December 18, 2008

Ladies and Gentlemen:

One of the vital roles of the Comptroller is to predict how and where our economy will grow, to provide state leaders with critical information for future decisions. Though our state's diverse economy is serving us well in the difficult economic times we face, we must look beyond the horizon with the keenest and sharpest eyes to ensure Texas' prosperity continues.

Today, a serious imbalance is emerging between the demand for skilled workers and the state's ability to supply them. As the nation's current leader in job creation, Texas cannot afford to fall behind. *Texas Works* provides an in-depth study of this issue with recommended steps to ensure our state's young and growing population is one of the world's strongest and most highly skilled work forces.

Texas Works highlights many statistics and findings:

- the number of jobs requiring technical training, certifications or associate degrees is outpacing the number of people available to fill them despite the fact that many pay above-average salaries.
- a growing number of employers across the state is raising the alarm about the need for more skilled workers.
- multiple paths to high school graduation and postsecondary training and education will help reduce the skilled-worker gap and could help reduce dropout rates; current state policy focuses on a single path to a four-year degree.
- Texas population projections point to a less educated work force if the state continues on its current path, negating the economic advantage of a younger average working population.
- funding to public two-year institutions has not kept pace with the high demand for vocational, technical and associate degree training, even though these investments have high returns.

I know you share a strong commitment to our state's success and will be highly interested in exploring the issues and recommendations in *Texas Works*. On a state level, this is about our strength as an economic powerhouse. On a personal level for all of us, this is about making the future success of every Texan our top priority.

Sincerely,

Susan Combs

Table of Contents

Executive Summary and Introduction

Decades of unprecedented technological advances have remade the U.S. and world economies. Mainstay industries such as heavy manufacturing have declined while entirely new fields have created millions of jobs, permanently altering the economic landscape. And more change is on the way.

In this environment, ensuring that Texas students have the range of technical skills they need to pursue a successful career is a critical goal, both for the individual and the state as a whole. Many Texas businesses simply cannot prosper without a growing labor pool of skilled technical employees.

At present, however, most of the state's attention is devoted to encouraging and preparing students to earn four-year degrees. But there are other paths to success, and we neglect these at our peril.

Regardless of how much we promote university education, a large number of Texas students simply will not choose to attend a four-year school. But our economy is large and diverse enough to provide them with rewarding careers and strong incomes — as long as they acquire the postsecondary training they need to succeed.

Many high-paying and rapidly growing professions are open to persons with technical training. In 2007, more than 80 percent of all Texas jobs did not require a bachelor's degree (**Exhibit 1**). More importantly, neither did nearly 44 percent of

"If Texas is known to have work force talent, more companies will locate and expand in the state."

—Monte King, Workforce Development, Shell Oil Company, Houston

Exhibit 1

Education Requirements for Texas Jobs, 2007

Texas Jobs not Requiring Bachelor's Degree

	Number of Jobs	Percent
Short-term on-the-job training	3,657,193	35.65%
Moderate-term on-the-job training	2,291,220	22.33
Long-term on-the-job training	689,753	6.72
Work experience in a related field	678,346	6.61
Postsecondary vocational award	497,698	4.85
Associate degree	407,568	3.97
Subtotal – No Bachelor's Degree Required	**8,221,778**	**80.15%**

Texas Jobs Requiring Bachelor's degree or Above

	Number of Jobs	Percent
Bachelor's degree	1,277,197	12.45%
Master's degree	118,477	1.15
Degree plus work experience	418,211	4.08
First professional degree	101,032	0.98
Doctoral degree	121,823	1.19
Subtotal – Bachelor's or Above Required	**2,036,740**	**19.85%**
Total	**10,258,518**	

Note: Numbers may not total due to rounding.
Source: Economic Modeling Specialists, Inc.

Exhibit 2

Education Requirements for Texas Jobs Paying Better-Than-Average Incomes, 2007*

Texas Jobs Paying Above-Average Income Not Requiring Bachelor's Degree

	Number of Jobs	Median Annual Earnings	Percent
Work experience in a related field	447,390	$50,718	13.09%
Moderate-term on-the-job training	243,638	49,930	7.13
Long-term on-the-job training	334,735	45,092	9.80
Short-term on-the-job training	43,607	44,057	1.28
Postsecondary vocational award	78,886	46,616	2.31
Associate degree	343,057	53,229	10.04
Subtotal – No Bachelor's Degree Required	**1,491,313**		**43.65%**

Texas Jobs Paying Above-Average Income Requiring Bachelor's Degree or Above

	Number of Jobs	Median Annual Earnings	Percent
Bachelor's degree	1,187,112	$64,085	34.74%
Master's degree	102,068	61,709	2.99
Degree plus work experience	413,485	87,954	12.10
First professional degree	101,032	120,655	2.96
Doctoral degree	121,823	80,766	3.57
Subtotal – Bachelor's Degree Required	**1,925,520**		**56.35%**
Total	**3,416,833**		

*Texas' per capita income was $37,187 in 2007.
Note: Numbers may not total due to rounding.
Source: Economic Modeling Specialists, Inc.

The U.S. Department of Education projects that about 80 percent of the fastest-growing jobs added in the future will not require a bachelor's degree, although they will require some postsecondary education.

jobs paying an above-average income for the state (**Exhibit 2**). That included more than 343,000 jobs requiring an associate degree and paying average annual earnings of $53,229, as well as 79,000 jobs requiring technical certificates and average incomes of $46,616 (**Exhibits 3** and **4**).

And the U.S. Department of Education estimates that about 80 percent of the fastest-growing job categories in the near future will require some postsecondary training, but not a bachelor's degree.[1]

Texas has a number of community and technical colleges that can offer our children affordable, state-of-the-art training for jobs with a future after just one or two years. As Chapter 4 of this report documents, they make important contributions to the state economy; their graduates' incomes generate about $10.1 billion in the Texas economy each year. And they can play a vital role in ensuring that Texas continues to prosper in challenging economic times.

But to maximize the effectiveness of our community and technical colleges, the state must ensure that its policies help rather than hinder them.

A "One Size Fits All" Model

Many state policies are geared largely toward pushing all students into university programs (see Chapter 2). These policies may inadvertently send the signal that the four-year degree is the only path to success.

The Texas high school class that entered the ninth grade in Fall 2007, for instance, will be required to meet the new "four-by-four" standards, which require four years each of language arts, social studies, math and science. But some applied science and math courses relevant to technical courses will not count toward the four-by-four requirements.[2] The new requirements may force many students to abandon career and technical education (CTE) courses.

Similarly, proposed new grade-point average (GPA) calculation standards for high schools

Exhibit 3

Associate Degree Jobs Paying More than $37,187 (Average Texas Income, 2007)

Description	2007 Jobs	2007 Median Annual Earnings
Radiation therapists	868	$88,962
Aerospace engineering and operations technicians	807	76,606
Nuclear technicians	44	75,525
Nuclear medicine technologists	1,345	71,178
Computer specialists, all other	7,681	71,053
Dental hygienists	9,592	65,728
Fashion designers	523	63,419
Diagnostic medical sonographers	2,624	63,211
Registered nurses	160,491	58,198
Industrial engineering technicians	9,298	57,221
Fish and game wardens	505	55,973
Electrical and electronic engineering technicians	15,813	53,789
Mechanical engineering technicians	5,330	52,749
Physical therapist assistants	3,971	49,941
Electro-mechanical technicians	1,040	49,150
Occupational therapist assistants	1,789	48,714
Respiratory therapists	7,607	48,485
Radiologic technologists and technicians	13,745	48,381
Geological and petroleum technicians	4,723	47,174
Social science research assistants	479	46,342
Chemical technicians	5,951	45,843
Paralegals and legal assistants	17,242	45,677
Engineering technicians, except drafters, all other	4,805	44,928
Funeral directors	1,475	43,867
Cardiovascular technologists and technicians	2,838	43,368
Forest and conservation technicians	187	43,202
Respiratory therapy technicians	2,657	43,139
Computer support specialists	44,807	41,205
Forensic science technicians	1,261	40,934
Environmental science and protection technicians, including health	3,592	38,397
Interior designers	4,732	38,085
Medical equipment repairers	3,218	37,648
Biological technicians	2,017	37,461
Total Jobs & Weighted Average Annual Earnings	**343,057**	**$53,229**

Sources: Economic Modeling Specialists, Inc. and Texas Comptroller of Public Accounts.

"It's getting tougher to find people for technical skills-related positions. The demand is greater than the supply of the people who possess these skills."

—Carol Wilson, Senior Human Resources Director, Centerpoint Energy

Exhibit 4

Technical Certificate Jobs Paying More than $37,187 (Average Texas Income, 2007)

Description	2007 Jobs	2007 Median Annual Earnings
Commercial pilots	2,410	$61,968
Electrical and electronics repairers, powerhouse, substation, and relay	1,374	55,557
Ship engineers	1,419	53,082
Avionics technicians	2,388	50,461
Electrical and electronics drafters	3,384	49,462
Aircraft mechanics and service technicians	16,737	48,901
Appraisers and assessors of real estate	5,069	48,547
Drafters, all other	1,133	47,902
Mechanical drafters	7,297	46,592
Electrical and electronics repairers, commercial and industrial equipment	6,269	46,197
Healthcare practitioners and technical workers, all other	2,189	43,098
Electrical and electronics installers and repairers, transportation equipment	1,192	42,203
Court reporters	1,799	41,974
Architectural and civil drafters	9,405	41,954
Occupational health and safety technicians	1,428	40,082
Legal secretaries	14,776	40,082
Sound engineering technicians	640	37,877
Total Jobs & Weighted Average Annual Earnings	**78,886**	**$46,616**

Sources: Economic Modeling Specialists, Inc., Texas Comptroller of Public Accounts and Texas Workforce Commission.

"There is a tendency to push kids to a four-year degree and I think we have to change that view. There is nothing wrong with starting with an associate degree...we are paying many of our associate degree people more than four-year graduates."

—Edward C. Trump, Plant Manager, Entergy, Harrison County Power Project

would only include CTE courses aligned with university programs such as accounting.[3] Many technical courses will not count toward the calculation of student GPAs, giving students less incentive to enroll in them.

Furthermore, the ability of our community and technical colleges to train skilled workers has been hampered by declining state funding. As Chapter 3 illustrates, state funding for community and technical colleges has not kept pace with inflation and is falling in real terms. And while CTE courses can be quite expensive to establish, often requiring state-of-the-art technology and equipment, the state does not offer funding for startup costs. In some urban areas, employers donate materials and equipment and allow students to train in their facilities, but rural institutions often lack such partners.

Such state policies are shortsighted, both from the perspective of individual students and from that of Texas as a whole, which needs a productive, skilled work force with a variety of technical skills to compete successfully.

The Skilled Worker Shortage

Dwindling enrollment in vocational training is starting to affect many Texas businesses that face

shortages of skilled workers. Employers in and near the cities of Corpus Christi, Port Arthur, Beaumont and Texas City report that they cannot find enough welders. One large petrochemical company representative said that they have needed more welders than they can hire for the past two years.[4]

Carol Wilson, senior human resources director for Centerpoint Energy, told Comptroller staff that "it's getting tougher to find people for technical skills-related positions. The demand is greater than the supply."[5]

And the existing supply of skilled workers is aging. The *Wall Street Journal* recently noted that "unions, construction contractors and other businesses" are facing impending shortages of skilled workers since many of them are reaching retirement age, and there are too few young workers with the skills needed to replace them.[6]

The impending wave of retirements in the baby boom generation will remove many of our most experienced and skilled technical employees from the work force. This may drive up wages for a wide variety of technical occupations, and force employers to import labor from other states or other countries.[7] Both are costly solutions, and may ultimately lead employers to reduce operations or relocate elsewhere.

Texas' publicly funded higher education institutions are not meeting this demand. In 2007, for example, Texas had roughly 44,000 job openings for workers with some postsecondary technical or career training, but the state's public institutions produced just 36,442 students with the skills needed for those jobs.[8]

By contrast, in the same year, our public universities produced more bachelor's, master's and doctoral graduates than the economy could employ, awarding about 104,000 degrees while the state added just 85,000 jobs requiring a bachelor's degree or above (**Exhibit 5**).[9] Private Texas colleges and universities added another 26,000 graduates, for a total oversupply of about 45,000.[10]

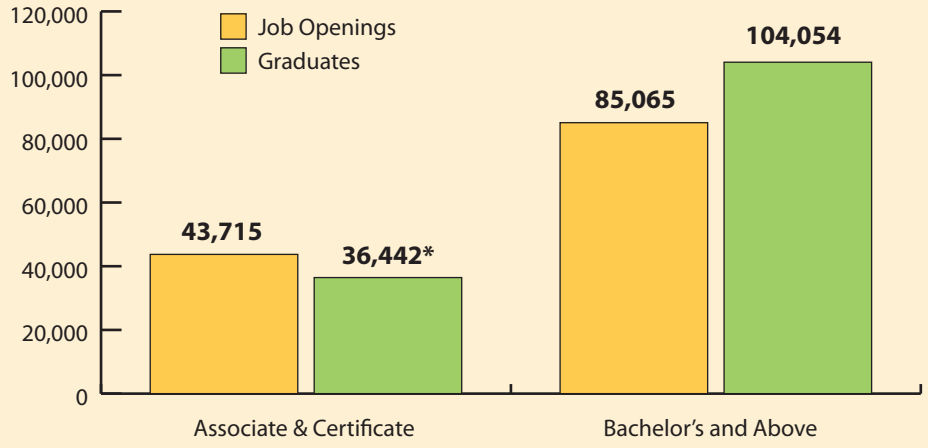
It should be noted that privately funded career schools greatly supplement our supply of skilled

"If we can't get the work force we need, we'll leave. We have to get people educated or growth will stop and people will move."

—Tom Wade, President, Logistics and Manufacturing Association, Port Laredo

Exhibit 5

Number of Graduates from Publicly Funded Institutions, by Degree Type vs. Annual Average Job Openings, 2007



*Estimate derived by taking the total number of associate degrees and certificates and subtracting "academic" associate and certificate awards.

Sources: Texas Workforce Commission and Texas Higher Education Accountability System.

technical workers, graduating more than 53,000 students with a diploma, certificate or some other credential in 2007.[11] Even so, these data provide further evidence of the way in which Texas *public* policy pushes students toward the university regardless of the actual needs of the state economy, or the economic prospects graduates face.

Challenges

Foregoing postsecondary training and education can mean a tremendous loss of income over a lifetime. A student who earns an associate degree, for example, will earn an average of $340,000 more over a working lifetime than someone with just a high school diploma — and nearly $600,000 more than a worker with no diploma.[12]

These increased earnings, moreover, can be achieved with a relatively small investment of time and money. Tuition and fees for two years at a community college in Texas, for example, cost an average of about $3,800, compared to more than $26,000 for four years at a public university.[13]

Yet far too many Texas high school students fail to pursue postsecondary education, despite its obvious benefits and advantages. As illustrated in Chapter 5, their reasons tend to fall into three broad categories:

- *inadequate knowledge* about school programs and financial aid opportunities, and how to take advantage of them.
- *institutional and bureaucratic obstacles* that make it difficult for students to obtain career and technology education.
- *financial barriers*, and the inability of financial aid systems to reach those most in need.

All of these challenges are common among the students most likely to benefit from postsecondary career and technology education.

Steps Texas Should Take

This report includes several recommendations to help overcome these challenges.

1. Make more parents and students aware of *all* postsecondary educational options, including career and technical education (CTE), and the availability of financial assistance.
2. As part of this effort, use data on educational and employment outcomes to quantify the economic benefits of CTE, and publicize these results to help make current and prospective students aware of its value and promise.
3. Ensure that state academic requirements, such as those represented by the new "four-by-four" policy and new GPA calculation standards, do not prevent or discourage students from enrolling in career and technology courses.
4. Establish a $25 million Jobs and Education for Texans (JET) fund to provide support for postsecondary CTE courses, including startup funding for new programs.
5. Link any incentive funding for postsecondary technical education to measures that help ensure the state receives a positive return on its investment.

Endnotes

[1] U.S. Department of Education, *Meeting the Challenge of a Changing World: Strengthening Education for the 21st Century* (Washington, D.C., 2006), p. 4, http://www.doleta.gov/wired/files/Meeting_The_Challenge_of_a_Changing_World.pdf. (Last visited October 8, 2008.)

[2] Letter from Susan Barnes, associate commissioner for Standards and Programs, Texas Education Agency, December 3, 2007, "19 TAC Chapter 74, Curriculum Requirements, Subchapter F, Graduation Requirements Beginning with School Year 2007-2008," pp. 1-3, 5, http://www.tea.state.tx.us/taa/stanprog120607.html (last visited December 11, 2008.) and Texas Education Agency, "Texas State Graduation Requirements," pp. 1-2, http://www.tea.state.tx.us/curriculum/SBSGradRequirements0708.pdf. (Last visited December 11, 2008.)

[3] Texas Higher Education Coordinating Board, "Commissioner's Statement and Preliminary Recommendation on Methodology for Calculating the Uniform GPA," p. 3, http://www.thecb.state.tx.us/reports/PDF/1653.PDF. (Last visited December 11, 2008.)

[4] Interview with Jim Greenwood, vice president of Governmental Affairs, Valero Energy, September 17, 2008.

[5] Interview with Carol Wilson, senior human resources Director, Centerpoint Energy, November 6, 2008.

[6] Anton Troianovski, "Skilled Trades Seek Workers Contractors, Unions Try Web, Schools: A 'Dirty Jobs' Role," *The Wall Street Journal* (August 19, 2008), http://online.wsj.com/article/SB121910464115051361.html?mod=googlenews_wsj. (Last visited October 6, 2008.)

[7] Anton Troianovski, "Skilled Trades Seek Workers Contractors, Unions Try Web, Schools: A 'Dirty Jobs' Role."

[8] Texas Workforce Commission, "2006-2016 Occupational Projections," a data file provided by the agency. The 36,442 figure was derived by subtracting "academic" associate degrees and certificates, such as an associate of arts, from the total number of associate's degrees and certificates awarded.

[9] Texas Higher Education Coordinating Board, "Higher Education Accountability System – Interactive Access to Data," custom queries created for universities, health-related institutions, community colleges, the Texas State Technical colleges and Lamar State Colleges, http://www.txhighereddata.org/Interactive/Accountability/. (Last visited October 2, 2008.) These numbers were compared with annual average job openings from the Texas Workforce Commission's "2006-2016 Occupational Projections."

[10] Texas Higher Education Coordinating Board, "Independent Colleges and Universities of Texas," an Excel spreadsheet provided by the board.

[11] Texas Workforce Commission, "Career School Data," provided in an Excel spreadsheet, October 9, 2008.

[12] U.S. Bureau of Labor Statistics and U.S. Census Bureau, "PINC – 03. Educational Attainment – People 25 Years Old and Over, by Total Money Earnings in 2005, Work Experience in 2005, Age, Race, Hispanic Origin, and Sex," *Current Population Survey: Annual Demographic Survey, March Supplement* (Washington, D.C., August 29, 2006), pp. 1-2, http://pubdb3.census.gov/macro/032006/perinc/new03_001.htm (last visited December 11, 2008); and Comptroller calculations.

[13] Texas Tuition Promise Fund, "Survey Junior College 2008-09" and "Survey Senior College 2008-09." Excel spreadsheets.

Real People, Real Stories

Melissa Silva

Melissa Silva was the first member of her family to attend college. After graduating from high school in 1992, she wanted to go to college but could not afford it. She took a job in food service instead. She jokes that a move from Lampasas to the Austin area was a "promotion," because the tips were better.

With two children and no career prospects in sight, she wanted to build a better life for herself and her family. She tried taking a few classes, but saw that she and her husband couldn't afford for her to study full time.

Then she heard about Capital IDEA, a workforce development initiative founded by Austin Interfaith and the Central Texas business community, which provided help with day care and tuition. After more than two years of studies at Austin Community College, Melissa became one of eight admitted to the medical sonography cardiac program.

School was more than a full-time job for Melissa. "I got up at 5:30 Monday through Friday, and I didn't get back until after 6:00, and then I studied. We didn't have cable, we didn't go out," she says. She graduated in December 2005, and now says, "It is all worth it. I am proud that my kids have watched their mommy doing this."

Her new career allowed Melissa and her family to buy a home in Cedar Park. Today, Melissa works at Seton Medical Center Williamson Hospital. When asked by a group of women what she feels was the most valuable thing her education gave her, Melissa replied, "Worth. I feel that I have worth."

Special thanks to Melissa Silva and the Industrial Areas Foundation for sharing this success story. For more information on Capital IDEA, visit http://www.capitalidea.org/ or call (512) 457-8610.

Real People, Real Stories

Amanda Soto

Amanda Soto, a single mother of two, has faced many obstacles in her life. At one point, she earned barely enough to cover her family's basic needs.

Now, however, her future is much brighter. After much hard work, Amanda graduated from El Paso Community College in Spring 2006 as a registered nurse. The first in her family to earn a college degree, Amanda graduated with honors (maintaining a 3.6 GPA and a place on the Dean's List) and served as treasurer of El Paso Community College's chapter of the Texas Student Nursing Association.

Today, Amanda works at Las Palmas Medical Center and earns more than $21 an hour. And she hasn't stopped learning. Still working full time, Amanda is also pursuing a bachelor's degree in nursing at the University of Texas at El Paso, and plans to obtain her master's degree as well. Her life and the lives of her children have changed permanently, and for the better.

Special thanks to Amanda Soto and the Industrial Areas Foundation for sharing this success story.

CHAPTER 1

Demographic Change and Education

Official Texas population projections point to a less educated work force if the state continues on its current path. A less educated work force translates into lower earnings and fewer skilled workers. Businesses will have a harder time finding qualified employees to fill positions, and may even decide to locate in a different state where skilled workers are plentiful.

Increased training, especially in sectors that are in high demand and pay good wages, can boost individual earnings as well as the overall Texas economic picture. Texas' public community colleges and technical schools are uniquely positioned to offer advanced training for students graduating from high school. Texas' public two-year institutions present opportunities to learn skills quickly and at a reasonable cost. The jobs their graduates and certificate holders seek can be on the forefront of emerging fields that pay well and are in high demand.

Texas' Growing Population

Texas' population has grown more rapidly than that of the U.S. as a whole in every decade since 1850. The state continues to be fast-growing and ethnically diverse, and these population trends are expected to continue for at least the next 30 years, according to the Texas State Data Center at the University of Texas at San Antonio.[1]

This growing population can be a major strength for the Texas economy, supplying employers with a steady stream of qualified workers. Many other states are facing declines in their share of the working-age population. Texas, with its younger average population, can have a significant economic advantage. For the state's economy to continue its strong growth, however, it will be critical that we work to improve educational attainment.

A Diverse Population

Texas' racial and ethnic composition is changing dramatically. Its Anglo population has grown more slowly, declining as a percentage of the state's total population, while the non-Anglo population, most notably the Hispanic population, has grown rapidly (**Exhibit 1-1**).

In 1980, the Anglo population accounted for 65.7 percent of the state's total population, but by 2006 its share had declined to 48.3 percent. The Hispanic population, by contrast, accounted for 21 percent of the state's population in 1980 and 35.7 percent in 2006. The black population share declined slightly over the same period, from 11.9 percent in 1980 to 11.4 percent in 2006. The share attributable to the "Other" category, including persons of Asian and Native American descent, rose from 1.4 percent in 1980 to 4.6 percent in 2006.[2]

For the state's economy to continue its strong growth, it will be critical that we work to improve educational attainment.

"We've turned down over $1 billion in contracts nationwide due to a lack of work force."

—Mike Scott, Co-owner, H&S Constructors, Corpus Christi

EXHIBIT 1-1

Race/Ethnicity in Texas, 1980-2006

Racial/Ethnicity Group	Percent of Population 1980	Percent of Population 1990	Percent of Population 2000	Percent of Population 2006
Anglo	65.7%	60.6%	53.1%	48.3%
Hispanic	21.0	25.6	32.0	35.7
Black	11.9	11.6	11.6	11.4
Other	1.4	2.2	3.3	4.6

Source: Texas State Data Center, University of Texas at San Antonio.

Under the Texas State Data Center's "high-growth" population scenario — which assumes that age, sex and race/ethnicity trends in net migration experienced in Texas from 1990 to 2000 will continue — the Hispanic population will account for 77.6 percent of net population growth from 2000 to 2040, compared to just 4.2 percent for the Anglo population (**Exhibit 1-2**).

Even if net migration — domestic and international combined — falls to just half of its 1990-2000 level, the Hispanic population is projected to become a majority of the state's population by 2020.[3]

Population Change and Higher Education Enrollment

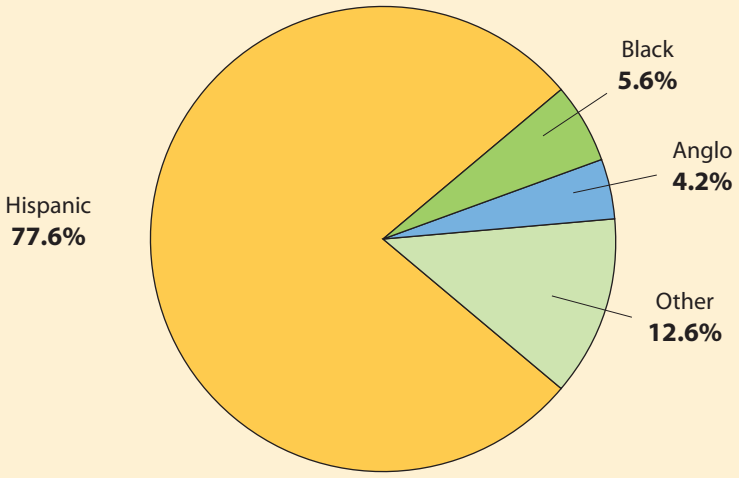
The state's demographic trends have significant implications for all Texas elementary, secondary and postsecondary educational institutions, which can expect an ever-larger and more racially and ethnically diverse student body.

Texas' higher education enrollment rose by more than 64 percent between 1980 and 2000.[4] Much of this growth, however, occurred in the 1980s, when the last of the baby boomers (those born between 1946 and 1964) entered college. The baby boom generation currently accounts for 53 percent of all Texas college graduates in the work force and 43 percent of the total state work force.[5]

After 2000, enrollment at Texas' public two-year colleges grew rapidly, rising 31 percent between 2000 and 2007. Enrollment at public four-year universities grew by 19.9 percent over the same time period.[6] Assuming that current enrollment trends continue, enrollment at public two-year colleges is projected to rise by 15.8 percent between 2007 and 2020; four-year institutions will see a 10.5 percent rise (**Exhibit 1-3**).[7] The enrollment gap between Texas' two-year colleges and four-year institutions is widening. In 2007, two-year colleges enrolled 90,000 more students than the four-year institutions, and the gap is projected to grow to 130,000 students by 2020.

Exhibit 1-2

Projected Net Change Attributable to Each Race/Ethnicity Group Between 2000 and 2040, Texas*



*Using U.S. Census Bureau count for 2000 and Texas State Data Center 1.0 population projection scenario for 2040.

Note: Figures rely on the Texas State Data Center's "high-growth" scenario, which assumes the the age, sex and race/ethnicity rates of net migration experienced in Texas from 1990 to 2000 will continue.

Source: Texas State Data Center, University of Texas at San Antonio.

Bilingual and English as a Second Language Education

In the 2006-07 school year, about 15 percent of Texas public school students (679,352) were enrolled in bilingual education programs. In the same year, about 16 percent of all students (731,304) were identified as Limited English Proficiency (LEP), an increase of more than 400,000 from the 1990-91 school year.[8]

Each Texas school district with 20 or more LEP students in a single grade is required to establish a bilingual education or English as a Second Language (ESL) program. Students in bilingual classrooms are instructed in two languages; typically, reading and writing are taught in their native language and math and science are taught in English. ESL classrooms do not use the native language in instruction, instead emphasizing rapid assimilation in English learning.

The state must provide bilingual education programs for qualified students in pre-K through the elementary school grades. From post-elementary grades through grade 8, districts must provide bilingual education, ESL or another transitional language program approved by Texas Education Agency. ESL instruction is required for grades 9-12.[9] Students are tested using the Home Language Survey and placed in courses according to their answers.[10]

One alternative program, Dual Language Enrichment (DLE), has been studied for past several years by Dr. Richard Gomez, associate professor at the University of Texas - Brownsville. His findings indicate allowing students to use both languages in an academic setting results in higher test scores, graduation rates and higher college attendance rates.

Unlike traditional ESL and bilingual education, native English speakers participate in DLE programs to develop skills in the second language. Gomez compared two elementary schools participating in DLE with test results in their home district. He found that fifth-grade DLE students had a 94 percent passing rate on the reading portion of the Texas Assessment of Knowledge and Skills (TAKS), compared with just 73 percent of all fifth-graders in the district. Gomez also found that middle school students in the DLE program outperformed the statewide average of Hispanic students on the TAKS test. He found similar trends with the math portion of TAKS.[11]

As Texas' population of LEP students grows, so will its number of bilingual and ESL classes. Students who do not receive adequate acclimation in English are at risk of dropping out and of failing to succeed in the work force. Programs such as DLE may help ensure that Texas' future work force has the language skills they need.

Under the State Data Center's high-growth or "1.0" scenario, Hispanics will account for just over half (50.9 percent) of all students in Texas public colleges and universities by 2040, up from just 25.6 percent in 2000. Anglo enrollment will decline from 58 percent of all student enrollment in 2000 to just 28.7 percent by 2040. Black enrollment will decline slightly, from 10.7 percent to 8.1 percent; and "Other" enrollment will nearly double, from 5.7 percent in 2000 to 12.3 percent in 2040 (**Exhibit 1-4**).[12]

Educational Implications of a More Diverse Population

To date, the educational attainment of Texas Hispanics and blacks has lagged behind that of Anglos.

Exhibit 1-3

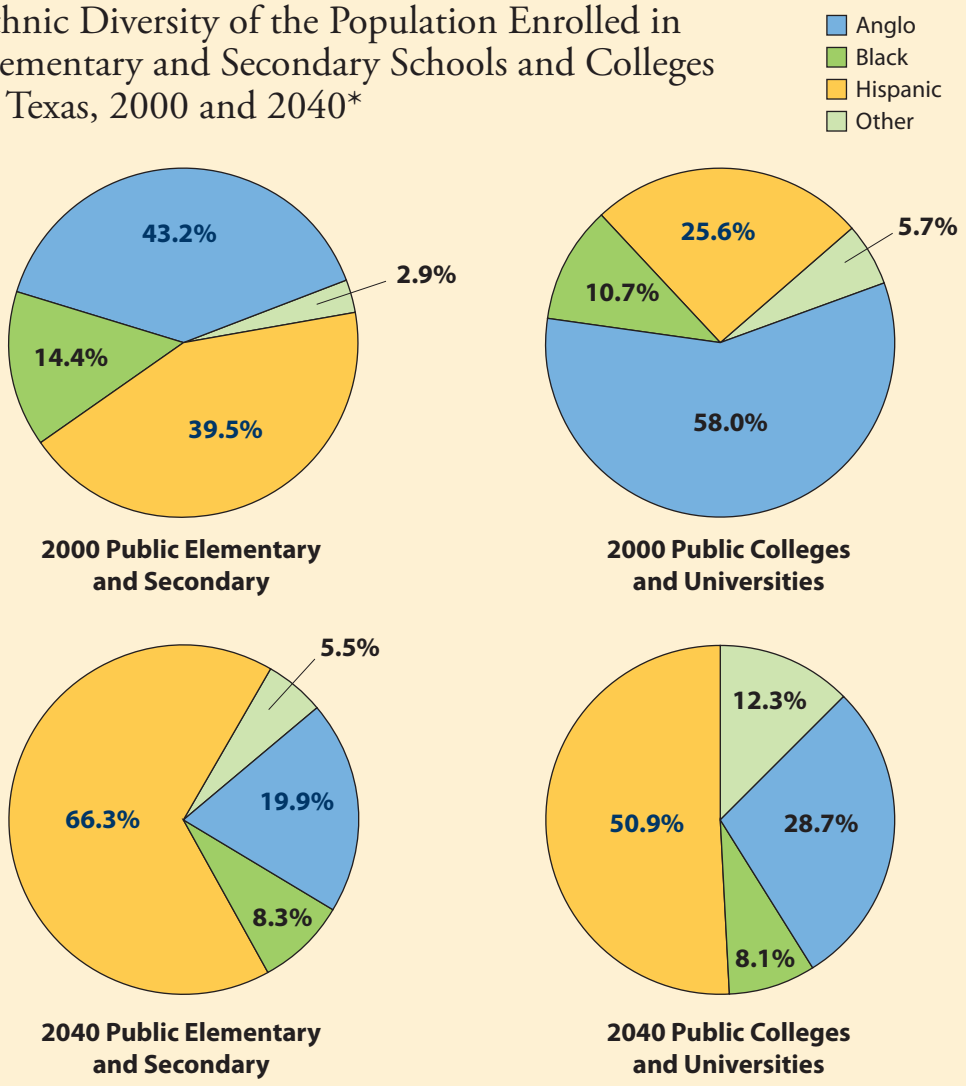
Texas Fall Enrollment by Institution Type, 2000 to 2007 and Projected 2010 to 2020

Institution Type	Fall 2000	Fall 2007	Percent Change 2000-2007	Fall 2010 (Projected)	Fall 2020 (Projected)	Percent Change 2010-2020	Percent Change 2007-2020
Public University	414,626	497,195	19.9	516,230	549,595	6.5%	10.5%
Public 2-Year College	447,998	587,244	31.1	616,756	680,021	10.3	15.8

Source: Texas Higher Education Coordinating Board.

EXHIBIT 1-4

Ethnic Diversity of the Population Enrolled in Elementary and Secondary Schools and Colleges in Texas, 2000 and 2040*



*Using U.S. Census Bureau count for 2000 and Texas State Data Center 1.0 population projection scenario for 2040.

Note: Figures rely on the Texas State Data Center's "high-growth" scenario, which assumes the age, sex and race/ethnicity rates of net migration experienced in Texas from 1990 to 2000 will continue.

Source: Texas State Data Center, University of Texas at San Antonio.

Hispanics made up the largest percentage of Grade 7 to 12 students in the 2006-07 school year — 42.8 percent — and also accounted for the highest share of student dropouts in that year, at 57.5 percent of the total. Black students accounted for 15 percent of Grade 7 to 12 high school students and 22.2 percent of those dropping out in 2006-07.[13] In 2006, dropout rates for Texas teens aged 13-19 were higher for non-citizen immigrants (20 percent) than either U.S.-born citizens (5 percent) or naturalized immigrants (4 percent).[14]

Hispanic immigrants represented the majority of Texas adults aged 25 to 64 with less than a high school education in 2006. Hispanics and blacks

A "College-Going" Culture

Studies suggest that a "college-going" environment — one in which parents have either attended college or support attending college, or in which, at minimum, the child attends a secondary school that actively supports college attendance — generally increases a child's chances of enrollment.

