



Goal: Increase the Number of Students Taking Computer Science Related H.S. Courses

Background:

- TCEA has always supported the teaching of technology related courses. The number of students taking a computer science course is woefully inadequate and is having a negative impact on the number of students who pursue a computer science degree at Texas universities.
- We have sought to achieve this goal through a variety of means, including:
 - In the 83rd Legislature TCEA worked to include computer science and other related technology courses into the STEM and Business and Industry endorsements.
 - We hosted a Computer Science Academy in July of 2014 to provide professional development for new and existing computer science teachers.
 - We have partnered with other entities to advance this issue.

Impact on Texas:

- The Bureau of Labor and Statistics estimates that, by 2018, computing occupations in the United States will grow by 21%, or about 800,000 new jobs, which is more than double the growth rate of all occupations in the United States.¹ Only 31% of the job openings in Texas that require computer science degrees can be filled.²
- With less than 2% of all Texas high school students taking a Computer Science course³ for each of the last five years, Texas will never be able to meet the job demand for computer scientists if more students are not exposed to some type of computer science course in high school.

Current Challenges

- There are two curriculum strands in which computer and technology courses are taught: Technology Applications, Chapter 126 and Career and Technical Education, Chapter 130. Many of these courses are duplicated, but with some differences. **Most districts push students to take the CTE courses because they receive weighted funding; but the more rigorous computer science courses are in Chapter 126 which receive no additional funding.**

How Elected Officials Can Help

- TCEA recommends that the legislature move the high school Technology Applications courses in Chapter 126 into the Career Technical Education curriculum, Chapter 130. The State Board of Education should be given the authority to review and align the courses, eliminate duplicate standards, and ensure that the level of rigor matches the purpose for each course.

¹ Computing in the Core, <http://www.computinginthecore.org/impacts/jobs-in-computing>

² National Center for Information Technology, <http://www.ncwit.org/edjobsmap>

³ PEIMS data from TEA