Career and Technical Education

At the secondary level, CTE is delivered through comprehensive high schools, CTE-focused high schools, career academies and STEM education and thematic schools, and early/middle college schools. At the postsecondary level, CTE is delivered through the state’s community colleges.¹

In FY 2015, 52% of secondary and 7% of postsecondary students enrolled in CTE were economically disadvantaged.²

Career Clusters

Seven of the 16 career clusters in CTE lead to high-skill, high-wage, and high-demand STEM-related careers. These clusters include Agriculture, Architecture, Health, Information Technology, Manufacturing, STEM, and Transportation, Distribution, and Logistics and contain programs that prepare students for nontraditional careers.
Middle-Skill and STEM Jobs
The pipeline to middle-skill and STEM jobs loses young people at every level of the education system. Thus, the supply of sufficiently trained workers will not meet the demand of key industries.

Fast Facts
From 2014 to 2024…
- Computing jobs will grow by 19%.  
- Engineering jobs will grow by 18%.  
- Advanced manufacturing jobs will grow by 17%.  
- Of all job openings, 50% will require training at the middle skill-level.

Yet…
- 19% of students who enter an associate’s degree program graduate.  
- 60% of students who enter a bachelor’s degree program graduate.  
- 44% of workers are trained to the middle-skill level.

2016 AP Test Taking and Passing
Students pursuing careers in STEM, particularly computer science and engineering, must become academically prepared early in their educational trajectory.

For North Carolina, in 2016, college-bound female students earned an average math SAT score of 494, compared to 525 for male students.

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Data Sources (retrieved April 2017)
1 https://www.acteonline.org/stateprofiles/  
2 https://perkins.ed.gov/pims/DataExplorer/CTEParticipant  
3 https://perkins.ed.gov/pims/DataExplorer/CTEConcentrator (race not available for clusters)  
4 http://vitalsigns.changetheequation.org/  
5 http://www.nationalskillscoalition.org/state-policy/fact-sheets  
8 https://reports.collegeboard.org/sat-suite-program-results/class-of-2016-results/state-reports