Texas House of Representatives  
Select Committee on Health Care Education and Training  

Texas State Technical College 

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Background and History  

Texas State Technical College (TSTC) was established in 1965 as the James Connally Technical Institute (JCTI) of Texas A&M University to meet the state’s evolving workforce needs. JCTI was located in Central Texas at the former James Connally Air Force Base in Waco. In 1967, JCTI expanded to include a South Texas campus in Harlingen. Additional locations soon followed.  

JCTI separated from Texas A&M University in 1969 and became an independent state institution with its own nine-member Board of Regents and the name Texas State Technical Institute (TSTI). In 1991, the Texas Legislature elevated the Institute’s status as an institution of higher education and changed TSTI’s name to Texas State Technical College.  

Since its inception, TSTC has grown to include multiple campuses across Texas and several off-site teaching locations. TSTC is a co-educational, two-year institution offering occupationally oriented programs with supporting academic courses for certificates or associate degrees. Emphasis is on advanced and emerging technical programs not commonly offered by public junior colleges with a core focus on placement and earnings outcomes. For 49 years, TSTC has been producing top-quality graduates, who are nationally recognized for their highly-specialized technical capabilities and job-ready skills. TSTC’s strong relationship with business and industry ensures that coursework focuses on the regional and statewide needs of Texas’ employers and leads to success in the job market.  

TSTC is Texas’ only state-supported technical college system. Its statutory mission is to provide an articulated and responsive technical education system aimed at identifying and addressing industry needs. These two features make TSTC unique among institutions of higher education. TSTC currently has campuses in Waco, Harlingen, Marshall and West Texas, with locations in Abilene, Breckenridge, Brownwood and Sweetwater. The TSTC system also has off-site teaching locations in Hutto, Ingleside, Red Oak, and Richmond, in addition to partnerships with many of the state’s public junior colleges.
**Accolades**

TSTC consistently ranks as a top producer of associate degrees in Engineering Technologies & Engineering-Related Fields, Precision Production, and Computer and Information Sciences & Support Services. In *Community College Week*’s annual report titled “Top 100 Associate Degree Producers,” TSTC has ranked Number 1 in Texas numerous times in one or more categories and has consistently stayed among the top 50 two-year colleges in the nation in nearly every applicable category.

TSTC offers more than 151 Associate of Applied Science (AAS) degrees and certificates and has produced more than 97,500 graduates in its nearly 50-year history. TSTC Harlingen also offers five Associate of Science (AS) degrees in biology, computer science, engineering, mathematics, and physics.

From 2009 to 2012, TSTC has generated a 32 percent increase in graduates, a 36 percent increase in job placements, and a 54 percent increase in combined annual wages. Projections indicate that the combined first-year earnings of a cohort of TSTC graduates will surpass $56 million in new salaries for Texas.

**Demographics**

TSTC students across the state are a diverse group demographically. They are 62.82 percent minority (53.94 percent Hispanic, 7.41 percent black, 1.47 percent other minorities) and 34.85 percent white. The student body is comprised of 39.04 percent females and 60.96 percent males. Students come from 202 of Texas’ 254 counties, and nearly 64 percent are economically disadvantaged.

**Instructional Programs and the Allied Health Sector**

Allied health professions encompass more than 200 distinct disciplines that provide direct care to patients or essential services to patients and other healthcare providers, and half of the fastest growing occupations in Texas are in the allied health sector. Nationally, a shortage of 1.6 million to 2.5 million allied health workers is predicted by 2020, and the collective fields of allied health must increase the number of practitioners by 33 percent in order to maintain the current level of care. According to the Texas Society of Allied Health Professions, eight to 10 allied health professionals are required for every physician, and these employees constitute 60 to 65 percent of the healthcare workforce. The percentage of growth in healthcare professions continues to grow with Texas’ population, with most disciplines increasing more than 30 percent from 2004 – 2014.
While some jobs, such as physician or physical therapist, require graduate education, many of the growing occupations in allied health may be accessed by two-year associate’s degrees, certificates, or other professional training available at TSTC and community colleges in Texas.

