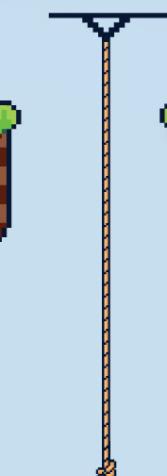


How Limits to Educational Affordability, Work-Based Learning, and Career Counseling Impede Progress toward Good Jobs

By Anthony P. Carnevale, Kathryn Peltier Campbell, Ban Cheah,
Artem Gulish, Michael C. Quinn, and Jeff Strohl

2022



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Center on Education and the Workforce

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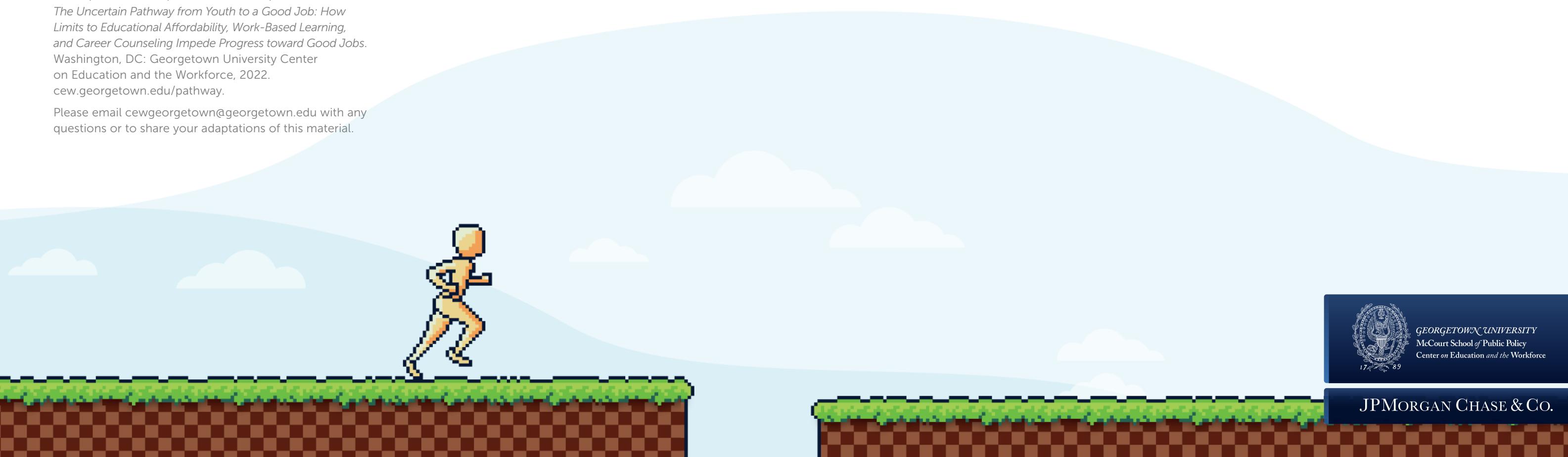
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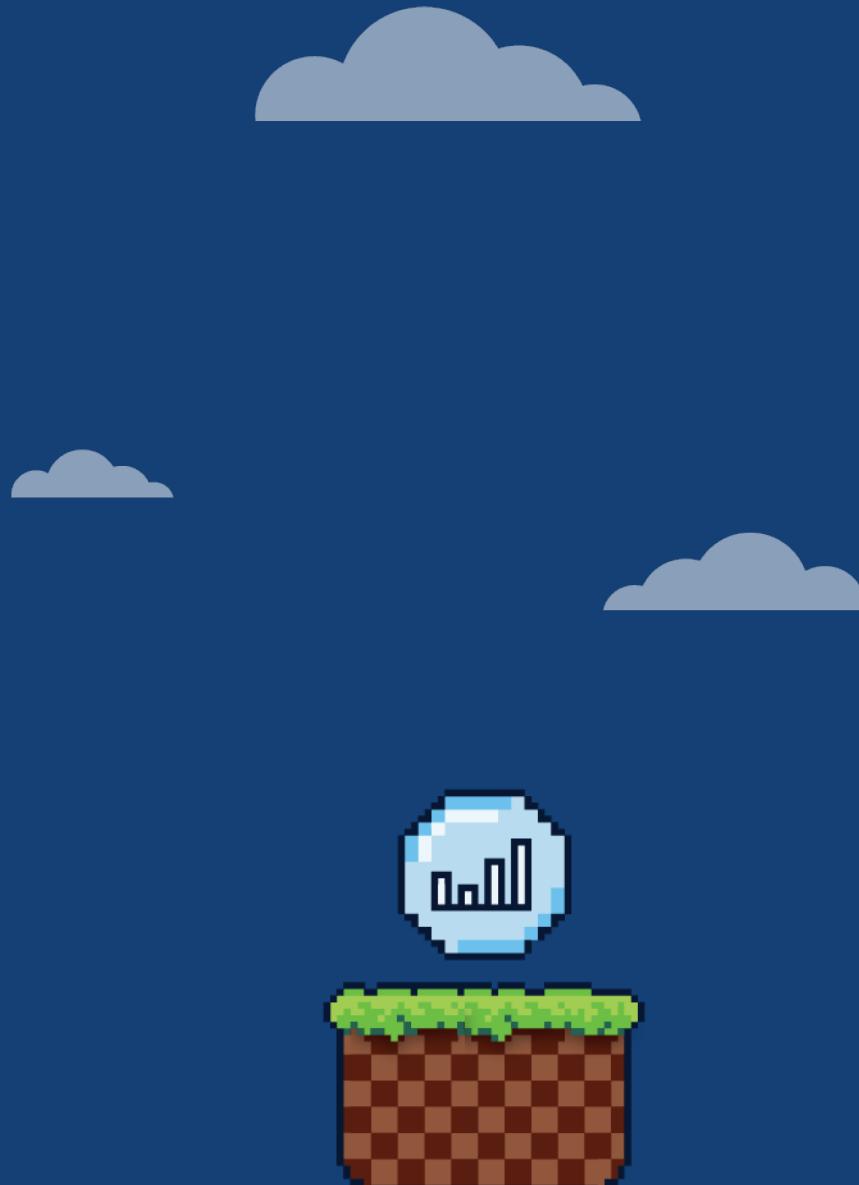
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INTRODUCTION