A 2008 University of Chicago study concluded that the most important factor affecting college enrollment was a "high school (that) had a strong college climate." The authors interpreted this to mean a high school at which "colleagues pushed students to go to college, worked to ensure that students would be prepared, and were involved in supporting students in completing their college applications." The study concluded that "having a strong college climate seemed to make the biggest difference for students with lower levels of qualifications."[15]

Students who complete the college application process also are more likely to enroll and complete a degree. The University of Chicago study concluded that "among [Chicago public school] students who aspire to attain a four-year degree, only 41 percent took the steps necessary in their senior year to apply to and enroll in a four-year college." Furthermore, "students who applied to at least one four-year college were more likely to be accepted if they applied to three or more, and particularly six or more, schools. The effect of multiple applications was most significant for students who have lower levels of qualifications."[16]

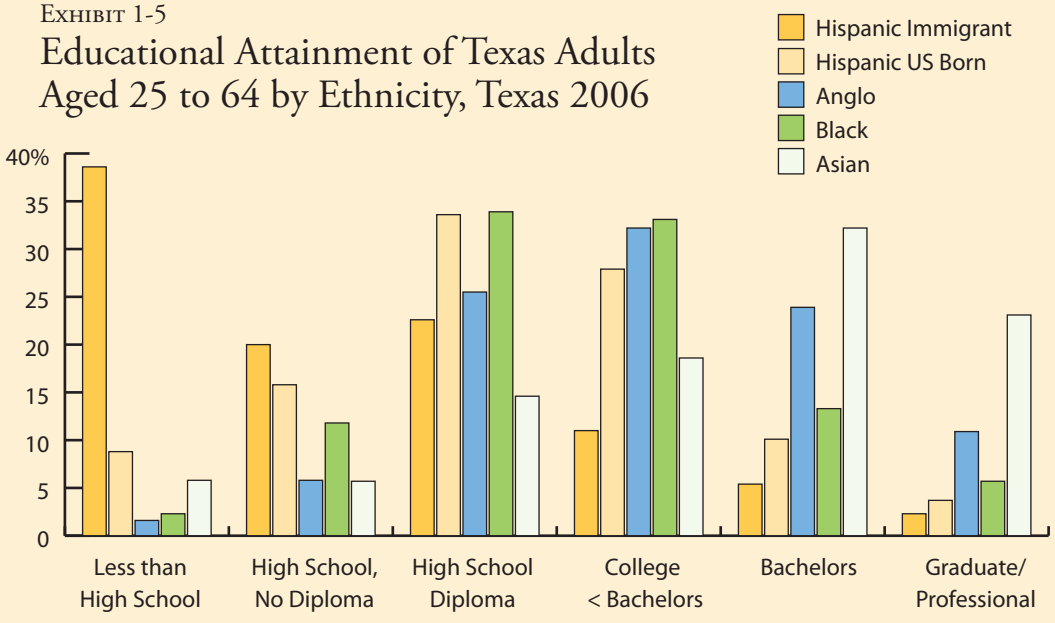
also trailed other groups in their share of students enrolled in college or graduate and professional programs (**Exhibit 1-5**).[17] More recently, the Texas Higher Education Coordinating Board (THECB) reported that Hispanics and blacks accounted for about 54 percent of the population aged 15 to 34 in Texas in 2007, but only 39 percent of the state's higher education students in Fall 2007.[18] One way to increase overall educational attainment in Texas is to raise participation among Hispanic and black students in postsecondary education, in both two-year and four-year institutions.

Educational Attainment and Work Force

The racial and ethnic makeup of the Texas work force will mirror the change in the overall popula-

Exhibit 1-5

Educational Attainment of Texas Adults Aged 25 to 64 by Ethnicity, Texas 2006



Source: Texas State Data Center, University of Texas at San Antonio.

Exhibit 1-6

Projected Change in the Texas Labor Force, 2000 to 2040*

Racial/Ethnic Group	2000	1.0 Scenario 2040
Anglo	58.4%	25.2%
Hispanic	27.5	58.7
Black	10.7	7.9
Other	3.4	8.2

*Using U.S. Census count for 2000 and Texas State Data Center 1.0 population projection scenario for 2040
Note: Figures rely on the Texas State Data Center's "high-growth" scenario, which assumes the age, sex and race/ethnicity rates of net migration experienced in Texas from 1990 to 2000 will continue.
Source: Texas State Data Center, University of Texas at San Antonio.

tion (**Exhibit 1-6**). If the State Data Center's "high-growth" scenario plays out, Hispanics will make up 58.7 percent of the state work force in 2040, more than twice their share in 2000.[19]

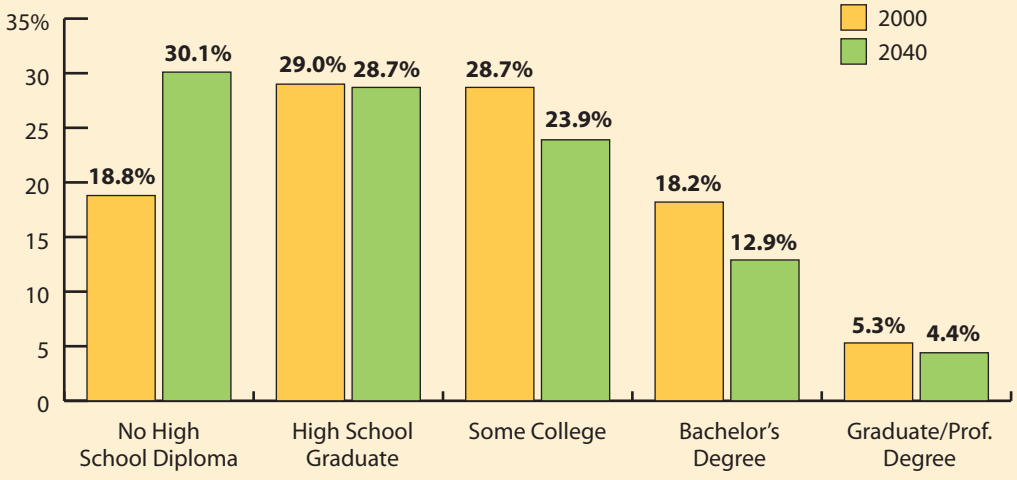
Based on the current educational characteristics of Texas' non-Anglo population, the State Data Center predicts a decline in the overall educational attainment of the Texas labor force by 2040 (**Exhibit 1-7**).

Because this portion of the state's population is growing rapidly, a larger percentage of the Texas work force — 30.1 percent — will have no high school diploma by 2040, compared to 18.8 percent in 2000, if current trends continue. The State Data Center also expects the percentage of high school graduates in Texas to fall slightly, from 29 percent in 2000 to 28.7 percent by 2040. And if policy in Texas limits high school educational options, it could exacerbate these trends, causing more students to lose interest and drop out of school.

The State Data Center further predicts a decline in the proportion of Texas' work force with some college experience, from 28.7 percent of the population in 2000 to 23.9 percent in 2040. Similarly, the share of the Texas labor force with a bachelor's degree is expected to decline from 18.2 percent in 2000 to 12.9 percent in 2040, as is the share with graduate and professional degrees.[20]

Exhibit 1-7

Projected Comparison of Labor Force Education Attainment Rates in Texas, 2000 and 2040*



*Using U.S. Census Bureau count for 2000 and Texas State Data Center 1.0 population projection scenario for 2040.
Note: Figures rely on the Texas State Data Center's "high-growth" scenario, which assumes the age, sex and race/ethnicity rates of net migration experienced in Texas from 1990 to 2000 will continue.
Source: Texas State Data Center, University of Texas at San Antonio.

First-Generation College Students

High school graduates whose parents never attended college, called "first-generation" students, often face an uphill climb. Some of their problems are relatively easy to imagine: lower expectations for higher education because of the parents' example; parents who are less familiar and thus less helpful with the steps needed to get into college; and, often, lower family income due to parents' relatively low-skill, low-wage jobs.

According to a 2001 study by the U.S. Department of Education, first-generation students surveyed in the eighth grade were more than twice as likely as their peers to expect to end their education with high school. About 55 percent of these first-generation eighth-graders expected to get a bachelor's degree, compared to 71 percent and 91 percent of students whose parents had some college and had at least a bachelor's degree, respectively. High school graduates with parents who did not go to college, moreover, were less likely to have taken advanced math courses, a factor with a strong correlation to enrollment in a four-year college. Only about half of first-generation students who had graduated from high school had more than marginal academic qualifications for a four-year college.[21]

The federal study also found that first-generation students were less likely than their peers to complete several crucial steps towards college enrollment, including taking the SAT or ACT entrance exams (for four-year schools); selecting and applying to colleges; and, if accepted, making the arrangements, including financial arrangements, to attend. Students whose parents did not go to college may receive less help and support from their parents with such preparations than their peers. And although many parents and students are uninformed about college costs and tuition prices, this is less true for families with higher income and education levels.[22]

The study identified other characteristics of first-generation students that point to difficulties even after they have entered college. They are more likely to be older than others in their classes when they start, and less likely to attend full-time for an entire school year. The 70 percent of them who work while in college are more likely to think of themselves primarily as employees rather than students. And more than 40 percent of first-generation students who are dependent on their parents come from low-income families.[23]

In all, students lacking the example, experience, financial support and encouragement of parents who have themselves been to college may find it more difficult to make the transition to higher education. According to the publication *Inside Higher Ed*, there are "more than 32 million adults in the United States [who] have never attended college."[24] In Texas, with an estimated 4.4 million adults who have not completed high school, it is clear that efforts to reach out to and assist potential first-generation students will have to increase if the goal of greater college enrollment is to be achieved.

A report from the U.S. Department of Education points to the distressing trend for many students to drop out of school before they get a high school diploma.[25] In Texas, data allow us to compare the number of high school freshman in one year with the number of high school graduates in the year those freshman should have graduated from high school if they had graduated on time. The Texas graduation rate, calculated in this manner, was 65 percent for the class of 2006, the latest year for which data are available.[26]

While students drop out for many different reasons, a recent survey for the Bill and Melinda Gates Foundation found that nearly half of dropouts surveyed (47 percent) said a major reason for dropping out was that classes were not interesting. In addition, four out of five students surveyed said there should be more opportunities to inform students about making the jump between school and the working world.[27]

Giving students multiple pathways to graduation also could increase interest in school and thus encourage students to continue their education in postsecondary institutions. (See Chapter 3 for additional information.)

Unless Texas increases the average educational attainment levels of its non-Anglo populations, our future labor force will be less educated than

today's.[28] This means that workers will earn less and have fewer skills, and businesses will find it increasingly difficult to hire and retain qualified applicants. If the Texas economy is to continue to thrive, this downward spiral of decreasing educational levels, a less educated work force and fewer skilled job seekers must be reversed.

Public two-year colleges are in a unique position to provide direct work-related training to the state's increasingly diverse student population.

An Opportunity for Texas

Texas' changing demographics will place new demands on the state's educational institutions and increase the need for work force training. But our projected population growth also offers substantial economic opportunity to the state.

Public two-year colleges are in a unique position to provide direct work-related training to the state's increasingly diverse student population. Community colleges typically have an "open door" policy, meaning all high school graduates are admitted; offer an education at a lower cost; offer convenient access; and allow part-time attendance, all of which make a postsecondary education available to more students.[29]

Texas' relatively young, growing population offers it an economic advantage — if it can ensure that its workers have the education and skills that employers want. If Texas can continue to improve educational attainment, the state will have the right ingredients for a strong economic future.

"Over the past five years, the El Paso Regional Economic Development Corporation has developed 6,800 jobs. The community college has directly and indirectly been involved with over half of these jobs."

—Bob Burns, Vice President, Business Development, El Paso Regional Economic Development Corporation

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Real People, Real Stories

Michael Green

Michael Green is a 48-year-old husband and father of five children, aged five to 17. His life has been a long and often difficult road that led from poverty to a satisfying new career as a radiologic technologist at San Antonio's Brooke Army Medical Center.

But his story might have had a different ending but for his own perseverance, the support of his family — and some help from a remarkable community resource.

A troubled youth led to a prison sentence for Michael. Determined not to let that experience define the rest of his life, he earned a GED and completed a number of college courses while still incarcerated. After release, he worked at several low-paying jobs.

Tired of the grind, Michael set his eye on the radiography program at St. Philip's College. Upon completing the prerequisite courses, he applied for the radiography technology program and was accepted… but didn't know how he would pay for his training.

But then Michael saw a flyer about Project QUEST, a San Antonio workforce development program. Project QUEST paid for Michael's education-related costs and also helped his family with rent, food, transportation, utilities — even emergency dental care.

Two years and many challenges later, Michael earned an associate degree in radiography technology. By the time he graduated, he had already secured his first professional job, which now pays more than $60,000 annually.

Today, Michael remembers the bad times but isn't looking back. Two dates stand out in his mind — the day he received his degree and the day he could say he no longer needed public assistance.

Special thanks to Michael Green and the Industrial Areas Foundation for sharing this success story. For more information on Project QUEST, visit http://www.questsa.com/ or call (210) 270-4690.

CHAPTER 2

Education and the Texas Work Force

Ensuring that more secondary students graduate with the knowledge and skills needed to pursue education and training beyond high school carries significant economic benefits. Individuals benefit from increased earnings potential, while the state enjoys improved economic performance through productivity gains and increased tax revenues.

State policymakers recognize these opportunities, and have made numerous attempts to improve the quality of our public schools, boost achievement among different student populations, prepare more students for college and increase the number of college graduates.

One such project – *Closing the Gaps* led by the Texas Higher Education Coordinating Board (THECB) – identified potential shortfalls in college attendance and graduation trends and developed targets to help eliminate them. Since the release of the first *Closing the Gaps* report in October 2000, the state has seen improvement in the share of bachelor's degrees earned by its college-aged population (those between the ages of 18 and 24). In 2000, 5.5 percent of Texas' college-aged population received bachelor's degrees; by 2005, that share had risen to 6.3 percent.[1]

Aside from *Closing the Gaps,* other Texas policy changes intended to increase college graduation rates range from the creation of the state's public school accountability system, some decades ago, to the recent restructuring of the state's standard high school curriculum. From 2000 through 2006, the number of bachelor's degrees awarded by public universities in Texas rose by 21 percent, while the college-aged population increased by 22 percent.[2]

Despite such results, however, it is clear that Texas is not moving enough students through the state's educational pipeline. According to the THECB, just 61 percent of students who were seventh graders in Fall 1995 graduated from high school on time, in Spring 2001 (**Exhibit 2-1**). Only 18 percent earned a college degree or certificate by Spring 2006, and only 43.6 percent had enrolled in higher education at all.

Career and Technology Education

Preparing high school students to earn bachelor's degrees is important for the state's economic future. The same can be said, however, for increasing the number of Texans who earn associate degrees and postsecondary training certificates.

Increasing the number of Texans who earn associate degrees and postsecondary training certificates is important for the state's economic future.

The number of associate degrees awarded by public community and technical colleges in Texas rose by 50 percent from 2000 (24,810) to 2007 (37,309). Over the same time period, the number of postsecondary training certificates awarded rose by 32 percent, from 15,743 awards to 20,795.[3] Nonetheless, recent evidence points to a shortage of workers for jobs requiring some postsecondary education, but not a bachelor's degree. Without rapid increases in postsecondary career and technology education (CTE) enrollment, existing worker shortages could worsen.

"Our Workforce Development Area has around 98,000 in the labor force. Seventy to 80 percent of the positions do not require a four-year degree, but do require postsecondary education."

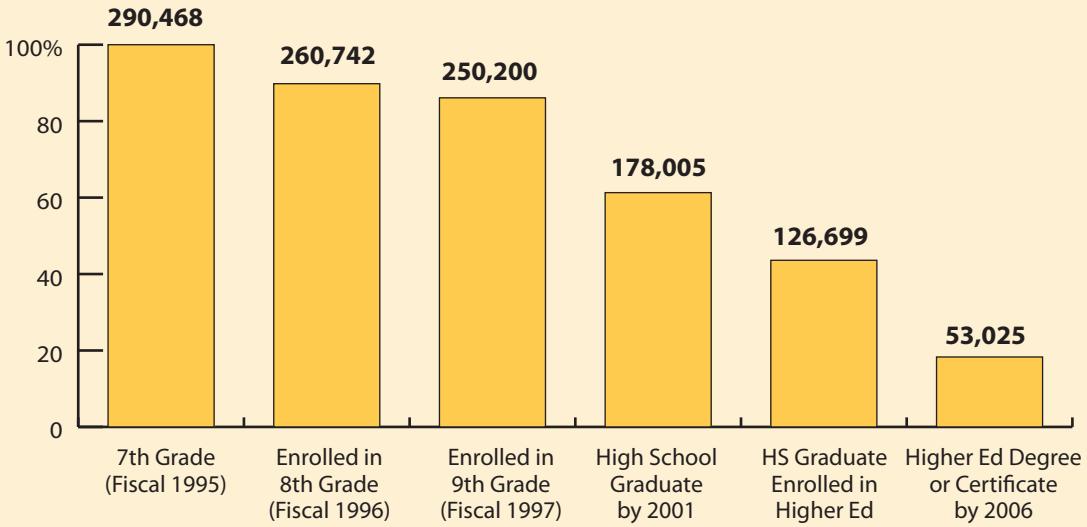
—Rogelio Treviño, Executive Director, Workforce Solutions South Texas

If these shortages of skilled workers persist, it may have significant negative consequences for individual Texans as well as the state's economy and state revenues. Persons with associate degrees, for example, can expect to earn $340,000 more over their lifetimes than high school graduates with no postsecondary education. The difference is even greater in the case of a high school dropout, who can expect to make $590,000 less than someone with an associate degree.[4]

A lack of career and technology training opportunities, moreover, can lead to higher dropout rates, which can lead to fewer students taking postsecondary CTE courses and further reduce Texas' technically skilled work force. Recent data

Exhibit 2-1

Educational Attainment of 1995's Texas Seventh-Grade Students by 2006

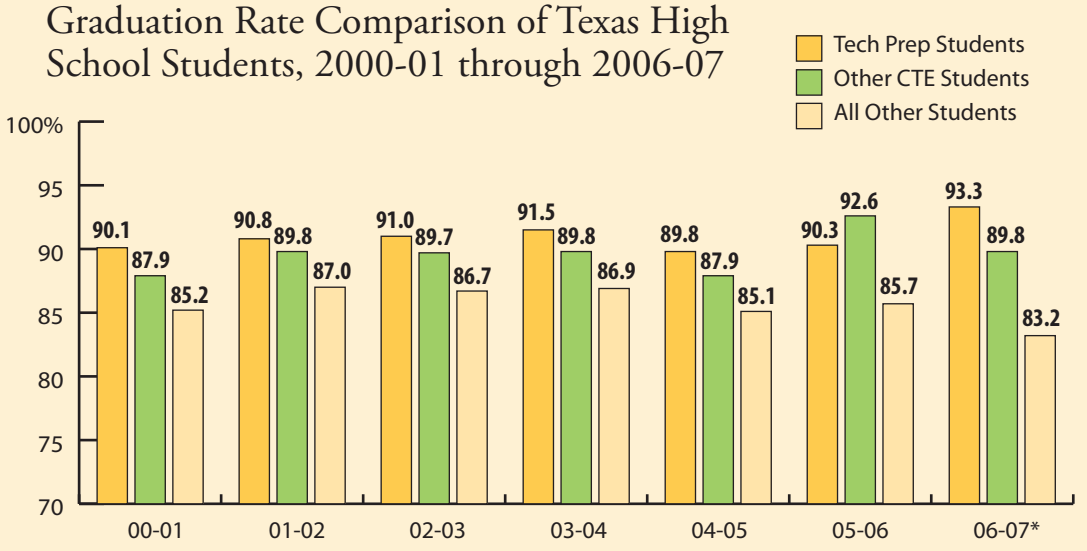


Source: Texas Higher Education Coordinating Board.

Studies have found that CTE courses improve graduation rates and reduce dropouts.

Exhibit 2-2

Graduation Rate Comparison of Texas High School Students, 2000-01 through 2006-07



*NOTE: 2005-2006 and 2006-2007 data began new baseline using a revised formula to calculate data.
Source: Texas Education Agency.

from TEA show that high school students who take courses in career and technology education through a Tech Prep program have higher average graduation rates (**Exhibit 2-2**) and are less likely to drop out[5] (**Exhibit 2-3**) than those students who do not participate in Tech Prep.[6] (Tech Prep is a program that allows students to start a college technical major in high school. It combines academic and technical courses and allows students to earn college credit through content-enhanced courses, dual credit and College Board Advanced Placement testing.)

Other studies have found that CTE courses improve graduation rates and reduce dropouts. A review of numerous CTE studies found there is solid statistical evidence that CTE courses actually play a role in reducing dropout rates, especially among students who are at high risk of dropping out.[7] Research also shows that CTE courses increase future earnings, with students who spent about 17 percent of their time in high school on occupation-specific courses earning at least 12 percent more one year after graduation and about 8 percent extra seven years later.[8]

Discouraging CTE?

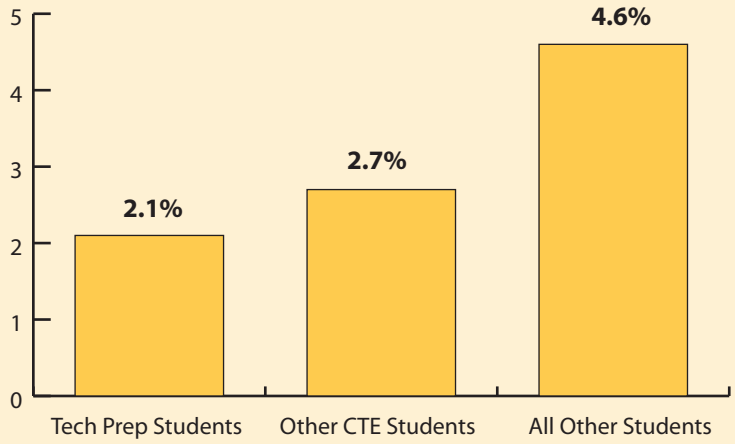
Despite such findings, Texas continues to direct more students toward the academic track rather than CTE.

For instance, recent curriculum changes commonly called "four-by-four" requirements make four years of math and science standard for Texas high school students. These requirements may limit students' ability to pursue studies geared toward technical and industrial careers.[9] And any reduction in the pool of available skilled technical workers presents a challenge to Texas businesses striving to maintain a competitive edge.

Similarly, a rule recently proposed by THECB would remove many CTE courses from the uniform calculation of GPAs for college admission. THECB's stated reason for this proposal was that the basis for determining the state's uniform GPA calculation should be focused on courses that prepare students for university work, since universities are the only institutions that consider GPA in admissions. Many CTE courses are closely related to programs offered only by community and technical colleges that have open admissions policies that do not take GPA into consideration.[10]

Exhibit 2-3

Dropout Rates of Texas High School Students



Source: Texas Education Agency.

Such measures, however, may imply that the state does not consider CTE as valuable as academic courses, and may suppress enrollment in CTE courses.

Job Demand

Policies that impede CTE are clearly counterproductive at a time when the state's employers need more skilled workers holding an associate degree or vocational certificate.

According to the Texas Workforce Commission's projections, Texas will have an average of nearly 44,000 job openings annually through 2016 for occupations requiring an associate degree or postsecondary vocational award. Occupations requiring a bachelor's degree will see more than 68,000 job openings each year. Master's and doctoral degree holders can expect around 9,000 and 3,000 annual average job openings, respectively.[11] By contrast, Texas' public universities, colleges and health-related institutions awarded just 36,442 technical associate degrees and certificates in

Shell: Working to Energize the Work Force

Shell Oil Company believes that employee talent is a key ingredient to maintaining Texas' energy lead in oil, natural gas, petrochemicals and new energy development. The energy industry is facing an unprecedented number of retiring baby boomers — workers born between 1946 and 1964 — that will create a serious talent shortage. In Shell's case, about half of the company's work force is eligible for retirement in the next five to 10 years. It is essential that their knowledge and skills be replaced.[12]

Shell is expanding its refining, deep-water gulf drilling and alternative energy businesses in the face of a potential shortage of qualified technical workers. While some of these jobs require a four-year degree, many others require a two-year technical degree — and many of the latter pay very well.[13] For example, jobs in field operations and maintenance crafts (electrical, mechanical, and instrumentation), and on-site wind energy technicians start at $50,000 or more annually. As one Shell manager notes, "It is not unusual for a person entering into these jobs to see their future earnings in the high five figures and even above $100,000."[14]

A Shell executive notes that technical community colleges offer a number of benefits for work force training. They can develop courses and train students quickly, cultivate qualified minority candidates and speed their graduates' transition to the work force. Shell works with more than 40 community colleges across the U.S. to foster technical training.

A few examples of Shell's initiatives to increase the number of qualified energy workers include the following:

- to address the need for qualified field and plant employees, Shell offers an internship program with two-year technical/community colleges to provide 75 to 100 internships annually. These paid internships provide students with work experience, the opportunity to explore a career with Shell and, for some, even a full-time job offer.
- for four-year college/university engineering and business students, Shell offers 250 to 300 internships annually from colleges across the U.S.
- Shell's "Energize Your Future with Shell" is a work force and talent development program designed primarily for middle and high school teachers and students. Through the program's Web site (http://www.shell.com/us/energizeyourfuture), students can explore the world of energy and learn about the diversity of energy careers. The site also provides teachers with lesson plans, worksheets and classroom activities designed to pique students' interest in the energy field.
- Shell is one of the leading companies sponsoring and participating in the Houston A+ Challenge: Teacher Externship Program, a weeklong summer program that pairs secondary school teachers with area businesses. The program's goal is to send teachers back to the classroom reenergized to teach their students about work opportunities and what it takes to reach their goals. In 2008, more than 275 teachers and numerous Houston-area companies participated in the program.

Shell notes that more efforts are needed to document winning programs that support excellence in math and science and help them grow, so that Texas can expand its supply of qualified technical workers. Through the power of collaboration with industry, educational institutions, economic development and government entities working together, Texas can be a technology leader in energy. As one Shell manager notes, "If Texas is known to have work force talent, more companies will locate and expand in the state. It is up to Texas to lead or lose its energy lead."[15]

2007, compared to 78,863 bachelor's degrees and 28,477 master's and doctoral degrees.[16]

But beyond the statistics, an inadequate supply of and skilled workers could also mean lost potential for individual Texans. As we have seen, foregoing postsecondary education can lead to a tremendous loss of income over a lifetime. And contrary to popular perception, thousands of jobs that pay above-average wages require less than a bachelor's degree.

In Texas, occupations that require an associate degree or postsecondary vocational award/certifi-

Kirby Inland Marine

The Kirby Inland Marine Corporation operates a thriving fleet of inland tank barges and towing vessels along America's inland waterways. More than 1,500 Kirby employees crew boats along the Gulf Intracoastal Waterway, the Mississippi River, the Illinois and Ohio rivers and other waterways. Kirby Inland has 887 active barges and about 160 towing vessels divided into five fleets.[17]

In response to shortages of skilled maritime workers, Kirby supplies potential and current employees with training courses at their state-of-the art facilities in Channelview, Texas. Every year, the training center issues over 1,000 training certificates to Kirby workers, customers and United States Coast Guard personnel. The training campus houses dormitories, a dining hall and multiple classrooms. Along with classroom instruction, trainees gain experience through simulators. New employees begin earning a salary upon beginning a training course.[18]

Kirby Inland's Steersman Program features both tankerman and deckhand career tracks, both of which offer employees starting salaries of about $30,000, rising to $55,647 annually after 18 months.

The tankerman track requires U.S. Coast Guard licensing through classroom instruction offered at the Kirby training school. The deckhand track offers similar opportunities for advancement but allows mariners to move up through on-the-job training offered on deck.

Graduates from a four-year accredited maritime college or potential employees who have a Third Mate's license can quickly ascend the career ladder to become a pilot making $95,520 annually.[19]

cate pay an average of more than $40,000 annually, compared to the average pay of less than $25,000 for those with only a high school diploma or less. The right bachelor's degree can mean an annual average wage of almost $59,000; master's and doctoral degree occupations pay an annual average salary of about $60,000 and $65,000, respectively.[20]

Within each educational attainment category, of course, some occupations pay above or below the average based on the supply and demand of labor for a given occupation. If specific occupational skills are in high demand, their price goes up. Today, some traditionally lower-paying occupations are experiencing high demand and paying relatively high wages; examples include welding and licensed practical and vocational nurses.

Simply increasing the number of college graduates is not necessarily the most effective way to address the work force needs of employers and the Texas economy. Texans have a variety of options for publicly funded postsecondary education or training, though some students may not be aware of them due to the state's increasing emphasis on four-year degrees. One must also consider the *types* of degrees, and more importantly, the actual skills and competencies students obtain, and how these mesh with employer demand.

The nationwide nursing shortage, for instance, has received widespread publicity. Some parts of Texas face acute shortages of these vital workers and the state has taken steps to increase the supply of nurses and other health-related occupations.[21] There is less awareness, however, of Texas' shortage of various technical specialists — welders, aircraft technicians, chemists, competent machinists, tool and die makers and more. These shortages have a direct impact on the competitiveness of Texas companies as well as our ability to recruit new employers.

Businesses looking to relocate to other regions, states or countries often use consultants to help them evaluate prospective sites based on a number of criteria such as corporate tax rate and permitting processes. According to one survey of such consultants, one of the top factors in such decisions is the availability of skilled labor.[22]

It is thus clear that Texas must continue to increase the supply of skilled and educated workers if it is to retain the economic edge it has had over other states in recent years. In addition to increas-

"In this area, we need more mechanics and process flow technicians. You don't need a four-year degree for these jobs, but you will need specialized training. With a relatively small amount of time and money, we can reap some future rewards."

—Roger Creery, Executive Director, Laredo Development Foundation

Austin Community College Game Development Program

A newly established two-year program offered by Austin Community College (ACC) trains students for careers in computer game development. The program's curriculum spans different aspects of gaming technology, providing training for those interested in programming, design and graphic art. In addition to traditional classroom experience, the program includes hands-on experience in game development. Industry professionals teach the program's courses.

The program allows students to choose from three possible tracks: programming, art and design. A handful of courses are required for all students, but they also choose from several electives pertaining to their areas of specialization. The culmination of the program is a "capstone project" in which students work in teams under the guidance of a mentor to create a game demo that is then evaluated by industry professionals. Once completed, students can include results from the capstone project in their portfolios to help them secure a game development position.[23]

While ACC has offered traditional technology and art programs in the past and continues to do so, several departments collaborated to make the new game development program a reality. Its goal is to offer a more focused curriculum for students who are specifically interested in game development. For instance, a student who might have otherwise focused on general computer programming can now specialize in game programming.[24]

Unsurprisingly, students have already shown strong interest in the program: 100 enrolled for the 2008 fall semester. The greater challenge to the program's success may be to convince parents of the program's value. The outlook for graduates, however, is bright — the state's gaming industry remains fairly strong, bolstered by the growth of central Texas businesses such as BioWare Austin and Schell Games. Beginning game programmers and game artists can expect to earn an annual salary of $55,000 or more.[25]

"We have absorbed 50 percent of the local community college graduates, but we still have 40 openings. We have to 'hire-out' for contract labor to fill our nursing shortage."

—Mike Hartly, Director of Medical Services, Laredo Medical Center

ing the number of students earning bachelors' and advanced degrees, Texas' economic prospects will turn on its supply of skilled workers with technical certificates and associate degrees.

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Real People, Real Stories

Myrna Gonzalez

One day not so long ago, Myrna Gonzalez realized she didn't have enough money to buy her kids lunch. That was the turning point for her — the event that pushed her into a new career, and a new life.

Myrna and her husband Modesto, who was unemployed at the time, were trying to find enough recyclable material to turn in for cash to buy their children a pizza. They didn't succeed. "I said to myself, 'I've had it with this; I've had enough. I've got to do something more for our kids,'" she recalled.

She borrowed a PC and went online, where she found information about Texas State Technical College at Harlingen. Surgical Technology Chairman Robert Sanchez reviewed her transcripts and helped her enroll in January 2006.

Modesto, who enrolled in truck driving school, spends most of his time on the road as truck driver. He and their three children joined Myrna to celebrate at the TSTC summer commencement in August 2007. She immediately began a new job as a certified surgical technologist with Doctors Hospital at Renaissance in Edinburg, earning up to $18 an hour.

"Graduation made me feel like I made it. Even though I went through difficult times, it was worth it," she said.

Special thanks to Myrna Gonzalez and Texas State Technical College for sharing this success story.

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

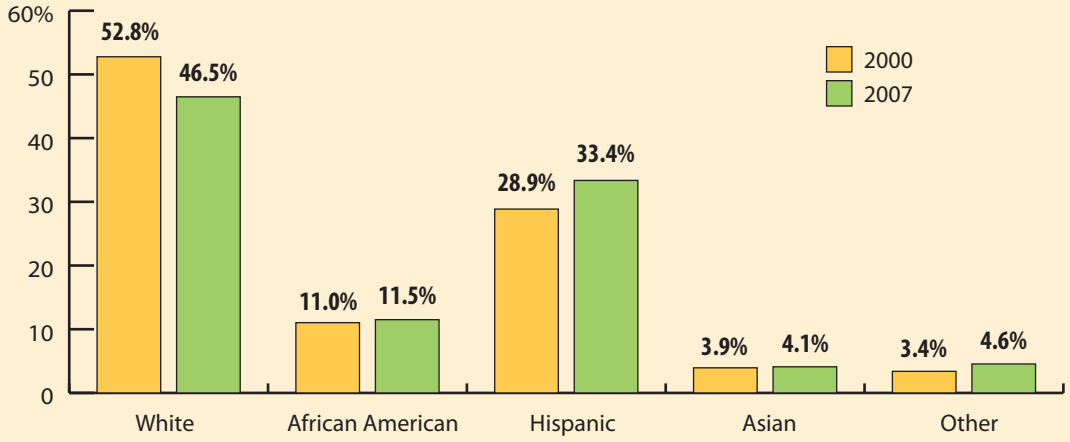
Enrollment at Texas Public Two-Year Institutions, Fall 2007

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

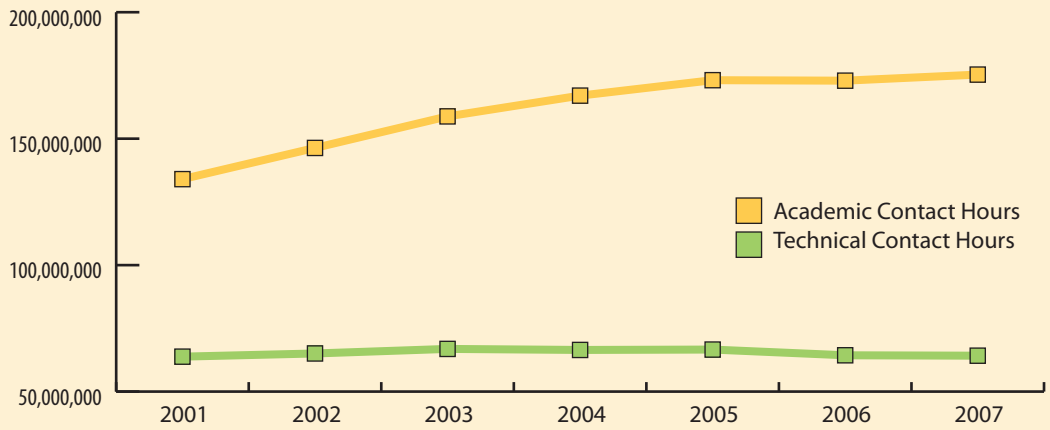
The number of Texas graduates with technical skills is not sufficient to meet the number of jobs available in many technical fields.

