

## Engineering and Education Statistics

### *United States*

- Bachelor degrees in engineering in 2002 were 60,600, down from 76,200 in 1985, a 20 percent drop. <sup>(5)</sup>
- From 1988 to 2001, electrical engineering degrees declined 47 percent, from 24,367 to 12,929. <sup>(2)</sup>
- Only 18 percent of American high school students were proficient in science in 2000. <sup>(1)</sup>
- Approximately 25 percent of all freshmen engineering students need remedial math. <sup>(1)</sup>
- In 2002, 46 percent of Chinese students graduated with engineering degrees. In the US, that number was 5 percent. <sup>(1)</sup>
- Europe graduates three times as many engineering students as the US, Asia five times as many. <sup>(1)</sup>
- In 2001, almost 60 percent of those receiving Ph.D.s in Electrical Engineering were foreign born. <sup>(2)</sup>
- Among the more than 1.1 million seniors in the class of 2002 who took the ACT Assessment college entrance exam, fewer than 6 percent planned to study engineering, down from 9 percent in 1992. <sup>(11)</sup>
- Of those who enter engineering school, fewer than 40 percent complete the degree programs. <sup>(1)</sup>
- In a 2001 winter salary survey, electrical engineering BSEE graduates had an average starting salary of \$50,850, with offers for hardware design positions starting at \$55,000 and higher. <sup>(4)</sup>
- Less than 15 percent of U.S. students have the math and science prerequisites to participate in the new global high-tech economy. <sup>(1)</sup>
- In the US, more students are getting degrees in “parks and recreation” than in electrical engineering. <sup>(6)</sup>
- US high schools who only complete Algebra 2 have a 40 percent chance of receiving a bachelor’s degree. The likelihood of receiving a bachelor’s jumps to 74 percent with the successful completion of pre-Calculus. <sup>(10)</sup>
- More than fifty percent of engineering and computer science degrees from American universities are going to foreign nationals. <sup>(14)</sup>
- The US ranks 37<sup>th</sup> in quality of math and science education behind countries including Israel and Korea. <sup>(12)</sup>
- More than half of all science and engineering degreed workers are 40 years or older. <sup>(14)</sup>
- The National Science Board estimates that about 80 percent of all workers use science and engineering in their occupations. <sup>(15)</sup>

### *Minorities/women*

- Less than 20 percent of the current engineering enrollment population is female. <sup>(1)</sup>
- African Americans and Hispanics account for less than 12 percent of all engineering graduates. <sup>(1)</sup>
- In 2000, the state conferred 6548 engineering and engineering tech degrees to men and 1596 to women, ranking Texas 21st out of 52 reporting entities (50 states plus Puerto Rico and District of Columbia) in percentage of degrees conferred to women. <sup>(7)</sup>
- Texas has four of the top six engineering granting institutes in the US for Hispanics (UTEP, TAMU, UT, TAM Kingsville) <sup>(2)</sup>

- In 2001, Texas universities awarded the second highest number of engineering degrees to African American students behind California. However, that number was only 917 out of about 8000. <sup>(8)</sup>
- Female math SAT scores in 2002 lagged those of male students by 34 points, 534 for males, 500 for females. <sup>(9)</sup>
- Gender parity has been achieved in law and medicine, but the penetration of women in engineering has stagnated at about 20 percent. <sup>(1)</sup>
- Only about half of Texas's Hispanics over the age of 25 has a high school degree. <sup>(13)</sup>
- Texas ranks last among US states in percentage of high school graduates. <sup>(13)</sup>

### *Texas*

- In 2003, the average SAT score of Texas students was 993 compared with a nationwide average of 1026. <sup>(9)</sup>
- Texas produces almost 12 percent of all engineering graduates each year. <sup>(1)</sup>
- Between 1995 and 2001, the high-tech employment in Texas increased 47 percent. <sup>(7)</sup>
- In 2000, one-third of Texas AEA and TechNet members spent more than 45 percent of their HR budgets on recruiting skilled workers. <sup>(5)</sup>
- In 2001, high-tech firms employed 59 out of every 1000 private sector workers. <sup>(7)</sup>
- Based on a salary survey in 2001, the average high-tech wage was \$68,387 versus \$35,695 for private sector wages. <sup>(7)</sup>
- In 2002, 31 percent of Texas exports were from the high-tech sector. <sup>(5)</sup>

### Sources

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