Americans tend to be optimistic, persistently confident that the future will be better than the past.¹ This propensity to believe that good things are likely to happen fuels our enduring belief in the American Dream, including the expectation that each generation will enjoy a better quality of life than the previous one. But do young people's actual prospects warrant this optimism? On the whole, are young adults enjoying greater prosperity than their parents,² or are they worse off financially than previous generations?³ At what age do young people have a good chance of being able to support themselves at a high quality of life in adulthood?

This report addresses these questions by comparing the fortunes of older millennials up to their mid-30s with those of older baby boomers when they were a similar age.⁴ We examine how changes in the American economy from generation to generation have transformed the prospects of young adults, and we delve into the factors associated with

¹ Keller, "What Makes Americans So Optimistic?," 2015.

² Chetty et al. evaluate this question and find that only half of 30-year-olds born in the 1980s have higher incomes than their parents did at the same age. This is a much lower share than for earlier generations. For example, 90 percent of 30-year-olds born in the 1940s had higher incomes than their parents did at the same age. See Chetty et al., "The Fading American Dream," 2016. We focus on attainment of good jobs rather than economic mobility compared to one's parents because good jobs suggest attainment of a minimum earned income threshold necessary to establish economic self-sufficiency, which better reflects young people's ability to transition to economically independent adulthood than does mobility compared to their parents.

³ In this report, we discuss outcomes for today's young adults based on data for the cohort of millennials born from 1981 to 1985. This group has already reached its mid-30s, so we were able to analyze young adults' progression through age 35.

⁴ Baby boomers are generally defined as those born from 1946 to 1964; our analysis focuses on the older cohorts within this generation, those born from 1946 to 1950. Millennials are generally defined as those born from 1981 to 1996; our analysis focuses on the older cohort within this generation, those born from 1981 to 1985.

having a good job—one that pays at least \$35,000 annually, adjusted for the cost of living depending on place of residence.⁵ At the median, these good jobs pay \$57,000 for young workers (ages 25 to 35) nationwide.⁶

Today, there are multiple possible pathways to reaching a good job by age 35, some more reliable than others. At age 35, 80 percent of young workers with a bachelor's degree or higher have a good job, as do 56 percent of young workers with some college or an associate's degree. Among 35-year-old workers with no more than a high school diploma, 42 percent have a good job, and for workers who never completed high school, that share is 26 percent. Further, there is great variety within these pathways. At different educational attainment levels, the chances of having a good job are affected by factors like field of study and occupation. Although the likelihood of having a good job is higher at higher levels of educational attainment, it is still possible for a worker without a bachelor's degree to have higher earnings than the average bachelor's degree holder.⁷

Thus, to truly maximize their chances of having a good job, young people have to choose wisely—not only regarding the educational level they pursue, but also regarding the fields they study and the occupations they enter.⁸ They also need comprehensive support all along the journey from education to work to help them navigate the thorny landscape on the way to a good job.



