Education and Workforce Outcomes for CTE Students

This report explores the popularity and outcomes of career and technical education (CTE) in the state of Kentucky, focusing on career pathway completions. Career pathways are developed, implemented, and maintained in partnership among secondary and postsecondary institutions, business and employers. This paper includes public high school (HS) graduates from academic years (AYs) 2012-2017 and examines postsecondary and workforce outcomes.

**Who are CTE students?**

Students are placed into the following groups: pathway completers, preparatory-only, and non-preparatory students. **Pathway completers** are those that complete four courses within a single approved CTE program. **Preparatory-only students** are those that have completed two CTE credits, enrolled in at least a third within a single program, and did not finish a pathway. Those students not reaching at least preparatory status were labeled **non-preparatory** (this group includes those taking CTE courses without reaching preparatory status and those not taking any CTE courses). For every academic year in 2012-2017, the most popular areas for career pathway completion were focused in agriculture, business, health professions, mechanic and repair technology, and family and consumer sciences. Within all groups, the majority of students were college and/or career ready (CCR). The highest percentage meeting CCR requirements were pathway completers (68.5%), higher than preparatory-only (61.2%) and non-preparatory students (55.2%). The percentage of graduates being CCR has increased from 46.6% in 2012 to 65.8% in 2017. While the percentage of graduates completing a pathway was consistent for the time period examined, the percentage of graduates reaching preparatory-only status increased from 11.6% in AY 2012 to 22.9% in AY 2017.

1. Of those that did not enroll in a Kentucky postsecondary institution the year after graduating.
3. Based on two-digit Classification of Instructional Programs (CIP) codes. The most popular, in numerical order, were: 01- Agriculture, Agriculture Operations, And Related Sciences; 19- Family And Consumer Sciences/Human Sciences; 47- Mechanic And Repair Technologies/Technicians; 51- Health Professions And Related Programs; 52- Business, Management, Marketing, And Related Support Services.
Workforce Outcomes
This section details federal fiscal year (FFY) 2017 by pathway completion status. Individuals enrolled in a postsecondary institution were excluded from this analysis. For those individuals who completed any career pathway, the likelihood of being employed in Kentucky the year after HS was nearly three-fourths (73.7%), consistent through five years after graduation. For those students who reached preparatory-only status before graduation, 70.1% were employed the following year and this percentage increased, with a higher percentage employed five years after (71.5%). Completers and preparatory-only students both outperformed the non-preparatory students in likelihood of being employed in Kentucky one (63.5%) and five (65%), years after graduation. Individuals who had reached preparatory-only or pathway completion status were more likely to be employed in a key-sector than non-preparatory students. Individuals employed in Kentucky, earned more at every interval, on average, if they were at least a preparatory student, with an additional premium for reaching pathway completion status. For those with a pathway completion, median wages were approximately $3,800 higher than non-preparatory students the year after graduation (nearly a 50% premium), increasing to a $4,200 premium five years after.

Postsecondary Outcomes
This section details educational outcomes by 2017 for pathway completion status. Students with either a preparatory-only status or pathway completion were more likely to enroll in a Kentucky postsecondary institution the year following HS graduation. While non-preparatory students are less likely to enroll in a Kentucky postsecondary institution the year after graduation, they were the most likely group to have obtained a bachelor’s degree four, and five, years later. Pathway completers were more likely than others to have obtained a postsecondary credential within five years.

Outcomes are for 2017 Federal Fiscal Year (e.g. five-year outcomes are for academic year 2012 HS graduates, three-year are for 2014 graduates, and one-year are for 2016 graduates.)

Key sectors are advanced manufacturing, construction and trades, health sciences, transportation and logistics, and business and IT services as identified by the Kentucky Workforce Investment Board.