"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

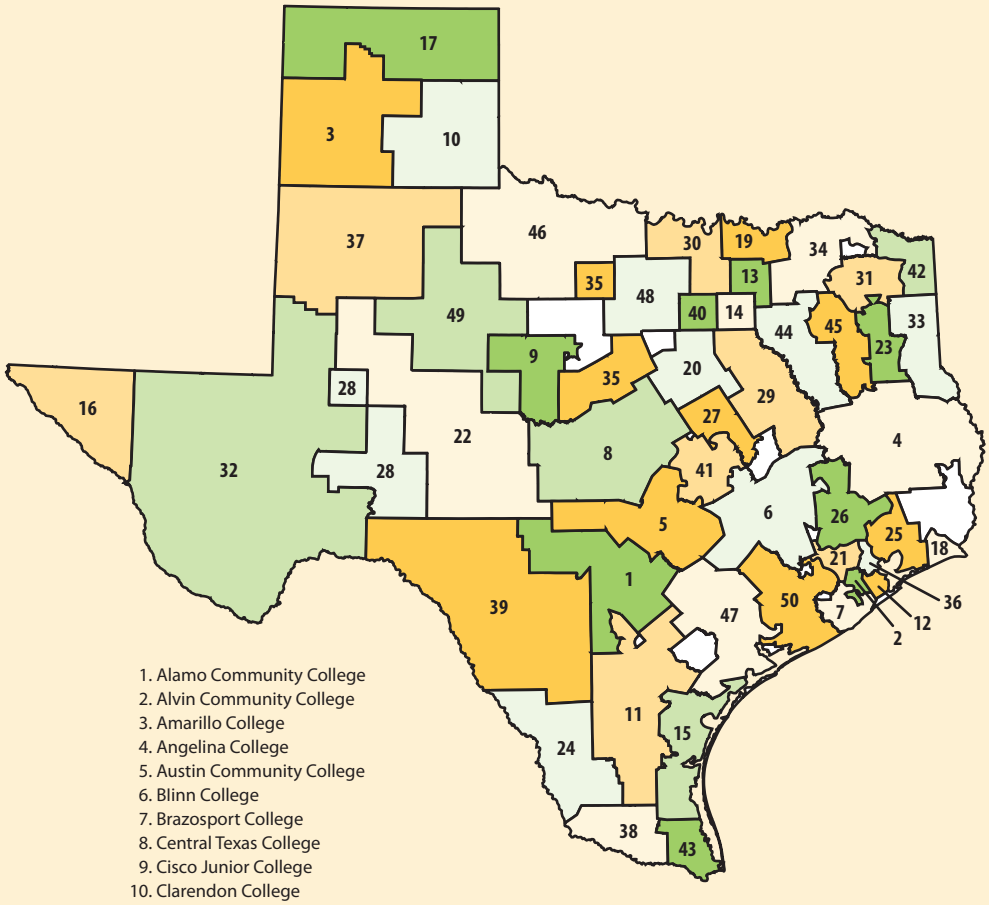
Technical and Academic Contact Hours Taken, Texas Two-Year Colleges



Source: Texas Higher Education Coordinating Board.

Exhibit 3-5

Texas Community College Service Districts

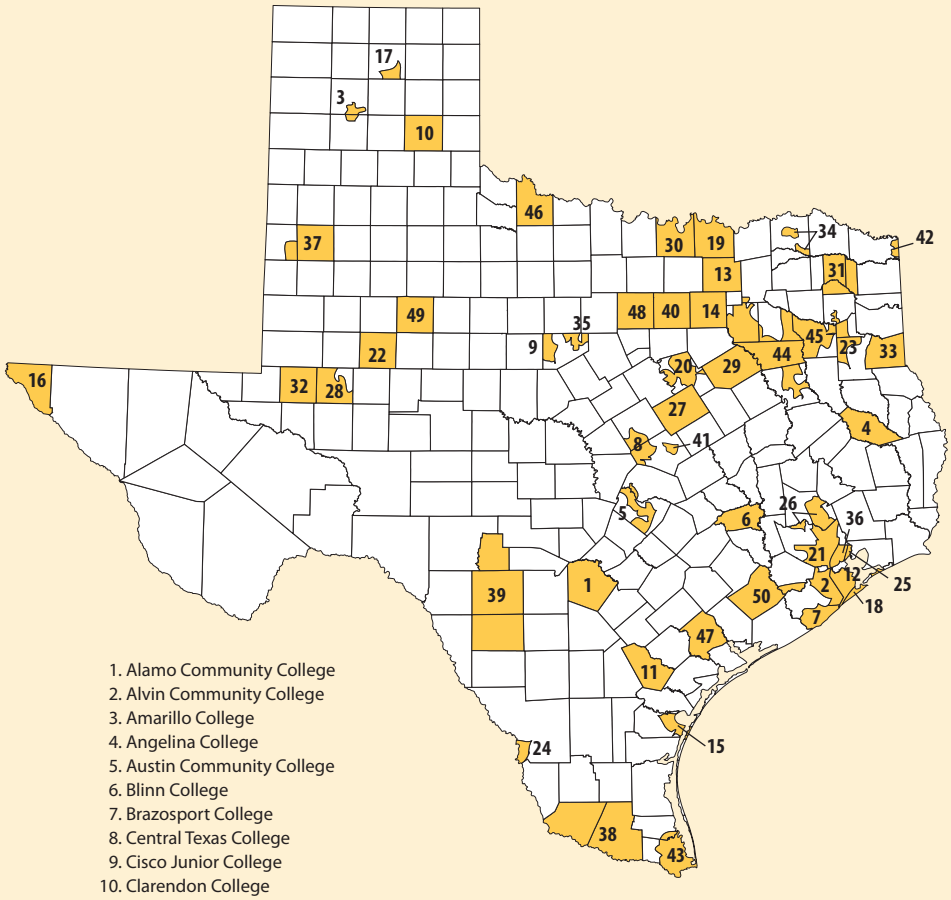


1. Alamo Community College
2. Alvin Community College
3. Amarillo College
4. Angelina College
5. Austin Community College
6. Blinn College
7. Brazosport College
8. Central Texas College
9. Cisco Junior College
10. Clarendon College
11. Coastal Bend College
12. College of the Mainland
13. Collin County 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
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5. Austin Community College
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18. Galveston College
19. Grayson County College
20. Hill College
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32. Odessa College
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37. South Plains College
38. South Texas Community College
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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.)

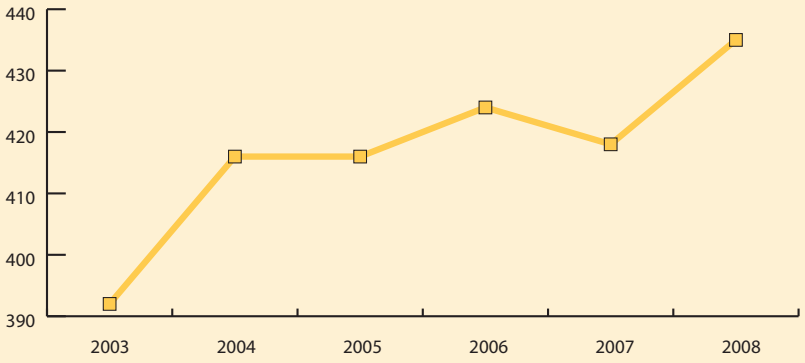
As of August 2008, Texas had 435 licensed career schools with a total enrollment of more than 153,000 students in seminar or vocational programs. (TWC defines "vocational training" as being sufficient for entry into a new occupation, and "seminar training" as that which provides or enhances continuing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

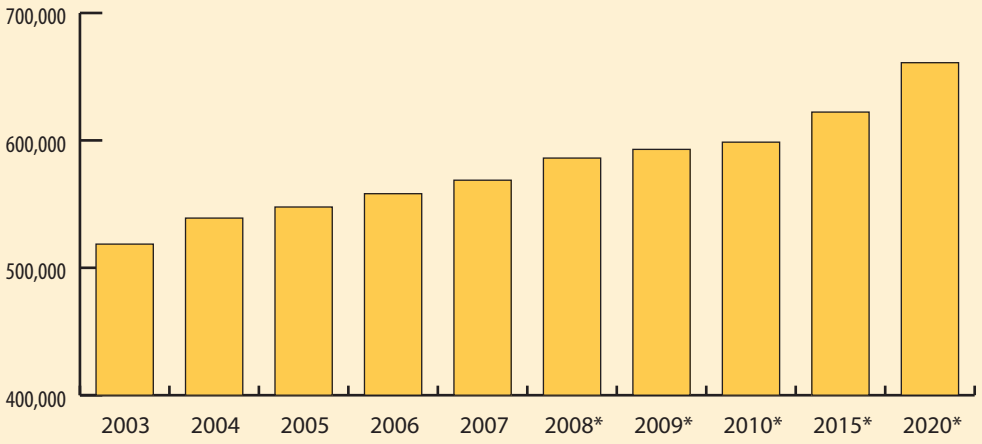
Two-Year Lamar Colleges

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

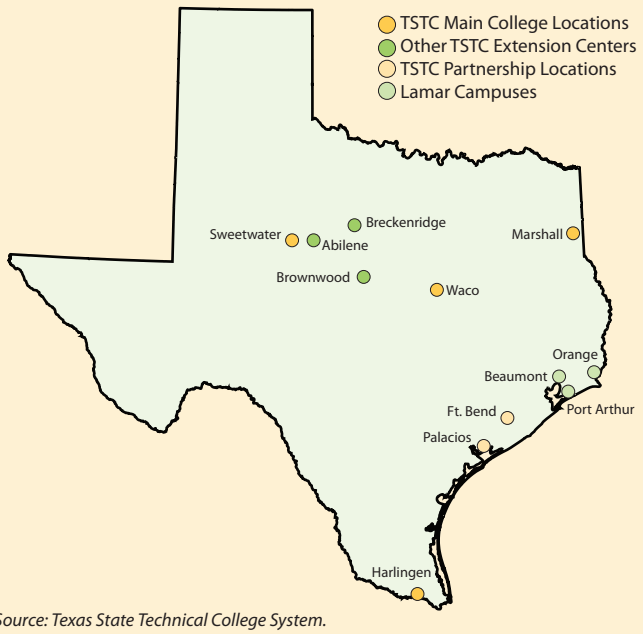


*Projected.

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**).

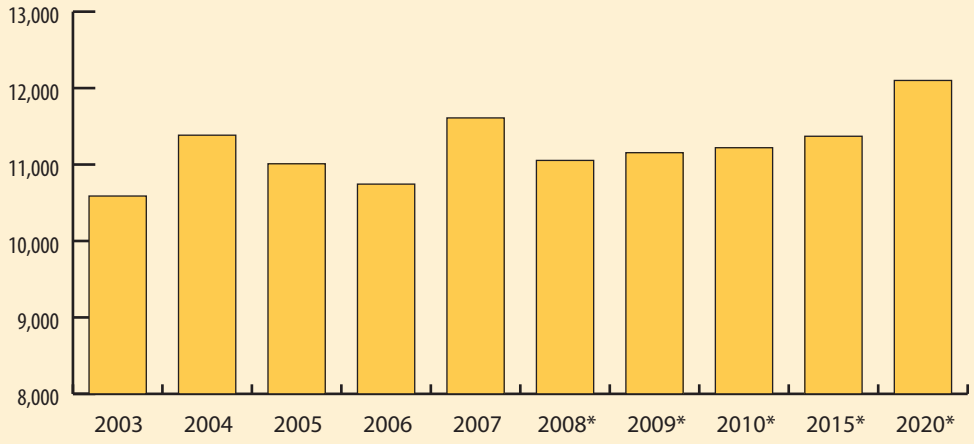
Funding

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]

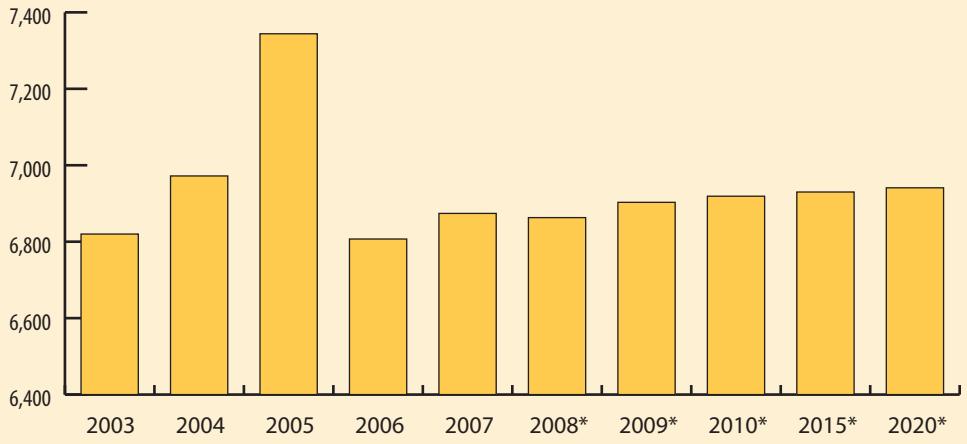
TSTC and the two-year Lamar colleges also use contact hours to determine funding for instruction and operations. For fiscal 2008 and 2009, two-year Lamar colleges received 80 percent of THECB's recommended funding rate from the Legislature, while TSTC received 100 percent.[72] Unlike community colleges, 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

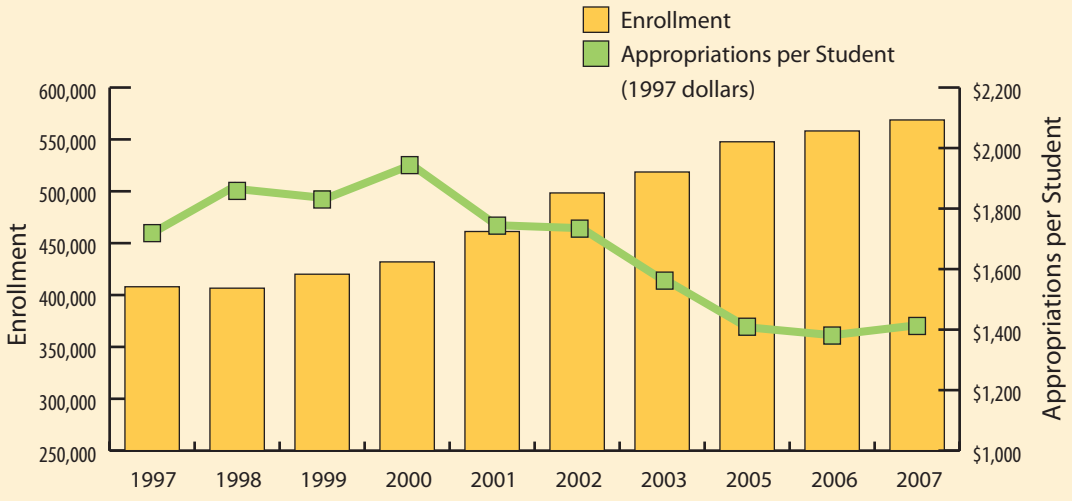
*Excludes Special Items Appropriations and Southwest Collegiate Institute for the Deaf.
Source: Texas Higher Education Coordinating Board.

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

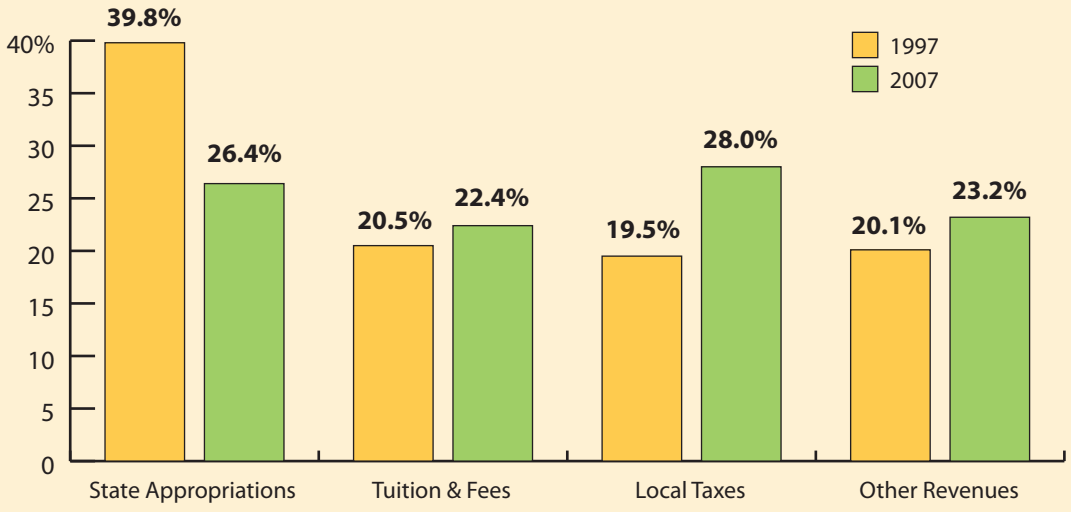
Note: Tuition and fee estimates by the Texas Higher Education Coordinating Board are based on average costs of 12 semester credit hours and one lab for community colleges and 15 semester credit hours for universities.
Sources: U.S. Census Bureau, Texas Higher Education Coordinating Board and Texas Association 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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CHAPTER 4

The Economic Impact of Texas Community Colleges

In this chapter, the Comptroller's office uses a variety of economic analyses to demonstrate how community and technical college education benefits the state, individual students and local communities. In all cases, our analyses show that community or technical college education provides positive economic benefits.

Two newly prepared Comptroller estimates measure the economic impact of community and technical colleges on the total state economy. The first considers only impacts that bring money into Texas from out of state, including out-of-state tuition, federal grants to students and federal contracts with community colleges. *The Comptroller's office estimates that Texas community and technical colleges generate $2.1 billion in such impacts annually.*

The second analyzes the economic impact resulting from the earnings of all Texans with associate degrees. *The Comptroller's office estimates this impact at $10.1 billion annually.*

This chapter also uses several additional analytical methods to illustrate the benefits gained by individual students. For instance, a Texan with an associate degree can earn up to 4.9 times as much over five years as he or she would in a "baseline" alternative occupation not requiring higher education.

Similarly, the average Texan with an associate degree will break even on their educational investment just beyond the first year of post-graduation employment. Finally, the Comptroller estimates that associate degree graduates earn an average of 32 percent more than high school graduates.

As a result of these impacts, all Texas communities reap the benefits of community colleges. Some benefit directly, as local schools attract industry, provide jobs and train productive workers. Other communities without schools benefit indirectly, as students trained elsewhere return home with new skills, knowledge and opportunities.

Previous Comptroller Study

A 2005 report by the Texas Comptroller's office took a broad approach to estimating the economic impact of higher education spending in Texas, seeking not only to measure statewide economic

Economic Impact Studies

Economic impact analyses estimate the direct and indirect effects on the economy associated with a given expenditure. Any increase in demand for a product triggers a series of expenditures on the part of firms that provide the "inputs" — the goods and services — needed to produce and sell that product to the consumer. In the case of a service such as higher education, however, economic impacts only tell part of the story.

Studies have been conducted in the past, to gauge the impact of one or more education institutions on a local or state economy. These impacts can include:

- college expenditures on supplies and services (such as office supplies or equipment repairs) and capital purchases (new buildings and major equipment);
- retail expenditures by faculty and staff members, from wages paid by the institution; and
- student retail expenditures for items such as housing, transportation and groceries.

An important consideration involves whether studies capture only "exogenous" effects — economic activity that brings money into Texas from *outside* the state — or include "endogenous" effects as well — activities that involve movements of money *within* the state. Estimates will vary depending upon such decisions.

impacts from all Texas colleges and universities, but statewide gains in earnings and productivity as well. While some studies emphasize earnings and the positive social benefits of higher education, the 2005 report focused on the impact of universities and community colleges on state economic output (see sidebar at end of chapter for literature review).

Figures from the Comptroller's 2005 report indicated that every dollar spent on community and technical colleges generates an additional $2 in economic activity, for a total annual impact of $633 million. Expenditure data used to estimate the economic impact included only out-of-state or "exogenous" expenditures from students, such as tuition and fees, books and supplies, room and board, transportation and personal expenses (see sidebar 4.1 for more on exogenous effects).[1]

The study excluded "endogenous" effects, such as salaries and wages paid by community colleges and in-state tuition, on the assumption that, in the absence of these colleges, the money would stay within Texas and be spent on other purposes. Although community college students can attend school outside Texas, the vast majority of them remain in-state, and due to budgetary constraints and other factors might not attend an out-of-state school.

This assumption provides for conservative estimates that measure the true community college impact on the state as a whole.

The 2008 Estimates

The Comptroller's two new estimates are also limited to exogenous effects. The economic output multiplier, developed using IMPLAN software, indicates that every dollar from outside the state going toward a Texas community college education in 2006 generated an additional 95 cents in Texas industries that provide goods and services to these colleges, as well as industries that benefit indirectly from the activity.[2] Real estate exemplifies an industry that supports community college output: every dollar of educational services produced by a Texas community college generates an average of nearly 30 cents in spending on real estate.

To arrive at our estimate, the output multiplier was applied to federal grants and contracts awarded to community colleges and total receipts from out-of-state tuition and fees. We directly obtained federal grant and contract data from the Texas Higher Education Coordinating Board, while tuition and fee data consisted of a weighted average of THECB in-state and out-of-state per-student spending figures, multiplied by total community college enrollment.[3] We estimate a total impact of almost $2.1 billion (**Exhibit 4-1**).

The marked difference with the 2005 Comptroller estimate of $633 million can be attributed to factors including growth in enrollment, increases in student expenditures, a more accurate measure of average student costs and our inclusion of federal money.

Simulation: Increased Community College Enrollment

For another perspective on the impact of community colleges, we ran a simulation with REMI software to gauge the reaction of the state economy to community college enrollment.

In our simulation, enrollment is assumed to increase by 10 percent in one year and maintain that enrollment level for another 24 years, holding constant all other economic factors except taxes. We assumed that community colleges must meet the difference between additional spending and revenues by raising property taxes. All areas of

Exhibit 4-1

Estimated Economic Impact of Texas Community Colleges on the State Economy, 2006

Source	Impact (Millions $)
Federal grants & contracts	$836.50
Tuition & books	223.60
Total out-of-state money	1,060.10
Economic impact	2,067.20

Note: Economic output multiplier = 1.95.
Sources: Texas Higher Education Coordinating Board and Texas Comptroller of Public Accounts.

spending were included, including the costs of instruction, research costs and plant maintenance. Revenues were assumed to include only tuition and fees, representing variable costs charged directly to each additional student. Revenues that require state or federal appropriation were excluded, as well as investment and other income.

In all, the simulation indicated that community colleges would spend an additional $340.2 million to educate 10 percent more students, and would receive an additional $293.6 million in revenues, leaving a shortfall of $46.6 million to come from property tax.

Exhibit 4-2 shows an increase in state employment of more than 13,000 workers in the first year, with steady increases throughout the period.

Exhibit 4-3 shows similar trends, with increases in gross state product, personal income and output. Personal income represents all income received by Texans from all sources (less taxes), while output represents all production and consumption of goods and services in Texas. Gross state product represents output less the goods and services used to produce final products.

The simulation accounts for future changes in wages and productivity resulting from increases in the level of work force education, and is constrained by population projections. In other words, the simulation adjusts wages according to supply and demand, and in industries with similar skill requirements, takes jobs from industries with low demand to meet higher demand in other industries.

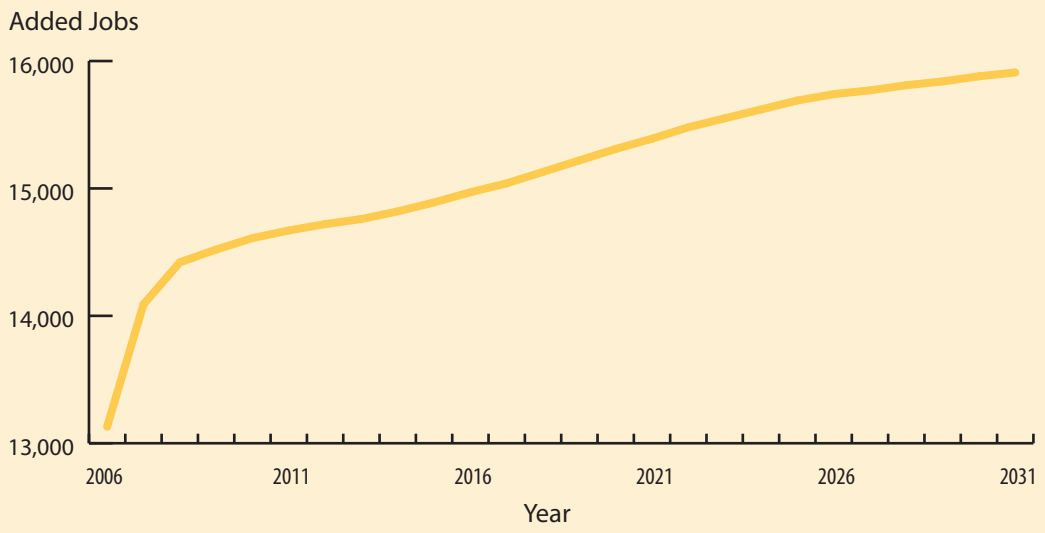
Earnings and Economic Returns

The Comptroller also examined the returns to individuals holding a two-year college degree.

Students pursuing an associate degree face upfront costs for tuition as well as foregone earnings while in college. The decision to obtain a degree represents a tradeoff between higher future earnings with a temporary cash flow reduction, versus continuous earnings from staying in the work force instead of going to school.

Exhibit 4-2

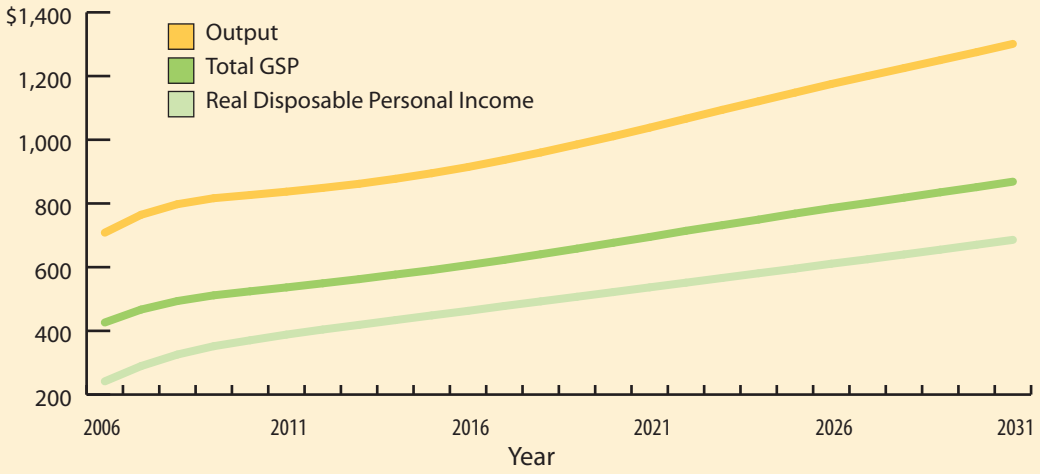
Simulated State Employment Impact From a 10 Percent Increase in Texas Community College Enrollment



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

Exhibit 4-3

Simulated Increase in Texas Gross State Product (GSP), Personal Income and Output From a 10 Percent Increase in Community College Enrollment (Amounts in Millions, Constant 2000 Dollars)



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

Exhibit 4-4

Texas Wage Projections and Returns on Investment* (Assuming 2.5 Percent Annual Growth from Entry Level)

	2008	2009	2010	2011	2012	5yr Sum	Return on Investment**
Registered nurses	$43,749	$44,843	$45,964	$47,113	$48,291	$229,959	4.5
Computer support specialists	27,330	28,013	28,714	29,431	30,167	143,655	2.0
Paralegals and legal assistants	31,305	32,088	32,890	33,712	34,555	164,549	2.6
Electrical and electronic engineering technicians	35,323	36,206	37,111	38,039	38,990	185,669	3.2
Radiologic technologists and technicians	35,078	35,955	36,854	37,775	38,720	184,381	3.2
Medical and clinical laboratory technicians	23,447	24,033	24,634	25,250	25,881	123,245	1.4
Civil engineering technicians	18,181	18,636	19,101	19,579	20,068	95,565	0.6
Computer specialists, all other	46,295	47,452	48,639	49,855	51,101	243,342	4.9
Medical records and health info technicians	19,845	20,341	20,850	21,371	21,905	104,312	0.9
Dental hygienists	44,903	46,026	47,176	48,356	49,565	236,025	4.7
Retail salespersons	14,219	14,574	14,939	15,312	15,695	74,740	N/A

*Current occupational earnings figures are a three-year average of earnings modeled according to U.S. Bureau of Labor Statistics methods using Texas Workforce Commission data.
**Ratio of the five-year return on a dollar invested today, accounting for costs and earnings.
Sources: U.S. Bureau of Labor Statistics and Texas Workforce Commission.

Our analysis shows that, over a five-year period, the economic return to workers with an associate degree exceeds those available in occupations requiring only a high school diploma or less.

Exhibit 4-4 shows our analysis of the 10 most common occupations requiring an associate degree compared with retail sales. TWC reports that retail sales work is the fastest-growing occupation that does not require postsecondary education; for the purpose of this comparison, retail sales serves as the "baseline" occupation.[4] Our analysis begins with average entry-level earnings and projects data over five years, assuming a 2.5 percent growth in yearly earnings.

The estimates account for total educational outlays; total three-year income after completing the degree; and the total two-year opportunity cost of lost earnings. These figures are compared against total foregone earnings to create a return on investment (ROI) ratio. ROIs are expressed in terms of the five-year return on a single dollar invested in an associate degree.

The occupational category "other computer specialist" has the highest return on investment, at 4.9 times the baseline earnings, while civil engineering technicians return the least, at 0.6 times the baseline earnings.

It is important to note that by choosing retail sales as the baseline occupation, wage comparisons may seem dramatic, given the generally low-wage nature of these positions. The baseline was chosen, however, to illustrate a real-world dilemma: the growing retail sales industry offers an immediate work alternative to education after high school.

A further analysis draws on "net present value" (NPV) measurements from the 2005 Comptroller report. Net present value figures were then used to estimate the economic impact of higher earnings resulting from associate degree training in Texas.

We used TWC wage data to estimate the average NPV of earnings for a Texan with an associate degree. Median wage data for all occupations that require an associate degree were weighted by the number of degree holders and averaged.

Net Present Value

Finance and investment professionals often use *net present value (NPV)* analysis to determine the worthiness of investment projects. Net present value represents future income in terms of today's dollars. If the net present value of an investment is positive, investors consider it worthwhile; if the net present value is negative, the investment should not be undertaken. Given that higher education is an investment of time and money, the net present value of future earnings from education adds a broader view of its economic impact.

The weighted average of occupations only requiring on-the-job training was subtracted from associate degree wages, and education costs were removed as well. This difference was discounted by 6 percent annually to account for inflation and the opportunity cost of a risk-free investment, and compounded for 45 years, the assumed career span.[5]

The Comptroller's current estimates of net present value exceed the figures from the 2005 Comptroller report due to rising tuition costs, expanding community college enrollment and stronger demand for associate degree training.

The career earnings of an average Texan with an associate degree are represented by a net present value of more than $125,000. Using this figure, the current analysis followed the 2005 report's estimate of total impact on the Texas economy from earnings gains. The method takes the NPV figure and applies a ratio of earnings to gross state product, arriving at a state economic impact of nearly $10.1 billion (**Exhibit 4-5**).

For another perspective, **Exhibit 4-6** shows aggregate cumulative earnings of three groups of individuals — those with associate degrees, those with a retail sales occupation requiring no secondary education, and those with four-year college degrees. This analysis uses a weighted average of the "top 10" associate degree occupations, referring to the 10 most common associate degree occupations. Similarly, we use a weighted average for the 10 most common bachelor degree occupations.[6]

The decision to obtain a degree represents a tradeoff between higher future earnings with a temporary cash flow reduction, versus continuous earnings from staying in the work force instead of going to school.

Exhibit 4-5

Texas Discounted Earnings Gains from Associate Degrees, 2008

Avg Graduates 2005-07	In-State Percentage	Net Present Value Earnings Gain/Worker	Employment Percentage	Total Earnings Gain (millions $)	Impact on State Economy (millions $)
57,596	94.1%	$125,546	75.7%	$5,151	$10,058

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

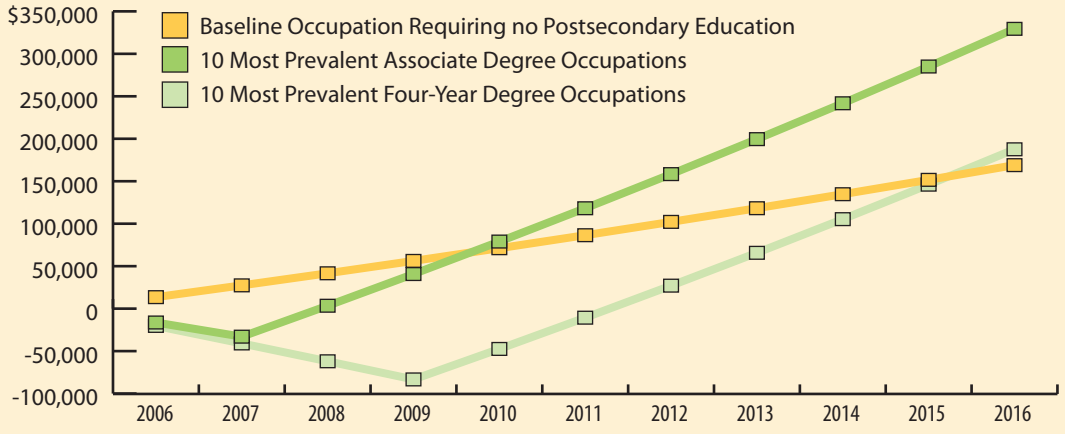
This analysis uses current earnings data from the wage projections above and assumes that the associate-degree cohort entering school in 2006 will finish in two years and enter the labor force in 2008. Because students that attend an associate or bachelor's program give up a full-time position to do so, this analysis considers forgone earnings, the forgone salary being that of a baseline retail position. Potential earnings forgone combined with tuition, fees, books and supplies expenses result in a cost to the associate student of $19,042 in 2006 and $19,380 in 2007, for a total cost of $38,422 for both years. Comparatively, however, a four-year college student bears a much higher cost: on average, a college student bears $77,904 in combined forgone earnings and education expenses over the course of a four-year program.

On average, a Texan who enters a 2006 associate degree program in a top 10 occupational field breaks even on his or her educational investment during the first year of employment. The associate degree holder achieves the cumulative earnings of a Texan with no secondary education during the third year of employment. Furthermore, an individual holding an associate degree enjoys greater cumulative earnings than his or her four-year college counterpart immediately upon graduation. Even in 2016, eight years after graduation, cumulative associate degree holder earnings continue to exceed cumulative earnings of four-year graduates.

Exhibit 4-7 compares lifetime earnings by level of educational attainment. On average, workers with at least some college earn more than those

Exhibit 4-6

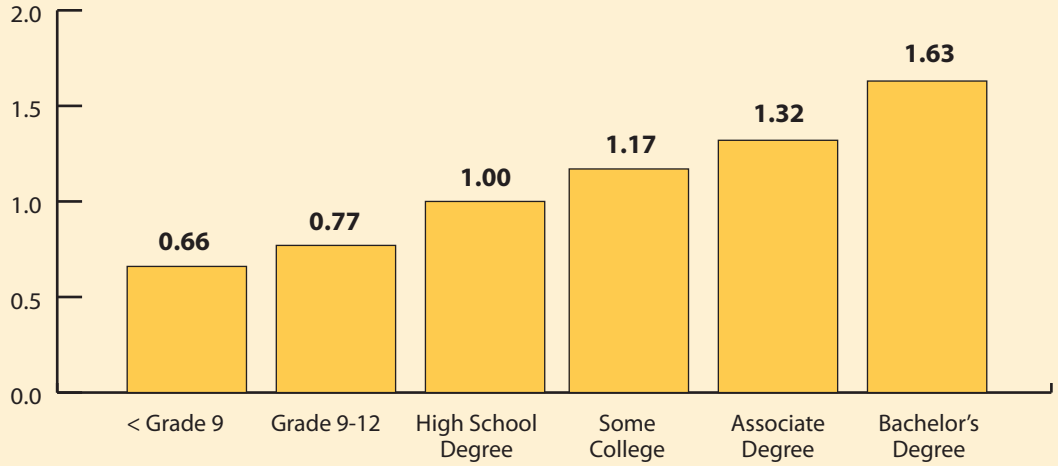
Cumulative Per Capita Earnings, Weighted Averages



Sources: Texas Workforce Commission, College for Texans, Texas Higher Education Coordinating Board and Texas Comptroller of Public Accounts.

