

Career and Technical Education

The North Dakota Department of Career and Technical Education administers Perkins IV implementation at the secondary and postsecondary level, as well as state-funded career and technical education programs.¹

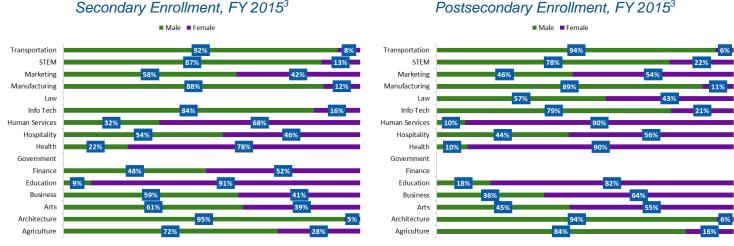
Secondary CTE Participators, FY 2015²



In FY 2015, 28% of secondary and 26% 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.



Postsecondary CTE Participators, FY 2015²

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...

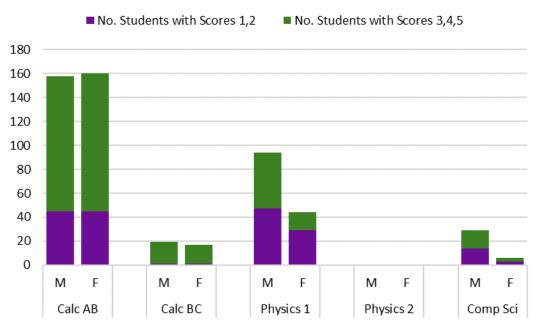
- Computing jobs will grow by **24%**.⁴
- Engineering jobs will grow by **40%**.⁴
- Advanced manufacturing jobs will grow by 32%.⁴
- Of all job openings, 49% will require training at the middle skill-level.⁵

Yet...

- 41% of students who enter an associate's degree program graduate.⁴
- **50%** of students who enter a bachelor's degree program graduate.⁴
- 50% 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 North Dakota, in 2016, college-bound female students earned an average math SAT score of **581**, compared to **609** for male students.⁸

State CTE Contact

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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
- ⁶ https://research.collegeboard.org/programs/ap/data/participation/ap-2016
- ⁷ http://ieeexplore.ieee.org/document/1264690/
- ⁸ https://reports.collegeboard.org/sat-suite-program-results/class-of-2016-results/state-reports