

Executive Summary

Most students, families, policymakers, and educators look to higher education in large part as a bridge to economic opportunity and upward mobility. Today, however, some are calling into question whether higher education is delivering on that promise. While a college education is still worth it for the typical graduate, it is not a guarantee: college students face an increasing degree of risk. One of the biggest risks students face is that their degree will not provide access to a college-level job. Today, only about half of bachelor's degree graduates secure employment in a college-level job within a year of graduation.

Using a combination of online career histories of tens of millions of graduates, as well as census microdata for millions of graduates, we developed a comprehensive picture of how college graduates

fare in the job market over their first decade of post-college employment. We measured the prevalence and severity of underemployment and the cost in lost earnings, as well as analyzed how these are associated with a range of factors, including degree field, student characteristics (e.g., race/ethnicity and gender), institutional characteristics (e.g., selectivity, concentration of low-income students, and type), and internship participation.

While many four-year college graduates earn advanced degrees, our analysis focuses primarily on workers with a terminal bachelor's degree (i.e., no advanced degree).

College-level employment and underemployment

In this report, the term **“college-level employment”** (or “college-level job”) refers to employment in occupations that typically require a four-year college degree, and **“underemployment”** refers to the experience of four-year college graduates who are employed in jobs that don't typically require a bachelor's degree. For more detail on how college-level employment and underemployment are defined, refer to the methodology appendix of this report.



KEY FINDINGS



Underemployment is a large and persistent problem. In spite of a historically tight labor market, the underemployment of college graduates remains stubbornly high. Overall, 52 percent of graduates are underemployed a year after graduation. Even a decade after graduation, 45 percent of graduates are underemployed.

The first job after graduation is critical. Graduates who start out in a college-level job rarely slide into underemployment, as the vast majority of them (79 percent) remain in a college-level occupation five years after graduation. Of those employed in college-level occupation five years after graduating, 86 percent were still in a college-level job 10 years out.

Underemployment is sticky. Seventy-three percent of graduates who start out underemployed remain so 10 years after completing college, making them at that point about 3.5 times more likely to be underemployed compared with those who start out in a college-level job.

Underemployment carries a heavy financial cost. A recent graduate employed in a college-level job typically earns about 88 percent more than a high-school diploma holder, while an underemployed graduate typically earns only about 25 percent more than someone with no education beyond high school.³ This leaves underemployed graduates on weaker financial footing as they start their careers, especially those with substantial student loan debt.

Underemployment rates vary greatly by college major. Graduates with degrees that involve a substantial amount of quantitative reasoning, such as computer science, engineering, mathematics, or math-intensive business fields (e.g., finance, accounting), experience the lowest underemployment rates (i.e., less than 37 percent), especially right out of college. Underemployment rates also are low for those who study education or health programs (e.g., nursing). Graduates with degrees in public safety and security, recreation and wellness studies, or general business fields (e.g., marketing) tend to face much higher levels of underemployment (i.e., 57 percent or higher).

KEY FINDINGS



STEM is not a silver bullet. While policymakers typically think of STEM [science, technology, engineering, and mathematics] programs as a sure pathway to college-level employment and high wages, the reality is more nuanced. Graduates with a bachelor's degree in computer science, engineering, or mathematics tend to experience very low underemployment, while those with a degree in a life sciences field (e.g., biology) tend to face higher underemployment rates.⁴

College-level employment rates are higher for those who complete an internship. There is a strong connection between internships and college-level employment after graduation. Controlling for factors such as gender, race/ethnicity, and institutional characteristics, the odds of underemployment for graduates who had at least one internship are 48.5 percent lower than those who had no internships, and the benefits associated with completing an internship are relatively strong across degree fields.

Institution type, race/ethnicity, gender, and geography matter with respect to post-graduation employment outcomes, but typically not as much as college major or internships. Graduates of more selective institutions are less likely to experience underemployment than those who attended more inclusive (and typically less resourced) institutions. Black and Hispanic students are substantially more likely than students of other races and ethnicities to wind up underemployed, and men are more likely to be underemployed than women. Underemployment also varies substantially by state. While all of these differences are meaningful, none of them explains as much of the differences in underemployment rates as college major and internship completion.