

# EDUCATION

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## KEY FINDINGS

- **The payoff to a college degree—in terms of earnings and full-time work—is as high for millennials as it’s ever been.**
- **But there is a substantial earnings gap between those who are and aren’t college educated. Millennials with no more than a high school diploma have much lower earnings in early adulthood than prior generations.**

**T**he more than 80 million young adults born between the early 1980s and the mid-1990s—often labelled the millennial generation—have frequently been diagnosed as “overeducated and underemployed.”<sup>1</sup> It has been argued that, because millennials came of age during the Great Recession, their access to good jobs has been compromised and their transition to economic self-sufficiency delayed.

But there are also reasons to be optimistic about millennials. Most notably, they are the most educated generation of Americans to date,<sup>2</sup> and they have experienced growing economic returns to college and advanced degrees.<sup>3</sup>

There are, then, two quite different characterizations of millennials in play. Are they overeducated and underemployed, or are they reaping the expected returns from being the most educated generation ever? To address this question, we examine the economic returns to schooling for millennials, as compared to the returns for prior generations. Specifically, we focus our comparison on “returns to college,” measured by differences in economic well-being between college graduates and those with a high school diploma or less.

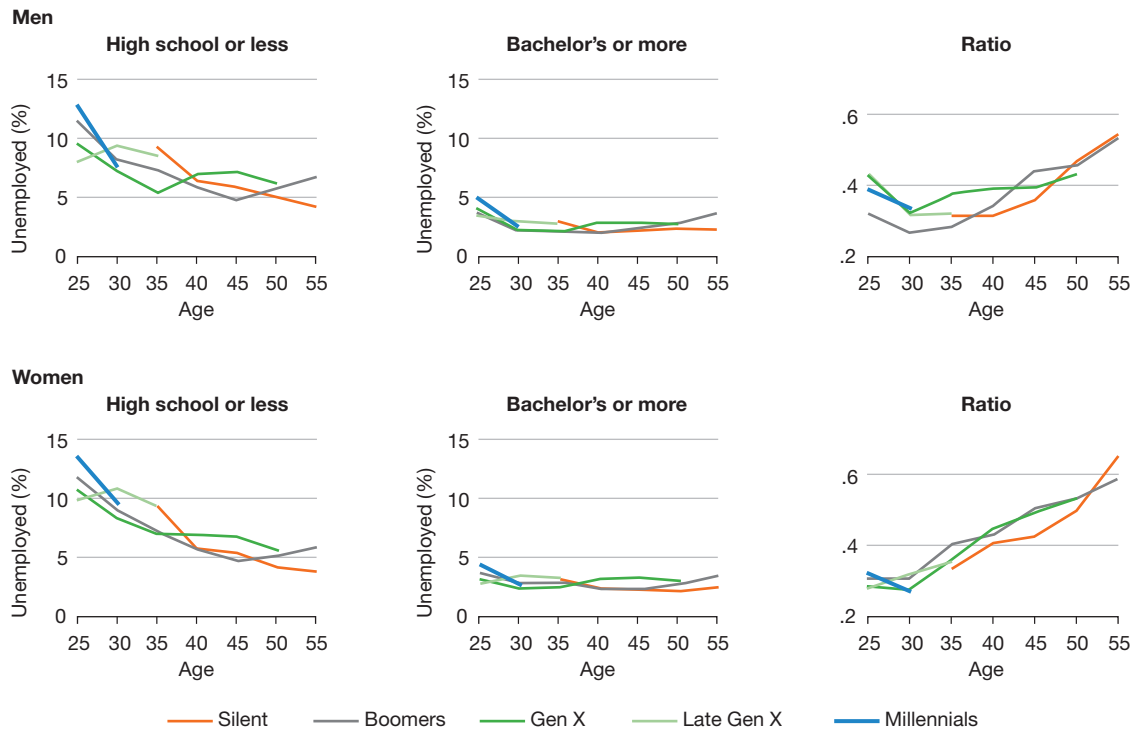
We show that both claims are partially correct. Millennials with a college degree or more are doing as well as comparable college-educated young adults in the past. In contrast, their peers with a high school diploma or less are doing worse

than their counterparts in the past. The story that emerges is one of diverging destinies: A growing gap in economic well-being between those with high and low levels of education, and a particularly precarious situation for millennials with no more than a high school diploma.

