EDUCATION, EMPLOYMENT & EARNINGS: ANALYZING DATA FROM SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

This analysis of the Science, Technology, Engineering, & Mathematics (or STEM) cluster in Virginia highlights important information for each of its two career pathways—Engineering & Technology and Science & Mathematics.

What trends do we currently see? What trends may we anticipate?

• The STEM cluster is expected to expand its employment in Virginia by 6 percent through 2024. It provided approximately 67,000 jobs statewide in 2014 and is expected to provide about 4,000 more by 2024.

• Statisticians are projected to experience the highest rate of job growth in this cluster through 2024 (39%) while Mechanical Engineers are expected to see the greatest number of annual job openings (320).

• All occupations in this cluster have a predominant education level of bachelor’s degree or more; however, many related jobs with different educational requirements are linked to other clusters. For example, several Engineering Technician positions requiring less than a bachelor’s degree are associated with the Manufacturing Production Process Development pathway in the Manufacturing cluster.

EDUCATION

Figure 1 shows the predominant level1 of education and training in each pathway. Education data was determined by Trailblazers based on US Bureau of Labor Statistics occupational education and training data.

Footnote 1: Reflects predominant education by the number of occupations in each pathway, not the number of workers.
**EMPLOYMENT**

Figure 2 compares the estimated 2014 employment for each pathway to projected 2024 employment levels. Data are provided by the Virginia Employment Commission.

**EARNINGS AND GROWTH**

Figure 3 presents the size and median wages of the occupations in each pathway with the highest projected percentage of growth. Wage data are provided by the US Bureau of Labor Statistics Occupational Employment Statistics program.