

The Jobs and Degrees Underemployed College Graduates Have

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By **Heather Hennerich**

Members of Generation Z—those typically born between 1997 and 2012—who are graduating from college face different job market challenges than previous generations did, but one question remains the same: How do you launch a fulfilling career?

Many Gen Z graduates likely won't start that career with a job that fits their training, judging by statistics for college graduates. More than half were in jobs that typically don't require a college degree a year after graduation, according to a 2024 report, "[Talent Disrupted: College Graduates, Underemployment and the Way Forward](#)," from nonprofits The Burning Glass Institute and Strada Institute for the Future of Work.

In other words, those graduates are underemployed, as economist Oksana Leukhina explains.

Leukhina, an economic policy advisor at the Federal Reserve Bank of St. Louis, sat down for a conversation about underemployment, including:

- The effects it has on college graduates' income and careers
- The kinds of degrees underemployed grads are more likely to have
- The job amenities underemployed graduates have

How Does Pay Differ for Underemployed College Graduates?

Over a lifetime, people who have some college education earn about 20% more income than high school graduates, and those who complete bachelor's degrees earn about 70% more, Leukhina said. "But there's a lot of overlap in the earnings distribution," meaning that there are college graduates who make less than high school graduates with no college experience.

"It's true that if you have the skills to be a plumber or a general contractor or a mold inspector, yeah, you can make a lot of money," she said. "Definitely more than your average college dropout."

Her definition of college dropouts comprises all those who have some college but no four-year degree.

Underemployment cuts into the college premium—the difference in earnings between those who have completed college and those who have finished only high school.

A typical recent college grad who holds a job that requires a college degree earns about 88% more than a typical high school graduate who never went to college, but a recent underemployed graduate makes only 25% more, Leukhina said.

"If you're a college grad and you are underemployed, you're basically making the same money as a college dropout on average," said Leukhina.

How Does Underemployment Affect Careers?

The types of jobs college graduates start out in are the types they’re likely to keep.

Seventy-nine percent of those who began with a college-level job were still in one 10 years after graduation, Leukhina said. However, underemployment upon graduation is highly prevalent, and it is highly persistent.

As much as 52% of college graduates are underemployed upon initial labor market entry. They are likely to stay that way—even 10 years after graduation, 45% of college graduates are underemployed, according to the Talent Disrupted report.

For college graduates, it seems like there’s a “scarring” effect from taking a job that doesn’t require a college degree, Leukhina said.

“Maybe you get it because you didn’t have some of the required skills, but then you’re not going to gain them if you’re just staying in that kind of job,” she said. “And your résumé is going to reflect your job history. It’s going to be really hard to get out of that.”

What Degrees Do Underemployed College Grads Have?

Underemployed college graduates tend to have majors such as public safety and security, recreation and wellness, and general business, Leukhina said.

Law enforcement and security guard positions don’t tend to require college degrees, which could account for the higher underemployment rate for those majors, she said. Grads with majors in these fields undermatch at rates of 57% or higher.

College Majors with the Highest Underemployment

Major	Underemployment rate
Criminal justice	67.2%
Performing arts	62.3%
Medical technicians	57.9%
Liberal arts	56.5%
Anthropology	55.9%

SOURCE: “[The Labor Market for Recent College Graduates](#),” Federal Reserve Bank of New York.

NOTES: Data are from 2023 for recent college graduates—those aged 22 to 27 with a bachelor's degree or higher—working in jobs that typically do not require a college degree. A job is classified as a college-level job if 50% or more of the people working in that job indicate that at least a bachelor’s degree is necessary.

On the other end of the underemployment spectrum are majors in math-intensive business fields, such as accounting or finance, and in STEM (science, technology, engineering and math) fields. One year out from

graduation, college graduates with those kinds of majors have an underemployment rate of 37% or less, Leukhina said.

College Majors with the Lowest Underemployment

Major	Underemployment rate
Nursing	9.7%
Miscellaneous education	16.0%
Elementary education	16.1%
Computer science	16.5%
Chemical engineering	16.5%

SOURCE: “[The Labor Market for Recent College Graduates](#),” Federal Reserve Bank of New York.