Exhibit 4-7

Expected Lifetime Earnings Relative to High School Graduates, by Educational Level (Lifetime Earnings of a High School Graduate = 1.00)



Source: U.S. Census Bureau.

On average, a Texan who enters a 2006 associate degree program in a top 10 occupational field breaks even on his or her educational investment during the first year of employment.

with a high school degree only, and workers with an associate degree earn even more, averaging 32 percent more in career earnings than workers with a high school degree only.[7]

Implications of Educational Attainment

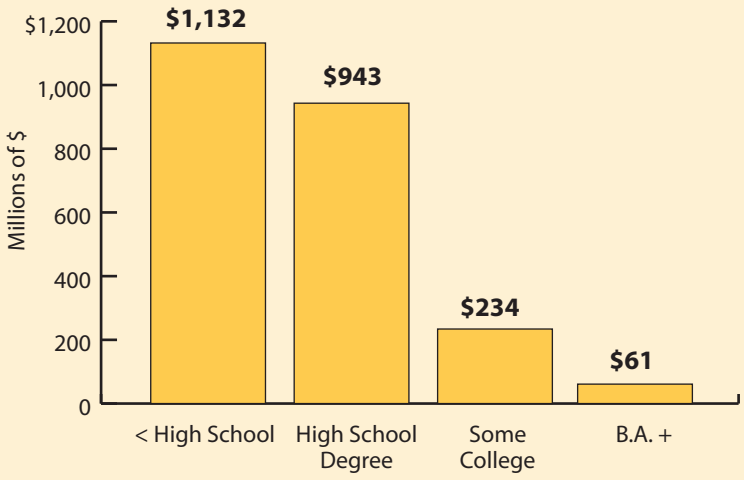
The positive effects of educational attainment extend beyond earnings and returns on investment. Higher education leads to social benefits that reduce the public economic burden all Texans face.

As students complete more years of education, for instance, their likelihood of criminal activity decreases, leading to lower incarceration rates and less state spending on criminal justice (**Exhibit 4-8**).

Data from the College Board and the Texas Legislative Budget Board show an estimated annual state expenditure of nearly $2.4 billion on incarceration. Of this amount, an estimated 87 percent or $2.1 billion is attributable to inmates with a high school degree or less.[8]

Exhibit 4-8

Annual Texas Incarceration Expenditure by Inmate Education Level



Sources: The College Board and Texas Legislative Budget Board.

Furthermore, College Board data also show that persons with at least some higher education are roughly three times less likely to currently be incarcerated. The likelihood of incarceration is highest among those who never finish high school, resulting in part from lack of employment opportunities and weaker job skills.

Higher levels of educational attainment bring more employment opportunities and are associated with lower unemployment. In 2007, nationwide unemployment was highest among people without a high school degree, at 7.1 percent (**Exhibit 4-9**). The likelihood of unemployment decreases with advancing education levels; those with a high school diploma had a 2007 unemployment rate of 4.4 percent, while just 3 percent of persons with associate degrees were unemployed.[9]

Labor force participation provides a broader view of the labor market, with unemployment representing a subset of the labor force. Labor force participation consists of all employed and unemployed workers (**Exhibit 4-10**).

The labor force participation rate shows the labor force as a percentage of the civilian population. People in this population who are not in the labor force include retired individuals and those not employed or seeking work; the population excludes those who are incarcerated or institutionalized as well as members of the armed forces.[10]

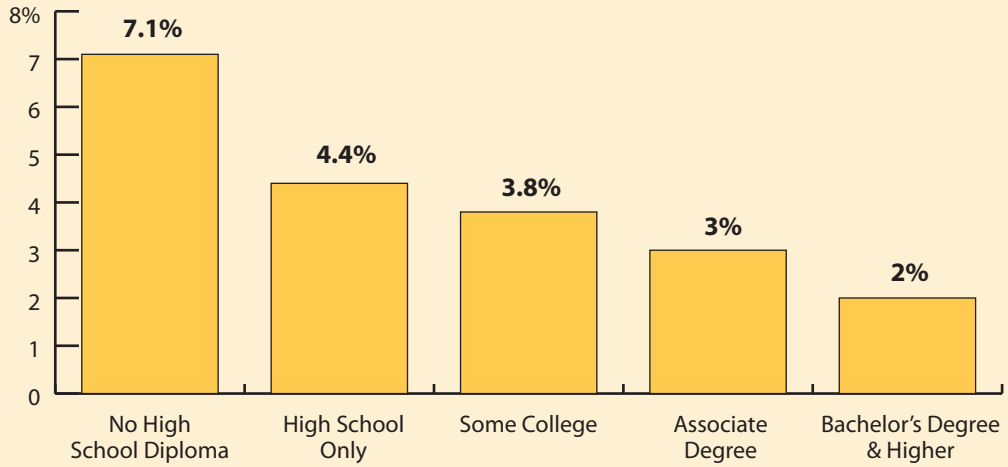
In 2006, 86 percent of Americans aged 25 to 64 and holding college degrees were in the work force, compared to 77 percent of those who had only completed high school and 64 percent of those who had not completed high school. People with associate degrees fared almost as well as those with a four-year degree, with 84 percent of them aged 25 to 64 participating in the U.S. work force.[11]

Persons with college degrees or advanced degrees earn far more than those who lack a high school diploma. In 2007, U.S. men with a graduate or professional degree earned an average of more than $54,600 more than those without a high school diploma, and men with a bachelor's degree earned more than $34,000 more annually.

In Texas, the differential was even greater. Men with a graduate or professional degree earned an average of nearly $56,600 more annually than

Exhibit 4-9

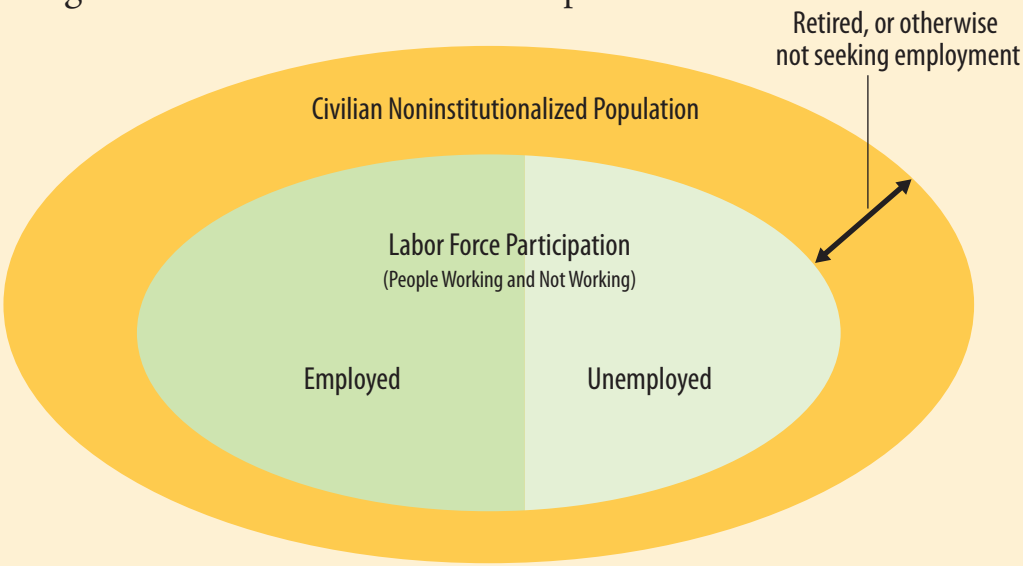
U.S. Unemployment Rates by Educational Attainment, 2007



Source: U.S. Bureau of Labor Statistics.

Exhibit 4-10

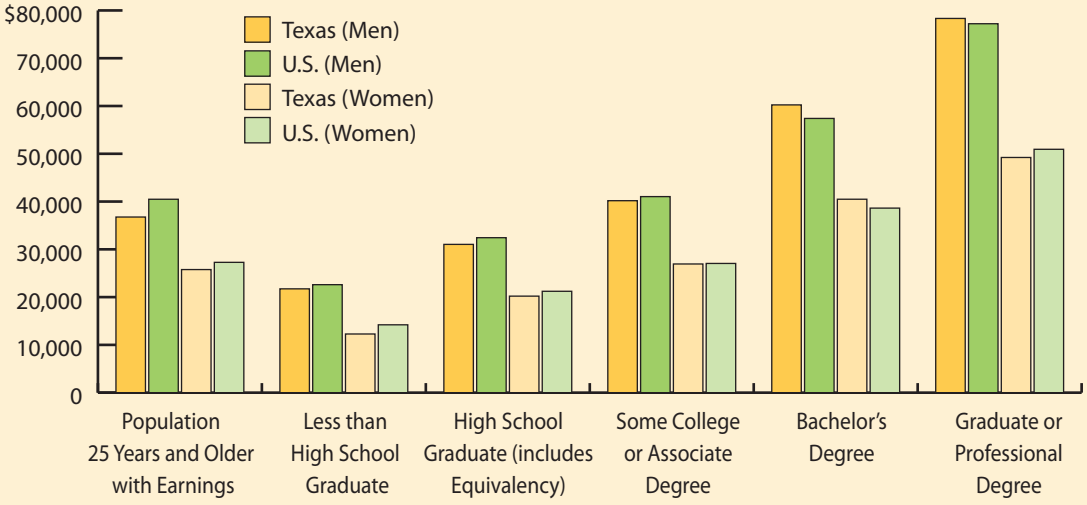
Diagram of Labor Force Relationships



Source: Texas Comptroller of Public Accounts.

Exhibit 4-11

Texas and U.S. Median Earnings by Educational Attainment, 2007



Source: U.S. Census Bureau, Income, Earnings, and Poverty Data from the 2007 American Community Survey (Washington, D.C., August 2007).

those without a high school diploma, and a man with a bachelor's degree earned $38,500 more.

Women with advanced degrees in the U.S. as a whole and in Texas earned nearly $37,000 more than their counterparts without a high school diploma.

U.S. male high school graduates, in turn, earned about $9,800 more than those without a diploma in 2007; Texas males earned $9,300 more. U.S. women high school graduates made about $7,000 more; Texas women made $7,900 more (**Exhibit 4-11**).[12]

These analyses clearly demonstrate that increasing the number of postsecondary degrees and certificates awarded has significant positive economic effects on society as well as the individual.

Chapter 2 of this report made it apparent that Texas needs more educated workers, and that the state has far too many students who fail to continue their education past high school. The next chapter will examine some of the reasons for this pattern.

Other Economic Impact Resources

In addition to the 2005 Comptroller report, a number of other studies estimated the economic impact of higher education in Texas. Some examined the impacts of individual schools on local communities, while others looked at statewide impacts.

Recent Texas-specific studies include:

- *Sam Houston State University (SHSU)*: In 2005, SHSU conducted a study to assess its economic impact on the local economy, based on a survey of spending patterns answered by full-time faculty, staff and students. The study concluded that every dollar they spend generates an estimated additional 70 cents of economic activity in the local economy.[13]
- *Tarleton State University (TSU)*: A 2000 study of TSU's economic impact on Erath County evaluated the expenditures of faculty, staff and students as well as expenditures by visitors to the university and TSU retirees living in the county, and the university's operating and capital expenditures. It found that every dollar spent by TSU and affiliated persons generates an additional 48 cents of economic activity in the county.[14]
- *University of Texas System*: In 2005, the Institute for Economic Development at the University of Texas at San Antonio published an economic study of the impact of UT administration and its 15 component institutions. The study focused on the following spending categories:
  - operational expenses of component institutions;
  - capital purchases and construction;
  - faculty and staff expenditures;
  - student spending in local economies; and
  - health centers' impacts.

  In fiscal 2004, spending in these categories totaled $8.7 billion, with an estimated economic impact of $12.8 billion. This means that every dollar of initial spending by each component institution and persons associated with it produced an additional 47 cents of economic activity within each institution's vicinity.[15]

Note that these studies focused primarily on expenditures by institutions and affiliated persons, and examined universities rather than community and technical colleges.

Other studies have considered impacts such as the additional income earned by persons who receive degrees from the institution. Among these, CC Benefits Inc. conducted a study for the Texas Association of Community Colleges. Results from the study indicated that taxpayers receive a 15.9 percent return in economic output for every state dollar invested, with the state recovering all its money 8.2 years after investment. It also evaluated "net present value" returns to students, with community college education returning $9.05 in net present value for every dollar invested.

The study also noted that knowledge and skills obtained by community college students help communities attract new industries and allow existing firms to become more competitive and productive.[16]

Endnotes

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Real People, Real Stories

Mary Peña

Mary Peña is a single parent with three children. When Mary she lost a $9 per hour job, she was forced to move in with her elderly parents. She worked at several minimum-wage jobs and couldn't make ends meet even while receiving food stamps and Medicaid for her kids.

In 1997, Mary decided that she would never accomplish much for her kids unless she went back to school to fulfill her lifelong dream of becoming a nurse. She took a part-time job while taking prerequisite courses for the nursing program.

In 2000, Mary heard about Project VIDA, a workforce initiative serving the Valley area. Project VIDA helped her with tuition, fees, books at South Texas College, uniforms and gasoline, and helped her obtain child care assistance.

In 2003, Mary graduated the program and went to work at Rio Grande Regional in the ICU department at a starting wage of $17 per hour with full benefits. This was the first time that Mary was able to provide her children with health insurance without government assistance. Soon, Mary was able to purchase her own home and two vehicles.

Two years later, she went to work at a local home health agency at an annual salary of $137,000.

Special thanks to Mary Peña and the Industrial Areas Foundation for sharing this success story.

Real People, Real Stories

Billy Jack Weaver

Billy Jack Weaver turned an Associate of Applied Science degree in air conditioning and refrigeration technology into a rewarding career with Texas' leading residential air-conditioning company.

"Texas State Technical College (TSTC) at Harlingen taught me everything from the ground up — from basic electricity to the psychometric chart for studying air, its properties and moisture content, so we can analyze the relationship of temperature, pressure and humidity," he said.

Billy Jack, a Rio Hondo native, graduated from TSTC in April 2008, but didn't get to attend commencement — because he had started work three days earlier. After a two-week internship for Comfort Experts in Dallas-Fort Worth, the company assigned him to a service truck. In May, Weaver recorded $91,686 in sales and earned the company's top sales award. His annual base salary received a boost from the $50,000 range to about $68,000; his May paycheck totaled about $8,000.

He credits TSTC for preparing him to become a success. "TSTC has quality instructors who turn out a high-quality product," he said. Billy Jack called his instructors "down to earth," adding, "They aren't arrogant and they gave me support. I thank them for bringing company representatives on campus to meet with us and give us this opportunity."

Special thanks to Billy Jack Weaver and Texas State Technical College for sharing this success story.

CHAPTER 5
Challenges Facing CTE

Despite the obvious benefits of postsecondary education, both for individuals and the state's economy, far too many Texas high school students fail to pursue it. Students may forego further education for a variety of reasons that tend to fall into three broad categories:

- a lack of knowledge about educational opportunities and how to take advantage of them;
- bureaucratic obstacles that make it more difficult for students to acquire postsecondary education, particularly career and technology education; and
- financial barriers and the inability of financial aid systems to reach those most in need.

All of these challenges are common among the students most likely to benefit from postsecondary career and technology education.

Inadequate Knowledge

Many students — and their parents — simply are not aware of the full range of postsecondary educational options they have.

Community colleges generally lack the budgets needed for extensive advertising and outreach efforts to spread the word about their programs. And unfortunately, teachers and counselors often tell students little or nothing about technical training.

In a 2003 survey of 13,803 Texas high school seniors, 73 percent said that counselors encouraged them to go to college, while 83 percent said their teachers did. About 71 percent, however, said that counselors "haven't said anything" about "trade school." A majority also said that teachers and parents never mentioned the option (66 percent and 56 percent, respectively).[1]

Middle and high school counselors typically face numerous demands on their time, including the preparation and administration of state accountability tests, which may prevent them from devoting the time needed to understand the range of technical training available.[2] State policy, moreover, may discourage districts from adding more counselors, even if they have the resources to do so.[3] The Texas public school financial accountability system sets a target of 65 percent of all spending dedicated to instruction, and counselors are not considered an instructional expense.[4]

The 2003 survey also found that many students find it difficult to complete the college application process and do not receive much help with it from high school staff. More than a third (39 percent) of the seniors had never even met with their high school guidance counselors, and 55 percent had never discussed letters of recommendation with them. About 50 percent of the seniors had never discussed financial aid options with counselors.[5]

College for All Texans Campaign

To boost college attendance rates, the 2001 Texas Legislature directed the Texas Higher Education Coordinating Board to create an awareness and outreach campaign called "College for All Texans."

THECB launched its College for All Texans marketing campaign in 2002, with the slogan "*Education: Go Get It.*" During the 2002-03 biennium, the campaign included radio and TV ads, movie theater spots, posters, banners and a Web site. The effort became a national model for marketing higher education; Georgia and West Virginia even paid the state to use the Texas slogan.

Due to the high cost of the marketing effort, however, as well as the difficulty involved in measuring its successes, THECB shifted its resources to its GO Centers and Web site.[6]

Go Centers

GO Centers, a THECB initiative involving partnerships between higher education and public

Many students and their parents simply are not aware of the range of postsecondary education options available to them.

"Some students need to start working and can't wait to get educated. They'll take a job in fast food, but they don't know about opportunities in logistics and warehousing."

—Linda Berenice Sarabia, Secretaria, Association of Laredo Forwarding Agents, Inc.

More than a third (39 percent) of the seniors had never even met with high school guidance counselors.

"I think counselors should have more time one-on-one with kids to see where they are skilled. If my counselor had known I had taken apart electronics all of my life, she might have recommended Texas State Technical College. Instead she looked at my grades and my SAT and recommended I go to a university."

— Nat Lopez, Manager Core I&M, Special Services, AT&T Texas

schools, are one-stop centers providing assistance to prospective college students.[7]

GO Centers typically are located in high schools, but also can be placed in middle schools, community colleges, public libraries, universities and community centers. They are staffed by faculty members (counselors or teachers) as well as college students from neighboring colleges and universities. The college students mentor high school students and assist them with college selection, college forms, college admission exams, scholarship applications and financial aid information.

The centers contain Internet-linked computers and printers, allowing staff and students to access college and financial aid information and forms. Mobile GO Centers mounted on trailers travel to areas that lack a permanent facility.

GO Centers were first introduced in regions of the state with low college participation rates and significant numbers of low-income, at-risk, first-generation or minority students. THECB's goal is to offer GO Centers to all Texas students. As of January 2008, 44 higher education institutions, 53 elementary and middle schools and 182 high schools in Texas were participating in GO Center activities. The centers had served 106,052 students and 2,131 parents as of January 2008.[8]

The first 40 GO Centers, created in the 2003-04 school year, are credited with increasing application rates to Texas colleges by an average of 21.9 percent in the areas they serve. Rate increases were even higher for low-income and Hispanic students, at 28.9 percent and 30.8 percent respectively. THECB credits the GO Centers with increasing Texas college enrollment rates for two- and four-year schools by 4.6 percent for the state as a whole, and by 9 percent and 9.2 percent, respectively, for Hispanic and low-income students.[9]

Web site

The Web site created for the College for All Texans campaign (http://www.collegefortexans.com/) remains active, although it has not been significantly updated since 2003. Its focus is on four-year colleges. While it contains some information on career and technical education, it is not displayed prominently on the site.

THECB has hired the University of Texas System to update the site, and at this writing expects it to be rolled out soon.[10]

Other states use integrated Web portals to help students and parents plan for careers and for education at two-year institutions. For example, the College Foundation of North Carolina Web site (https://www.cfnc.org) allows students to research careers, compare both two-year and four-year institutions and research financial aid.[11] *Missouri Connections* (http://www.missouriconnections.org/) identifies top careers in the state and links to sites that enable students to compare two-year institutions by program, type or geographical location.[12] Kentucky's Web portal, *e3.ky.gov* (https://e3.ky.gov/Default.aspx) integrates information for students, job seekers and economic developers.[13]

Available Data

Texas' educational data systems contain a wealth of information that should allow for systematic evaluation of the relative success of our public schools, colleges and universities.

The data, however, are not being used for this purpose.

The 2001 Texas Legislature's H.B. 1144 required the state's commissioners of education and higher education to coordinate and exchange individual student record information so that student academic performance can be assessed throughout their educational careers.[14] Texas now has the data systems in place to analyze the value of the state's postsecondary institutions and programs, providing state leaders with information that could help guide them in developing policy.

Data on Texas public school students are gathered and maintained in the Texas Education Agency's (TEA's) Public Education Information Management System (PEIMS), which collects information needed for state and federal reporting requirements. PEIMS includes data regarding student demographic and academic performance, school district personnel, school finances and organizational information.[15] THECB collects student information on demographics and academic attainment through its Coordinating Board Management (CBM) Reports.

The Texas P-16 Public Education Information Resource (TPEIR) is a joint, cross-agency project managed by TEA and THECB that contains education information from both PEIMS and CBM reports. This information can be used to track the progress of Texas public school students through both secondary and postsecondary education.[16]

The Texas Workforce Commission (TWC) has records of worker Social Security numbers (SSNs), earnings attributed to each SSN in a given quarter and corresponding employer information through its Unemployment Insurance (UI) database. This database can also identify the industry (or industries) the employer is engaged in as well as the physical location of the employer's facilities.

THECB's Automated Student and Adult Learner Follow-Up System (ASALFS) tracks Texas public community and technical college students after they leave college.[17] ASALFS gathers information for two-year college graduates, program completers and non-returning students and electronically matches student SSNs with TWC UI wage records, U.S. Department of Defense records, federal databases of civil employees and THECB's public higher education enrollment database.

Policy Barriers

Texas faces growing shortages of the skilled workers that help attract and retain business. And certain state policies may contribute to these shortages.

As noted above, state education policy has largely been directed at preparing and encouraging high school students to pursue bachelor's degrees after graduation. While this is certainly desirable for many Texas students, it does not acknowledge the needs of thousands of students who, for various reasons, choose to follow a different path into the work force. And the recently implemented "four-by-four" requirements may actually steer students who could benefit from CTE education away from it.

Such policies may be sending the misleading message that career and technology education is not worthwhile. And they may encourage students to pursue degree plans for which they simply are not suited.

Using data from the Sloan Study of Youth and Social Development, for instance, scholar Charles Murray noted that "of those who entered a four-year college in 1995, only 58 percent had gotten their BA five academic years later," and concluded that "about a third of all those who entered college hoping for a BA leave without one."[18] Other scholars conclude that the college dropout number may be as high as 50 percent.[19] A 1995 study found that "there are almost twice as many 4-year college graduates as there are job openings that require this level of education," and that only 10 percent of ninth-graders would ultimately receive a four-year college degree *and* be placed in a job demanding that level of education.[20]

Instead, the state could offer multiple options for students to complete their graduation requirements, including CTE coursework among other disciplines. CTE courses could be incorporated into the state's four-by-four and recommended program requirements.

Grade-Point Average Standards

H.B. 3851, passed during the 2007 legislative session, directs THECB to develop a standard method for computing high school students' grade-point averages (GPAs).[21]

The legislation was intended to resolve a situation in which colleges and universities usually must recalculate the GPAs of high school students to ensure uniform comparisons. Since the state has no uniform GPA system for high schools, districts calculate them in different ways. For instance, various school districts weigh advanced placement, honors and elective courses differently in calculating GPA. Furthermore, districts currently can decide which courses they will include in or exclude from a high school student's GPA.[22]

Rules recently proposed by THECB would allow only CTE courses that have "a university content connection such as Accounting" to count toward GPA calculation.[23] No other CTE classes would be included. THECB argues that students who take courses such as welding do so with an eye toward preparing for a career, and are usually bound for the work force or community or technical colleges — institutions that have open admissions and do not consider GPAs.[24]

Texas' educational data systems contain a wealth of information that should allow for systematic evaluation of the relative success of our public schools, colleges and universities.

THECB has delayed its final decision on GPA standards, with a final ruling expected as soon as December 2008.[25]

Boundary Issues

Residents within each of Texas' community college districts pay taxes to support their college or college system. The district system, however, may create barriers for some students.

Students who do not reside in a community college district must pay higher tuition rates than area residents. This is true even if the student lives closer to an out-of-district campus than one within his or her own community college district. Such situations can deter students from seeking valuable postsecondary education and training.

Similarly, state policy prohibits a community college from delivering classes within another community college district without that district's permission. This policy may prevent persons from obtaining training if they reside in a district that lacks the resources to provide it — and, again, if they live close to a district that *does* offer such training, they must pay more to obtain it.

While community colleges should and do make the educational needs of their taxpayers their first priority, the exclusion of out-of-district students – whether by policy or through prohibitively expensive tuition rates – is an issue that merits further study.

Financial Issues

The skyrocketing costs of postsecondary education may represent the most significant obstacle to postsecondary education.

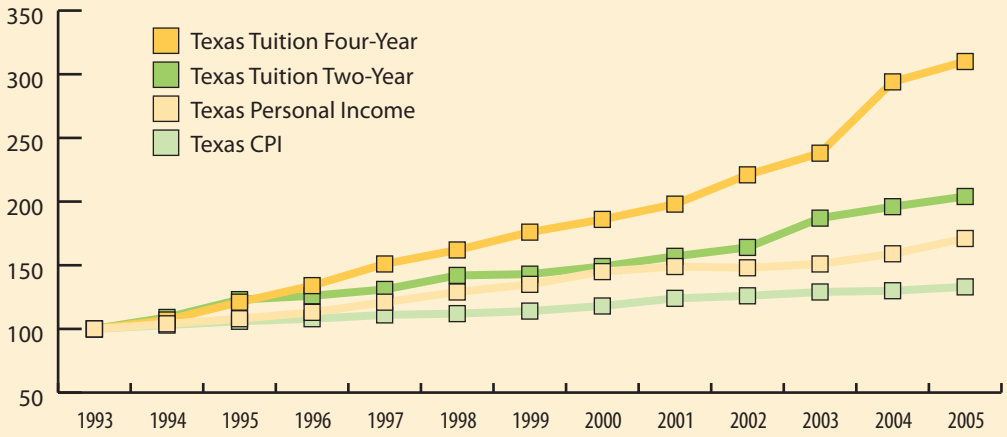
In recent years, college costs have risen at rates surpassing both general inflation and the rise in personal income.

In recent years, college costs have risen at rates surpassing both general inflation and the rise in personal income (**Exhibit 5-1**). On average, the total costs for a four-year college in the U.S. are now above $17,000 per year (**Exhibit 5-2**). And while Texas' tuition and fees are somewhat lower than average, other expenses make the total cost of Texas higher education roughly even with national averages (**Exhibit 5-3**).

Many students and their parents feel overwhelmed at the prospect of two, four or even more years of costs for tuition, fees, books and transportation, as well as room and board. Regardless of their per-

Exhibit 5-1

Texas Consumer Price Index, Personal Income Versus Public Four-Year Institution and Two-Year Institution Tuition Rates, 1993 to 2005



Note: vertical scale is an index for which 1993=100.
Source: Texas Comptroller of Public Accounts.

Exhibit 5-2

National Average College Costs Estimates for the 2007-08 Academic Year

Sector	Tuition & Fees	Books & Supplies	Room & Board	Transportation	Other Expenses	Total Expenses
Public Four-year – In-State On-Campus	$6,185	$988	$7,404	$911	$1,848	$17,336
Public Four-year – In-State Off-Campus	6,185	988	7,419	1,284	2,138	18,014
Public Four-year – Out-of-State	16,640	988	7,404	911	1,848	27,791
Private Four-year – On-Campus	23,712	988	8,595	768	1,311	35,374
Private Four-year – Off-Campus	23,712	988	7,499	1,138	1,664	35,001
Public Two-year	2,361	921	6,875	1,270	1,699	13,126

Source: The College Board.

sonal ambitions and abilities, some Texas families believe they simply cannot afford college.

Financial Aid

Options available to assist students and their families include student loans, either through the federal government or private financial institutions; state, federal and institutional grants; education tax credits; work-study programs; and tuition savings plans with favorable tax treatment. All can help high school graduates continue their education.

The two-year community college option can bring excellent returns on a relatively small investment of money and time, particularly in light of rising tuition costs. And financial assistance and savings programs are available to help. Education grants such as the Pell Grant, 529 college savings plans and government-subsidized student loans such as Stafford loans can be used for both four-year and two-year colleges.

Most Texas financial aid, however, is awarded to four-year students. A study conducted by a University of Texas doctoral candidate found that in 2001-2002, students at four-year institutions in Texas were 1.7 times as likely to receive financial aid as those at two-year institutions. But the study

Students at four-year institutions in Texas were 1.7 times as likely to receive financial aid as those at two-year institutions.

Exhibit 5-3

Texas Average College Costs Estimates for the 2007-08 Academic Year

Sector	Tuition & Fees	Books & Supplies	Room & Board	Transportation	Other Expenses	Total Expenses
Public Four-year – In-State	$5,732	$1,052	$7,004	$1,706	$2,000	$17,494
Public Four-year – Out-of-State	13,884	1,052	7,004	1,706	2,000	25,646
Private Four-year	17,392	961	5,846	1,186	1,524	26,909
Public Two-year – In-District	1,638	1,117	5,695	1,799	1,796	12,045
Public Two-year – Out-of-District	3,722	1,117	5,695	1,799	1,796	14,128
Technical Colleges – Resident	2,806	920	5,872	1,525	1,442	12,564
Technical Colleges – Non-Resident	6,426	920	5,872	1,525	1,442	16,183
State Colleges – In-State	3,475	783	3,234	2,546	1,848	11,886
State Colleges – Out-of-State	11,785	783	3,234	2,546	1,848	20,196

Note: Numbers may not total due to rounding.
Sources: College For Texans and Texas Comptroller of Public Accounts.

also concluded that "students at the two-year institutions were much more likely to receive financial aid awards through grants and scholarships; and students at the four-year institutions were more likely to receive awards through educational loan programs."[26]

Aid Applications

Completing the Free Application for Federal Student Aid (FAFSA) is complicated and time-consuming. Yet states and schools determine the distribution of funds within their financial aid programs via the FAFSA; it is the first step in the financial aid process for all students.

The Central Texas Futures Project found that "more than 60 percent of low-income students indicated that they did not know about the financial aid process."

A University of Chicago 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."[27] The American Council on Education found that 850,000 students in 1999-2000 who were eligible for financial aid did not complete the forms needed to receive a Pell Grant.[28]

The Central Texas Futures Project 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."[29] About half of the students in a 2003 survey of 13,803 Texas high school seniors had never discussed financial aid options with their guidance counselors.[30]

In 2007, Texas students in public community and technical colleges made up just 38.4 percent of recipients of all types of financial aid.

Student Loans

Within the past year, opportunities for federal loans to community college students have decreased. Private lenders have reduced their loans to students, even those with federal guarantees backing them. More than 120 lenders had stopped participating in the federal loan program as of late Summer 2008, and some banks simply do not make *any* loans to students at two-year schools.

Lenders maintain that they are not excluding community colleges *per se*, but instead are avoiding loans that may have a relatively high risk of default or are simply unprofitable due to their relatively small amounts and short terms — unfortunately, conditions that neatly describe most community college student loans.[31]

In Spring 2008, Congress acted to shore up the student loan market by increasing the funding available for subsidized loans and allowing the federal government to buy outstanding loans from lenders unable to sell them in the open market.[32] To the extent that recent financial turmoil makes student loans more difficult to obtain or more expensive, it will exacerbate existing financial aid shortfalls.

Allocation of State Financial Aid

THECB reports that in 2007, Texas students in public community and technical colleges made up just 38.4 percent of recipients of all types of financial aid (grants, loans and work-study arrangements), while university students accounted for nearly 60 percent.

Exhibit 5-4

2007 Enrollments and Financial Aid in Public and Private Universities and Public Two-Year Colleges

Type of Institution	Number of Students Enrolled	Percent of All Financial Aid Recipients	Financial Aid to Institutions (in Millions)	Percent of Total Financial Aid Dollars
Public Universities	497,195	47.4%	$2,976.9	55.6%
Public Two-Year Colleges	587,244	38.4	831.3	22.8
Private Universities	115,627	12.1	1,219.4	15.5
Total	**1,200,066**	**97.9%**	**$5,027.6**	**93.9%**

Note: Public and private health-related institutions and private junior colleges included in recipient and aid dollar totals for calculating percentages.
Sources: Texas Higher Education Coordinating Board and Texas Comptroller of Public Accounts.

And this occurred despite the fact that more students are enrolled in community colleges than in public universities, and that two-year enrollees include a larger share of minority and lower-income students than at four-year schools. Public community and technical college students received only 15.5 percent of all financial aid dollars (**Exhibit 5-4**).

The two state-funded student grant programs for public colleges and universities are the "Toward EXcellence, Access and Success" (TEXAS) Grant and the Texas Educational Opportunity Grant (TEOG), both administered by THECB. The TEXAS Grant, the state's largest state-funded financial aid program, covers tuition and fees at Texas colleges and universities. TEOG is specifically intended for financially needy students attending two-year colleges.

TEXAS Grant amounts are larger for university students because they are intended to cover the costs of tuition and fees. The approximate maximum grant amounts reflect that —$2,585 per semester for students at public universities; $865 per semester for community college; and $1,325 a semester for technical college.[33]

Tuition and fees are much higher at universities, of course, but the *total* average expenses for all types of colleges are much closer (**Exhibit 5-5**). The average percentage of total costs covered by a grant award to a community college student is less than half of that for a university student.

The TEOG, intended for students enrolled at least half-time in a public community or technical college, is funded at $7 million per year for the 2008-09 biennium, a level THECB calls "woefully inadequate."[34] In 2007, in fact, the legislative appropriation was even smaller, at less than $5 million. Slightly more than $4.7 million in TEOG funds were distributed to 3,707 students that year. THECB has asked for an additional $193.6 million for the 2010-11 biennium to make TEOG available for an additional 98,425 students.

TEXAS Grant funds provided more than $175 million to 52,562 students in 2007, but only 11.6 percent of this amount went to community and technical college students.[35]

Both types of grants are intended to assist students who can demonstrate financial need. About half of all those eligible for TEXAS Grants receive them; TEOG recipients constitute only 4 percent of all eligible students.[36]

The average percentage of total costs covered by a grant award to a community college student is less than half of that for a university student.

Startup Costs

Texas community and technical colleges must train workers to meet shortages in high-demand technical occupations such as nursing, welding and computer support. Prohibitive startup and financing costs, however, may prevent schools from developing vital new programs.

Community colleges operate on tight financial margins, and find it difficult to raise the capital and financing needed to develop new and innovative programs. Furthermore, they cannot receive state funding tied to an educational program until it is established, creating a "Catch-22" barrier to new programs requiring expensive equipment.

Community colleges cannot receive state funding tied to an educational program until it is established, creating a "Catch-22" barrier to new programs requiring expensive equipment.