About This Report

This report is part of a series on young people's pathways to good jobs. In it, we examine how the route from youth dependency to economic independence in young adulthood has changed over time.

We explore how the likelihood of having a good job is affected by

- educational attainment;
- field of study;
- occupation;
- full-time work;
- access to high-quality work-based learning; and
- socioeconomic status.

These elements work together to perpetuate inequality of opportunity for young Americans.

In this report, we focus on overall historical trends and socioeconomic gaps in opportunity. For a discussion of racial/ethnic and gender gaps in the likelihood of having a good job, see the companion to this report, *How Racial and Gender Bias Impede Progress toward Good Jobs*.

Instead of receiving the support they need, however, young people today encounter a triple set of hurdles as they move from youth dependency to adult independence—hurdles that did not exist for their counterparts in the late 1970s and early 1980s.

⁵ We define a good job as one that pays at least \$35,000 for workers younger than age 45 and at least \$45,000 for workers ages 45 and older. Carnevale et al., *Three Educational Pathways to Good Jobs*, 2018. We adjusted the \$35,000 threshold using the local living wage to account for differences in cost of living among states, based on data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020, <https://livingwage.mit.edu/>.

⁶ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 2020.

⁷ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1972–86, 2007–20.

⁸ Carnevale et al., *The College Payoff*, 2021.

Since the mid-1980s, these three hurdles have raised the age at which most young workers are able to latch on to good jobs, from their late 20s to their early 30s.

The first and most obvious hurdle is the increasing need for workers to have postsecondary education and training to be competitive in the labor market. The value of postsecondary education has risen at the same time that the value of a high school diploma has declined, heightening the relative value of postsecondary attainment.⁹ But the costs of postsecondary education weigh more on students who don't have access to financial resources and social capital, deterring many from earning a degree at all. Acquiring a postsecondary education with economic value adds cost, debt, and additional years that extend the journey from youth dependency to adult economic independence. In addition, new postsecondary educational requirements delay entry into jobs in which young people can accrue career-relevant experience, thereby further slowing their journeys to good jobs.

The second hurdle that youth have to clear on the way to economic independence is insufficient access to work-based learning, which could help young people pick up occupational and career skills and apply what they learn in the classroom in a practical, on-the-job context.

The third hurdle is the virtual vacuum in comprehensive career counseling necessary to navigate an increasingly complex set of interconnected educational and career choices.

These three hurdles have had unfortunate consequences. They have impeded positive cultural shifts, adding unnecessary complexity and stress to crucial personal choices such as when and whether to move out on one's own, form personal relationships, and have children. They have heightened disparities in educational attainment and adult socioeconomic status by race, class, and gender. Finally, they have slowed young adults' ability to accumulate wealth, especially for those who acquire substantial debt to cover the rising costs of postsecondary education.

Providing the necessary supports to help young people clear the triple hurdles of insufficient postsecondary education and training, work-based learning, and career counseling would help empower them to fulfill their personal and career goals as they move from youth dependency to adult economic independence. Investments in improved postsecondary access and success, high-quality work-based learning opportunities, and comprehensive career counseling will require a wholesale remodeling of the education-to-career pipeline to ensure that it fits the new realities of the modern global economy.

What Is a Good Job?

In this report, we explore the pathway from youth economic dependency to a good job. We consider a good job to be one that meets a minimum earnings standard for economic self-sufficiency. Many good jobs provide room for growth toward a higher salary, but at a baseline, they allow workers to support themselves in the modern economy.

At the national level, we define a good job as one that pays at least \$35,000 for workers younger than age 45 and at least \$45,000 for workers ages 45 and older. These good jobs pay \$57,000 at the median for young workers (ages 25 to 35) nationwide. There is substantial variation in earnings associated with good jobs for young workers: for workers born between 1981 and 1985, one-quarter of good jobs pay from \$35,000 to \$45,000, while one-quarter pay more than \$80,000.

