

General & Specialized Education at Postsecondary Institutions



Executive Summary

Although the specific missions of career/technical colleges, community colleges, four-year colleges and universities vary, higher education institutions are typically expected to provide some level of both general education and career training. Short-term certificate programs tend to emphasize trade-specific skills and have high rates of job placement immediately after graduation. Bachelor's degree programs, including liberal arts pathways, sometimes experience a more gradual increase in earnings that often surpass trade-specific degrees and prepare students to adapt to changing workforce needs. It is therefore relevant to consider multiple elements when determining the return on investment of specific higher education programs, including long versus short term tradeoffs in earnings and job mobility.

Highlights

- Although college students often **value career-related courses more than general education requirements**, employers consistently report that many **job applicants lack transferable skills**, including communication, work ethic, teamwork and critical thinking.
- Highly technical skills and degrees which are tailored to specific industry needs tend to lead to **faster job placement**. However, broader educational training that emphasizes transferable skills is associated with **increased earnings and job mobility over time**.
- **Students of color, as well as low-income and older students**, are generally **overrepresented in the middle skills pathway** (certificates, associate's degrees), which may signal a **lack of equitable access** to the range of higher education opportunities.

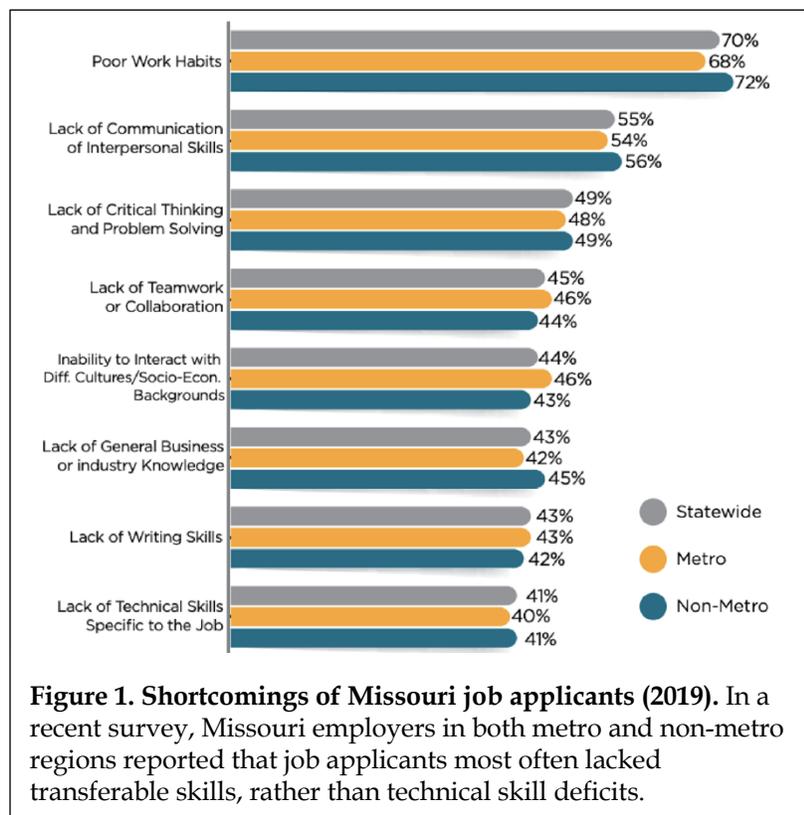
Limitations

- It is difficult to assess how well a specific educational program provides transferable skills. There is no universal agreement about how to define such skills (e.g., critical thinking).
- While survey data describes student and employer needs, existing research has not compared how much the match/mismatch between training and employer needs impacts aspects like firm productivity, employee retention and promotion, and lifetime earnings.
- In addition to the role of postsecondary institutions, skills training and continuing education can also occur within businesses, which is not discussed in this brief.

Research Background

Do students and employers value technical and/or transferable skills?

Many students, especially those at four-year and graduate institutions, value college as a place for personal growth and the development of a broad knowledge base.^{1,2} However, students have historically indicated that they place relatively little value in general education courses and would not enroll in them if they were not required.³ In a survey of over 90,000 adults who pursued postsecondary education in the past twenty years, those who were able to most closely connect their education to their work were most likely to believe that their education was worth the cost. While this was especially true for adults who received a vocational/technical degree, individuals who received bachelor's degrees in majors that are more traditionally associated with careers (i.e., healthcare, engineering, education) were generally more satisfied with the career and cost value of their degree compared to humanities majors (i.e., visual & performing arts, history, English).⁴ These assessments are likely related to the high financial burden of higher education, especially at four-year institutions. Scholars have also suggested that the lack of cohesive general education requirements hinder students from understanding their utility.



Because students expect that higher education will allow them to get a better, higher earning job, it is also informative to understand the qualifications that employers are seeking in job applicants. In a 2019 survey, Missouri employers reported that the most common shortcomings of job applicants in both metro and non-metro areas were poor work habits, communication skills, critical thinking and problem solving (Figure 1).⁵ These findings are consistent with national employer surveys showing that teamwork, critical thinking, data analysis and work ethic are sought after traits but relatively uncommon

in job applicants.⁶⁻⁸ Meeting student and workforce needs, therefore, likely requires consideration of both technical and transferable skills.

What are the economic benefits and tradeoffs of generalized and specialized training?

Students who receive postsecondary credentials between a high school diploma and a bachelor's degree ("middle skills" pathway) typically receive more job-oriented training over relatively short periods of time. These programs tend to have fairly high job placement rates in sectors with a range of earning potentials. For example, those in construction, engineering technologies and industrial equipment maintenance can sometimes earn more than students who received an associate's and even bachelor's degree.⁹ The median earnings for people who complete a short-term certificate in the United States, however, is not significantly higher than people with only a high school diploma.¹⁰ There is also historical evidence that students may be tracked onto specific career paths based on income, race or other factors. Indeed, relative to their population share, Black, Latinx, low-income and older students are overrepresented in the middle skills pathway and underrepresented in bachelor's degree attainment.⁹ This suggests a lack of equitable access to each type of education which may limit opportunities for minoritized students.

There do appear to be significant short vs. long-term tradeoffs in job placement and earnings between technical certificates and four-year degrees. While people who receive vocational training may make more immediately after getting their certification, over time the earning potential of people with a liberal arts degree surpasses this earning benefit.¹¹ For example, the median return on investment for liberal arts colleges averaged around \$200,000 higher than the median for all colleges, with the strongest effects observed at institutions with higher graduation rates, higher percentages of STEM majors and fewer low-income students.¹² Additionally, while technical training can immediately match graduates to jobs, there is evidence that over time, those with more transferable skills and a capacity for continued growth are more suited to adapting to changes in the job market and maintaining employment even as the market changes.¹³

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