

# TEXAS STATE TECHNICAL COLLEGE

## *TRAINING TEXANS*

### *FOR HIGH-VALUE JOBS IN TEXAS INDUSTRIES*

*Chancellor Mike Reeser, TSTC System*

*April 10, 2010*

Texas State Technical College (TSTC) is the only state-supported, two-year technical college system in Texas. Because of its statutory statewide mission, TSTC focuses on the delivery of an articulated and responsive technical education expressly aimed at meeting the State's workforce needs for today and in the future.

The Texas State Technical College System includes four colleges: TSTC Harlingen, TSTC Marshall, TSTC Waco, and TSTC West Texas, which has campuses in Abilene, Breckenridge, Brownwood and Sweetwater. In addition to its seven campuses, TSTC has locations through partnerships with many community colleges across Texas, complementing the academic programs of its partners with technical coursework that is specific to local industry demand.

TSTC places primary consideration "... on industrial and technological manpower needs of the state." Additionally, the Texas Education Code stipulates, "The emphasis...shall be on advanced or emerging technical programs not commonly offered by public junior colleges." (*Texas Education Code, Chapter 135*)

#### *TSTC Programs & Capacity:*

The program offerings at TSTC are as diverse as technology, including all of the fields named in the Interim Charge addressed by the Senate Business & Commerce Committee today. TSTC is Number 1 in the nation among two-year colleges in awarding the most associate degrees in Engineering Technologies and engineering-related fields. TSTC is Number 2 in the nation in awarding associate degrees in Computer and Information Science and Support Services. TSTC is first in Texas in awarding associate degrees in Precision Production. TSTC is also a national leader in the Energy Sector, including Wind and Solar Technologies. This month, TSTC Waco will open the new Col. James T. Connally Aerospace Center, offering Aviation Maintenance, Aircraft Pilot Training, Avionics, Aircraft Dispatch, and Air Traffic Control (ATC) technologies – one of only seven ATC schools in the nation.

The point is that TSTC has a broad array of programs to address the most sophisticated technology in demand today, and we collaborate with hundreds of regional and local industry representatives through advisory committees to ensure that curricula remains relevant for the future. With our colleagues at community colleges, we have both the programs and the capacity to meet Texas' workforce needs.

### *Massive Re-engineering of TSTC Programs & Operations:*

TSTC is engaged in a massive re-engineering of its programs and operations to transition to an innovative, returned-value state funding formula resulting from Rider 42 in Article III of House Bill 1 (82<sup>nd</sup> Legislature, Regular Session). Beginning next Session, the new funding methodology calls for TSTC to be funded based upon successful placement of Texans in jobs, not time in training. This means that TSTC will be the first college in the nation whose instructional funding will be fully (100 percent) based upon results or outcomes. We believe successful placement in jobs should be the focus of everything we do at TSTC.

Although TSTC's job placement rate for graduates is already near 90 percent, we believe we can do better – for the State and for the student. The new funding formula will allow TSTC to right-size its curricula and align its content to be still more responsive to industry. Most importantly, in a cost-effective way, this re-engineering will allow TSTC to be more efficient by moving students into jobs faster in order to meet Texas' increasing workforce demand.

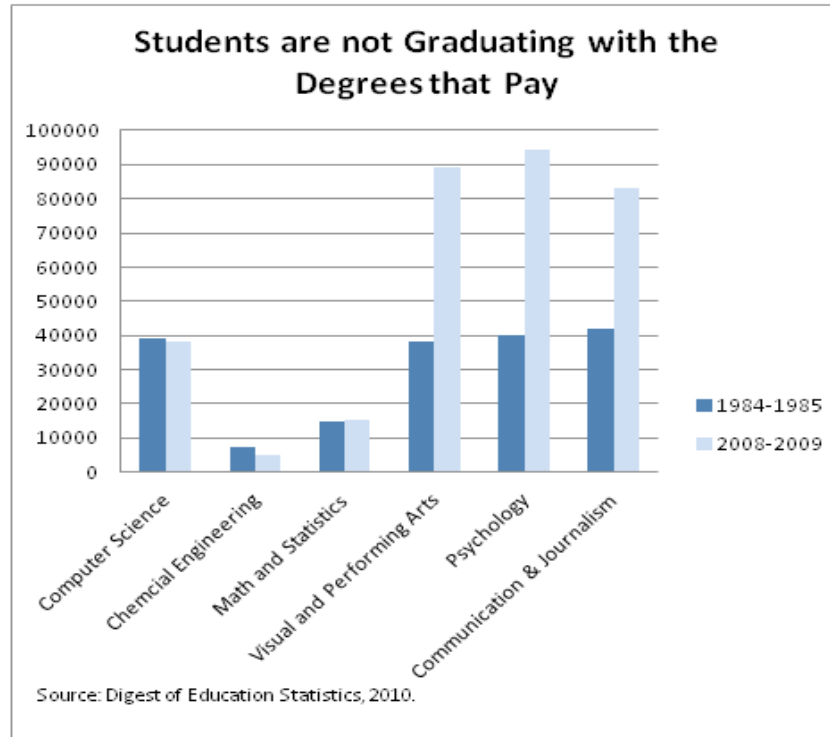
### *The Texas Workforce Supply Chain Problem:*

Texas has a mature capacity to train its workforce. For most workforce needs, the infrastructure and programs are in place. What Texas lacks today is a balanced throughput. In addition to the shortage of college graduates overall, we are not producing the right mix of the right kind of graduates. This has caused a shortfall in the skilled workforce that is expected to worsen if new actions are not implemented soon.

