenses or other assistance needed to participate in WIA-funded activities; and
- *youth services* – providing employment and training services to youths aged 14 through 21, assisting them with academic and occupational skill assessments, developing career goals, preparing students for postsecondary opportunities and providing linkages between academic and occupational learning.[92]

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