Depending on local cost of living, the minimum earnings necessary to achieve economic independence may be higher or lower than \$35,000. To account for the geographical differences in cost of living, we adjusted the \$35,000 threshold by state using the living wage in each state and the District of Columbia. We found that the minimum earnings associated with a good job varied by more than \$17,000, from \$29,700 in South Dakota to \$47,400 in the District of Columbia (Table 1). We take these differences into account in the data analysis underlying our discussions in this report.

While our good jobs definition does not include employer benefits, the vast majority of workers who have good jobs (89 percent) have access to health insurance coverage at work, compared to a lower share (63 percent) of workers who don't have good jobs. Workers with good jobs are also much more likely to have access to an employer-sponsored retirement plan.*

TABLE 1. The minimum threshold of earnings associated with a good job varies geographically.

| State | Adjusted minimum good jobs threshold |
|-------------------------------------|--------------------------------------|
| Highest good jobs thresholds | |
| 1 District of Columbia | \$47,400 |
| 2 Hawaii | \$44,300 |
| 3 New York | \$43,600 |
| 4 Massachusetts | \$43,300 |
| 5 California | \$42,000 |
| Lowest good jobs thresholds | |
| 47 Kansas | \$30,400 |
| 48 Ohio | \$30,400 |
| 49 West Virginia | \$30,300 |
| 50 Arkansas | \$29,900 |
| 51 South Dakota | \$29,700 |

Source: Georgetown University Center on Education and the Workforce estimates based on data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020. For a complete list of adjusted thresholds, see Table A1 in Appendix A.

* Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 2020. While the CPS data show that workers with good jobs are twice as likely to have access to an employer-sponsored retirement plan as workers without good jobs, we do not report the exact estimates because they appear to significantly underestimate retirement plan coverage. Based on data from the US Bureau of Labor Statistics, *National Compensation Survey*, 2021, more than 70 percent of civilian workers have access to a retirement plan at work, and the group of workers most likely to lack access to a retirement plan are those in the bottom quartile of earnings.

Young people are entering a global economy vastly different from the economy of the past.

The changes in young people's transitions to adult economic independence are a result of technological innovation and globalization, which have transformed the labor market and increased the value of postsecondary education and training since the 1980s. The American economy once achieved global success from a mass-production model that delivered highly standardized goods and services at the lowest cost. Now, global competitiveness requires a business model that delivers quality, variety, customization, convenience, and novelty through constant incremental innovation in production and service delivery systems, both on the ground and online—all at an increasingly fast pace. Computer-based technology and global competition have prompted employers to automate many of the repetitive tasks in the old mass-production system, requiring workers to have higher levels of skill and flexibility to harness these new technologies and to meet the new competitive standards.¹⁰ Driven by these new dynamics, complex new networks of product and service providers are replacing the top-down institutional hierarchies once typical of big business and the highly fragmented structures once typical of service industries.¹¹ These networks

depend on new computer-based technologies to automate repetitive job tasks and meet the new competitive requirements at the lowest cost.¹²

As a result of these structural economic changes, employers' demands have shifted. Instead of rewarding the hands-on physical competencies that were the backbone of a mid-20th century industrial economy that prized the high school diploma, employers have come to prioritize the cognitive competencies and interpersonal skills associated with postsecondary education and training. Thus, workers' value increasingly lies in their ability to do nonrepetitive tasks involving critical thinking and human interaction. As routine tasks became automated, interpersonal skills such as leadership and teamwork became essential in a growing number of jobs—a trend that will likely continue. The economy will need more workers with the deep and broad sets of competencies to maximize the potential of powerful new technologies.¹³

These changes within and across many occupations have been reinforced by changes across different sectors of the economy. For example, employment in the manufacturing sector has steadily declined, while employment in the information and services sectors has steadily grown.¹⁴ At the macro-economic level and on the ground, today's global economy looks very different from the economy of even a few decades ago, and young workers are left to find their footing on this unfamiliar terrain.

The transformed economy has changed young people's pathways to prosperity.

