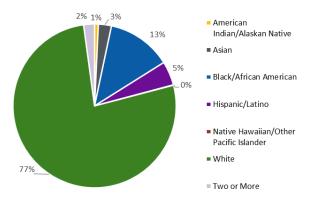
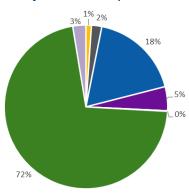
## Career and Technical Education

At the secondary level, CTE is delivered through comprehensive high schools and area CTE centers. There are 53 Career Education Planning Districts (CEPDs) that, in most cases, parallel intermediate school district boundaries. At the postsecondary level, CTE is delivered through community colleges, 4-year institutions that provide associate's degrees, and one tribal college.<sup>1</sup>

## Secondary CTE Participators, FY 2015<sup>2</sup>



# Postsecondary CTE Participators, FY 2015<sup>2</sup>



In FY 2015, **38%** of secondary and **19%** of postsecondary students enrolled in CTE were economically disadvantaged.<sup>2</sup>

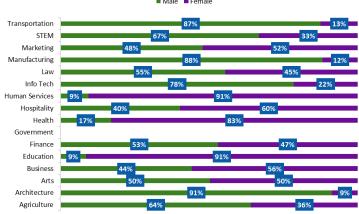
#### **Career Clusters**

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 2015<sup>3</sup>



# Postsecondary Enrollment, FY 2015<sup>3</sup>



## 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...

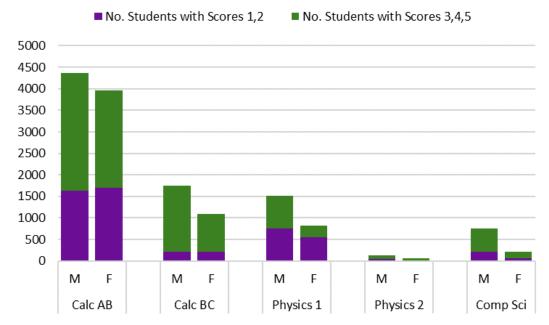
- Computing jobs will grow by 12%.<sup>4</sup>
- Engineering jobs will grow by 4%.4
- Advanced manufacturing jobs will grow by 7%.<sup>4</sup>
- Of all job openings, 50% will require training at the middle skill-level.<sup>5</sup>

#### Yet...

- 13% of students who enter an associate's degree program graduate.<sup>4</sup>
- 61% of students who enter a bachelor's degree program graduate.<sup>4</sup>
- 48% of workers are trained to the middle-skill level.<sup>5</sup>

# 2016 AP Test Taking and Passing<sup>6</sup>

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



For Michigan, in 2016, college-bound female students earned an average math SAT score of **587**, compared to **630** for male students.<sup>8</sup>

# State CTE Contact

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# Data Sources (retrieved April 2017)

<sup>&</sup>lt;sup>1</sup> https://www.acteonline.org/stateprofiles/

<sup>&</sup>lt;sup>2</sup> https://perkins.ed.gov/pims/DataExplorer/CTEParticipant

<sup>&</sup>lt;sup>3</sup> https://perkins.ed.gov/pims/DataExplorer/CTEConcentrator (race not available for clusters)

<sup>&</sup>lt;sup>4</sup> http://vitalsigns.changetheequation.org/

<sup>&</sup>lt;sup>5</sup> http://www.nationalskillscoalition.org/state-policy/fact-sheets

<sup>&</sup>lt;sup>6</sup> https://research.collegeboard.org/programs/ap/data/participation/ap-2016

<sup>&</sup>lt;sup>7</sup> http://ieeexplore.ieee.org/document/1264690/

<sup>8</sup> https://reports.collegeboard.org/sat-suite-program-results/class-of-2016-results/state-reports