TSTC offers 16 specific instructional programs that directly address the high demand in Texas’ growing health sector, as well as numerous programs that support those specialized fields. Where applicable, TSTC’s programs are certified or accredited nationally, regionally, or by the state. TSTC’s Allied Health degree and certificate programs are listed below:

- Associate Degree Nursing – Registered Nurse
- Licensed Vocational Nurse
- Certified Nurse Assistant
- Medical Assistant
- Pharmacy Technician
- Emergency Medical Technician/Paramedic
- Surgical Technology
- Dental Hygiene Technology
- Health Information Technology
- Medical Information Systems – Transcriptionist
- Ultrasound Technician
- Dental Assistant
- Personal Care Technician – Dialysis
- Chemical Dependency Counseling
- Phlebotomy Technician
- Dental Lab Technology

Almost 10,000 students have graduated from these TSTC programs across the state, and more than 1,000 new students enrolled in these programs at TSTC last fall. In addition to disciplines that provide direct patient care, TSTC trains workers in fields that support the healthcare industry, such as biomedical equipment technicians who service and maintain MRIs, surgery robots, and more. The Associate of Science in Biology degree at TSTC Harlingen meets the prerequisite requirements for many bachelor’s degrees in allied health, including nursing and pre-med. TSTC programs in electronics, facilities maintenance, and information technology also provide training to healthcare workers, although these graduates find employment in multiple industry sectors.

TSTC has also assisted regional and statewide healthcare employers to provide targeted professional education to incumbent workers in response to the industry’s needs. With funding assistance from the Texas Workforce Commission, TSTC has trained employees in a wide variety of topics, from pediatric advanced life support (PALS) to new patient information and medication systems. These training programs not only improve patient care and hospital performance, but they also increase the earning power of the healthcare worker.
TSTC participates in local healthcare initiatives by serving as a host for, and in some cases, delivering seminars and workshops, and its faculty and staff members are actively engaged in the healthcare community. For example, through its dental hygiene program, TSTC Harlingen operates a community clinic with an onsite dentist, providing free or low cost preventative dental care to residents of the Rio Grande Valley.

TSTC currently partners with more than 50 independent school districts and 5 Early College High Schools to provide dual credit and concurrent enrollment for high school students, and allied health programs are a major component of these partnerships. Students who have demonstrated academic eligibility may enroll in TSTC courses and earn high school credit while receiving instruction of the same caliber and rigor as traditional college students. Since the passage of House Bill 5 by the 83rd Legislature, TSTC has experienced a significant increase in opportunities for collaboration with school districts in technical fields such as allied health.

**Instructional Delivery Specializations**

Many TSTC students in these programs are non-traditional students with valuable work experience. They may have come to TSTC for certification of skills learned while serving in the military or while on-the-job. Others are displaced or underemployed workers who need updated or new skill sets. TSTC’s objective is to develop workers who are job-ready for current, in-demand jobs. Indeed, successful placement in those jobs is the driving focus behind all we do. Accordingly, TSTC has developed certificate and specialized programs that allow students to enter the workforce quickly with marketable skills.

One such program is TSTC’s competency-based educational initiative, which has the potential to shorten a student’s time in actual training without sacrificing the quality of the skills learned. TSTC is a leader in Texas in this education model, having already received accreditation approval for its competency-based program that is designed for the manufacturing industry. Through alignment of required competencies with proven educational practices, clinical experiences, and internships, these programs are disconnected from the traditional semester schedule and independent of a “seat time” requirement. This allows students with prior experience or advanced aptitude to accelerate through the program, while students who need additional time to master required skills are able to receive additional instruction. Unnecessary “seat time” in classes reviewing information a student already knows, either through past job experience or through military service, is reduced. As a result, the time needed to earn a degree is shortened – saving money and minimizing a student’s deferred wages. This has proven to improve retention and resolve within a chosen program of study.

The allied health sector naturally lends itself to a competency-based learning approach. Specifically, many healthcare education programs, such as nursing, are designed for students to demonstrate mastery of skills before advancement. In 2015, TSTC will begin offering two allied
health programs, certified nurse assistant and dental assistant, in this accelerated format for select students while also continuing the programs in the traditional semester model.