Furthermore, schools must assume a degree of risk in developing new programs; industrial technol-

Exhibit 5-5

Tuition & Fee Grant Amounts Compared to Total Expenses, 2007-08

Type of Public Institution	Annual Tuition & Fees Average Cost	Annual Average Total Expenses	Annual Maximum Grant Amount	Annual Average Grant Amount*	Percent of Total Costs Covered by Average Grant
Four-year university	$5,732	$17,494	$5,170	$4,735	27.1%
Community college	1,638	12,045	1,730	1,508	12.5
Technical college	2,806	12,564	2,650	2,401	19.1

*Amounts are TEXAS Grant average awards; TEOG community college average grant is 5 percent less.
Sources: Texas Higher Education Coordinating Board and Texas Comptroller of Public Accounts.

ogy and work force needs continue to evolve, potentially making even new educational programs obsolete in a relatively short time.

Incentive Funding

In July 2008, the Task Force on Higher Education Incentive Funding recommended tying a portion of community college funding to indicators based on student performance. These indicators could include the number of certificate and associate degree completions; increases in the number of transfers to four-year colleges; and student performance on standardized exams.

Research by Achieving the Dream, a national initiative intended to promote improved student performance at community colleges, indicates that incentive funding has a substantial impact on college behavior. For example, colleges with remediation measures worked with high schools to prepare students *before* entering college and provided increased counseling during remediation. Other colleges improved their student orientation programs.[37]

Incentive funding must be used carefully, however, since it could lead to lower academic standards. For example, to improve graduation rates, a college might drop courses with low graduation rates, or teachers might stop giving failing grades.

Moreover, employers often hire community and technical college students before they complete a certificate or degree, particularly in programs such as welding. Without performance measures that reward job placement, community and technical colleges could be penalized unfairly while fulfilling area industry needs.

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Real People, Real Stories

C'Leste Villarreal-Pargas

C'Leste Villarreal-Pargas attended Del Mar College in Corpus Christi right after high school and received a certificate in combination welding. She now serves as a field welder and assistant field supervisor, which means she sometimes supervises the work of other welders on the job site. A mother of two, C'Leste has been welding for more than 20 years and still loves it.

She was offered a job before she completed her welding program. A company called Del Mar College to see if any students were near certification, and C'Leste was the only one at that point. She applied and got the job right before she earned her diploma and certification. Today, she also serves on an advisory board committee for Coastal Bend College's welding department.

And now, "I am back in school, currently getting a degree in graphic arts," C'leste said. She has always enjoyed drawing and painting, and graphic arts is a field she can pursue on the side.

Special thanks to C'Leste Villarreal-Pargas for sharing this success story.

CHAPTER 6

Steps Texas Should Take

The following proposals could help Texas ensure that its community and technical colleges continue to help students embark on well-paid careers while supplying area employers with the technically skilled workers they need to succeed.

1. **The Texas Education Agency, the Texas Higher Education Coordinating Board, the Texas Workforce Commission and the Texas Comptroller of Public Accounts should collaborate on programs to make parents and students aware of all postsecondary educational options, including career and technical education (CTE), as well as the availability of financial assistance.**

   The Texas Comptroller of Public Accounts should be added to the College for All Texans Web Portal Working Committee. Committee members should ensure that Texas' Web portal delivers information on CTE and job opportunities, and emphasize jobs and skills in high demand. The Web site should provide materials in English and Spanish in an attractive style designed to pique interest.

   In addition, the GO Centers should ensure that their staff and volunteers emphasize career and technical education opportunities and direct students to the new CTE Web portal for more information. GO Center workers should be trained to assist families in filling out the FAFSA. One of THECB's performance measures should be tied to the number high school seniors in Texas who complete this form.

   The site should also provide information on financial aid available to Texas students interested in CTE. The *Compendium of Texas Colleges and Financial Aid Calendar*, produced annually by the Minnie Stevens Piper Foundation, indexes financial aid programs alphabetically and by subject, and is available through the Comptroller's Web site *Every Chance, Every Texan* (http://www.everychanceeverytexan.org). The Comptroller's office is working to make this resource more user-friendly for all students, including those attending or planning to attend two-year institutions.

   The site should be supplemented with TEA and THECB data on educational programs and outcomes, and TWC data on work force outcomes.

   THECB should conduct ongoing evaluations of these outreach efforts to determine their effectiveness.

2. **THECB, TEA and TWC should use data from the Automated Student and Adult Learner Follow-up System to assess the economic benefits of colleges and their programs to students and the state.**

   The results of this research should be disseminated electronically to make current and prospective students aware of the value of all postsecondary options. In conducting this research, THECB should ensure it protects the privacy of individual students and workers.

3. **Texas should ensure that state policies such as the new "four-by-four" policy and GPA calculation standards do not prevent or discourage students from enrolling in career and technology courses.**

   The state should include some rigorous CTE courses in the four-by-four graduation plan.

   The GPA Advisory Committee should consider the effects of excluding CTE courses from GPA calculations, to ensure that the state does not create an incentive for students to avoid career and technical courses.

When given a choice to select elective courses in high school, students are drawn to classes that count toward their GPA. Omission of GPA weight for courses not aligned with university coursework may deter students from gaining an interest in technical skills and could depress enrollment in CTE courses at community and technical colleges.

4. **Texas should appropriate $25 million for the 2010-11 biennium to establish a "Jobs and Education for Texans" (JET) Fund to support programs that prepare low-income students for careers in high-demand occupations; to defray startup costs associated with CTE courses; and to provide scholarships for students in career and technical programs.**

Incentive funding programs must be used carefully, since they can have adverse consequences including increased administrative costs to comply with new incentives, lower academic standards and decreased enrollment for less prepared students.

The comptroller would administer this fund, with an advisory board chaired by the comptroller and including members appointed by the governor, lieutenant governor, speaker of the House, Texas Higher Education Coordinating Board and Texas Workforce Commission. The board would meet quarterly to review applications and award grants.

The proposed JET fund would award grants in three broad categories:

Grants for Innovative and Successful Programs — up to $10 million in grants over the biennium would be dedicated to expanding existing programs that help low-income students attend community and technical colleges. The grants should require matching local funds from the colleges, area employers, industry consortia or community-based organizations.

Grants should be awarded to programs that show above-average retention and completion rates, and have a proven track record of providing trained workers to meet local needs at wages equal to or above the prevailing wage of the occupation entered. The grants should be awarded in a way that ensures an equitable geographic distribution.

Startup Funding for Career and Technical Programs — up to $10 million over the biennium would be dedicated to help start new CTE programs that support high-growth industries and train students for in-demand occupations in their areas and throughout the state.

The grant process could be modeled after the Texas Enterprise Fund (TEF) administered by the Governor's Office, and could be used in conjunction with TEF to attract and develop business in Texas communities. Grants would be awarded to help community and technical colleges finance up-front costs associated with course development, equipment purchases, facility construction or renovation and other expenses.

As with TEF, grants would be awarded on a competitive basis; selection should be based largely on potential economic returns to the state. Other elements to be considered could include new, emerging industries and high-demand occupations. The fund also should require that programs receiving this funding lead to degrees or postsecondary certificate awards.

As with the grants for innovative and successful programs, startup grants should require matching local funds. For this program, however, local match could include private investments such as in-kind donations of land, facilities or equipment or qualified instructors as well as direct funding. This would demonstrate the local partners' commitment to the program and limit the risks involved.

Scholarships for Community and Technical College Students — at least $5 million will be granted directly to community and technical college students with demonstrated financial need enrolled in CTE programs for high-demand occupations.

5. **Texas should ensure that any incentive funding for postsecondary technical education is linked to measures that help ensure the state receives a positive return on its investment. It should be designed so that it does not punish community and technical colleges for successful work force outcomes.**

Some portion of state appropriations could be allocated to technical training programs based on their *economic return to the state*. The state could establish a method whereby it estimates the additional tax revenue generated by technical and community colleges' success in meeting employer needs. It could then appropriate some funding based on incremental revenue gains to the state.

For any incentive funding based on completion rates, the state should count as a 'completer' any student who left community or technical college to take a job related directly to the training program in which the student was enrolled.

Community and Technical College Site Visits

To gain an understanding of the challenges facing community and technical colleges, Comptroller staff visited schools throughout the state. Staff conducted interviews with college officials, area businesses, local organizations and others to gain a perspective on work force needs and the education service providers in those communities.

Community college districts chosen for these site visits were selected based on several criteria. To get a cross-section of the state's community and technical colleges, careful consideration was given to include institutions representing various geographic regions in both rural and metro parts of the state, as well as schools with both large and small enrollments.

The following section describes some of these institutions and the unique ways in which they serve their communities and provide Texas employers with workers trained to perform the jobs that are vital to the state's economic future.

Alamo Academies

San Antonio's Alamo Area Academies educate and train high school students for high-skill, well-paid industry jobs. The academies are a partnership of community businesses, the Alamo Community College District (ACCD), 17 school districts in the San Antonio area, the city of San Antonio, Alamo Workforce Development and others."[1]

ACCD in partnership with the independent school district (ISDs) in the San Antonio area offers industry-driven dual-credit courses through three individual Alamo Academies: the Alamo Area Aerospace Academy, which started in 2001; the Information Technology and Security Academy, which opened in 2002; and the Manufacturing Technology Academy, which opened in 2004. The two-year Alamo Academy high-tech training and education program is free to high school juniors and seniors. ACCD provides the instruction and facilities at no cost, and the ISDs pay for the student's books and transportation.

Academy students can earn 30 hours of college credit towards higher education and at the same time train for well-paid careers. In addition to the course work, all Academy students must work 40 hours per week in an eight-week paid internship between their junior and senior year. Students are also offered job shadowing and mentoring opportunities. In a recent article a graduate of the Manufacturing Technology Academy was quoted as saying, "I had great teachers that gave us fun and exciting lab projects that allowed me to be more creative and get more hands-on experience."[2] He was hired while finishing his last year of high school and now earns $18 an hour in addition to overtime and benefits.[3]

Of just more than 500 students attending the Alamo Academies through Spring 2008, 375 have graduated. A high percentage of Academy graduates — 96 percent — get a job in their area of study or go on to community colleges or four-year institutions.[4] At Lockheed Martin, one of the founding partners of the Aerospace Academy, students from the program now account for about 13 percent of their San Antonio work force.[5]

Peggy Walton, at the National Association of Manufacturers, has complimented the Alamo Manufacturing Technology Academy (MTA) saying, "What we need is a whole new system of technical education. I'm really excited about what they're (MTA) doing."[6] Dr. Zaragoza at the ACCD says of the Academies, "It is a win for students, employers, and the community."[7] The Academies are teaching students marketable skills while also providing the high-skilled workers needed by today's employers.

Bell Helicopter and Amarillo College

Over the last decade, Amarillo College and Bell Helicopter Textron Inc. have collaborated to train hundreds of workers for Bell's military aircraft assembly center in Amarillo. The company has worked closely with Amarillo College to develop a training program preparing students to work at the assembly center.

Students enroll in the training program through Amarillo College, a community college, and are responsible for paying about $1,500 in tuition for the program. Upon completing the training, students are guaranteed a preferential hiring interview at Bell. Students who interview but do not receive jobs immediately remain in the applicant pool for future job openings. Candidates often are interviewed by several supervisors before receiving a job offer.[8]

As of June 2008, 424 students had graduated from the program and 218 had been hired by Bell Helicopter.[9] Starting hourly wages range from $12.50 to $22.70, depending on previous experience.[10] Graduates of the program who do not go to work at Bell have learned skills they can use for similar jobs in the areas of composites, machining and assembly. They receive official college transcripts they can use to help land those jobs.

Community support, including the training partnership with Amarillo College, played a key role in Bell Helicopter's decision to locate the assembly center in Amarillo. The facility now employs 731 Amarillo residents, with plans to expand in the near future.[11] This partnership has reaped rewards for the company, the community college and the community.

El Paso Community College: Work Force Development and Lifelong Learning

The El Paso Community College (EPCC) Division of Workforce Development and Lifelong Learning provides education and training services through partnerships with industry as well as the Regional Economic Development Corporation, the Greater El Paso Chamber of Commerce, El Paso's Department of Economic Development and Upper Rio Grande Workforce Solutions.

From 2003 through October 2008, the division received more than $14 million in public and private funding for business and work force development activities. Businesses ranging in size from one employee to more than a thousand have benefited from the division's resources. They include health care providers, manufacturing companies, shipping and distribution operations, retail and wholesale trade and customer contact centers.

Curriculum development that meets the area's work force needs is an ongoing process. The college has, for, example developed training programs for two El Paso hospitals and five area plastics manufacturers.

EPCC's Institute for Customer Service Excellence has developed customized training for the retail industry and customer contact centers. Successful program participants receive certification from the National Retail Federation.

EPCC's Workplace Literacy Department has developed a statewide, customized training program for workers with limited English proficiency. The program, created for Texas LEARNS, provides curricula related to sales and service, healthcare and manufacturing.

EPCC's Small Business Development Center is developing a manufacturers' Web site for the El Paso, Dona Ana County, New Mexico and Juarez, Mexico region. The Web site, which will include 500 companies, will enhance the development of supplier relationships and product sourcing.[12]

Howard College

Howard College in Big Spring serves 13 surrounding counties covering 13,000 square miles, and serving almost 13,000 students.

To cover its vast service area, Howard College employs "The Virtual College of Texas" (VCT), a collaborative of Texas public two-year colleges that shares distance-learning courses among its members. During the fall 2008 semester, 149 Howard College students were enrolled in 103 VCT courses.[13] Additionally, Howard College offered 75 courses online, with 1,154 student enrollments.[14]

Howard College's Southwest Collegiate Institute for the Deaf (SWCID) is the world's only community college program for the deaf.[15] SWCID began operation in 1980 on the site of the former Webb Air Force Base. Completion of a new work force training center on the SWCID campus to house building trades, welding and automotive training programs is slated for Spring 2009.[16]

The campus serves a primarily deaf population, offering programs ranging from graphic arts to dental laboratory technology. All faculty and staff on campus can communicate in sign. Howard College also is working with regional day deaf schools to provide their students with dual-credit courses.[17]

Howard College also serves inmates at the Eden Detention Center, Big Spring Federal Correctional Institute (FCI) and the Cornell Correctional Centers. Howard College offers classes in computer, masonry, plumbing, electrical, heating and air conditioning, carpentry, drafting, horticulture, pre-industry, high-tech soldering and executive housekeeping through training offered at the FCI and the Eden Detention Center. College courses also are available at FCI, offering inmate students the opportunity to pursue a certificate or associate degree in business. The four Cornell Correctional Centers and FCI also offer adult basic education, English as a second language and GED classes.[18]

Lamar Institute of Technology

The Texas State University System contains three two-year Lamar Colleges. The Lamar Institute of Technology (LIT) offers an Associate in Applied Science.

Programs offered at LIT include welding, emergency medical services, dental hygiene and health care. Work force training is offered as a non-credit course and some foreign companies have asked LIT to train their employees. After LIT receives a request for work force training, it develops a curriculum for the individual company's needs.

Despite the high interest in courses offered at LIT, the school suffers from a space deficit of around 88,000 square feet. Technical training programs are housed in older facilities that are not suitable for classroom and lab space. Health care classes in particular are limited due to space restrictions. In some instances, LIT has provided companies with customized training off site.[19]

The number of students attending LIT has continued to increase, from 2,422 students in 2002 to 2,590 students in 2007 (despite a slight decrease in 2006 due to the effects of hurricane Rita).[20] In fiscal year 2007, LIT awarded 394 Associate degrees and 148 Certificates. In addition, LIT job placement rates have exceeded 98 percent 2002 through 2006. In fiscal year 2006, LIT boasted a job placement rate of 99.2 percent.[21]

The Laredo Community College Economic Development Center

The Laredo Community College (LCC) Economic Development Center (EDC) attempts to coordinate work force, economic and community development efforts within the college's district. The EDC focuses on strategies designed with the help of area businesses to meet key industry needs, with particular concentration in the oil and gas, manufacturing, hospitality, international trade and health sectors.

The college EDC plays an active role in Laredo's economic growth by surveying area employers to identify their training needs and integrating them into LCC's curriculum. In this way, LCC can ensure that its students have the tools they need to prosper in the local as well as global economies.

For example, when Conoco-Phillips, one of the state's largest oil producers, asked LCC to consider offering a training program for lease operators, the EDC led the development of the program. With the company's support, the EDC is creating a series of associate degrees in applied science, safety training and industry awareness to prepare individuals for jobs in the oil and gas industry.[22]

The EDC also is developing a Workplace Literacy Council, which will address the challenges facing the large share of the South Texas population that lacks the mastery of English needed to perform basic job tasks.[23]

Lone Star College

The Lone Star College System, serving the region north of Houston, offers classes to about 50,000 students, compared to the community college average of 5,000.

The system recently created a new administrative department to negotiate contracts that would allow it to access programs offered at other colleges that it does not currently offer. The system also created Lone Star Corporate College, a new office designed to streamline its customized training operations. In a recent press release, the system listed Anadarko, Halliburton, Hughes Christensen, Conroe Regional Medical Center and Houston Airport System as corporate partners.[24]

In some cases, Lone Star College approaches employers and develops customized training programs for current employees. In addition, employers routinely take advantage of its programs to teach current employees new skills and employers routinely use the community colleges to gain employees with needed skills. For example, Lone Star College has worked with Exxon to develop employee training programs. Exxon bought the equipment needed for the training classes and Lone Star College technicians developed the program.[25] According to Richard Carpenter, chancellor of Lone Star College, the Exxon program was designed because "we need more people with tomorrow's skills."[26]

Lone Star currently offers 67 certificates in diverse fields such as digital publishing and machining across five campuses through its work force program. The system also has issued bonds for the construction of a new healthcare education building.

McLennan Community College and the Heart of Texas Workforce Center

McLennan Community College (MCC) and the Heart of Texas Workforce Center work together to train workers for employers in McLennan and Falls counties. MCC's Corporate and Professional Training Department delivers consulting services and customized corporate training. Trainers listen to each client's challenges and design solutions to meet their goals.

Over the past three years, 23 local employers have received Employee Development Fund grants from the Heart of Texas Workforce Board. Using discretionary training funding, the Heart of Texas Workforce Center and MCC have focused on the immediate needs of local businesses, promptly designing and delivering training initiatives in computer technology, Occupation Safety and Health Administration safety certification, English and Spanish workplace readiness, customer service and supervisory leadership, among others. This partnership between local employers, the Heart of Texas Workforce Board, and MCC has provided training to more than 830 workers over the past three years.

Without the grants, training for these employers may not have been available. The opportunity presented by the Employee Development Fund enhanced the skills of individual employees and improved business productivity. MCC reports that the partnership strengthened its business relationship with each employer and the Heart of Texas Workforce and appreciates the value of the grants to local employers.

Midland College

Midland sits atop the Permian Basin, the heart of the West Texas oil and gas industry. Midland College is working to keep the students of the Permian Basin at the forefront of the energy industry, moving their education beyond oil and gas to include other sources of energy.

The college is developing an Energy Tech Program to meet local employer needs in the fields of wind, petroleum, solar and nuclear power. Midland Independent School District will partner with Midland College to offer dual-credit courses in the program beginning in fall 2009. Deana Savage, Midland College's associate vice-president for Instruction, says local energy employers are very supportive and that the college is working with them to develop the program.[27]

Midland College will expand its Field Services Technician program to include the Energy Tech Program. The Field Services Technician program provides students with the understanding and skills needed to maintain, repair and upgrade programmable logic controllers and other electronics systems used in the petroleum industry. The course of study is designed to assist students in developing skills, attitudes and competencies for future employment; to upgrade existing skills; or to prepare them for further study at a university.[28]

The Permian Basin Workforce Development Board reports that jobs for energy technicians increased by 100 from September 2008 to November 2008 and by 600 in the past 12 months.[29]

According to the American Wind Energy Association, the United States currently has more than 11,000 MW of installed wind energy capacity. Research conducted by Roger Bezdek for the American Solar Energy Society (ASES) concluded that in 2006 the wind industry created 16,000 direct jobs and 36,800 total jobs. A study by the IC^2 Institute reports that Texas could add 123,000 new high-wage jobs by 2020 to its economy by actively moving toward solar power.[30]

Two Innovative Programs at Odessa College

Odessa College was established in 1946 with 184 students, offering classes in the old Odessa High School after hours. Today, the school's home is a $55 million main campus in Odessa covering 80 acres, including 25 buildings with more than 150 classrooms, laboratories and other facilities. The college annually enrolls about 5,000 students in academic and occupational/technical courses.[31]

Welding Training

Odessa College has transformed a former woodworking shop into an award-winning, state-of-the-art welding facility. The American Welding Society gave the Odessa College Welding Training Center its "Image of Welding Award" at its national conference on October 6, 2008. Odessa College was one of five campuses in the nation and the only campus in Texas to receive the award.[32]

In January 2008, Odessa College received a $1.7 million, three-year grant from the U.S. Department of Labor to expand its welding program. The grant allows Odessa College to offer a six-week certificate program tuition-free to students. Students also receive personal welding equipment such as goggles and gloves to take to subsequent employment. In all, the grant is expected to serve 500 students.[33]

After completion of the grant, Odessa College will continue the welding training program. For an investment of six weeks of training and an estimated cost (for in-district students) of $800, which includes tuition, books and equipment, graduates will be able apply for employment as trained welders with an average beginning annual salary of $40,000 in West Texas.[34]

Occupational Safety and Health Technology

Odessa College also offers a 100 percent online course in occupational safety and health technology (OSHT). The OSHT degree is designed for people who want to advance in a company safety or environmental department or for those seeking employment in the field. The two-year program produces safety and environmental professionals with the background needed to create a safe and healthy work environment that complies with current regulations.[35]

The program allows students to pursue their careers without interruption while enrolled in school. The estimated salary for an OSHT officer ranges from $30,000 to $50,000 annually.

The Southern Association of Colleges and Schools has approved the OSHT degree program. Odessa College is one of only six Texas community colleges approved to offer a full online degree program.[36]

Paris Junior College

As part of a $1 million Skills Development Fund grant, Paris Junior College (PJC) has partnered with L-3 Communications Integrated Systems to train workers for entry-level aircraft maintenance positions. The partnership will create 509 jobs in the region and upgrade an additional 1,226 jobs with average hourly wages of $20.08.[37]

L-3 Communications, headquartered in Greenville, Texas, is the nation's sixth-largest defense company. It is a leading defense contractor in intelligence, surveillance and reconnaissance systems, secure communications and aircraft modernization and maintenance. L-3 also develops homeland security products for aviation, port, maritime and cargo security.[38]

The junior college's program offers a state-of-the art training facility at Majors Field, including a 6,000 square-foot aircraft hangar. Graduates receive a structural aircraft maintenance certification and gain the skills needed to begin work immediately.[39]

In September 2008, PJC, Northeast Texas Community College and Texarkana College partnered with the Regional Advanced Manufacturing Academy (RAMA) Consortium to create a new program funded by a $1.2 million Skills Development Fund grant. The program will train students as machine operators, maintenance technicians and production team leaders and supervisors. It will create or upgrade 709 jobs with an average hourly wage of $18.24. RAMA is a 14-member consortium, including companies such as Alcoa Mill Products, Campbell Soup and Kimberly-Clark.[40]

The three colleges are sharing program responsibilities. PJC offers training in manufacturing applications, while Texarkana Community College teaches safety and lien concepts and Northeast Texas offers logistical concept training.[41]

South Texas College: Fuel for the Valley's Economic Engine

South Texas College (STC), nestled in the heart of the Rio Grande Valley, has five campuses in McAllen, Rio Grande City and Weslaco.[42] STC has a total enrollment exceeding 20,000 and employs more than 1,600 faculty and staff members.[43]

The college offers more than 100 degree and certificate options, including associate degrees and a bachelor's degree program. STC's Bachelor of Applied Technology (BAT) is one of only three programs of its kind offered at a Texas community college. STC also has a dual enrollment program currently serving about 6,000 high school students.[44]

South Texas College has developed a Partnership for Business and Industry Training Center that has offered classes throughout Hidalgo and Starr counties. It creates classes in collaboration with client businesses to train either prospective or current employees. In addition, companies relocating to the Rio Grande Valley can take advantage of this partnership to train their transplant employees.[45] South Texas regional job growth has soared with nearly 50,000 jobs added in the past five years.[46]

STC also participates in the North American Advanced Manufacturing Research and Education Initiative (NAAMREI), a consortium aimed at developing a skilled manufacturing labor force. The University of Texas—Pan American Rapid Response Manufacturing Center provides services, a location for training and technological resources for STC students.[47]

Side by Side: Tarrant and Dallas Counties Community College Districts

The Tarrant County and Dallas County community college districts serve more than a quarter of Texas' entire population in the Dallas/Fort Worth Metroplex. Tarrant County College district (TCC) has four campuses, with a fifth to be added by Fall 2009. Dallas County Community College District (DCCCD) has seven separately accredited colleges within its district. Those colleges, while being responsive to the needs of their own communities, must also collaborate within the DCCCD system, just as the two districts collaborate across their territorial boundaries.

DCCCD is Texas' largest undergraduate institution, with nearly 62,000 students enrolled in fall 2008. As with many community colleges, most of those students do not attend classes full-time; nevertheless, at a 15-credit hour standard, the district has more than 34,400 full-time-equivalent students. TCC is the smaller of the two with 39,000 enrolled students, but both institutions are growing fast, as are most Texas community colleges.[48]

In addition to standard associate of arts and sciences degrees and core academic curriculum courses, TCC and DCCCD provide more than 150 applied science degree and certificate programs as well as numerous continuing education courses for skills enhancement and contract training programs for employers.[49] The districts work closely with their local work force development boards to address the demand for skilled, educated workers in certain areas of the regional economy.

Because they share a major metropolitan area, TCC and DCCCD have many overlapping areas of emphasis in preparing their students for job opportunities. Both offer multiple programs in the medical and allied health fields, but the individual programs have some differences: TCC focuses on respiratory health, nursing and emergency medical services, while DCCCD offers some more resource-intensive courses in sonography, MRI, echocardiology and radiography. TCC has offerings in energy construction (not surprising, given the area's natural gas production boom); Dallas has several programs in computer technology. Both districts also are seeing increasing demand from the manufacturing sector.[50]

DCCCD's colleges conduct dozens of employer-specific contract training courses over the course of a year. For the last four years, DCCCD reported about $10 million in revenue from such contracts.[51] In addition to training contracts with employers, individual colleges within the DCCCD system sometimes subcontract with each other to fulfill specific training needs.

Both districts, as well as the work force development boards, are aware of the challenges and opportunities facing the Metroplex: an aging work force ready to take their expertise into retirement; a growing population that must have the job skills to replace those employees; and business and industrial sectors that want trained workers now.[52] Since 1965, when both TCC and DCCCD were created, these institutions have worked side by side to answer their communities' needs.

Skills Training Center at Tyler Junior College

Tyler Junior College offers several career training programs at its Skills Training Center on the school's West Campus. The facility houses the only certified auto tech program in a Texas community college. The program is technology-intensive, as today's vehicles are increasingly complex and often have more than a dozen onboard computers. Students are expected to have a background in math and physics and an adequate reading level. Tyler Junior College expects to expand the program to cover technologies such as biodiesel and ethanol fuels and fuel-cell vehicles.

The auto tech program is also dual credit, meaning that high school students can earn college credit and receive reimbursements from the school district for classes and certifications. A junior in high school can enroll in the two-year program and receive certification by August after graduation. With this first certification, a worker can perform 90 percent of the work performed at dealerships and repair shops.[53]

Luminant, the power-generating subsidiary of Energy Future Holding Group, recently opened the Luminant Academy at the Skills Training Center; classes began in March 2008. The academy offers an 18-week Basic Skills Tool Belt Program for instruction simulation equipment, industrial controls, pumps, piping, safety training, hydraulics and rigging systems.[54] Students train for different periods of time depending on the experience needed. The academy will train 200 to 300 students per year. Students earn an average $25 per hour, or $52,000 annually, upon graduation.[55]

Luminant invested $5.9 million in the 24,000-square-foot facility, including $1.7 million for construction, $3.7 million for simulators and $500,000 for training equipment.[56]

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Institution Profiles

This section contains short profiles of all 50 community college districts in Texas, as well as the Texas State Technical College System and the two-year Lamar colleges.

In assessing the profiles of each institution, information was collected from individual Web sites of each community college, the Texas Higher Education Coordinating Board and representatives of each individual community college.

Except where otherwise noted, tuition and fees per semester credit hour at community colleges were derived from tuition and required fees reported to the Comptroller's office by community colleges.

Alamo Community Colleges

Contact Information

Dr. Bruce H. Leslie, Chancellor
3535 N. Ellison Drive
San Antonio, Texas 78251
(210) 208-8020
http://www.accd.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$59.56
Nonresident Tuition & Fee Rate:	$103.56

Enrollment (Fiscal 2007)

Total enrollment:	76,619	Anglo:	40.0%
In-District:*	76.3%	Hispanic:	49.0%
Out-of-District:*	10.5%	African American:	7.2%
Full-time:**	35.1%	Asian:	2.6%
Female:	58.0%	Native American:	0.4%
Male:	42.0%	International:	0.7%
		Other:	0.1%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

The Alamo Community College District (ACCD) includes five colleges: San Antonio College, St. Philip's College, Palo Alto College, Northwest Vista College and Northeast Lakeview College. The Alamo Community Colleges offer a comprehensive curriculum that includes university transfer, work force education and career and technology programs. Degree-seeking students attending any of the Alamo Community Colleges can pursue associate degrees, occupational certificates and university transfer programs.

University Transfer: Students interested in obtaining a four-year degree can complete their first two years of a bachelor's degree in education, engineering, health, science, mathematics, liberal arts and many more academic areas. ACCD has formal articulation agreements with various universities including the University of Texas - San Antonio, Texas A&M - Kingsville and Texas State University. These agreements ensure that credits earned at any of the Alamo Colleges are accepted when students transfer to state or private universities.

Work Force and Career and Technology Programs: ACCD students can pursue associate degrees, certificates and licenses in occupational programs that prepare them for jobs. The Alamo Colleges offer more than 325 degree, occupational certificate and college transfer programs, including career pathways in the region's fastest-growing economic sectors of health care, aviation, information technology, finance, construction and advanced manufacturing. Examples of ACCD programs that can be completed in one or two years include:

- registered nursing, licensed vocational nursing, radiography, cardiovascular, sonography, dental assistance
- computer numerical control, robotics, electronics, electro-mechanical technician
- computer science, computer programming, network administration

Total Degrees and Certificates Awarded, fiscal 2007

Total:	3,601
Associates:	2,628
Certificates:	972

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	469	35.1%	1,745	84.4%
Employed and Enrolled *(in Senior Institutions)*	576	43.1	86	4.2
Enrolled Only *(in Senior Institutions)*	175	13.1	12	0.6
Enrolled Only *(in Community Colleges)*	41	3.1	84	4.1
Not Found	75	5.6	140	6.8

Alvin Community College

Contact Information

Dr. A. Rodney Allbright, President
3110 Mustang Road
Alvin, Texas 77511
(281) 756-3598
http://www.alvincollege.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$40.19
Nonresident Tuition & Fee Rate:	$68.19

Enrollment (Fiscal 2007)

Total enrollment:	8,897	Anglo:	57.9%
In-District:*	28.3%	Hispanic:	21.6%
Out-of-District:*	38.4%	African American:	11.2%
Full-time:**	34.2%	Asian:	2.1%
Female:	52.2%	Native American:	0.5%
Male:	47.8%	International:	0.3%
		Other:	6.4%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Alvin Community College (ACC) offers university transfer credit, associate degrees, one-year certificates and numerous continuing education career programs.

University Transfer: Credits earned at ACC can be transferred to a university and/or applied toward a two-year associate degree or one-year certificate in fields such as business technology, child development, broadcast communications, computer science, court reporting, criminal justice, culinary arts, diagnostic cardiovascular sonography, drafting, emergency medical technology, management, nursing and respiratory care.

Career Programs: ACC's Continuing Education and Workforce Development Department offers a wide selection of training programs that help students enter the work force quickly. Programs include bank telling, Microsoft Office, massage therapy, certified nursing assistant, CPR basic life support, medical terminology, medical coding/transcription, nurse refresher training, certified pharmaceutical sales representative, pharmacy technician, phlebotomy, insurance sales, loan officer, real estate appraisal/marketing/inspecting, welding and commercial truck driving.

Special Interest: ACC also provides lifelong enrichment opportunities for people of all ages, including classes and programs for children and senior adults and special-interest classes such as karate, party planning, art, Latin dancing, concealed handgun certification, fitness, communication and budgeting.

Degrees and Certificates Awarded, fiscal 2007

Total:	845
Associates:	421
Certificates:	423

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	118	32.1%	298	65.8%
Employed and Enrolled *(in Senior Institutions)*	137	37.2	4	0.9
Enrolled Only *(in Senior Institutions)*	54	14.7	1	0.2
Enrolled Only *(in Community Colleges)*	14	3.8	25	5.5
Not Found	45	12.2	125	27.6

Amarillo College

Contact Information

Dr. Steven W. Jones, President
P.O. Box 447
Amarillo, Texas 79178
(806) 371-5123
http://www.actx.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$58.75
Nonresident Tuition & Fee Rate:	$75.75

Enrollment (Fiscal 2007)

Total enrollment:	30,520	Anglo:	68.0%
In-District:*	27.3%	Hispanic:	19.1%
Out-of-District:*	14.4%	African American:	3.5%
Full-time:**	27.7%	Asian:	1.5%
Female:	53.2%	Native American:	0.9%
Male:	46.8%	International:	0.2%
		Other:	6.8%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Amarillo College (AC) offers 157 degree and certificate programs including both university transfer and career and technical education programs. AC currently has the state's largest enrollment in continuing education work force offerings.

University Transfer: Amarillo College offers 48 associate degree programs leading to transfer. Each of these programs requires a 42-hour core of coursework that can be transferred to any other Texas public institution to meet the requirements of the first two years of a bachelor's degree. AC's university transfer programs include education, engineering, mathematics, business, mass communications and a variety of fine and liberal arts programs. AC offers six of the 10 Field of Study programs approved by the Texas Higher Education Coordinating Board.

Career and Technical Education Programs: AC's programs include:

- *manufacturing*, including aerospace engineering and manufacturing (in partnership with Bell-Textron Helicopter), robotics, non-destructive testing and electronics technology;
- *information technology*, including computer information systems and graphic arts;
- *health care*, including nursing and 13 allied health programs including nuclear medicine, occupational therapy, physical therapy, dental hygiene and radiography; and
- *transportation*, including professional truck driving and automotive, diesel and aviation maintenance.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,188
Associates:	710
Certificates:	478

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	129	34.5%	710	85.0%
Employed and Enrolled ***(in Senior Institutions)***	172	46.0	24	2.9
Enrolled Only ***(in Senior Institutions)***	42	11.2	5	0.6
Enrolled Only ***(in Community Colleges)***	12	3.2	19	2.3
Not Found	19	5.1	77	9.2

Angelina College

Contact Information

Dr. Larry M. Phillips, President
3500 South First Street
Lufkin, Texas 75904
(936) 633-5201
http://www.angelina.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$39.56
Nonresident Tuition & Fee Rate:	$59.56

Enrollment (Fiscal 2007)

Total enrollment:	9,672	Anglo:	76.7%
In-District:*	31.0%	Hispanic:	7.7%
Out-of-District:*	34.6%	African American:	14.3%
Full-time:**	42.7%	Asian:	0.6%
Female:	66.5%	Native American:	0.2%
Male:	33.5%	International:	0.1%
		Other:	0.4%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Angelina College offers both university transfer and career programs for students.