In the new context of the global economy, the best route to success in the workforce has changed. To find workers with the diverse competencies demanded by the modern economy, employers have shifted the focus of their hiring strategy from secondary to postsecondary credentials. In 1991, almost one-third of good jobs were held by workers with a high school diploma or less; by 2016, that share had declined to one-fifth. At the same time, the share of good jobs held by workers with bachelor's degrees and graduate degrees increased from 40 percent to 56 percent. In addition, nearly three in four jobs held by workers with a bachelor's degree or higher are good jobs, compared to one in three jobs held by workers with a high school diploma or less. The middle-skills pathway, which accounts for almost a quarter (24 percent) of good jobs, continues to offer considerable opportunities to workers in specific fields, with nearly half of jobs held by workers with some college or an associate's degree being good jobs.¹⁵ This is the landscape that young workers encounter as they set forth into young adulthood.

While there are still multiple pathways to good jobs, the average worker with a bachelor's degree has been generously rewarded for acquiring more education. Since the late 1970s, the median economic value of a bachelor's degree has roughly doubled over the value of a high school diploma for prime-age, full-time, full-year workers.¹⁶ As postsecondary education has become more valuable, variation in earnings by program or field

of study has made the postsecondary pathway to a good job increasingly difficult to navigate. Level of educational attainment matters, but field of study often matters more. For example, graduates with a bachelor's degree in petroleum engineering make \$140,000 a year at the median, while those with a bachelor's degree in early childhood education make \$40,000 a year at the median.¹⁷ In fact, variation in earnings among workers with different fields of study is often larger than variation in earnings among workers with different levels of educational attainment.¹⁸

Differences in earnings by field of study are why, among full-time, full-year workers, 36 percent of those with a bachelor's degree earn more than the median earnings for those with a master's degree, and 28 percent of those with an associate's degree earn more than the median earnings for

The Generational Divide

In this report, we use popular generational terminology when exploring the life experiences of two groups of young adults.

The first group we consider is the **baby boomers** (born from 1946 to 1964). Our analysis focuses on older individuals within this group—those born from 1946 to 1950.

The second group we consider is the **millennials** (born from 1981 to 1996). Our analysis focuses on older individuals within this group—those born from 1981 to 1985.

We focus on these smaller cohorts because millennials born in 1985 are the youngest adults for whom we have data up to age 35. We imposed similar limits on our analysis of baby boomers to create a comparable group.

¹⁰ Acemoglu and Restrepo, "Unpacking Skill Bias," 2020; see also Carnevale, *America and the New Economy*, 1991.

¹¹ Caroli and Van Reenen, "Skill Biased Organizational Change?," 2001; Black and Lynch, "What's Driving the New Economy," 2000.

¹² Carnevale and Rose, *The Economy Goes to College*, 2015.

¹³ "Cognitive competencies" include such knowledge, skills, and abilities as communication, problem solving and complex thinking, and mathematics and computer science. "Physical competencies" include such knowledge, skills, and abilities as psychomotor and sensory abilities, strength and coordination, and mechanical skills. For a complete taxonomy, see Carnevale et al., *Workplace Basics*, 2020.

¹⁴ Carnevale and Rose, *The Economy Goes to College*, 2015.

¹⁵ Carnevale et al., *Three Educational Pathways to Good Jobs*, 2018.

¹⁶ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1977–2020.

¹⁷ Carnevale and Cheah, *Five Rules of the College and Career Game*, 2018; Carnevale et al., *Navigating the College-to-Career Pathway*, 2021.

¹⁸ Carnevale et al., *The College Payoff*, 2021.

those with a bachelor's degree.¹⁹ In fact, many sub-baccalaureate certificates outperform postsecondary degrees in terms of earnings.²⁰ Young people need a better understanding of the differences among fields at an earlier stage in life, but they often lack access to the high-quality career counseling and work-based learning that would help them build that understanding.

Some young people have sought alternatives to traditional employment, such as entrepreneurship or the gig economy. These pathways may yield high rewards for some, but they also involve a high level of risk. Entrepreneurship and other forms of self-employment are a marginal pathway for young people.²¹ In 2019, 6.5 percent of young workers (ages 25 to 35) were classified as self-employed, compared to 5.5 percent in 1971.²² Despite widespread publicity about the gig economy, there is minimal evidence that it creates sustainable opportunities for young adults.