Our analysis compares millennials with earlier birth cohorts using the Current Population Survey between 1975 and 2018. We consider the following cohorts: Those born in 1939–1949 (Silent Generation), 1950–1960 (baby boomers), 1961–1971 (Generation X), 1972–1982 (late Generation X), and 1983–1993 (millennials).<sup>4</sup> For each cohort, we examine the payoff of attaining a college degree in terms of the probability of being *unemployed*, the probability of working *full-time year-round*, and the median annual *earnings* among those working full-time year-round.

Because employment and earnings follow an inverted-U pattern across the life course, with an increase up to middle-age and a slow decline as people approach retirement age, whenever possible we compare these three economic outcomes across generations at the same ages—age 25, 30, 35, 40, 45, 50, and 55. Naturally, because the oldest millennials in our sample were born in 1983 and the youngest were born in 1993, we are able to observe their outcomes only during early adulthood (ages 25 and 30). Given gender differences in employment and earnings, we present separate analyses for men and women.

Figure 1. Millennials face a particularly precarious employment situation as they enter the workforce.



Source: Current Population Survey basic monthly files 1976–2018.  
 Note: Annual unemployment calculated by averaging across monthly samples.

### Educational attainment and returns to education

Figure 1 compares the unemployment rate among individuals with a high school diploma or less (Panel 1) with those with a bachelor’s degree or more (Panel 2). These comparisons are carried out across cohorts and for men and women.

Both low-education and high-education millennials are *more likely to be unemployed* at age 25 than any prior cohorts. College does not have a larger protective effect against early unemployment among millennials than preceding generations (Panel 3). This precarious early employment situation for millennials, regardless of their educational credentials, is likely related to the Great Recession.

But the labor market improves thereafter for millennials. By age 30, unemployment declines among millennials and reaches levels comparable to those prevailing in generations that preceded them.

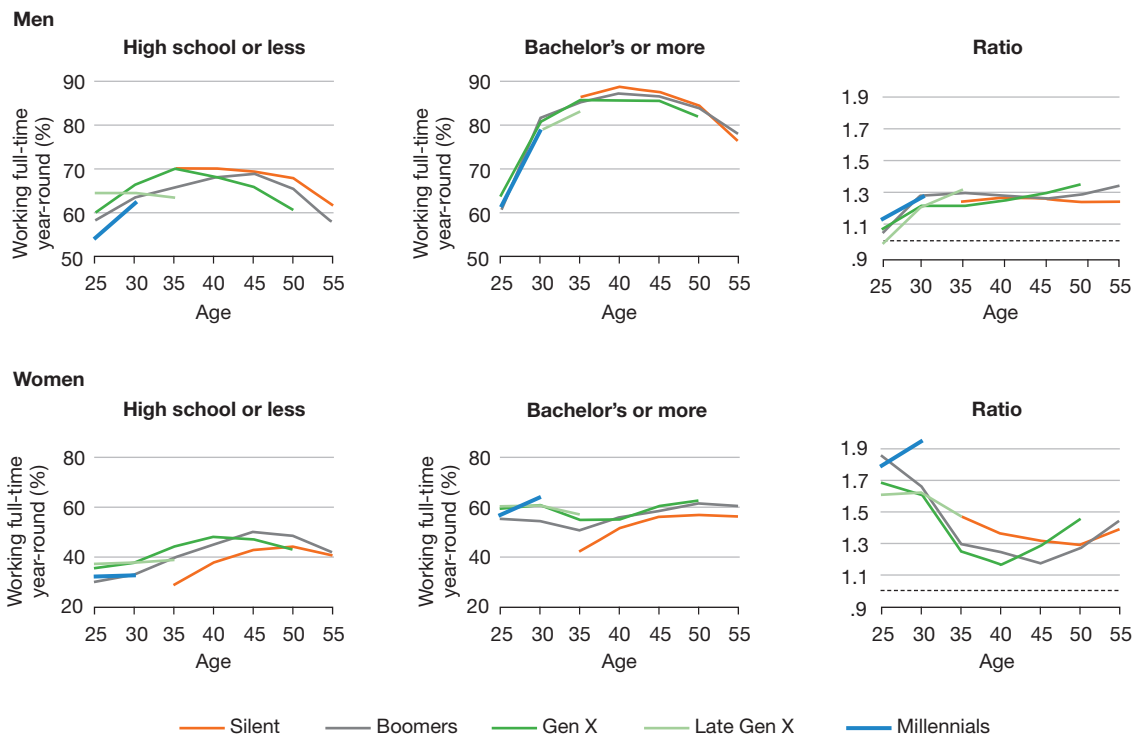
Unemployment is of course a complex measure. It reflects economic precariousness, but it