University Transfer: For students interested in obtaining a four-year degree, Angelina College offers courses that will provide the first two years of a degree in education, engineering, health science, mathematics, liberal arts and other academic areas. See <http://www.angelina.edu> for a complete list.

Career Programs: Angelina College also offers a wide variety of career programs and majors that lead directly to the job market. See http://www.angelina.edu for all programs. College credit certificates or associate degrees are available in 26 occupational programs, including business and computer courses, child development, criminal justice, industrial certifications in electronics, fluid power, drafting and machine tool technology and many others.

The college's Community Services Division also provides continuing education opportunities through a police academy, fire academy, courses for small businesses, nurse's aide and short-term medical courses and customized training for business and industry.

Total Degrees and Certificates Awarded, Fiscal 2007

Total:	634
Associates:	318
Certificates:	316

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	41	30.8%	482	84.3%
Employed and Enrolled *(in Senior Institutions)*	51	38.3	29	5.1
Enrolled Only *(in Senior Institutions)*	21	15.8	3	0.5
Enrolled Only *(in Community Colleges)*	9	6.8	24	4.2
Not Found	11	8.3	34	5.9

Austin Community College

Contact Information

Dr. Stephen B. Kinslow, President
5930 Middle Fiskville Road
Austin, Texas 78752
(512) 223-7000
http://www.austincc.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$53.50
Nonresident Tuition & Fee Rate:	$133.06

Enrollment (Fiscal 2007)

Total enrollment:	60,825	Anglo:	59.3%
In-District:*	61.0%	Hispanic:	22.2%
Out-of-District:*	29.8%	African American:	7.9%
Full-time:**	24.6%	Asian:	6.2%
Female:	56.2%	Native American:	0.8%
Male:	43.8%	International:	1.8%
		Other:	1.8%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Austin Community College (ACC) offers both university transfer and career programs for students (see http://www.austincc.edu/cataloghtml/programs.php for a complete list).

University Transfer: For students interested in transferring to a university, ACC offers courses that will provide the first two years of a bachelor's degree in a multitude of majors including education, engineering, health sciences, mathematics, liberal arts, etc. ACC has formal articulation agreements with 21 universities to ensure that all credits taken at ACC will apply toward a degree.

Career Programs: ACC offers a variety of career programs leading directly to the job market. Programs that can be completed in one to two years include:

- *video game development* – this program was designed and developed and is taught by leaders in the Austin video game industry. It offers a comprehensive approach to success in video game development.
- *nursing* – ACC's nursing program offers two tracks. The traditional track offers basic nursing education (online or on-site) to unlicensed individuals. The mobility track is an accelerated program for individuals who already have their licenses or certification in related health care fields (such as licensed vocational nurses and emergency medical services technicians).
- *automotive technology* – ACC's program offers automotive technician training, with degree and certificate options including a two-year Associate in Applied Science degree, a one-year certificate, a specialized certificate for less than one year of study and an enhanced skills certificate.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	1,461
Associates:	1,055
Certificates:	406

Total does not include an advanced Technology certificate program that comprises 16-50 semester credit hours and requires student to have an associate or bachelor's degree or be a junior in a bachelor's degree program omitted from total.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	350	44.6%	909	85.4%
Employed and Enrolled ***(in Senior Institutions)***	246	31.3	46	4.3
Enrolled Only ***(in Senior Institutions)***	99	12.6	17	1.6
Enrolled Only ***(in Community Colleges)***	47	6.0	31	2.9
Not Found	43	5.5	62	5.8

Blinn College

Contact Information

Dr. Daniel J. Holt, President
902 College Avenue
Brenham, Texas 77833
(979) 830-4111
http://www.blinn.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$63
Nonresident Tuition & Fee Rate:	$92

Enrollment (Fiscal 2007)

Total enrollment:	23,714	Anglo:	75.6%
In-District:*	4.3%	Hispanic:	11.2%
Out-of-District:*	83.2%	African American:	9.6%
Full-time:**	53.9%	Asian:	1.6%
Female:	53.3%	Native American:	0.6%
Male:	46.7%	International:	1.1%
		Other:	0.3%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: Blinn College offers freshman and sophomore-level courses that allow students to enter a four-year institution at the junior level (see http://www.blinn.edu/CatalogPDF/coursedesc.pdf for a complete course listing). Students can also earn an associate degree with these courses in areas of concentration including mathematics, foreign languages, natural sciences and many more (see http://www.blinn.edu/CatalogPDF/academic_regs.pdf for a complete list of degrees and certificates offered). Blinn College has formal agreements with four-year institutions including Texas A&M University, Sam Houston State University and the University of Houston at Victoria to ensure that credits taken at Blinn College can be applied toward a bachelor's degree.

Career Programs: Blinn College also offers a variety of technical and work force programs designed for direct job market placement (see http://www.blinn.edu/twe/index.htm and http://www.blinn.edu/workforce/index.htm for all programs). Blinn College's programs include:

- graduates of the associate degree nursing program receive an Associate of Applied Science (AAS) degree in nursing and can take the National Council Licensing Exam to become a registered nurse.
- students completing the legal assistant (paralegal) AAS degree are eligible to take the National Association of Legal Assistants certification exam.
- The EKG technician certification program prepares students to work as EKG technicians. Upon successful completion of the class, students may take the national exam for EKG technicians.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,036
Associates:	751
Certificates:	285

Total does not include an advanced Technology certificate program that comprises 16-50 semester credit hours and requires student to have an associate or bachelor's degree or be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	195	40.5%	238	89.5%
Employed and Enrolled ***(in Senior Institutions)***	210	43.6	17	6.4
Enrolled Only ***(in Senior Institutions)***	52	10.8	2	0.8
Enrolled Only ***(in Community Colleges)***	6	1.2	7	2.6
Not Found	19	3.9	2	0.8

Brazosport College

Contact Information

Dr. Millicent Valek, President
500 College Drive
Lake Jackson, Texas 77566
(979) 230-3200
http://www.brazosport.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$46.31
Nonresident Tuition & Fee Rate:	$67.31

Enrollment (Fiscal 2007)

Total enrollment:	6,454	Anglo:	63.8%
In-District:*	51.3%	Hispanic:	23.9%
Out-of-District:*	35.2%	African American:	9.1%
Full-time:**	27.2%	Asian:	1.7%
Female:	54.4%	Native American:	0.4%
Male:	45.6%	International:	0.4%
		Other:	0.7%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University and University Transfer: Brazosport College offers a Bachelor of Applied Technology degree as well as Associate of Science, Associate of Arts and Associate of Arts in Teaching degrees. The associate degree curriculum is designed to give students a broad academic foundation for transfer.

Career Programs: Brazosport College offers 20 different areas of study leasing to Associate of Applied Science degrees and certificates, allowing students to learn the job skills needed to start a career immediately after graduation. Many of these career programs also offer transfer options.

For a complete list of Brazosport College's degree and certificate offerings, see http://www.brazosport.edu/sites/FutureStudents/Programs/default.aspx.

Customized Training: Brazosport College also offers a wide range of entrepreneurial programs through its Center for Business/Industry Training (CBIT) (see http://www.brazosport.edu/sites/cbit/Pages/Default.aspx). CBIT works with companies to customize training programs for their employees and continues to receive tremendous industrial and community support for these programs.

Brazosport College work force training also includes:

- *chemical process technology* – the American Chemical Society and the National Science Foundation have recognized the college's degree programs for their innovative curricula and their success in training process technicians.
- *bachelor of applied technology in industrial management* – this degree has increased the area's access to higher education while providing opportunities for career advancement in the field of industrial supervision and management.
- *nursing associate degree* – Brazosport College will admit its first nursing associate degree class this fall, allowing local students to complete the program on campus with clinical experience at three area hospitals.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	345
Associates:	181
Certificates:	156

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	42	40.4%	219	93.6%
Employed and Enrolled *(in Senior Institutions)*	40	38.5	5	2.1
Enrolled Only *(in Senior Institutions)*	11	10.6	4	1.7
Enrolled Only *(in Community Colleges)*	5	4.8	2	0.9
Not Found	6	5.8	4	1.7

Central Texas College

Contact Information

Dr. James R. Anderson, Chancellor
P.O. Box 1800
Killeen, Texas 76540-1800
(254) 526-1214
http://www.ctcd.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$44
Nonresident Tuition & Fee Rate:	$54

Enrollment (Fiscal 2007)

Total enrollment:	26,565	Anglo:	46.2%
In-District:*	38.9%	Hispanic:	17.4%
Out-of-District:*	43.3%	African American:	28.9%
Full-time:**	24.1%	Asian:	3.9%
Female:	48.1%	Native American:	1.1%
Male:	51.9%	International:	0.7%
		Other:	1.9%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Central Texas College (CTC) offers both university transfer and career and technical education programs.

University Transfer: CTC offers students interested in transfer programs associate degrees including a 42-hour academic core along with courses identified for a specific discipline, as described in the catalog (see http://www.ctcd.edu/catalogs/2008_2009_TX/deg_cert_req.pdf). CTC has many articulation agreements with both in-state and out-of-state universities ensuring that credits acquired by CTC students are fully transferable.

Career and Technical Education: CTC's career and technical education offerings are described in the catalog (see http://www.ctcd.edu/catalogs/2008_2009_TX/Texas2.pdf). Two popular programs include:

- *associate degree nursing* – a two-year program leading to an Associate of Applied Science degree and candidacy for registered nursing license. The program is approved by the Texas Board of Nurse Examiners and fully accredited by the National League for Nursing Accrediting Commission, Inc.
- *welding* – students can pursue a certificate or an Associate of Applied Science degree. The program incorporates entry-level , hands-on training using current technologies and equipment. Students successfully completing the program may acquire the American Welding Society certificate.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,188
Associates:	944
Certificates:	244

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	181	33.5%	321	73.6%
Employed and Enrolled *(in Senior Institutions)*	87	16.1	18	4.1
Enrolled Only *(in Senior Institutions)*	37	6.9	6	1.4
Enrolled Only *(in Community Colleges)*	33	6.1	17	3.9
Not Found	202	37.4	74	17.0

Cisco Junior College

Contact Information

Dr. Colleen Smith, President
101 College Heights
Cisco, Texas 76437
(254) 442-5000
http://www.cisco.cc.tx.us

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$76.06
Nonresident Tuition & Fee Rate:	$92.06

Enrollment (Fiscal 2007)

Total enrollment:	5,515	Anglo:	71.3%
In-District:*	2.6%	Hispanic:	15.3%
Out-of-District:*	91.6%	African American:	7.9%
Full-time:**	51.9%	Asian:	1.7%
Female:	58.2%	Native American:	0.7%
Male:	41.8%	International:	1.1%
		Other:	2.1%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: Cisco Junior College's (CJC's) academic courses transfer directly into a four-year degree program at any state-supported university. In addition, specific articulation agreements exist with many universities including Texas Tech, College of the Southwest, University of Texas-Dallas and Midwestern State.

Career Programs: CJC also offers a wide variety of career and technical education programs that prepare students for immediate job placement (see http://www.cjc.edu/s/926/index.aspx?sid=926&gid=1&pgid=346 for all options).

The following examples highlight several outstanding programs:

- *welding* – CJC offers a fast-track five-week welding certificate that prepares welders for entry-level positions. The college works with the local Texas Workforce Commission and local employers to ensure the applicability of its instruction.
- *nursing* – CJC has two program options for persons seeking an associate degree in nursing, either of which allows the graduate to seek a state license as a registered nurse. Individuals with no previous nursing license can enroll in a generic two-year option; persons already licensed as vocational nurses can enroll in an LVN to RN option. CJC also offers a one-year vocational nursing program that leads to a certificate and prepares the graduate to take the license exam. The National League for Nursing Accrediting Commission has accredited this program.
- *criminal justice and homeland security* – the program prepares students to work as police officers, probation officers, parole officers, crime laboratory specialists, criminologists, customs officials, correctional officers, public and private investigators and research and planning analysts. It offers both an associate degree and certificates.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	420
Associates:	214
Certificates:	206

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	50	37.9%	190	77.2%
Employed and Enrolled ***(in Senior Institutions)***	57	43.2	13	5.3
Enrolled Only ***(in Senior Institutions)***	14	10.6	3	1.2
Enrolled Only ***(in Community Colleges)***	2	1.5	20	8.1
Not Found	9	6.8	20	8.1

Clarendon College

Contact Information

Dr. William Auvenshine, President
1122 College Drive, P.O. Box 968
Clarendon, Texas 79226
(806) 874-3571
http://www.clarendoncollege.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$79
Nonresident of District Tuition & Fee Rate:	$98

Enrollment (Fiscal 2007)

Total enrollment:	1,681	Anglo:	70.1%
In-District:*	20.9%	Hispanic:	17.0%
Out-of-District:*	62.6%	African American:	9.6%
Full-time:**	48.3%	Asian:	1.0%
Female:	45.7%	Native American:	0.8%
Male:	54.3%	International:	0.9%
		Other:	0.5%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: For students interested in obtaining a –four-year degree, Clarendon College offers courses that will provide the first two years of a bachelor's degree in agriculture, allied health, behavioral science, biology, business administration, chemistry, criminal justice, education, English, mathematics, physical education, physical education, professional health, social science, and many more academic areas (see www.clarendoncollege.edu for a complete list). Clarendon College has formal articulation agreements with the University of Texas at Dallas and the University of Phoenix to ensure that all credits taken by students at Clarendon College can be applied to a college degree.

Career Programs: Clarendon College also offers a wide variety of career programs and majors that lead directly to the job market. Programs that can be completed in one or two years include:

- *computer technology networking administration* – Clarendon College is a member of the Microsoft IT Academy program and thus can provide its students with a variety of career opportunities (e.g. installing, managing and maintaining Microsoft servers and networks worldwide).
- *ranch feedlot operations* – Students completing the program are qualified to seek employment in the ranching/cattle feeding industry. The program involves both classroom work and on-the-job training.
- *welding technology* – Clarendon College offers three different one-semester certificate programs in welding designed to prepare welders for entry-level as well as advanced positions in industry.
- *vocational nursing* – Clarendon College offers a three-semester program that allows students to become licensed vocational nurses.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	240
Associates:	97
Certificates:	143

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	32	36.4%	45	83.3%
Employed and Enrolled ***(in Senior Institutions)***	27	30.7	2	3.7
Enrolled Only ***(in Senior Institutions)***	14	15.9	1	1.9
Enrolled Only ***(in Community Colleges)***	5	5.7	5	9.3
Not Found	10	11.4	1	1.9

Coastal Bend College

Contact Information

Dr. Thomas B. Baynum, President
3800 Charco Road
Beeville, Texas 78102-2197
(361) 354-2001
http://vct.coastalbend.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$57.50
Nonresident Tuition & Fee Rate:	$116.50

Enrollment (Fiscal 2007)

Total enrollment:	6,118	Anglo:	28.8%
In-District:*	17.4%	Hispanic:	64.1%
Out-of-District:*	58.7%	African American:	4.9%
Full-time:**	40.2%	Asian:	0.6%
Female:	54.5%	Native American:	0.3%
Male:	45.5%	International:	0.3%
		Other:	0.9%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Coastal Bend College offers both university transfer and work force programs.

University Transfer: The college provides freshman and sophomore courses in arts and science that lead to associate degrees and university transfer; see http://www.coastalbend.edu/index.html for a complete list of course offerings.

Career Programs: Coastal Bend provides a number of programs targeted to occupations, including:

- an accounting AAS degree and certificate, preparing students as junior accountants;
- an automotive technology certificate, preparing students as automotive technicians;
- an aviation technology preparing students for careers in aircraft maintenance;
- an early developmental education AAS degree and certificates, preparing students for employment in Head Start and as teacher assistants;
- a computer information technology, preparing students for entry-level positions in a diversified computer industry;
- a cosmetology certificate that provides hands-on training for state licensing as a cosmetologist or cosmetology instructor;
- a dental hygiene accredited by the Council on Dental Education and the American Dental Association;
- a drafting and design, providing instruction in computer-aided drafting;
- a general office management, providing skills for office workers;
- a law enforcement, preparing students for careers in public safety and Computer Information Systems (CIS);
- a machinist, providing the skills needed for entry-level machinist jobs;
- a medical coding, delivering training in records coding;
- oil and gas, providing entry into the exploration and extraction industries;
- a radiologic technology, preparing students for certification in radiology;
- a two year AAS degree preparing students for licensing as a registered nurse;
- a vocational nursing one-year certificate; and
- a welding technology, affording practical welding experience before employment.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	499
Associates:	226
Certificates:	273

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	32	39.0%	236	87.4%
Employed and Enrolled *(in Senior Institutions)*	26	31.7	7	2.6
Enrolled Only *(in Senior Institutions)*	17	20.7	5	1.9
Enrolled Only *(in Community Colleges)*	6	7.3	7	2.6
Not Found	1	1.2	15	5.6

College of the Mainland

Contact Information

Dr Larry Durrence, Interim President
1200 Amburn Road
Texas City, Texas 77591
(409) 938-1211
http://www.com.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$36.59
Nonresident Tuition & Fee Rate:	$70.59

Enrollment (Fiscal 2007)

Total enrollment:	8,482	Anglo:	57.8%
In-District:*	50.2%	Hispanic:	18.1%
Out-of-District:*	14.0%	African American:	17.6%
Full-time:**	30.1%	Asian:	2.5%
Female:	53.5%	Native American:	0.5%
Male:	46.5%	International:	0.2%
		Other:	3.3%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

College of the Mainland (COM) offers both university transfer and career/workforce programs.

University Transfer: COM's Associate of Arts and Associate of Science degrees can serve as the first two years of most bachelor's degree programs at public universities. Major offered include general studies, mathematics, natural science and sociology/criminology. Four "field of study" programs (business, computer science, music and nursing) cannot provide the core credits needed for the first two years of a four-year degree because they require students to take some non-core, discipline-specific courses. These courses will transfer for specific disciplines, however. The associate degree in teaching can lead to certification in some fields.

Career/Work Force Programs: COM offers a broad range of career degree and certification programs that can lead to direct employment, including:

- *petrochemical process technology* – COM created the state's first degree program to train operators for refineries and chemical plants. More than 90 percent of the program's graduates are placed each year, with beginning salaries of about $60,000.
- *nursing* – graduates of the nursing associate degree program have a 100 percent pass rate on the state certification exam and receive beginning salaries of about $50,000. Other health programs include vocational nursing, emergency medical services, health information management and pharmacy technician.
- *computer science programs* – COM offers specialties including computer information systems, network systems technology, dynamic Web development, A+ PC maintenance technician, Linux+ certified support specialist and graphic design.
- *welding technology* – training ranges from entry-level welder to several advanced specialties for industry.
- *law enforcement/public safety* – programs include Basic Peace Officer Academy and fire protection technology.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	260
Associates:	199
Certificates:	61

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	71	47.7%	186	84.5%
Employed and Enrolled *(in Senior Institutions)*	49	32.9	4	1.8
Enrolled Only *(in Senior Institutions)*	18	12.1	1	0.5
Enrolled Only *(in Community Colleges)*	5	3.4	10	4.5
Not Found	6	4.0	19	8.6

Collin College

Contact Information

Dr. Cary A. Israel, President
4800 Preston Park Blvd.
Plano, Texas 75093
(972) 758-3800
http://www.ccccd.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$37
Nonresident Tuition & Fee Rate:	$51

Enrollment (Fiscal 2007)

Total enrollment:	41,726	Anglo:	66.2%
In-District:*	48.5%	Hispanic:	10.9%
Out-of-District:*	18.0%	African American:	7.7%
Full-time:**	38.0%	Asian:	10.4%
Female:	54.5%	Native American:	0.7%
Male:	45.5%	International:	3.1%
		Other:	1.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: Collin College guarantees transfer of all academic courses in its Associate of Arts (AA), Associate of Science (AS) and Associate of Arts in Teaching (AAT) degree programs (see www.ccccd.edu/academicprograms). In addition, unique partnerships with 10 universities guarantee admission and provide students with a university experience prior to transfer.

Career Programs: Collin College offers a variety of certificate and Associate of Applied Science (AAS) degree programs for students seeking professional skills for immediate employment or career advancement. Three critical areas of work force training include:

- *health and emergency services* – Collin College offers programs in nursing, respiratory care, dental hygiene, fire science, emergency medical services and surgical technology, preparing students for these high-demand careers.
- *teacher certification* – Collin College certifies both elementary and secondary teachers. The program is one of 10 nationally to receive a Teaching By Choice award for excellence.
- *computer technologies* – innovative technology training programs at Collin College include gaming animation, convergence technology, information systems cyber-security and more.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,419
Associates:	1,116
Certificates:	303

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	425	44.1%	398	84.7%
Employed and Enrolled *(in Senior Institutions)*	332	34.5	15	3.2
Enrolled Only *(in Senior Institutions)*	120	12.5	4	0.9
Enrolled Only *(in Community Colleges)*	58	6.0	29	6.2
Not Found	28	2.9	24	5.1

Dallas County Community College District

Contact Information

Dr. Wright Lassiter, Chancellor
3939 Valley View Lane
Farmers Branch, Texas 75244-4997
(214) 860-2426
http://www.dcccd.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$39
Nonresident Tuition & Fee Rate:	$72

Enrollment (Fiscal 2007)

Total enrollment:	129,744	Anglo:	37.4%
In-District:*	50.4%	Hispanic:	25.0%
Out-of-District:*	17.1%	African American:	20.9%
Full-time:**	29.1%	Asian:	7.2%
Female:	53.9%	Native American:	0.4%
Male:	46.1%	International:	3.5%
		Other:	5.6%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

The Dallas County Community College District (DCCCD) offers both university transfer and career programs for students.

University Transfers: The next step after graduation from a DCCCD college is often transfer to a four-year college or university. To ensure that credit hours transfer seamlessly to the next institution, the DCCCD has negotiated articulation agreements with all North Texas public universities, and has concurrent admissions agreements with Prairie View A&M, Sam Houston State, Texas A&M Commerce, Texas Southern University, Texas Woman's University, the University of North Texas and the University of Texas at Dallas.

Career Programs: DCCCD offers a wide variety of career programs and majors that lead directly to the job market. Notable programs include:

- *veterinary science technology* – this nationally recognized program provides course offerings at the Cedar Valley campus and online. The college has an articulation agreement with the School of Veterinary Medicine at Texas A&M University.
- *Food and Hospitality* – the El Centro College food and hospitality program is viewed as the "Culinary Institute of the Southwest," preparing students to enter the culinary field as chefs, food service managers and bakers.
- *child development* – students completing the program at either Brookhaven College or Eastfield College may serve in child care agencies or programs as caregivers/teachers, directors or supervisors, foster parents or as paraprofessionals in educational systems. Students at both colleges complement classroom theory by working under supervision with children and teachers in a child development center at the respective locations. Brookhaven College's child development center is a satellite location for the first Head Start facility on a community college campus in the nation.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	4,538
Associates:	3,029
Certificates:	1,509

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	1,028	43.8%	1,724	81.1%
Employed and Enrolled *(in Senior Institutions)*	731	31.2	89	4.2
Enrolled Only *(in Senior Institutions)*	276	11.8	24	1.1
Enrolled Only *(in Community Colleges)*	133	5.7	140	6.6
Not Found	177	7.5	150	7.1

Del Mar College

Contact Information

Dr. Mark Escamilla, President
101 Baldwin Blvd.
Corpus Christi, Texas 78404
(361) 698-1200
http://www.delmar.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$70.56
Nonresident Tuition & Fee Rate:	$170.56

Enrollment (Fiscal 2007)

Total enrollment:	19,500	Anglo:	37.8%
In-District:*	68.6%	Hispanic:	54.0%
Out-of-District:*	10.0%	African American:	3.1%
Full-time:**	28.4%	Asian:	1.7%
Female:	57.1%	Native American:	0.2%
Male:	42.9%	International:	0.0%
		Other:	3.2%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Del Mar College (DMC) offers both university transfer and career programs.

University Transfer: DMC provides the first two years of a bachelor's degree through Associate of Arts, Associate of Science and Associate of Arts in Teaching degree options (see http://www.delmar.edu/catalog/programs.html for a complete list). The college has transfer agreements with various universities.

Career Programs: DMC offers a wide variety of Associate of Applied Science degrees that lead directly to the job market and that can be transferred to bachelor's degree options (see http://www.delmar.edu/academics/busproftech.php for programs; for sound recording and biotechnology programs, see http://www.delmar.edu/catalog/divarts.html.) Examples of programs that can be completed in one to two years include:

- *aviation maintenance technology* – this program was developed in response to an urgent work force need for certified airframe and power plant mechanics. The program is a FAA-certified Part 147 Aviation School, and has received a $1.9 million Department of Labor grant to accelerate training for the local work force.
- *nursing education* – this program offers both face-to-face and online instruction. It has expanded its capacity to 500 student majors and graduates about 200 students each year. The program is housed in a $28 million state-of-the-art facility with impressive simulation laboratories to expand its clinical capacity.
- *computer science/information technology* – this program offers multiple options including digital forensics/security, networking administration, interactive gaming, computer programming, multimedia/digital animation and geographic information systems. The National Science Foundation recently awarded the program $5 million to establish a National Geospatial Technology Center.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	1,302
Associates:	902
Certificates:	400

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	101	29.4%	636	87.7%
Employed and Enrolled ***(in Senior Institutions)***	148	43.1	31	4.3
Enrolled Only ***(in Senior Institutions)***	70	20.4	4	0.6
Enrolled Only ***(in Community Colleges)***	8	2.3	36	5.0
Not Found	16	4.7	18	2.5

El Paso Community College

Contact Information

Dr. Richard M. Rhodes, President
P.O. Box 20500
El Paso, Texas 79998
(915) 831-6410
http://www.epcc.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$56.06
Nonresident Tuition & Fee Rate:	$81.40

Enrollment (Fiscal 2007)

Total enrollment:	40,555	Anglo:	9.7%
In-District:*	73.9%	Hispanic:	83.0%
Out-of-District:*	6.5%	African American:	2.5%
Full-time:**	37.8%	Asian:	1.1%
Female:	57.0%	Native American:	0.3%
Male:	43.0%	International:	3.4%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Programs

El Paso County Community College (EPCCC) offers both university transfer and career programs.

University Transfer: Students who wish to transfer to a four-year institution can earn Associate of Arts (AA) Associate of Science (AS) or Associate of Applied Science (AAS) degrees. These degrees include general education courses that are considered core requirements for most bachelor's degree programs, as well as 18 hours in selected areas (see details at http://www.epcc.edu/Portals/227/Catalogs/Catalog2008-2010.pdf, page 85).

EPCC offers 26 AA degrees, 13 AS degrees and 48 AAS degrees, and maintains articulation agreements with numerous colleges and universities. In partnership with Texas Tech University (TTU), EPCC students can earn an AS degree in architecture and complete their bachelor's with TTU without leaving El Paso.

Career Programs: Many of EPCCC's technical career programs, including 52 certificates, can lead directly to the job market. These include:

- *culinary arts and related sciences* – EPCCC offers one-year certificates and two-year AAS degrees in culinary arts, restaurant management and pastry. Students gain real-world experience working in "externship" positions and in the program's restaurant and pastry shop.
- EPCCC's *Fire Technology Academy* provides courses leading to several certificates and AAS degrees. According to national statistics, entry-level firefighters earn an average of $41,190 annually.
- the *diagnostic medical sonography program* provides students with the knowledge and skills necessary to perform complex diagnostic ultrasound procedures. Graduates can expect annual salaries ranging from $45,000 to $60,000.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	2,139
Associates:	1,626
Certificates:	513

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	453	38.1%	644	80.6%
Employed and Enrolled *(in Senior Institutions)*	444	37.4	26	3.3
Enrolled Only *(in Senior Institutions)*	168	14.1	11	1.4
Enrolled Only *(in Community Colleges)*	36	3.0	52	6.5
Not Found	87	7.3	66	8.3

Frank Phillips College

Contact Information

Dr. Herbert J. Swender, Sr., President
P.O. Box 5118
Borger, Texas 79008-5118
(806) 457-4200
http://www.fpctx.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$91.31
Nonresident Tuition & Fee Rate:	$100.31

Enrollment (Fiscal 2007)

Total enrollment:	10,080	Anglo:	63.1%
In-District:*	7.0%	Hispanic:	31.9%
Out-of-District:*	9.0%	African American:	2.3%
Full-time:**	41.6%	Asian:	0.5%
Female:	20.9%	Native American:	1.7%
Male:	79.1%	International:	0.2%
		Other:	0.4%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Frank Phillips College (FPC) offers both university transfer and career programs.

University Transfer: FPC offers courses that lead to associate degrees and provide the first two years of courses leading to a four-year degree in liberal arts, mathematics, natural sciences, social sciences, education, engineering, health sciences and other academic areas (see http://www.fpctx.edu/Students/DegreeCerts/FPC%20Degrees%20Certificates%20Marketable%20Skills%20List_new.htm for a complete list).

Career Programs: FPC offers courses leading to careers in welding, licensed vocational nursing, computer forensics, CISCO networking, cosmetology and other careers (see http://www.fpctx.edu/Students/DegreeCerts/FPC%20Degrees%20Certificates%20Marketable%20Skills%20List_new.htm for a complete list). FPC career-related programs include:

- *licensed vocational nursing (LVN)* – FPC offers a 12-month LVN program that can lead directly to job placement in the health field or to transfer into the registered nursing program at Amarillo College, with whom FPC has an articulation agreement.
- *welding* – students who complete the program receive a certificate of completion and are generally qualified in several levels of welding proficiency.
- *industrial manufacturing technology* – students can pursue Associate of Applied Science degrees or certificates in industrial instrumentation technology, industrial electrical technology, machinery maintenance, machinist technology, chemical technology or process technology. Completion of any of these programs prepares the student to work in a variety of industries including petroleum, manufacturing and machinery.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	125
Associates:	60
Certificates:	65

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	24	30.4%	89	89.9%
Employed and Enrolled ***(in Senior Institutions)***	29	36.7	1	1.0
Enrolled Only ***(in Senior Institutions)***	22	27.8	1	1.0
Enrolled Only ***(in Community Colleges)***	2	2.5	3	3.0
Not Found	2	2.5	5	5.1

Galveston College

Contact Information

Dr. W. Myles Shelton, President
4015 Ave. Q
Galveston, Texas 77550
(409) 944-4242
http://www.gc.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$46.81
Nonresident Tuition & Fee Rate:	$77.13

Enrollment (Fiscal 2007)

Total enrollment:	3,769	Anglo:	51.4%
In-District:*	82.0%	ispanic:	23.5%
Out-of-District:*	0.0%	African American:	20.1%
Full-time:**	30.2%	Asian:	2.7%
Female:	64.7%	Native American:	0.3%
Male:	35.3%	International:	1.6%
		Other:	0.4%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Galveston College offers university transfer courses, two-year associate degrees, one-year certificates, work force training and continuing education programs.

University Transfer: For students interested in obtaining a four-year degree, Galveston College offers transferable courses that will provide the first two years in general studies. Galveston College has formal articulation agreements with the University of Texas Medical Branch, Texas A&M Galveston, the University of Houston-Clear Lake and the University of Houston-Downtown.

Career Programs: Galveston College offers a variety of career programs that lead directly to the job market, including the following, whose graduates are in high demand:

- *nursing* – Galveston College one-year vocational nurses and two-year associate degree nurses are recruited throughout the region for hospitals, clinics and nursing homes.
- *allied health* – the college offers nuclear medicine technology, radiation therapy, respiratory therapy, emergency medical services and surgical technology.
- *culinary arts and hotel, restaurant and tourism management* – Galveston College offers two-year degrees for those entering the area's growing hospitality market.
- *education and criminal justice* – public service careers are available to graduates of our two-year programs in education and criminal justice.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	332
Associates:	195
Certificates:	108

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	27	54.0%	203	93.1%
Employed and Enrolled ***(in Senior Institutions)***	17	34.0	7	3.2
Enrolled Only ***(in Senior Institutions)***	3	6.0	1	0.5
Enrolled Only ***(in Community Colleges)***	0	0.0	3	1.4
Not Found	3	6.0	4	1.8

Grayson County College

Contact Information

Dr. Alan Scheibmeir, President
6101 Grayson Drive (Hwy 691)
Denison, Texas 75020
(903) 463-8600
http://www.grayson.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$45.75
Nonresident Tuition & Fee Rate:	$64.75

Enrollment (Fiscal 2007)

Total enrollment:	8,752	Anglo:	81.9%
In-District:*	41.3%	Hispanic:	5.3%
Out-of-District:*	17.5%	African American:	5.6%
Full-time:**	45.5%	Asian:	0.9%
Female:	51.6%	Native American:	3.1%
Male:	48.4%	International:	2.2%
		Other:	0.9%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: Grayson County College (GCC) provides a vital link for higher education in its rural area. GCC's location makes it easy for high school graduates to obtain an affordable education or for adults to begin or continue a college-bound track. Articulation agreements with nearby universities simplify the transfer of coursework. For a complete listing of academic programs offered, visit http://www.grayson.edu/website/Programs/programsAvailable.aspx.

Career Training: twenty-three technical majors provide career entry training and/or meet professional licensing requirements. The college's programs include unique course and program offerings such as viticulture and enology (grape growing and wine making). GCC also offers a highly respected nursing program as well as traditional one- and two-year degrees in business and other health-related fields. For more information on specific programs available, visit http://www.grayson.edu/website/Programs/programsAvailable.aspx.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	531
Associates:	307
Certificates:	224

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	110	51.6%	353	86.1%
Employed and Enrolled *(in Senior Institutions)*	62	29.1	14	3.4
Enrolled Only *(in Senior Institutions)*	23	10.8	3	0.7
Enrolled Only *(in Community Colleges)*	6	2.8	16	3.9
Not Found	12	5.6	24	5.9

Hill College

Contact Information

Dr. Sheryl Smith Kappus, President
112 Lamar Drive
Hillsboro, Texas 76645
(254) 582-2555
http://www.hillcollege.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$53.94
Nonresident Tuition & Fee Rate:	$69.94

Enrollment (Fiscal 2007)

Total enrollment:	7,143	Anglo:	79.3%
In-District:*	40.8%	Hispanic:	13.2%
Out-of-District:*	25.2%	African American:	5.1%
Full-time:**	41.0%	Asian:	0.8%
Female:	53.5%	Native American:	0.6%
Male:	46.5%	International:	0.8%
		Other:	0.3%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Hill College offers both university transfer and career/technical programs.

University Transfer: For students interested in obtaining a four-year degree, Hill College offers the first two years leading to degrees in liberal arts, the sciences and mathematics, business, education, computer science and technology and many technical areas. For a complete list, see www.hillcollege.edu.

Hill College offers dual admission agreements with eight universities: Texas Wesleyan University, Sam Houston State University, the University of Texas (UT)-Arlington, UT-Dallas, Tarleton State University, the University of North Texas, Stephen F. Austin State University, and Texas Tech University. Hill College also has articulation agreements with most universities in Texas, and participates in Texas Two-Step programs, which encourage technical students to transfer to a four-year institution, with UT-Arlington, UT-Brownsville, Midwestern University and Tarleton State University.