To compound this problem, the incumbent workforce is “graying” while the numbers of new entry workers is falling. Moreover, an increasing number of students who are already in the workforce supply chain are opting for non-technical degrees and foregoing studies in technical fields that are crucial to manufacturing and other core industries.

To solve this problem, it is important that we do two things. First, we should recognize that the purpose of all education is to do more than enrich the mind and soul of Texans. Equally important is the goal of preparing Texans for high-value employment in our economy. Second, we must better coordinate the sectors of education. In particular, we should recast policy to recognize that post-secondary education in a technical or vocational field is a valuable alternative to a four-year degree in providing many Texans with good jobs.

While Texas industries remain understaffed in technically skilled workers, our education supply chain is ably producing graduates in an output mix that is not aligned with workforce needs. Texas is not alone in the problem. Our national efforts to graduate more Americans from college have produced a wave of graduates in “soft” fields. Indeed, ratios of graduates in high-value technical fields have actually dropped in the last 20 years.



According to the Bureau of Labor Statistics, over 17 million graduates with bachelor's degrees are underemployed in America. More than 317,000 waiters and waitresses have college degrees (over 8,000 of them have doctoral or professional degrees), along with over 80,000 bartenders and over 18,000 parking lot attendants. In a recent article titled "Why Did 17 Million Students Go To College?" in the *Chronicle of Higher Education*, the following data appeared:

Occupation	Percent with at least Bachelor's	Number
Customer service representatives	21.62	482,784
Waiters and waitresses	13.40	317,759
Secretaries, except legal, medical, and executive	16.64	311,440
Executive secretaries and administrative assistants	16.64	248,131
Receptionists and information clerks	12.89	141,476
Laborers and freight, stock, and material movers, hand	5.07	118,441
Janitors and cleaners, except maids and housekeeping cleaners	5.01	107,457
Truck drivers, heavy and tractor-trailer	5.09	85,205
Bartenders	16.00	80,542
Carpenters	7.27	65,412
Food preparation workers	7.24	63,737
Amusement and recreation attendants	24.61	63,704
Landscaping and groundskeeping workers	6.77	62,414
Construction laborers	5.82	59,409
Telemarketers	15.85	54,713
Postal service mail carriers	13.95	49,452
Electrician	7.76	49,109
Hotel, motel, and resort desk clerks	16.14	37,156
Flight attendants	29.80	29,645
Parking lot attendants	13.74	18,749

*Recommendations:*

To fix our educational supply chain problem, we will need shifts in priorities and resulting operational changes by many of the stakeholders in the chain. As examples of such operational improvements, we offer below a long-term, systemic solution and a short-term adjustment that would increase the number of skilled workers in Texas.

*Example of a Short-term Adjustment:*

Within the diverse Texas workforce supply chain is the Skills Development Fund that has been very valuable in focusing training capacities on current workforce needs of Texas industries. This fund pays for training partnerships formed between Texas companies and two-year colleges that train workers for current job openings. The fund requires a specific company to work with a specific college in order to fill a certain number of job slots. If this fund were broadened to work with the aggregated job needs of an industry sector in a specific region and not merely one firm at a time, the impact of the fund could be greatly increased.

*Example of a Long-term Systemic Correction:*

The initiative “Closing the Gaps” is working. More students are entering college than ever before, but students are not graduating with degrees in technical fields, nor are they graduating with degrees that pay. It is clear that “college” has become loosely defined as any bachelor’s degree despite the fact that graduates with STEM-related associate degrees average higher earnings than graduates with non-STEM-related bachelor’s degrees.

While we push more Texans toward college, all sectors of education should clarify the definition of “college” to mean post-secondary education that results in prosperous job opportunities.

With this systemic change we could increase the number of skilled workers in Texas by growing the number of students going into technical education. School counselors, parents and students need to hear a broader definition of “college” which includes technical training and options for career pathways via technical certifications and associate degrees. We must restore career and technology pathways in our public schools and give students more informed choices in career pathways.

*Closing Remarks:*

The Texas workforce supply chain needs improvements. It will take an active coordination between policy makers, business and industry, and all Texas educators to get the system aligned. TSTC has been and will remain an aggressive partner matching the technical workforce needs of Texas industries with the high-value job goals of Texas citizens.