also captures normal turnover in the labor market and the ability to search for better employment opportunities. To further assess the economic well-being of millennials, we examine the probability of working *full-time year-round* in Figure 2.

Among men, millennials with a high school diploma or less have a lower probability of working full-time year-round than prior generations. The probabilities of full-time year-round employment for millennial men with a bachelor’s degree or more are, however, comparable to the corresponding probabilities for earlier generations. As a result, the payoff of a college degree, in terms of having a stable full-time job, is higher for millennials than for any generation before them.

In contrast, the educational gap for millennial women is driven by the advantageous position of college-educated female workers: A higher proportion of women with a college degree work full-time year-round among millennials than ever in the past. The educational gap in full-time year-round employment is even starker for millennial women

Figure 2. Less-educated millennial men and women are not as likely to work full-time year-round as prior generations.



Source: Annual Social and Economic Supplement to the Current Population Survey, 1975–2018.

Note: Respondents were coded as working full-time year-round if they worked 35 or more hours per week for at least 50 weeks in the last year.

than for men, given that it's driven not just by poor outcomes among the less-educated but also by advantageous outcomes among the well-educated. This simultaneous improvement-at-the-top and weakness-at-the-bottom is especially prominent among 30-year-old women.

Our final analysis considers *earnings* among those working full-time year-round. Among men, we find a substantial earnings gap by education among millennials, a gap that is larger than in prior generations (Figure 3). The cause of this wide economic gap is not the high earnings of college graduates. Their earnings are comparable, in real terms, to prior generations in early adulthood. Rather, the gap is explained by the much lower earnings received by millennial men with no more than a high school diploma.