Career and Technical Education: Hill College offers numerous and varied options in technical education, including an echocardiogram technician program; an online Fire Science curriculum; licensed vocational nurse (LVN) and registered nurse (RN) training, as well as a partnership with UT-Arlington to offer a bachelor of science in nursing program on campus; and welding technology. In addition, a Radiation Protection Technology curriculum that has been submitted for approval will provide training for nuclear power plant technicians and health care institution workers.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	490
Associates:	226
Certificates:	264

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	78	40.6%	267	80.9%
Employed and Enrolled ***(in Senior Institutions)***	62	32.3	15	4.5
Enrolled Only ***(in Senior Institutions)***	32	16.7	3	0.9
Enrolled Only ***(in Community Colleges)***	9	4.7	15	4.5
Not Found	11	5.7	30	9.1

Houston Community College

Contact Information

Dr. Mary Spangler, Chancellor
3100 Main Street
Houston, Texas 77002
(713) 718-5051
http://www.hccs.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$55.75
Nonresident Tuition & Fee Rate:	$109.75

Enrollment (Fiscal 2007)

Total enrollment:	86,167	Anglo:	24.4%
In-District:*	46.5%	Hispanic:	25.5%
Out-of-District:*	24.9%	African American:	24.8%
Full-time:**	25.0%	Asian:	10.0%
Female:	51.5%	Native American:	0.2%
Male:	48.5%	International:	5.4%
		Other:	9.7%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: HCC guarantees transfer for all academic courses in its two-year Associate of Arts, Associate of Science and Associate of Arts in Teaching degree programs. Please refer to the HCC Catalog online at http://www.hccs.edu to learn about specific plans for different program areas.

Career Training: HCC offers a variety of certificate and Associate of Applied Science degree programs for students interested in skills for immediate job entry. Undecided students are encouraged to visit HCC's College and Career Exploration pages at http://imc02.hccs.edu/ccp/career-clusters.htm.

HCC programs areas offering "hot careers" for today's students include:

- *health careers* – the median salary for a registered nurse in Houston exceeds $60,000 per year. This is just one of 20 programs in health careers available at HCC-Coleman College, located in the world-famous Texas Medical Center.
- *science, technology, engineering and mathematics* – these programs prepare students in areas as biotechnology, chemical and petroleum engineering technology, computer science and more. The Houston metro area produced more jobs in 2007 that any other U.S. city (100,000-plus) and Forbes Magazine calls Houston a "hotbed of new technologies."
- *business* – HCC programs in areas such as accounting and international Business prepare students for many high-skill, high-growth" occupations, and qualify them for scholarships from Houston's Workforce Solutions (see http://www.wrksolutions.com/).

Total Degrees and Certificates Awarded, fiscal 2007

Total:	3,414
Associates:	2,125
Certificates:	1,277

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	737	43.2%	1,854	88.0%
Employed and Enrolled ***(in Senior Institutions)***	570	33.4	62	2.9
Enrolled Only ***(in Senior Institutions)***	210	12.3	20	0.9
Enrolled Only ***(in Community Colleges)***	88	5.2	66	3.1
Not Found	100	5.9	106	5.0

Howard County Junior College District – Howard College

Contact Information

Dr. Cheryl T. Sparks, President
1001 Birdwell Lane
Big Spring, Texas 79720
(432) 264-5030
http://www.howardcollege.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$56
Nonresident Tuition & Fee Rate:	$69.88

Enrollment (Fiscal 2007)

Total enrollment:	12,843	Anglo:	46.5%
In-District:*	5.8%	Hispanic:	46.0%
Out-of-District:*	27.4%	African American:	4.5%
Full-time:**	32.9%	Asian:	1.0%
Female:	42.5%	Native American:	0.3%
Male:	57.5%	International:	0.0%
		Other:	1.6%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Howard College has three campuses (in Big Spring, Lamesa and San Angelo) offering a wide variety of associate degree plans and certificate programs spanning areas of study such as agriculture, business, cosmetology, criminal justice, dental hygiene, general studies, information technology and nursing. A fourth campus, Southwest Collegiate Institute for the Deaf (SWCID), offers courses in developmental/preparatory studies, college transfer programs and vocational/technical training in state-of-the-art learning environments (for more information, see http://www.howardcollege.edu/index.php/swcid).

University Transfer: Students wishing to transfer to a four-year university can pursue associate degree plans with course offerings in areas of study including biology, chemistry, psychology, economics, foreign languages, history, mathematics, music, drama/theater and others. Howard College has formal articulation agreements with many universities including Texas Tech University, The University of Texas of the Permian Basin, Stephen F. Austin University and Tarleton State University.

Career Training: The Career and Technical Education program offers Associate of Applied Science degrees as well as certificate programs. Degree/certificate plans available include dental hygiene, criminal justice, certified surgical technologist, nursing and agribusiness.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	390
Associates:	217
Certificates:	173

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	52	43.7%	202	70.4%
Employed and Enrolled *(in Senior Institutions)*	42	35.3	24	8.4
Enrolled Only *(in Senior Institutions)*	11	9.2	1	0.3
Enrolled Only *(in Community Colleges)*	4	3.4	24	8.4
Not Found	10	8.4	36	12.5

Kilgore College

Contact Information

Dr. William M. Holda, President
1100 Broadway
Kilgore, Texas 75662-3204
(903) 983-8100
http://www.kilgore.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$44
Nonresident Tuition & Fee Rate:	$93

Enrollment (Fiscal 2007)

Total enrollment:	12,531	Anglo:	74.0%
In-District:*	N/A	Hispanic:	4.4%
Out-of-District:*	N/A	African American:	13.8%
Full-time:**	N/A	Asian:	0.6%
Female:	50.0%	Native American:	0.4%
Male:	50.0%	International:	1.6%
		Other:	5.2%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Kilgore College (KC) offers both university transfer and career programs/services for its students.

University Transfer: KC offers the first two years of a four-year degree for students interested in moving on to a university. All courses offered at KC are transferable to all state four-year colleges in Texas.

Career Programs: KC also offers a wide array of majors and career programs that lead directly to the job market. Programs that can be completed in as little as one to two years include:

- a two-year *process technology program*, which prepares students for a job market currently experiencing a shortage of trained workers in chemical production and oil and gas exploration and production. Process technicians are responsible for planning, analyzing and controlling product production, at an average starting salary of $40,000. See an online description of the program at http://www.kilgore.edu/process_technology.asp.
- *Fire Academy*, recognized by the state as an exemplary program, and one of the first certified training facilities in Texas to offer both on-site and online training options. The program takes about 3½ months to complete. See an online description of the program at http://www.kilgore.edu/fire_academy_ONLINE.asp.
- a *diesel technology program*, which prepares students for positions in diesel truck repair, heavy equipment repair and natural gas compression. Graduates can work as truck, heavy equipment and natural gas technicians, and may elect to specialize in areas such as building engines or transmissions. The average salary for graduates is $37,660. See an online description of the program at http://www.kilgore.edu/diesel.asp.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,037
Associates:	500
Certificates:	537

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	164	37.7%	699	90.0%
Employed and Enrolled ***(in Senior Institutions)***	158	36.6	17	2.2
Enrolled Only ***(in Senior Institutions)***	72	16.6	1	0.1
Enrolled Only ***(in Community Colleges)***	22	5.1	12	1.5
Not Found	19	4.4	48	6.2

Two-Year Lamar Colleges

Contact Information

W. Sam Monroe, President
Lamar State College – Port Arthur
P.O. Box 310, 410 Front Street
Port Arthur, Texas 77640
(409) 983-4921
http://www.lamarpa.edu/

Dr. J. Michael Shahan, President
Lamar State College – Orange
1500 Procter Street
Orange, Texas 77630
(409) 883-7750
http://www.lsco.edu/

Dr. Paul J. Szuch, President
Lamar Institute of Technology (LIT)
855 East Lavaca
Beaumont, Texas 77705
(800) 950-6989
http://www.lit.edu/

Enrollment (Fiscal 2007)*

Total enrollment:	14,440	Anglo:	56.14%
In-District:**	59.78%	Hispanic:	9.49%
Out-of-District:**	1.2%	African American:	29.12%
Full-time:***	N/A	Asian:	2.26%
Female:	51.24%	Native American:	0.62%
Male:	48.76%	International:	0.09%
		Other:	2.27%

** Total for Lamar State College-Port Arthur, Orange and Lamar Institute of Technology.*
*** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
**** Full-time enrollment of students seeking college credit.*

Tuition, Rate Per Semester Credit Hour

In-State Tuition & Fee Rate:	$135.75 (Port Arthur), $112.09 (Orange), $125.31 (LIT)
Out-of-State Tuition & Fee Rate:*	$137.07 (Port Arthur), $394.33 (Orange), $408 (LIT)

**Estimate based on tuition and fees for 15 semester credit hours, as published on institutions' Web sites.*

Program Description (for Lamar Institute of Technology)

Ranked as the 24th fastest-growing two-year college with an enrollment under 4,000 by *Community College Week*, Lamar Institute of Technology (LIT) in Beaumont is a two-year technical college offering Associate of Applied Science degrees and certificates of completion in 58 credit educational programs in the fields of industry, business and allied health as well as continuing education certificate programs in work force training. LIT strives to help students equip themselves for effective living and responsible citizenship. The institute accomplishes this by offering educational programs and training that will extend their knowledge, encourage their continued development and give them marketable skills.

Over the past three years, Lamar Institute of Technology has been ranked as one of the nation's top three producers of science technology graduates. LIT offers degree and certificate programs in technology, business technologies, general and developmental education, allied health and science, public service and safety and work force training. It is one of the world's largest producers of process operators and instrumentation technicians, with more than 500 students continuously enrolled in these programs.

University Transfer: Credits earned at Lamar Institute of Technology can be applied toward a two-year associate degree or one-year certificate in fields including accounting technology, business and computer information systems, child care and development, commercial and residential construction, computer aided drafting, computer networking and troubleshooting, criminal justice, culinary arts, diagnostic cardiovascular sonography, dental hygiene, emergency medical technology, fire technology, industrial mechanics, management, medical radiologic technology, occupational health and safety, office technology, process operating technology, real estate and respiratory care.

Career Programs: LIT offers a wide range of non-credit programs through its Continuing Education and Workforce Training Department. The short-duration programs are designed to provide students with knowledge and skills necessary for rapid placement in the work force and/or to enhance their existing knowledge and skills. Examples include courses in AutoCAD™, correctional officer training, CPR basic life support, heavy equipment training, Microsoft Office™, Primevera™, welding and commercial truck driving. Customized training programs are also provided for business and industry.

Special Interest: Lamar Institute of Technology also provides lifelong enrichment opportunities for people of all ages. In addition to unique classes and programs for kids and senior adults, LIT offers special-interest classes such as basic photography, healthy eating, party planning, retirement investment and planning, and scrapbooking basics.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,279
Associates:	697
Certificates:	581

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	42	36.5%	404	85.1%
Employed and Enrolled *(in Senior Institutions)*	49	42.6	14	2.9
Enrolled Only *(in Senior Institutions)*	17	14.8	5	1.1
Enrolled Only *(in Community Colleges)*	4	3.5	26	5.5
Not Found	3	2.6	26	5.5

Note: table compiles aggregate data for Lamar State College Orange and Port Arthur.

Laredo Community College

Contact Information

Dr. Juan L. Maldonado, President
West End Washington Street, 5500 South Zapata Hwy
Laredo, Texas 78045
(956) 721-5101
http://www.laredo.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$67.06
Nonresident Tuition & Fee Rate:	$107.06

Enrollment (Fiscal 2007)

Total enrollment:	14,814	Anglo:	2.4%
In-District:*	70.10%	Hispanic:	91.5%
Out-of-District:*	7.60%	African American:	0.2%
Full-time:**	38.5%	Asian:	0.3%
Female:	52.1%	Native American:	0.1%
Male:	47.9%	International:	2.0%
		Other:	3.5%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfers: While the Laredo Community College (LCC) Associate in Arts curriculum satisfies the requirements of most senior institutions, each student plans his or her course of study with the assistance of an advisor and with a specific institution in mind. If LCC does not have an articulation agreement with a four-year institution, the student and advisor may request an agreement in writing from the institution regarding acceptance of LCC coursework. A list of existing agreements is available online at http://www.laredo.edu/Counseling/degree_guides.htm.

The Associate in Science Degree incorporates the core curriculum of the Associate in Arts degree while allowing more flexibility in electives. All courses are acceptable as electives except developmental courses and occupational practicum.

Career and Technical Education Programs: LCC's Associate of Applied Science degrees and Career/Technical certificates are designed for employment and career advancement opportunities. LCC establishes the coursework for these programs with industry participation through advisory committees.

LCC's programs of study that lead to either an Associate of Applied Science Degree or a career/technical certificate are listed at http://www.laredo.edu/Catalog/2007-2008/2007.pdf#page=57. In some program areas, course credits can be transferred toward a bachelor's degree program.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	868
Associates:	605
Certificates:	263

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	75	26.9%	342	76.7%
Employed and Enrolled *(in Senior Institutions)*	134	48.0	30	6.7
Enrolled Only *(in Senior Institutions)*	51	18.3	6	1.3
Enrolled Only *(in Community Colleges)*	9	3.2	37	8.3
Not Found	10	3.6	31	7.0

Lee College

Contact Information

Dr. Michael Murphy, President
P.O. Box 818
Baytown, Texas 77522-0818
(281) 427-5611
http://www.lee.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$43.19
Nonresident Tuition & Fee Rate:	$68.19

Enrollment (Fiscal 2007)

Total enrollment:	10,062	Anglo:	52.3%
In-District:*	53.9%	Hispanic:	24.2%
Out-of-District:*	29.3%	African American:	19.3%
Full-time:**	31.0%	Asian:	1.2%
Female:	46.8%	Native American:	0.3%
Male:	53.2%	International:	1.0%
		Other:	1.6%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

In addition to its extensive university transfer programs, Lee College in Baytown offers 28 Associate of Applied Science programs and 58 certificate programs. To serve the needs of students seeking employment as well as area employers, Lee College offers extensive work force programs in areas such as industrial technology, allied health, business, computer technology and energy-related technologies (including process technology, instrumentation, welding and pipefitting). The Fieldbus Center for Ethernet technology network training enjoys a national reputation.

To stay on the cutting edge of work force education, Lee College has created several new programs in the past two years, in areas such as audio engineering, digital media, e-business Web development, geographic information systems, game design, mechanical engineering and digital forensics. All of these programs have heavy student interest and substantial placement opportunities.

Lee College also has established partnerships with numerous businesses and industries, health facilities and public agencies to educate current employees, prospective employees and student interns. Most of this education and training is customized to meet the specific needs of each partner.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,246
Associates:	576
Certificates:	670

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	85	41.5%	406	85.5%
Employed and Enrolled *(in Senior Institutions)*	81	39.5	5	1.1
Enrolled Only *(in Senior Institutions)*	24	11.7	0	0.0
Enrolled Only *(in Community Colleges)*	7	3.4	41	8.6
Not Found	8	3.9	23	4.8

Lone Star College System

Contact Information

Dr. Richard Carpenter, Chancellor
5000 Research Forest Drive
The Woodlands, Texas 77381-4356
(832) 813-6515
http://www.lonestar.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$46.75
Nonresident Tuition & Fee Rate:	$106.75

Enrollment (Fiscal 2007)

Total enrollment:	68,393	Anglo:	51.6%
In-District:*	81.1%	Hispanic:	20.4%
Out-of-District:*	7.4%	African American:	12.2%
Full-time:**	26.0%	Asian:	6.2%
Female:	59.5%	Native American:	0.3%
Male:	40.5%	International:	2.5%
		Other:	6.7%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Lone Star College System (LSCS) offers both university transfer and career programs for students.

University Transfer: Students interested in obtaining a four-year degree can satisfy their lower division requirements for a bachelor's degree in academic areas including business, computer science, criminal justice, Mexican-American studies, music and speech (see www.lonestar.edu/5526/ for more information).

LSCS has formal articulation agreements with Sam Houston State University, the University of Houston, University of Houston-Downtown, University of Houston-Victoria, Prairie View A&M, Texas A&M-Commerce, Texas Southern University, the University of Phoenix, the University of Texas Medical Branch, Midwestern State University and DeVry University.

Career Programs: LSCS also offers a wide variety of career programs and majors that lead directly to the job market (see http://www.lonestar.edu/1998/ for all programs).

The following examples highlight programs that can be completed in one to two years:

- *nursing* – three programs of study are offered in associate degree nursing: a basic track, a vocational nursing track and a transition track for students moving on to a four-year institution.
- *biotechnology* – LSCS' Lone Star College-Montgomery biotechnology program is the top-ranked program of its kind in Texas, and the only one rated as "exemplary" by the Texas Higher Education Coordinating Board.
- *welding* – the associate degree in welding technology is designed to prepare students for a career as a welding technician in the fabrication, construction and manufacturing industries.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	2,717
Associates:	2,055
Certificates:	648

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	933	44.9%	1,106	83.2%
Employed and Enrolled ***(in Senior Institutions)***	731	35.2	52	3.9
Enrolled Only ***(in Senior Institutions)***	247	11.9	18	1.4
Enrolled Only ***(in Community Colleges)***	81	3.9	80	6.0
Not Found	86	4.1	74	5.6

McLennan Community College

Contact Information

Dr. Dennis Michaelis, President
1400 College Drive
Waco, Texas 76708
(254) 299-8636
http://www.mclennan.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$70
Nonresident Tuition & Fee Rate:	$82

Enrollment (Fiscal 2007)

Total enrollment:	15,613	Anglo:	64.8%
In-District:*	59.3%	Hispanic:	15.5%
Out-of-District:*	12.7%	African American:	17.5%
Full-time:**	45.5%	Asian:	1.4%
Female:	63.2%	Native American:	0.3%
Male:	36.8%	International:	0.4%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

McLennan Community College (MCC) offers both university transfer and career programs.

University Transfer: MCC offers three degrees (Associate in Arts, Associate in Science and Associate of Arts in Teaching) that are designed for transfer to a four-year institution. Each contains a core curriculum of courses recognized by Texas four-year institutions. These include courses in the areas of communication, mathematics, natural science, humanities and arts, as well as the social and behavioral sciences. MCC also offers six associate degrees with fields of study in business, computer science, criminal justice, engineering, music and speech communication. Details on MCC transfer programs are available at http://www.mclennan.edu/students/2007catalog.pdf.

Career Programs: MCC offers certificate and Associate in Applied Science degrees in a wide range of areas including business, health sciences, human services, veterinary technology and visual and performing arts. A complete list of programs is available at http://www.mclennan.edu/students/2007catalog.pdf.

Programs that can be completed in one to two years include:

- *associate degree in nursing* – MCC, McLennan County's primary provider of registered nurses, offers a two-year degree in nursing that prepares students for employment as a registered nurse in variety of settings including hospitals, clinics and long-term care facilities. The typical starting salary for program graduates is approximately $40,000 or more.
- *Fire Protection Technology* – this certificate program prepares students for employment as certified fire fighters. MCC recently partnered with the city of Waco to begin construction of a state-of-the-art Emergency Services Center, including classroom space, a "burn tower" and other facilities for fire protection and emergency services programs.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	840
Associates:	539
Certificates:	300

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	149	43.3%	475	91.0%
Employed and Enrolled *(in Senior Institutions)*	127	36.9	21	4.0
Enrolled Only *(in Senior Institutions)*	35	10.2	2	0.4
Enrolled Only *(in Community Colleges)*	22	6.4	16	3.1
Not Found	11	3.2	8	1.5

Midland College

Contact Information

Dr. Steve Thomas, President
3600 N. Garfield St.
Midland, Texas 79705
(432) 685-4521
http://www.midland.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$57
Nonresident Tuition & Fee Rate:	$77

Enrollment (Fiscal 2007)

Total enrollment:	14,111	Anglo:	65.1%
In-District:*	37.6%	Hispanic:	25.7%
Out-of-District:*	24.2%	African American:	4.6%
Full-time:**	31.9%	Asian:	2.0%
Female:	52.8%	Native American:	0.5%
Male:	47.2%	International:	1.2%
		Other:	0.9%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Midland College (MC) offers a bachelor's degree and associate degrees and certificates in university transfer programs and career and technical education. For a complete listing, see http://www.midland.edu/admissions/images/2008_2009catalog.pdf, pages 88-89.

University Transfer: MC offers a bachelor's of Applied Technology degree in organizational management for students who wish to pursue supervisory positions in their chosen fields. MC offers the first two years of college including all courses necessary for the completion of the core curriculum as well as Associate of Arts and Associate of Science degrees. MC has formal articulation agreements with area four-year schools as well as a University Center that allows students to attend a four-year institution on the MC campus.

Career and Technical Programs: Midland College offers a number of associate degree and certificate programs designed to allow students to go straight to the workplace. These include:

- *Health Sciences* – students may complete degrees and/or certificates in nursing, radiography, sonography and emergency medical services. Programs in health information technology and long-term care administration are available online. MC recently added a licensed vocational nurse (LVN) to associate degree in nursing (ADN) transitional program at its site in Fort Stockton.
- *Aviation* – MC is one only a few community colleges in the country that offer both professional pilot training and an aircraft maintenance program.
- *Business Systems* – many colleges have seen their office systems technology programs decline in recent years. By making curriculum and format changes that meet the needs of both students and employers, MC has maintained enrollment in these programs.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	599
Associates:	383
Certificates:	206

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	119	43.3%	306	86.4%
Employed and Enrolled ***(in Senior Institutions)***	85	30.9	15	4.2
Enrolled Only ***(in Senior Institutions)***	42	15.3	3	0.8
Enrolled Only ***(in Community Colleges)***	13	4.7	13	3.7
Not Found	16	5.8	17	4.8

Navarro College

Contact Information

Dr. Richard M. Sanchez, President
3200 W. Seventh Ave.
Corsicana, Texas 75110
(903) 875-7308
http://www.navarrocollege.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$49.25
Nonresident Tuition & Fee Rate:	$79.25

Enrollment (Fiscal 2007)

Total enrollment:	12,259	Anglo:	65.8%
In-District:*	17.7%	Hispanic:	11.1%
Out-of-District:*	59.2%	African American:	19.4%
Full-time:**	45.5%	Asian:	0.8%
Female:	61.3%	Native American:	0.7%
Male:	38.7%	International:	2.0%
		Other:	0.2%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Navarro College offers 16 career and technical programs, including four related to health professions. Examples include:

- *Agriculture Mechanization Technology*, a two-year program that prepares students for careers with John Deere and other implement dealers. Students must have a John Deere Dealer sponsor.
- *Oil and Gas Technology Certificate Program*, which prepares students for careers in the oil and gas industry as lease operators. Job responsibilities include basic maintenance and ensuring that oil and gas well flow rates are maintained optimally. Industry partnerships with EnCana Oil and XTO Energy provide immediate employment opportunities.
- *Associate Degree Nursing*, a two-year program leading to an associate degree in nursing and a license examination allowing graduates to practice as Registered Nurses.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	859
Associates:	555
Certificates:	304

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	292	39.4%	291	88.4%
Employed and Enrolled ***(in Senior Institutions)***	299	40.3	4	1.2
Enrolled Only ***(in Senior Institutions)***	90	12.1	2	0.6
Enrolled Only ***(in Community Colleges)***	29	3.9	15	4.6
Not Found	32	4.3	17	5.2

North Central Texas College

Contact Information

Dr. Eddie C. Hadlock, President
1525 W. California St.
Gainesville, Texas 76240-4699
(940) 668-4230
http://www.nctc.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$45
Nonresident Tuition & Fee Rate:	$77

Enrollment (Fiscal 2007)

Total enrollment:	12,454	Anglo:	75.3%
In-District:*	10.7%	Hispanic:	10.6%
Out-of-District:*	76.7%	African American:	8.3%
Full-time:**	40.5%	Asian:	2.5%
Female:	58.1%	Native American:	0.7%
Male:	41.9%	International:	1.4%
		Other:	1.2%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

North Central Texas College (NCTC) students seeking career education can pursue degrees and/or certificates in two major areas, Health Sciences and Advanced and Applied Technologies (see complete list at www.nctc.edu/What_We_Teach/whatsoffered.html#vocational).

Training for *Health Sciences* is available for licensed vocational nursing, associate degree nursing, radiological technology, surgical technology, emergency medical technicians, cosmetology and law enforcement.

Training for *Advanced and Applied Technologies* is available for those interested in computer information technology, computer sciences, agriculture, equine science, horticulture, business management, drafting and office systems technology.

Student seeking to advance their careers or enter new career fields, may complete work force certificates through the Lifelong Learning Division Workforce Skills Academy (see http://www.nctc.edu/Continuing_education/JobSkillsTraining.htm). Continuing health-related education courses are offered through the Health Occupations Academy (see http://www.nctc.edu/Continuing_education/Healthcare.htm).

Total Degrees and Certificates Awarded, fiscal 2007

Total:	577
Associates:	430
Certificates:	147

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	129	37.5%	228	90.8%
Employed and Enrolled *(in Senior Institutions)*	144	41.9	3	1.2
Enrolled Only *(in Senior Institutions)*	31	9.0	4	1.6
Enrolled Only *(in Community Colleges)*	16	4.7	8	3.2
Not Found	24	7.0	8	3.2

Northeast Texas Community College

Contact Information

Dr. Brad Johnson, President
2886 FM 1735 Chapel Hill Road
Mt. Pleasant, Texas 75455
(903) 434-8100
http://www.ntcc.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$59.94
Nonresident Tuition & Fee Rate:	$87.94

Enrollment (Fiscal 2007)

Total Enrollment:	4,860	Anglo:	77.5%
In-District:*	43.2%	Hispanic:	11.2%
Out-of-District:*	26.5%	African American:	9.1%
Full-time:**	43.0%	Asian:	0.7%
Female:	55.0%	Native American:	0.6%
Male:	45.0%	International:	0.8%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Northeast Texas Community College (NTCC) offers both university transfer and career programs for students. A detailed listing of all programs is available online at http://www.ntcc.edu/index.php?module=Book&func=displayarticlesinchapter&chap_id=15.

University Transfer: Students at NTCC can complete the first two years of a four-year degree by taking a full complement of core curriculum classes in English, mathematics, natural sciences, social sciences, creative and performing arts and humanities. Specialized transfer agreements exist with Texas A&M University – Texarkana for teacher preparation; Texas A&M University – Commerce for social work; the University of Texas at Tyler for nursing; and Stephen F. Austin State University for teacher preparation (online degree completion). NTCC students can earn Associate of Arts, Associate of Science and Associate of Arts in Teaching degrees.

Career Programs: NTCC has one of the nation's most comprehensive series of curricula available from a small, rural community college, offering programs in accounting, agriculture, auto mechanics, auto body repair, diesel mechanics, business and management, computer and information sciences, criminal justice, culinary arts, dental hygiene, nursing, physical therapy, welding, medical technology and more.

In most of these programs, students may complete a certificate program (one year) or an Associate of Applied Science degree (two years). NTCC also offers a fire academy and truck driving training through its continuing education program.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	388
Associates:	265
Certificates:	123

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	73	35.8%	116	35.8%
Employed and Enrolled *(in Senior Institutions)*	84	41.2	3	41.2
Enrolled Only *(in Senior Institutions)*	28	13.7	0	13.7
Enrolled Only *(in Community Colleges)*	6	2.9	6	2.9
Not Found	13	6.4	13	9.4

Odessa College

Contact Information

Dr. Gregory Williams, President
201 W. University Ave.
Odessa, Texas 79764
(432) 335-6611
http://www.odessa.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$53
Nonresident Tuition & Fee Rate:	$68

Enrollment (Fiscal 2007)

Total enrollment:	9,930	Anglo:	47.2%
In-District:*	41.7%	Hispanic:	47.7%
Out-of-District:*	18.2%	African American:	3.6%
Full-time:**	29.8%	Asian:	0.8%
Female:	50.9%	Native American:	0.6%
Male:	49.1%	International:	0.2%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Odessa College (OC) has served the citizens of its region for more than six decades. About 5,000 credit students are enrolled during the fall and spring. Another 11,000 individuals enroll in non-credit classes each year.

University Transfer: OC offers 22 transfer programs for students interested in transferring to four-year institutions (See http://www.odessa.edu/catalog/current_catalog/degrees.pdf). OC has formal articulation agreements with UT-Permian Basin, Texas Tech, Angelo State, Sul Ross and UT-Austin, and hundreds of OC students transfer to these institutions each year. These campuses typically report that OC students perform as well or better than native students. The music program is representative of the quality of these programs; OC's music department is one of only three two-year programs in Texas accredited by the National Association of Schools of Music.

Career Training: About 40 percent of OC's students are enrolled in programs preparing them for employment in a variety careers. Twenty-seven technical programs offer certificates and associate degrees to respond to work force demands (see http://www.odessa.edu/catalog/current_catalog/degrees.pdf). Instructional quality is a priority in all OC's technical programs. For example, 2007 graduates of the nursing program had a higher pass rate on licensing exams than all other two- and four-year nursing programs in the region.

Distance Education: OC serves an enormous area of West Texas through its three extension centers. Interactive video and Web instruction are used extensively. OC is one of only six two-year institutions in Texas accredited to offer full online degrees.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	521
Associates:	284
Certificates:	237

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	52	36.6%	322	91.0%
Employed and Enrolled *(in Senior Institutions)*	62	43.7	17	4.8
Enrolled Only *(in Senior Institutions)*	18	12.7	1	0.3
Enrolled Only *(in Community Colleges)*	1	0.7	4	1.1
Not Found	9	6.3	10	2.8

Panola College

Contact Information

Dr. Gregory S. Powell, President
1109 W. Panola St.
Carthage, Texas 75633
(903) 693-2022
http://www.panola.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$54
Nonresident Tuition & Fee Rate:	$83

Enrollment (Fiscal 2007)

Total enrollment:	4,120	Anglo:	74.9%
In-District:*	18.5%	Hispanic:	4.0%
Out-of-District:*	41.2%	African American:	19.0%
Full-time:**	45.9%	Asian:	0.6%
Female:	61.9%	Native American:	1.0%
Male:	38.1%	International:	0.4%
		Other:	0.1%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Panola College offers a variety of career programs that lead directly to the job market (see www.panola.edu/catalog/20082009online/programsstudy.pdf). Popular technical programs include:

- *The Associate Degree Nursing program*, which prepares students to take the NCLEX-RN exam that leads to the Registered Nurse license.
- *The Licensed Vocation Nursing* program, which prepares students to be licensed as Vocational Nurses after passing the NCLEX-PN exam.
- The *Occupational Therapy Assisting program*, which prepares students to take the National Board for Certification in Occupational Therapy.
- *Computer Information Systems and Office Systems Technology (Legal) certificates and degrees*, which prepare students to work in offices and in computer positions in the workplace.
- *The Petroleum Technology program*, which provides both certificates and an Associate of Applied Science degree, preparing students for jobs in the oil and gas industry.
- *Cosmetology*, a one-year certificate program that prepares students to take the examination administered by the Texas Department of Licensing and Regulation. After passing the test, students are qualified to work in the beauty care industry.

Degrees and Certificates Awarded, fiscal 2007

Total:	336
Associates:	185
Certificates:	151

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	49	32.5%	145	91.2%
Employed and Enrolled *(in Senior Institutions)*	58	38.4	2	1.3
Enrolled Only *(in Senior Institutions)*	30	19.9	0	0.0
Enrolled Only *(in Community Colleges)*	3	2.0	5	3.1
Not Found	11	7.3	7	4.4

Paris Junior College

Contact Information

Dr. Pamela Anglin, President
2400 Clarksville St.
Paris, Texas 75460
(903) 782-0330
http://www.parisjc.edu

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$54.63
Nonresident Tuition & Fee Rate:	$84.63

Enrollment (Fiscal 2007)

Total enrollment:	9,238	Anglo:	78.8%
In-District:*	10.6%	Hispanic:	4.90%
Out-of-District:*	52.9%	African American:	13.7%
Full-time:**	43.5%	Asian:	1.0%
Female:	58.5%	Native American:	1.5%
Male:	41.5%	International:	0.1%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Paris Junior College (PJC) provides quality education and training in more than 15 disciplines as well as a variety of non-credit continuing education offerings. Students can choose among programs of study that offer credentials ranging from a one-semester certificate of competency to an Associate of Applied Science degree. Programs include:

- *Jewelry Technology:* PJC has been home to the Texas Institute of Jewelry Technology (TIJT) for more than 65 years. Students can learn about all aspects of the jewelry industry, including gemology, horology (watch repair) and computer-aided design.
- *Welding Technology:* PJC's welding courses are taught in an industry-standard welding laboratory. The lab has recently been refitted with the latest equipment to support a fast-track welding academy designed to fill the work force shortage in PJC's service delivery area.
- *Health Occupations:* Students who wish to enter the health occupations field can choose among nursing, radiology, surgical technology, medical records coding and emergency medical services. All programs include an on-site clinical component that provides students with valuable industry experience.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	554
Associates:	327
Certificates:	227

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Number and share of students either enrolled in a Texas four-year institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	127	40.3%	180	77.6%
Employed and Enrolled ***(in Senior Institutions)***	122	38.7	2	0.9
Enrolled Only ***(in Senior Institutions)***	28	8.9	1	0.4
Enrolled Only ***(in Community Colleges)***	13	4.1	12	5.2
Not Found	25	7.9	37	15.9

Ranger College

Contact Information

James McDonald, Interim President
1100 College Circle
Ranger, Texas 76470
(254) 647-3234
http://www.ranger.cc.tx.us/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$69.25
Nonresident Tuition & Fee Rate:	$73.25

Enrollment (Fiscal 2007)

Total enrollment:	1,294	Anglo:	70.6%
In-District:*	4.0%	Hispanic:	14.8%
Out-of-District:*	80.7%	African American:	12.4%
Full-time:**	62.0%	Asian:	0.5%
Female:	50.9%	Native American:	1.1%
Male:	49.1%	International:	0.1%
		Other:	0.5%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Ranger College prepares its students to function successfully in an increasingly diverse and complex society by providing:

- *academic college courses* at the freshman and sophomore levels, leading to associate degrees and/or transferable college credit.
- *developmental education* that enables students to successfully advance to freshman-level academic coursework.
- *vocational and technical courses and programs* that lead to employment, licenses, certificates and/or associate degrees.
- *continuing education*, including short courses and activities for occupational, recreational, or cultural purposes.
- *cooperative efforts* with local agencies that provide adult literacy and services and facilities to area citizens.

Full program descriptions and requirements can be found at http://www.ranger.cc.tx.us/Catalog%202008-2009-1.pdf.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	140
Associates:	30
Certificates:	110

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	14	38.9%	76	90.5%
Employed and Enrolled *(in Senior Institutions)*	12	33.3	2	2.4
Enrolled Only *(in Senior Institutions)*	5	13.9	1	1.2
Enrolled Only *(in Community Colleges)*	3	8.3	1	1.2
Not Found	2	5.6	4	4.8

San Jacinto College – Central Campus

Contact Information

Dr. William H. Lindemann, Jr., Chancellor
4624 Fairmont Parkway
Pasadena, Texas 77504
(281) 998-6100
http://www.sanjac.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$41.13
Nonresident of District Tuition & Fee Rate:	$66.13

Enrollment (Fiscal 2007)

Total enrollment:	41,296	Anglo:	45.3%
In-District:*	41.3%	Hispanic:	32.6%
Out-of-District:*	36.8%	African American:	11.7%
Full-time:**	36.9%	Asian:	5.8%
Female:	53.6%	Native American:	0.5%
Male:	46.4%	International:	3.1%
		Other:	1.2%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

San Jacinto Community College District (SJC) offers both university transfer and career (technical) programs.

University Transfer: For students interested in obtaining a four-year degree, SJC offers courses that will provide the first two years of a degree in education, science, mathematics, liberal arts and other academic areas (see http://www.sanjac.edu/future_students_9208.html for a complete list). SJC has formal articulation agreements with many colleges and universities, including Ashford University, Capella University, Prairie View A&M University, Sam Houston State University, Texas Southern University, Texas Tech University, the University of Houston College of Technology, the University of Houston System, University of Houston - Air Force ROTC, University of Houston - Clear Lake, University of Texas at Dallas, University of Texas Medical Branch at Galveston and the University of Texas at Permian Basin. These agreements and additional memoranda of understanding ensure that all credits taken by SJC students will apply toward a bachelor's degree.