The same rules about education apply to self-employed workers as to workers in the general economy. Self-employed workers are increasingly likely to have higher levels of education; in 2019, 46 percent of self-employed young workers (ages 25 to 35) had a bachelor's degree or higher,

compared to 14 percent in 1971. Overall, it's better to be self-employed with a bachelor's degree than self-employed without one. Forty percent of self-employed young adults with a bachelor's degree or higher have earnings that meet our good jobs criteria, compared to 17 percent of self-employed young adults without a bachelor's degree.²³

The journey to good jobs takes longer than it used to.

The new, higher skill requirements add years of time to the pathway from youth economic dependency to adult economic independence. As we show in this report, the majority of older baby boomers were able to latch on to good jobs in their 20s; most older millennials did not reach this threshold until age 30 or older. Work-based learning could help speed young workers' entry into good jobs, but effective work-based learning experiences are few and far between. Comprehensive career counseling could help young people stay on track, but career counseling today is far from comprehensive.

With the journey to good jobs taking longer than it used to, the pressure is on for young workers to compensate for lost time. After falling behind

prior generations while in their 20s,²⁴ today's young workers enter their 30s needing to make up the difference. Households headed by 35-year-olds have less than two-thirds the net worth that similar households had in the 1990s.²⁵ At the aggregate level, older millennials seem to be compensating for their slow starts in the workforce. They are actually more likely to hold a good job in their early 30s than early baby boomers were at a similar age.²⁶

A slow start in adulthood compounds societal inequality.

More than half of older millennials have a good job by age 30. Nonetheless, older baby boomers had reached the same threshold—at which more than half had a good job—by age 27. Among today's young workers, those who do not successfully transition from youth dependency to adult economic independence and a good job by their mid-30s are at risk of chronically being in a worse financial position than prior generations. Researchers at the Federal Reserve Bank of New York found that for the average worker, most earnings

growth occurs between ages 25 and 35.²⁷ Young adults who make the journey to good jobs slowly are also losing out on the advantages associated with building wealth at a younger age, with significant consequences for their long-term financial health.

The growth of wealth inequality between younger and older households reflects the new hurdles that slow the journey to a good job. Median wealth is lower for millennials than it was for any cohort of similar age between 1989 and 2007.²⁸ A comparison of the 2010s to the 1990s reveals that the wealth of households headed by adults younger than 55 has declined, while the wealth of households headed by adults in their early 60s or older has increased substantially.²⁹ Moreover, millennials currently hold less than 4.5 percent of all wealth in the country, even though they are the largest generation, accounting for 22 percent of the US population (compared to 21.8 percent for baby boomers).³⁰ In contrast, baby boomers 30 years ago held more than 20 percent of the country's wealth and accounted for around 32 percent of the population.³¹ In our capitalist democracy, this wealth imbalance has

¹⁹ Carnevale et al., *The College Payoff*, 2021.

²⁰ Carnevale et al., *Buyer Beware*, 2020.

²¹ Different measures of self-employment or alternative work arrangements suggest different trends in participation in these activities. While administrative data such as tax records show that the share of people involved in such arrangements has grown since 1980, survey data show that the share has declined. However, research indicates that participation in such arrangements is often a source of temporary, secondary, or supplemental income rather than a primary pathway to financial stability. Katz and Krueger, "Understanding Trends in Alternative Work Arrangements in the United States," 2019; Abraham et al., "Measuring the Gig Economy," 2018; Farrell et al., *The Online Platform Economy in 2018*, 2018.

²² Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (March Supplement), 1971, 2019.

²³ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (March Supplement), 1971, 2019.

²⁴ A study by Federal Reserve Bank economists found that millennials have lower earnings, fewer assets, and less wealth compared to prior generations at a similar age; Kurz et al., "Are Millennials Different?," 2018. In addition to the structural economic changes confronting them, millennials have experienced the slowest economic growth in US history since they entered the workforce, with their experiences defined by the period between the Great Recession of 2007–09 and the COVID-19 economic downturn; Van Dam, "The Unluckiest Generation in U.S. History," 2020.

²⁵ Georgetown University Center on Education and the Workforce analysis of data from the Board of Governors of the Federal Reserve System, Survey of Consumer Finances (SCF), 1989, 1992, 1995, 1998, 2010, 2013, 2016, 2019.

²⁶ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey, 1972–86, 2007–20.

²⁷ Guvenen et al., "What Do Data on Millions of U.S. Workers Reveal about Life-Cycle Earnings Dynamics?," 2019.

