Career and Technical Education

Secondary CTE is delivered through comprehensive high schools, regional vocational-technical high schools, regional academic schools, county agricultural schools, independent vocational and agricultural schools, and educational collaboratives. At the postsecondary level, Massachusetts Community Colleges offer open access to high-quality, affordable academic programs, including associate’s degree and certificate programs.¹

In FY 2015, 29% of secondary and 55% 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.

Secondary Enrollment, FY 2015³

Postsecondary Enrollment, FY 2015³
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 22%.4
- Engineering jobs will grow by 12%.4
- Advanced manufacturing jobs will grow by 14%.4
- Of all job openings, 41% will require training at the middle-skill level.5

Yet…

- 18% of students who enter an associate’s degree program graduate.4
- 70% of students who enter a bachelor’s degree program graduate.4
- 35% of workers are trained to the middle-skill level.5

2016 AP Test Taking and Passing6

Students pursuing careers in STEM, particularly computer science and engineering, must become academically prepared early in their educational trajectory.7

For Massachusetts, in 2016, college-bound female students earned an average math SAT score of 515, compared to 546 for male students.8

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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