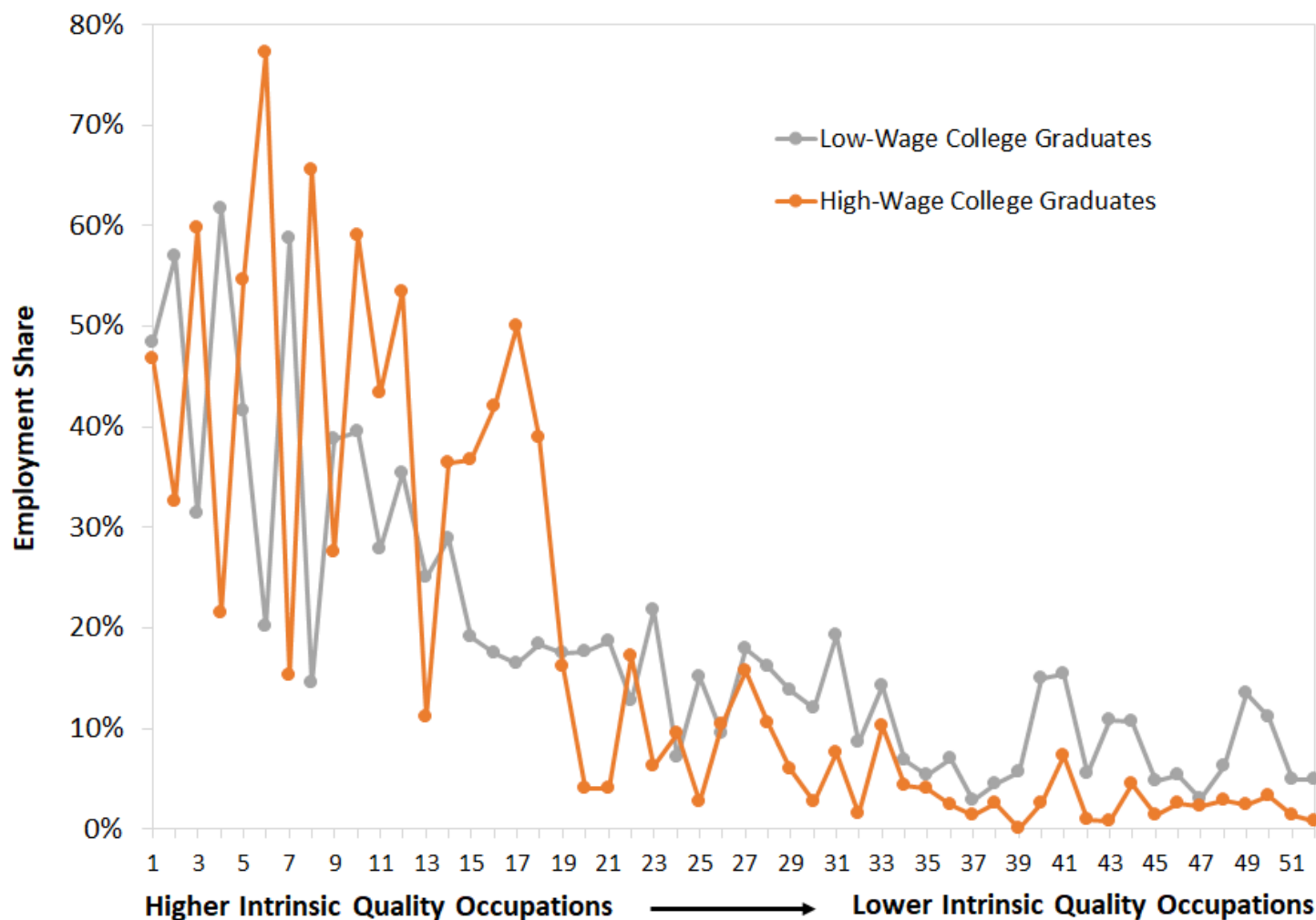
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What Job Amenities Do Underemployed College Graduates Have?

While underemployed college graduates aren’t reaping as much of the financial college premium as other grads, Leukhina found that they are gaining in other ways.

Leukhina and Amy Smaldone, a former St. Louis Fed senior research associate, looked at whether college graduates, even those paid low wages, tended to hold jobs with better amenities. Those jobs with high “intrinsic quality” didn’t require workers to do physical labor or work fast and offered respectful treatment, variety and opportunities to gain skills, as Leukhina and Smaldone wrote in a May 2024 On the Economy blog post, “[How Nonmonetary Job Amenities Improve with Higher Education](#).”

College Graduates Are More Represented in Occupations with Higher Intrinsic Quality



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SOURCES: Authors’ calculations for May 2024 On the Economy blog post “[How Nonmonetary Job Amenities Improve with Higher Education](#)” based on 2010 U.S. Census data, and Corina Boar and Danial Lashkari’s Jan. 3, 2023, discussion paper [Occupational Choice and the Intergenerational Mobility of Welfare](#).

DEFINITIONS OF X-AXIS OCCUPATIONS



The occupations are as follows: 1) postsecondary teacher; 2) librarian, archivist, curator; 3) architect; 4) non-postsecondary teacher; 5) natural scientist; 6) lawyer, judge; 7) social or religious worker; 8) engineer; 9) writer, artist, entertainer, athlete; 10) health diagnostician; 11) therapist; 12) social scientist, urban planner; 13) farm operations or manager; 14) management-related occupations; 15) executive, administrative, managerial; 16) health treatment; 17) other technician; 18) math and computer science; 19) science tech; 20) administrative support; 21) records processing, except financial; 22) police officer, detective; 23) personal services; 24) precision production supervisor; 25) secretary, stenographer, typist; 26) firefighter, fire prevention; 27) sales; 28) engineering and related occupations; 29) guard; 30) financial records processing; 31) adjuster, investigator; 32) health services; 33) health tech; 34) electronics repair; 35) miscellaneous repair; 36) precision production; 37) vehicle mechanic; 38) construction trades; 39) private household occupations; 40) information clerk; 41) computer equipment operator; 42) cleaning and building services; 43) food prep and services; 44) material receiving and distribution; 45) machine operator; 46) forestry,

logging, fishing, hunting; 47) extractive; 48) fabricator; 49) nonmanager farm and agricultural; 50) mail distribution; 51) motor vehicle operator; 52) freight, stock and material handler.

Professors, teachers, librarians, curators and scientists have occupations ranking near the top in intrinsic value, while the jobs of bus drivers and agriculture, mail delivery and food prep workers ranked near the bottom.

College graduates, even those with wages in the bottom 50% for college graduates, tended to have occupations high in intrinsic value, Leukhina said.

Forty percent of librarians, curators, social workers, artists and writers—occupations that rank near the top in terms of their intrinsic value—are accounted for by below-median-wage college graduates, she said, adding that a person can become an artist or a writer without a college degree.

The findings on amenities suggest that underemployment may provide college graduates with occupations with a higher intrinsic value, she said.

“At the end of the day, I cannot distinguish between those two stories,” Leukhina said. “Whether or not you just don’t have the skills, versus you value something else and you’re willing to give up the money.”

ABOUT THE AUTHOR



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