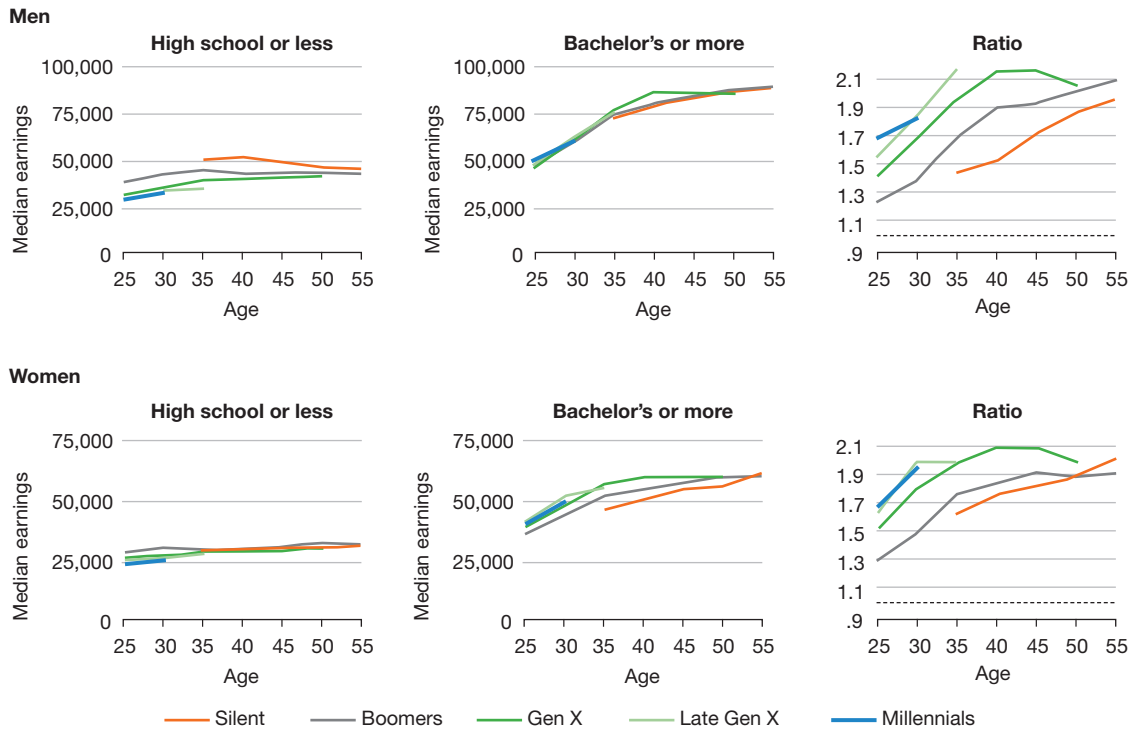
The story, in this case, is no different for women. It is the low earnings of millennial women with a high school diploma, rather than high earnings of college graduates, that explains the wide educational gap.

## Conclusions

Are millennials different from prior generations when it comes to the economic returns to education? The answer is a partial yes. We have shown that a college or advanced degree pays off more among millennials than among prior generations, and that the “college advantage” is driven not so much by gains among those who secure a bachelor's degree but by the precarious situation among millennials with low educational attainment. In other words, economic disparities emerge not from highly educated millennials doing better than prior generations but from the poorly educated doing worse.

Is this a simple “millennial effect?” No. The high economic returns to education did not suddenly emerge with the millennial generation, nor did they result from a single economic shock, such as the Great Recession. To the contrary, Gen Xers also experienced large gaps in employment and earnings by education, suggesting a longer-term trend of widening disparities and growing

Figure 3. Low earnings among less-educated millennial men and women drive the rise of a substantial earnings gap by education.



Source: Annual Social and Economic Supplement to the Current Population Survey, 1975–2018.  
 Note: Earnings measure combines pre-tax wage and salary income, pre-tax non-farm business income, and pre-tax farm earnings. It was calculated only for individuals who worked full-time year-round. The earnings variable was adjusted for inflation using the Bureau of Labor Statistics' Consumer Price Index inflation calculator and is presented in 2016 U.S. dollars.

economic vulnerability among those with low levels of schooling.

In spite of substantial educational expansion, the group that we have defined as “low education” is not a small, vanishing proportion of the millennial generation. Rather, more than a third of millennials fall into this “low education” group comprising those with just a high school diploma or those failing to graduate from high

school. While the popular press tends to focus on educated millennials, our findings suggest we should focus attention on the large proportion of young adults with no more than a high school diploma who are increasingly being left behind.

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**Notes**

1. Weissmann, Jordan. 2018. “Further Proof That Millennials Are, in Fact, The Brokest Generation.” *Slate*.
2. Pew Research Center. 2015. “Millennials On Track to be the Most Educated Generation to Date.”
3. Autor, David H. 2014. “Skills, Education, and the Rise of Earnings Inequality Among the ‘Other 99 Percent.’” *Science* 344(6186), 843–851.
4. These definitions are not identical to those used by the popular press, but they are closely aligned to those conventionally used and have the advantage of distinguishing time intervals of equal size.