**Challenges in Healthcare Education**

Texas provides a strong environment for students in pursuing a career in allied health, as many community colleges, universities, and TSTC offer relevant programs with excellent placement rates. Unfortunately, there are limits to the number of students who are able to access these programs. Faculty shortages, limited clinical sites, and high program costs all affect TSTC’s ability to expand its offerings in healthcare education.

Faculty members in TSTC’s technical programs must have relevant industry experience to teach in their discipline, and the oversight agencies for allied health programs frequently add specific credential requirements. As a result, individuals who may be considering teaching an allied health program are faced with the cost and time associated with earning an advanced degree in their field. Additionally, the wage increases that accompany the advanced degrees in the industry outpace the salaries paid to community and technical college instructors.

Providing a well-rounded healthcare education requires that students engage with patients or other healthcare providers in a supervised real-world environment. These clinical opportunities are often the point of exposure by which a student determines his or her future area of specialty, and they provide critical workplace practice of skills that are mastered in the classroom or simulation lab. However, the logistical limitations of placing students in supervised clinical locations present challenges for the institution and the student, especially in rural areas. With the assistance of some partners, TSTC West Texas has modified its teaching schedules to minimize the miles students must drive to complete their clinical rotations.

In an effort to manage costs, TSTC, like other Texas colleges, has increased its number of simulation labs, hired qualified clinical preceptors, and expanded its partnerships with school districts and hospitals. These activities have allowed TSTC to expand the number of its allied health programs in an era of declining budgets, and TSTC plans to continue growing its programs as funds allow. Although low student-to-teacher ratios and high operating costs make allied health programs expensive to deliver, TSTC does not charge students more per credit hour for healthcare programs than other technical programs.

In spite of the growth of dual credit activities, many incoming students may not be fully aware of the career opportunities in the allied health sector. With the help of its industry partners, TSTC actively recruits students while they are still in high school, placing a high emphasis on the importance of academic readiness. Students who take advanced courses in biology, anatomy and physiology, and mathematics are well prepared to succeed in the rigors of healthcare education. To assist these students, TSTC partners with school districts to provide
assessment and, where necessary, academic intervention for students in order to minimize the need for remedial or developmental coursework at the college level.

In addition to TSTC’s partnerships with healthcare providers, its programs are accredited or otherwise approved by relevant entities. These agencies, such as the Texas Board of Nursing and the Commission on Accreditation of Allied Health Education Programs (CAAHEP), provide key oversight and quality monitoring that accompanies the regional accreditation TSTC has through the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). As a public college, TSTC is also subject to the Texas Higher Education Coordinating Board. The combination of the oversight provided by these entities results in a rigorous, well rounded, and supportive educational environment for students that is aligned with the state’s workforce needs. As students explore their options in healthcare education, it is imperative that they understand the difference between providers like TSTC and those organizations that choose not to submit to this degree of oversight.

**Conclusion**

Texas’ increasing population will continue to grow the need for skilled allied health technicians, and TSTC’s partnerships with the healthcare industry ensure that students graduate with job-ready skills that match or exceed industry standards. Additionally, TSTC is committed to finding innovative learning models, such as competency-based programming, to make a student’s pathway from skills training to work readiness both efficient and cost effective.

In short, TSTC has both the will and the capacity to train students to fill the growing demand for skilled workers. However, policymakers need to recognize that challenges do exist. First, despite the fact that technical jobs provide good wages and offer excellent career paths, there remains a widespread bias that pushes students away from technical fields in favor of more academic educational pathways. The result is that, today, too few students are entering technical programs, and the pipeline of students coming to technical colleges from high schools is not sufficient to meet industry’s demand for trained workers. Second, in order to customize programming to meet industry needs and to accelerate a student’s entry into the workforce, governmental agencies must address fiscal constraints imposed on colleges as they deal with limited budgets and growing demand. Budget writers must understand the high cost associated with allied health programs and the need to retain qualified instructors in a competitive marketplace. TSTC, as an institution, has recognized these challenges and is working on several fronts to address them.

Business and industry groups across Texas well understand TSTC’s commitment to hands-on training and a highly-skilled workforce. Therefore, when industry wants qualified workers, it comes to TSTC. In 2015, TSTC will mark its 50th year as an institution. Its mission has remained unchanged throughout the last five decades – TSTC builds Texas’ workforce.