Career Programs: SJC offers a variety of career technical programs and majors that lead directly to the job market (see http://www.sanjac.edu/future_students_9208.html, http://www.sanjac.edu/future_students_9210.html and http://www.sanjac.edu/future_students_9211.html for complete lists). Examples of programs that can be completed in one or two years include:

- *nursing* – SJC offers a one-year vocational nursing certificate and one- and two-year associate degrees in nursing designed to prepare students for entry-level as well as advanced positions in the health care industry.
- *information technology (IT)* – IT programs prepare students for employment with organizations that use computers to process, manage and communicate information. SJC offers certificates and degrees in applications programming, Web applications development, desktop support, network administration (both MS and Cisco specialties), security and database design. The Texas Higher Education Coordinating Board has cited the North Campus program as exemplary.
- *automotive technology* – SJC offers certificates and degrees for entry-level, factory-certified automotive technicians in Chrysler's College Automotive Program, Honda's Professional Automotive Career Training, Ford Motors' Automotive Student Service Educational Training, General Motors' Automotive Service Educational Program and Toyota's Technical Education Network. Students who maintain a 3.0 grade-point average have the option of transferring from a generic program to either a BMW or Mercedes-Benz factory program.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	2,409
Associates:	1,693
Certificates:	716

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	562	39.4%	1,373	87.3%
Employed and Enrolled ***(in Senior Institutions)***	579	40.6	32	2.0
Enrolled Only ***(in Senior Institutions)***	171	12.0	13	0.8
Enrolled Only ***(in Community Colleges)***	61	4.3	61	3.9
Not Found	52	3.6	94	6.0

South Plains College

Contact Information

Dr. Kelvin W. Sharp, President
1401 S. College Ave.
Levelland, Texas 79336
(806) 894-9611
http://www2.southplainscollege.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$74.19
Nonresident Tuition & Fee Rate:	$96.19

Enrollment (Fiscal 2007)

Total enrollment:	15,595	Anglo:	66.1%
In-District:*	5.1%	Hispanic:	26.4%
Out-of-District:*	72.3%	African American:	5.3%
Full-time:**	49.5%	Asian:	1.1%
Female:	52.3%	Native American:	0.5%
Male:	47.7%	International:	0.6%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

The South Plains College (SPC) Arts and Sciences Division offers university-parallel academic courses for students planning to obtain a bachelor's degree. Associate degrees are available in 22 disciplines that encompass the behavioral sciences, business administration, communications, languages, the fine arts, mathematics, pre-engineering, physical education, the sciences, social sciences and teacher education. Formal articulation agreements with the region's public and private universities, including Texas Tech University, ensure SPC students' credits transfer successfully.

SPC's Health Occupations Division offers career education in allied health and nursing. The division offers 19 associate degree and certificate options in areas including applied rehabilitation psychology, child development, emergency medical services, health information technology, radiologic technology, respiratory care, surgical technology and nursing.

The Technical Education Division offers 65 career training options in one-year and two-year formats that lead to associate degrees or certificates. Programs include business administration, computer information systems, industrial technology, the creative arts, and professional services.

In partnership with the region's business and industry, SPC's Workforce Development Division provides customized contract training, community-service short courses and work force development programs.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	1,220
Associates:	760
Certificates:	460

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	190	33.4%	489	90.2%
Employed and Enrolled ***(in Senior Institutions)***	266	46.7	30	5.5
Enrolled Only ***(in Senior Institutions)***	85	14.9	3	0.6
Enrolled Only ***(in Community Colleges)***	4	0.7	11	2.0
Not Found	24	4.2	9	1.7

South Texas College

Contact Information

Dr. Shirley A. Reed, President
3201 W. Pecan
McAllen, Texas 78501
(956) 872-8366
http://www.southtexascollege.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$71.31
Nonresident Tuition & Fee Rate:	$88.41

Enrollment (Fiscal 2007)

Total enrollment:	27,239	Anglo:	4.5%
In-District:*	89.0%	Hispanic:	92.8%
Out-of-District:*	1.7%	African American:	0.3%
Full-time:**	32.0%	Asian:	1.1%
Female:	58.8%	Native American:	0.1%
Male:	41.2%	International:	0.5%
		Other:	0.8%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: For students interested in obtaining a four-year degree, STC offers an Associate of Arts Degree in 16 areas of study, an Associate of Science Degree in seven areas and an Associate of Arts in Teaching (see http://www.southtexascollege.edu/academics/degcerts/associates/index.html for a complete list). STC has formal articulation agreements with University of Texas - Pan American, Texas A & M - Kingsville, University of Houston - Clear Lake, Midwestern State University and other Texas state institutions to ensure that all credits taken by STC students can be applied to a bachelor's degree program.

Bachelor's Degrees: In addition, STC offers a Bachelor of Applied Technology degree in both technology management and computer and information technologies.

Career Programs: STC also offers a wide variety of Associate of Applied Science (AAS) degrees and certificates that lead directly to the work force (see http://www.southtexascollege.edu/academics/degcerts/associates/index.html for a complete list).

Examples of programs that can be completed in one to two years include:

- *business computer systems* – STC offers both AAS specializations and one-year certificates in the areas of computer specialist, information security, networking, technology support and Webmaster. The median hourly wage for graduates with associate degree skills in the IT field can range from $14.75 to $22.17 in the South Texas region.
- *associate degree in nursing* – STC's nursing program accredited by the Board of Nurse Examiners (BNE). Upon completion of this two-year program, graduates can sit for the NCLEX-RN exam and become a registered nurse. The median hourly wage for a registered nurse in the South Texas region is $26.68.
- *automotive technology* – STC offers a one-year certificate and a two-year AAS program in automotive technology. This program prepares students for employment in the automotive service industry. STC also has an educational partnership with General Motors Corporation to upgrade the technical competency of entry-level GM dealership technicians; graduates of STC's AAS program in this area can receive GM-ASEP certification. In addition, STC offers a one-year Ford maintenance and light repair certificate through which students can receive Ford certification in automotive electrical systems, brake systems, heating and air conditioning and suspension and steering.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	1,822
Associates:	1,345
Certificates:	463

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	555	39.3%	710	87.1%
Employed and Enrolled ***(in Senior Institutions)***	579	41.0	10	1.2
Enrolled Only ***(in Senior Institutions)***	170	12.0	7	0.9
Enrolled Only ***(in Community Colleges)***	73	5.2	39	4.8
Not Found	35	2.5	49	6.0

Southwest Texas Junior College

Contact Information

Dr. Ismael Sosa, Jr., President
2401 Garner Field Road
Uvalde, Texas 78801
(830) 278-4401
http://www.swtjc.net/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$62.98
Nonresident Tuition & Fee Rate:	$92.48

Enrollment (Fiscal 2007)

Total enrollment:	8,164	Anglo:	15.4%
In-District:*	21.3%	Hispanic:	79.1%
Out-of-District:*	59.8%	African American:	1.8%
Full-time:**	39.2%	Asian:	0.5%
Female:	54.7%	Native American:	0.2%
Male:	45.3%	International:	0.3%
		Other:	2.7%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Southwest Texas Junior College (SWTJC) offers both university transfer and career programs for students.

University Transfer: SWTJC offers the following degrees (see http://inet4.swtjc.cc.tx.us/catalog/catalog.pdf for a complete list)

- the Associate of Arts in General Studies degree is designed for students who plan to transfer to a senior college or university.
- the Associate of Science degree is designed for students who plan to transfer to a senior college or university and major in science, mathematics or engineering.
- the Associate of Arts in Teaching degree provides lower-division courses intended for transfer to bachelor's degree programs that lead to Texas teacher certification.
- the Associate of Applied Science degree and certificate programs consist of technical courses and integrated general education courses.

SWTJC has formal agreements with Texas State University, Texas A&M – Kingsville, Texas A&M – Laredo and Sul Ross State University in Alpine to ensure that all credits taken by SWTJC students can be applied to a degree.

Technical Certificates: SWTJC offers a variety of certificate programs involving one year of technical instruction and integrated general education courses. Certificate students can choose among a variety of career areas and acquire the skills needed to compete in the job market.

Other Certificates: The Core Curriculum Certificate and Field of Study Curriculum Certificate are awarded to students who complete the required number of semester credit hours.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	615
Associates:	464
Certificates:	151

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	197	49.1%	152	81.7%
Employed and Enrolled *(in Senior Institutions)*	123	30.7	6	3.2
Enrolled Only *(in Senior Institutions)*	32	8.0	2	1.1
Enrolled Only *(in Community Colleges)*	24	6.0	8	4.3
Not Found	25	6.2	18	9.7

Tarrant County College

Contact Information

Dr. Leonardo de la Garza, Chancellor
1500 Houston St.
Fort Worth, Texas 76102
(817) 515-5201
http://www.tccd.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$50
Nonresident Tuition & Fee Rate:	$73

Enrollment (Fiscal 2007)

Total enrollment:	66,719	Anglo:	59.9%
In-District:*	73.0%	Hispanic:	16.4%
Out-of-District:*	6.8%	African American:	15.1%
Full-time:**	31.9%	Asian:	6.2%
Female:	56.5%	Native American:	0.5%
Male:	43.5%	International:	0.8%
		Other:	1.2%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Tarrant County College (TCC) offers students two university transfer/associate degree programs as well as a wide range of associate degree and certificate programs designed to prepare students for direct entry into the work force.

University Transfer: Students who wish to continue toward a bachelor's degree may choose from a wide variety of courses in the humanities, arts, sciences, business, and many others. For these students, TCC offers Associate of Arts and Associate of Arts in Teaching degrees.

Career Programs: Students desiring programs leading directly to careers may choose from among 87 Associate of Applied Science and certificate programs in areas ranging from aviation maintenance to welding. Examples include:

- *paralegal studies* – licensed attorneys provide highly informed instruction in courses essential to a successful career as a legal assistant. TCC graduates who take the voluntary National Certification Exam pass at a rate significantly higher than the national average.
- *culinary arts* – students in this program study food preparation, dining room service, international cuisine and other courses essential to becoming a chef. Facilities include a state-of-the-art teaching kitchen and an elegant dining room. Students frequently cater on and off-campus events as part of their training.
- *long-term care administration* – students in this program must have a bachelor's degree to enroll. Upon completion, students are prepared to sit for the Texas Department of Human Services license examination.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	2,799
Associates:	2,139
Certificates:	660

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	984	48.0%	1,015	83.2%
Employed and Enrolled ***(in Senior Institutions)***	709	34.6	62	5.1
Enrolled Only ***(in Senior Institutions)***	176	8.6	15	1.2
Enrolled Only ***(in Community Colleges)***	93	4.5	54	4.4
Not Found	87	4.2	74	6.1

Temple College

Contact Information

Dr. Glenda O. Barron, President
2600 South First Street
Temple, Texas 76504
(254) 298-8282
http://www.templejc.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$70
Nonresident Tuition & Fee Rate:	$110

Enrollment (Fiscal 2007)

Total enrollment:	9,548	Anglo:	68.7%
In-District:*	22.1%	Hispanic:	14.8%
Out-of-District:*	45.1%	African American:	13.6%
Full-time:**	38.2%	Asian:	1.6%
Female:	63.1%	Native American:	0.6%
Male:	36.9%	International:	0.2%
		Other:	0.4%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Temple College (TC) is a comprehensive two-year community college offering Associate of Arts and Associate of Applied Science degrees, certificate programs and advanced certificates in technical and health science programs, as well as community education courses and corporate training services.

University Transfer: For students interested in obtaining a four-year degree, TC offers courses that will provide the first two years of a degree in business administration, child development, computer science, criminal justice, music and many more academic areas (see www.templejc.edu/dept/dept.htm for a complete list). TC has formal articulation agreements with several universities that ensure that all credits taken by TC students can be applied to a degree. Franklin University offers an online Bachelor of Science degree through an educational alliance with TC.

Technical/Health Professions Programs: TC offers a wide variety of technical/health profession programs leading directly to the job market (see all programs listed at www.templejc.edu/dept/dept.htm).

Special Programs for High School Students: A dual credit program allows area high school students to earn college credit while in high school. Early admission enrollment allows high school students to enroll in one or more college courses.

The Texas Bioscience Institute, Cameron Education Center and Taylor Center are approved "middle college" locations that let qualified high school students take college-level coursework as early as their 11th grade year. The Texas Bioscience Institute offers students advanced courses in biology, chemistry, technology and technical communication, and allows them to interact with bioscience researchers. Internships and apprenticeships take place in working bioscience facilities in industry or government organizations.

An Early College program offered by TC Taylor Center and the East Williamson County Higher Education Center allows students to qualify to take college-level courses as early as 9th grade. The Legacy Early College High School in Taylor allows area 8th graders to take dual-credit courses.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	418
Associates:	267
Certificates:	151

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	79	41.1%	235	89.0%
Employed and Enrolled *(in Senior Institutions)*	67	34.9	7	2.7
Enrolled Only *(in Senior Institutions)*	25	13.0	1	0.4
Enrolled Only *(in Community Colleges)*	14	7.3	10	3.8
Not Found	7	3.6	11	4.2

Texarkana College

Contact Information

Frank Coleman, President
2500 N. Robison Road
Texarkana, Texas 75501
(903) 838-4541
http://www.texarkanacollege.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$35.94
Nonresident Tuition & Fee Rate:	$56.56

Enrollment (Fiscal 2007)

Total enrollment:	10,645	Anglo:	79.1%
In-District:*	7.2%	Hispanic:	2.4%
Out-of-District:*	31.7%	African American:	16.8%
Full-time:**	39.9%	Asian:	0.5%
Female:	62.9%	Native American:	0.3%
Male:	37.1%	International:	0.9%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

Texarkana College (TC) offers both academic and occupational/technical career programs for students.

University Transfer: TC provides students seeking four-year degrees the prerequisite coursework for the first two years in arts and humanities, business, computer technology, education, health occupations, natural sciences, physical sciences and social science. For a complete list, please visit www.texarkanacollege.edu/admissions/degrees.htm. TC receives regular reports from regional four-year universities that indicate the GPAs of its transfer students are equal (and in some cases, superior) to the university's native students.

Career Programs: Texarkana College provides students with a varied menu of occupational/technical programs and certificates that allow them to enter the work force in one to two years. The two newest additions to its growing list of occupational/technical offerings are:

- construction technology, including site preparation, layout, blueprint and specification reading, framing, cabinetry and millwork, electricity, plumbing and heating/ventilation/air conditioning.
- culinary arts, including professional knife techniques, safe food handling procedures, proper use and care of commercial kitchen equipment and advanced cooking techniques for banquets and buffets that incorporate cuisine styles from all over the globe.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	615
Associates:	273
Certificates:	342

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	29	33.3%	291	82.0%
Employed and Enrolled ***(in Senior Institutions)***	21	24.1	8	2.3
Enrolled Only ***(in Senior Institutions)***	30	34.5	1	0.3
Enrolled Only ***(in Community Colleges)***	1	1.1	30	8.5
Not Found	6	6.9	25	7.0

Texas Southmost College

Contact Information

Dr. Juliet V. Garcia, President
80 Fort Brown
Brownsville, Texas 78520
(956) 882-8200
http://www.utb.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$164.30
Nonresident Tuition & Fee Rate:	$164.30

Enrollment (Fiscal 2007)

Total enrollment:	17,804	Anglo:	3.9%
In-District:*	54.3%	Hispanic:	91.9%
Out-of-District:*	40.5%	African American:	0.3%
Full-time:**	23.4%	Asian:	0.5%
Female:	56.8%	Native American:	0.1%
Male:	43.2%	International:	2.9%
		Other:	0.4%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

The University of Texas at Brownsville and Texas Southmost College (UTB/TSC) is a unique institution that combines the strengths of a community college with those of a university. Its students can pursue everything from a certificate to a doctoral degree. Programs of study are offered through a College of Liberal Arts; College of Science, Mathematics and Technology; College of Applied Technology and General Studies; School of Business; School of Education; and School of Health Sciences.

Some of the programs offered at UTB/TSC include:

- *associate degree nursing program* – UTB/TSC's program is designed to prepare students for entry-level positions as a nurse. Graduates receive an Associate of Applied Science degree and are eligible to take the licensing examination to become registered nurses.
- *applied business technology* – students can earn a one-year certificate in accounting technology or a two-year Associate in Applied Science degree. The accounting technology certificate includes courses in professional development for office personnel, payroll and business tax accounting and cooperative education accounting. The Associated of Applied Science degree comprises 62 credit hours in classes such as introduction to accounting, federal income tax (individual) and macroeconomics.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,261
Associates:	940
Certificates:	321

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	253	30.3%	379	78.1%
Employed and Enrolled ***(in Senior Institutions)***	373	44.7	44	9.1
Enrolled Only ***(in Senior Institutions)***	128	15.3	8	1.6
Enrolled Only ***(in Community Colleges)***	39	4.7	35	7.2
Not Found	41	4.9	19	3.9

Trinity Valley Community College

Contact Information

Dr. Glendon Forgey, President
500 South Prairieville
Athens, Texas 75751
(903) 675-6211
http://www.tvcc.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$40
Nonresident Tuition & Fee Rate:	$60

Enrollment (Fiscal 2007)

Total enrollment:	10,311	Anglo:	74.6%
In-District:*	39.0%	Hispanic:	11.3%
Out-of-District:*	45.8%	African American:	13.3%
Full-time:**	40.8%	Asian:	0.4%
Female:	56.0%	Native American:	0.2%
Male:	44.0%	International:	0.3%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: The curricula for the *Associate of Arts degree* are designed for students planning to transfer to a senior college or university. Trinity Valley Community College's Associate of Arts degree programs contain the core curriculum and general education academic courses and suggested electives needed for the freshman and sophomore years of bachelor's degrees offered by Texas universities and colleges.

The *Associate of Arts in Teaching* degree is a university-transfer degree designed for students interested in the teaching profession. It provides students seeking a bachelor's degree and teacher certification with a degree that is fully transferable to Texas state universities and colleges that provide education programs.

Career Programs: The *Associate of Applied Science degree* is awarded for successful completion of a two-year work force education curriculum. Trinity Valley Community College provides Associate of Applied Science programs in accounting, general business, office technology, legal assistant technology, medical administrative assistance, early childhood development, computer science – programming, computer science – management information systems, criminal justice – law enforcement, correctional science, drafting and design, emergency medical services, fire science, horticulture, management, nursing, ranch management and surgical technology.

Certificates of completion are awarded for successful completion of a specialized curriculum in a work force education program of less than two years in length. Student may initially enroll in a certificate program and later transfer the courses into the corresponding associate degree program. Trinity Valley Community College provides certificates in accounting, automotive technology, office technology, legal assistance, medical administrative assistance, medical office management, medical transcription, early childhood administration, early childhood education, para-education, computer science – management information systems, computer science – programming, cosmetology, manicure, law enforcement, correctional science, drafting computer graphics, drafting mechanical design, emergency medical services, fire science, horticulture, management, small business management, patient care technology, ranch management, beef cattle management, surgical technology, vocational nursing and welding.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,348
Associates:	698
Certificates:	650

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	114	35.5%	343	85.3%
Employed and Enrolled ***(in Senior Institutions)***	132	41.1	8	2.0
Enrolled Only ***(in Senior Institutions)***	44	13.7	2	0.5
Enrolled Only ***(in Community Colleges)***	15	4.7	29	7.2
Not Found	16	5.0	20	5.0

Texas State Technical Colleges

Contact Information

Dr. Bill Segura, Chancellor
3801 Campus Drive
Waco, Texas 76705
(254) 867-4893
http://www.tstc.edu/

Tuition, Rate Per Semester Credit Hour

In-State Tuition & Fee Rate:	$94.50
Out-of-State Tuition & Fee Rate:	$215.50

Enrollment (Fiscal 2007)

Total Enrollment:	27,145	Anglo:	45.2%
In-District:*	51.2%	Hispanic:	38.8%
Out-of-District:*	0.02%	African American:	9.0%
Full-time:**	N/A	Asian:	0.9%
Female:	38.8%	Native American:	0.4%
Male:	61.2%	International:	0.4%
		Other:	5.3%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description (for TSTC - Waco)

Texas State Technical College (TSTC) - Waco is a part of the Texas State Technical College System, established under the Texas Education Code to be "a co-educational two-year institution of higher education offering courses of study in technical-vocational education for which there is a demand within the state of Texas." Its mission is further defined in statute to include contributing "to the educational and economic development" of the state and improving "the competitiveness of Texas business and industry." To accomplish this mission, TSTC Waco offers Associate of Applied Science degrees, certificates, transfer credit and customized training programs.

Associate of Applied Science/Certificate: Credits earned at TSTC - Waco can be applied toward an associate degree or certificate or transferred to a university under articulation agreements in fields including advertising design, media communication, biomedical equipment, laser electro-optics, gaming and simulation, nanotechnology, diesel and automotive repair and maintenance, building construction, electronics, golf course/landscape management, drafting/design, welding, dental assistance, environmental health/safety, refrigeration, culinary arts, aircraft pilot training, aviation maintenance, avionics, mechanical engineering, electrical power, instrumentation, computerized controls, robotics, pharmacy technician, chemical/environmental laboratory technician, geographic information systems, surveying, semiconductor manufacturing, fuel cells/alternative energy, industrial systems and engineering, digital media design, computer maintenance, networking, computer science, network security, digital forensics and telecommunications.

Customized Training: TSTC Waco provides needs analysis, curriculum development, technical skill benchmarking, certification training, grant development/administration and fully customized training for incumbent workers to meet new duties and responsibilities, and to provide retraining for displaced workers.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	2,007
Associates:	1,233
Certificates:	770

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	N/A	N/A	1,646	88.7%
Employed and Enrolled ***(in Senior Institutions)***	N/A	N/A	45	2.4
Enrolled Only ***(in Senior Institutions)***	N/A	N/A	24	1.3
Enrolled Only ***(in Community Colleges)***	N/A	N/A	72	3.9
Not Found	N/A	N/A	69	3.7

Note: table compiles aggregate data for TSTC's West Texas, Harlingen, Waco and Marshall campuses.

Tyler Junior College

Contact Information

Dr. Michael Metke, President
P.O. Box 9020
Tyler, Texas 75711
(903) 510-2380
http://www.tjc.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$58.63
Nonresident Tuition & Fee Rate:	$93.63

Enrollment (Fiscal 2007)

Total enrollment:	19,157	Anglo:	70.2%
In-District:*	31.0%	Hispanic:	10.2%
Out-of-District:*	32.8%	African American:	17.7%
Full-time:**	62.4%	Asian:	1.2%
Female:	60.8%	Native American:	0.4%
Male:	39.2%	International:	0.3%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: For students interested in obtaining a four-year degree, Tyler Junior College (TJC) offers courses that will provide the first two years of a degree in education, engineering, health science, mathematics, liberal arts, and many more academic areas (see for a complete list). TJC has formal articulation agreements with the University of Texas at Tyler and Stephen F. Austin State University to ensure that all credits taken by students in education, agriculture and social work at TJC will apply to a degree. TJC also aligns all of its undergraduate course work with the *Academic Course Guide Manual* provided by the Texas Higher Education Coordinating Board to the ensure transferability of all its university transfer courses.

TJC also offers a wide variety of career programs and majors that lead directly to the job market (see http://www2.tjc.edu/areastudy/ for all programs). Programs offered in TJC's Allied Health & Nursing and Applied Studies divisions that can be completed in one to two years include:

- *dental hygiene* – this 24-month program prepares competent dental hygienists for careers in oral health care. Students acquire knowledge and proficiency in areas such as removing plaque, performing x-rays and teaching patients proper oral hygiene techniques. The average starting full-time salary for these workers is $39,000 to $53,000 annually.
- *Associate Degree in nursing* – this two-year program provides instruction in assessment, planning, implementation and evaluation of direct nursing care for individuals or groups. Graduates can monitor and direct peers and ancillary workers in the technical aspects of nursing care. The average starting salary in East Texas is $37,500 to $45,600 annually.
- *surveying* – TJC offers a two-year degree in surveying as well as a one-year certificate of proficiency that prepare highly qualified surveying technicians who determine the exact location and measurement of points, lines and contours in the earth's surface and prepares technical maps or reports. Students who wish to become registered surveyors can transfer to a four-year institution and complete a bachelor's degree. The salary range for a registered surveyor is $40,000 to $100,000+ per year, while a surveying technician will earn from $17,000 to $37,000 per year.
- *graphic arts/photography* – new media have created a serious need for talented graphic designers that can use a variety of graphics and layout software. Designers creating Web pages or other interactive media designs also use computer animation and programming packages. Formal training is available through a two-year associate degree as well as certificate options in photography and the graphic arts. Salaries range from $22,000 to $50,000 per year.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,273
Associates:	843
Certificates:	430

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	330	39.0%	449	86.7%
Employed and Enrolled ***(in Senior Institutions)***	346	40.9	34	6.6
Enrolled Only ***(in Senior Institutions)***	106	12.5	5	1.0
Enrolled Only ***(in Community Colleges)***	23	2.7	18	3.5
Not Found	42	5.0	12	2.3

Vernon College

Contact Information

John Hardin III, Interim President
4400 College Drive
Vernon, Texas 76384
(940) 552-6291
http://www.vernoncollege.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$71
Nonresident Tuition & Fee Rate:	$98.50

Enrollment (Fiscal 2007)

Total enrollment:	6,763	Anglo:	75.7%
In-District:*	31.0%	Hispanic:	12.4%
Out-of-District:*	32.8%	African American:	8.9%
Full-time:**	34.1%	Asian:	1.6%
Female:	57.1%	Native American:	1.1%
Male:	42.9%	International:	0.3%
		Other:	0.1%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: Vernon College (VC) awards Associate in Arts, Associate in Science and Associate in Applied Science degrees as well as certificates of completion. Details on degrees, certificates. career and technical education programs (see pages 76-82 and 106-107) and tuition and fees (see pages 25-28) can be found in Vernon's catalog at http://www.vernoncollege.edu.

VC's associate degrees provide general academic curricula in courses of study that generally correspond to the first four semesters of a bachelor's degree program. While VC does not offer a major in the AA or AS degrees, suggested transfer curricula are included in the catalog to serve as a guide for students whose educational goals include transfer to a four-year university.

Career and Technology Programs: VC's Associate in Applied Science degree programs are designed to prepare student for immediate employment or career advancement. They are generally work force-related or paraprofessional in nature and are identified with a specialty designation. Certificate programs are designed for entry-level employment, meeting a particular specialty within an occupational area and/or upgrading one's skills and knowledge within a vocation.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	1,273
Associates:	843
Certificates:	430

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	26	33.8%	302	90.1%
Employed and Enrolled ***(in Senior Institutions)***	30	39.0	11	3.3
Enrolled Only ***(in Senior Institutions)***	11	14.3	2	0.6
Enrolled Only ***(in Community Colleges)***	4	5.2	8	2.4
Not Found	6	7.8	12	3.6

Victoria College

Contact Information

Dr. Thomas Butler, President
2200 E. Red River
Victoria, Texas 77901
(361) 582-2560
http://www.victoriacollege.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$54
Nonresident Tuition & Fee Rate:	$78

Enrollment (Fiscal 2007)

Total enrollment:	9,481	Anglo:	62.8%
In-District:*	31.0%	Hispanic:	28.8%
Out-of-District:*	32.8%	African American:	6.2%
Full-time:**	32.9%	Asian:	1.6%
Female:	59.5%	Native American:	0.3%
Male:	40.5%	International:	0.3%
		Other:	0.0%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: For students interested in obtaining a four-year degree, Victoria College offers courses that will meet the general education requirements of most bachelor's degree-granting institutions in Texas. Additional information about these programs can be found at http://www2.victoriacollege.edu/pubs/catalog0708/PDFs/ProgramsofStudyAcademicTransfer.pdf.

Career and Technology Programs: Victoria College offers a number of career and technical programs that have been meeting work force and training needs for several years. These programs include commercial truck driving, welding, process technology and nursing.

The college's process technology program offers an Associate in Applied Science degree and an enhanced skills certificate qualifying graduates for employment in the petrochemical industry as process operators. With the six petrochemical plants in the college's service area facing retirements and significant expansion, a qualified, well-trained work force will be critical to their ongoing success. The local plants generously helped the college equip a process technology lab that many say is superior to labs found on university campuses. The program employs one full-time faculty member and five adjunct instructors and has graduated 127 students in the past seven years.

Information about career programs at VC can be found at http://www2.victoriacollege.edu/pubs/catalog0708/PDFs/Programsof StudyAlliedHealth.pdf and http://www2.victoriacollege.edu/pubs/catalog0708/PDFs/ProgramsofStudyWorkforce.pdf.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	1,273
Associates:	843
Certificates:	430

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	66	39.1%	340	92.1%
Employed and Enrolled ***(in Senior Institutions)***	67	39.6	11	3.0
Enrolled Only ***(in Senior Institutions)***	25	14.81	1	0.3
Enrolled Only ***(in Community Colleges)***	7	4.1	3	0.8
Not Found	4	2.4	14	3.8

Weatherford College

Contact Information

Dr. Joe Birmingham, President
225 College Park Drive
Weatherford, Texas 76086
(817) 598-6271
http://www.wc.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$59
Nonresident Tuition & Fee Rate:	$85

Enrollment (Fiscal 2007)

Total enrollment:	8,802	Anglo:	76.5%
In-District:*	31.4%	Hispanic:	10.2%
Out-of-District:*	37.1%	African American:	6.2%
Full-time:**	48.2%	Asian:	0.6%
Female:	49.7%	Native American:	0.7%
Male:	50.3%	International:	0.8%
		Other:	4.9%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: For students wishing to earn a bachelor's degree, the college offers the core transfer curriculum, which all public colleges and universities must accept for transfer credit according to approved regulations. These students can earn Associate in Arts and Associate in Science degrees from the college.

Work Force Education and Customized Training: The college offers 19 work force education programs, including nursing, radiology technology, respiratory care, business, fire science, police academy, cosmetology, heating, air conditioning and ventilation training, welding, truck driving and computer applications. Students can earn certificates and Associate in Applied Sciences degrees. The college also provides customized training services for businesses and industry employees.

Lifelong Learning: Through its continuing education program, the college offers a wide-range of courses for personal interest and lifelong learning.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	480
Associates:	354
Certificates:	126

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	87	39.4%	243	90.3%
Employed and Enrolled *(in Senior Institutions)*	80	36.2	5	1.9
Enrolled Only *(in Senior Institutions)*	30	13.6	3	1.1
Enrolled Only *(in Community Colleges)*	13	5.9	13	4.8
Not Found	11	5.0	5	1.9

Western Texas College

Contact Information

Dr. Mike Dreith, President
6200 College Avenue
Snyder, Texas 79549
(325) 573-8511
http://www.wtc.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$66
Nonresident Tuition & Fee Rate:	$80

Enrollment (Fiscal 2007)

Total enrollment:	5,224	Anglo:	69.7%
In-District:*	19.4%	Hispanic:	21.3%
Out-of-District:*	55.1%	African American:	7.5%
Full-time:**	24.8%	Asian:	0.7%
Female:	45.7%	Native American:	0.5%
Male:	54.3%	International:	0.2%
		Other:	0.1%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: WTC has many degrees that transfer to Texas senior institutions. Pre-professional and general education courses are offered leading to the Associate of Arts degree.

Career Programs: WTC technical-vocational programs lead to a certificate or the Associate of Applied Science degree, preparing students for careers in the business, industrial and professional communities (see http://www.wtc.edu/career_tech.html for all programs). Programs that can be completed in one to two years include:

- *golf and landscape technology* – most graduates enter the golf course industry as an assistant golf course superintendent or an irrigation or pesticide technician. Associate degree graduates can also enter into the landscape and irrigation industry, parks and recreation or sales of horticultural products or turf and landscape equipment.
- *radio broadcasting* – Western Texas College's FCC-licensed FM radio station, 91.1 KGWB, lets students work with state-of-the-art equipment as they produce announcements and programs, prepare news and sportscasts, broadcast WTC sporting events and learn the inner workings of a radio station. Upon graduation, they can step into a career in radio or apply their skills in related industries, such as production companies, advertising agencies, industry and broadcasting trade associations, educational radio and television and state and federal government.

Total Degrees and Certificates Awarded, fiscal 2007

Total:	187
Associates:	115
Certificates:	72

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	25	33.3%	62	82.7%
Employed and Enrolled ***(in Senior Institutions)***	30	40.0	6	8.0
Enrolled Only ***(in Senior Institutions)***	12	16.0	2	2.7
Enrolled Only ***(in Community Colleges)***	1	1.3	4	5.3
Not Found	7	9.3	1	1.3

Wharton County Junior College

Contact Information

Dr. Betty A. McCrohan, President
911 Boling Highway
Wharton, Texas 77488
(979) 532-6304
http://www.wcjc.edu/

Tuition, Rate Per Semester Credit Hour

Resident of District Tuition & Fee Rate:	$54
Nonresident Tuition & Fee Rate:	$100

Enrollment (Fiscal 2007)

Total enrollment:	9,477	Anglo:	55.5%
In-District:*	18.8%	Hispanic:	22.9%
Out-of-District:*	70.8%	African American:	9.0%
Full-time:**	43.7%	Asian:	6.3%
Female:	59.4%	Native American:	0.2%
Male:	40.6%	International:	3.9%
		Other:	2.1%

** Percentage of annual unduplicated enrollment. Out-of-state and continuing education students not included.*
*** Full-time enrollment of students seeking college credit.*

Program Description

University Transfer: Wharton County Junior College's (WCJC's) semester-hour credits (except in certain developmental, preparatory and vocational courses) transfer to other state-supported colleges. The University of Houston System (UHS) and WCJC offer a joint admissions program that facilitates the admission of qualified WCJC students into four-year degree programs offered through component universities in the UHS.

Academic transfer resources can be found at: http://www.wcjc.edu/admin_offices_n/Student_Services/transfer.asp

Joint admissions information for WCJC and the UHS can be found at: http://www.wcjc.edu/admin_offices_n/Student_Services/default.asp

Career Programs: Wharton County Junior College offers a variety of career programs that can be completed in one or two years. These include:

- *power technology* – this program prepares students for work in the power generation industry. Starting salaries for entry-level apprenticeships for electricians, mechanics and instrumentation/controls technicians in this industry are about $23.22 an hour.
- *process technology* – this two-year Associate in Applied Science program prepares students for entry-level positions as process technicians in chemical plants, oil refineries, pharmaceutical plants and pipeline operations. Average starting salaries are about $43,000 annually.
- *vocational nursing* – this program prepares students to serve on nursing teams as entry-level vocational nurses in nursing homes, hospitals, residential care facilities, physician's offices and clinics, schools and home health services. Average annual starting salaries range from $26,000 to $37,500.

Total Degrees or Certificates Awarded, fiscal 2007

Total:	540
Associates:	368
Certificates:	172

Total does not include an advanced technology certificate program that comprises 16 to 50 semester credit hours and requires students to have an associate or bachelor's degree or to be a junior in a bachelor's degree program.

Total number and share of students either enrolled in a Texas senior institution or employed within six months of graduation, fiscal 2006:

	Academic Students	Percentage	Technical Students	Percentage
Employed Only	78	38.6%	349	89.9%
Employed and Enrolled *(in Senior Institutions)*	86	42.6	9	2.3
Enrolled Only *(in Senior Institutions)*	25	12.4	2	0.5
Enrolled Only *(in Community Colleges)*	5	2.5	8	2.1
Not Found	8	4.0	20	5.2

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