²⁸ Millennials are also more racially and ethnically diverse than previous generations. Persistent wealth gaps by race and ethnicity may contribute to this generation's lower wealth relative to previous generations. Gale et al., "The Wealth of Generations," 2020.

²⁹ Georgetown University Center on Education and the Workforce analysis of data from the Board of Governors of the Federal Reserve System, Survey of Consumer Finances (SCF), using 1989, 1992, 1995, 1998 (pooled) for 1990s decade and 2010, 2013, 2016, 2019 (pooled) for 2010s decade.

³⁰ The estimates of wealth holdings are from Georgetown University Center on Education and the Workforce analysis of data from the Board of Governors of the Federal Reserve System, "Distribution of Household Wealth in the US since 1989," 1989–2020. The estimates of present-day population shares are from Frey, "Now, More Than Half of Americans Are Millennials or Younger," 2020.

³¹ Georgetown University Center on Education and the Workforce analysis of data from the Board of Governors of the Federal Reserve System, "Distribution of Household Wealth in the US since 1989," 1989–2020. The 1989 population share estimate for baby boomers is from Colby and Ortman, "The Baby Boom Cohort in the United States," 2014.

significant consequences for young people's economic and political power and their ability to help define the nation they will inherit.

This overall story about intergenerational differences in economic opportunity masks important opportunity gaps by race/ethnicity and gender. We explore those racial/ethnic and gender gaps in our companion report, *How Racial and Gender Bias Impede Progress toward Good Jobs*.

The costs and shortcomings of postsecondary education, work-based learning, and career counseling hold young people back.

While the need to acquire more postsecondary education and work-based learning contributes to the slow start that depresses millennials' ability to build wealth in their 20s, investing in both is more essential to millennials' economic success than it was for members of the previous generation. Millennials with a bachelor's degree or higher, for example, have an 80 percent chance of having a good job by their mid-30s, about 10 percentage points higher than similarly educated members of the prior generation. Moreover, young adults with a bachelor's degree or higher start surpassing the previous generation's likelihood of having a good job at the same age and same education level in their mid-20s. However, older millennials with some college or an associate's degree do not

start to catch up to the previous generation until their mid-30s, and young workers with a high school diploma or less remain behind the previous generation through age 35.³²

Therefore, postsecondary education, training, and relevant work experience are more important than ever in attaining a good job and building wealth. Career counseling and other supportive services are the glue that binds pre-K–12 education, career exposure, work-based learning, and postsecondary education. Unfortunately, successful education and career pathways are more expensive than ever. For example, the likelihood of holding educational debt and the size of that debt have both risen precipitously. While an investment in education can yield substantial returns in higher earnings and nonmonetary benefits like better health and greater personal empowerment,³³ these benefits are not always realized immediately and occasionally are not realized at all.

For many young adults, then, the investment in the postsecondary education that ensures their access to good jobs is accompanied by educational debt, the repayment of which can further delay their ability to build a positive net worth and accumulate additional wealth. Overall, the median net worth of households headed by young adults has declined relative to the previous generation, with a distinct advantage held only by those headed by young adults with bachelor's degrees or higher—especially if they have no educational debt.

The American Dream still lives for some, but economic opportunity is tightly constrained.

In this report, we examine the factors associated with young people's successful transitions to a good job, including educational attainment, field of study, and occupation, as well as the opportunity and ability to work full time. We also explore how changes in the journey from school to a good job have played out alongside social changes in young adults' lives and affected their ability to accumulate wealth. We discuss the impact of student loan debt on young people's financial status. In addition, we examine the effect of socioeconomic background on the likelihood that young people will successfully traverse the longer and more challenging pathways to good jobs, as well as the implications for socioeconomic mobility.³⁴

Our findings confirm that in the United States, the opportunity for socioeconomic mobility is tightly constrained. It's a lot better to be born rich than smart. A kindergartner from a low-income family who has top test scores has only a 31 percent chance of being in the top half of socioeconomic status as a young adult, while a kindergartner who has low test scores and comes from a high-income family has a 71 percent chance of doing so.³⁵ These results relate to the fact that children whose parents have a postsecondary education are also likely to have a postsecondary education. Among young adults whose parents have a bachelor's degree or higher, 66 percent have a bachelor's degree or higher themselves; among young adults

whose parents have a high school diploma or less, that share drops to 22 percent.³⁶ Today's postsecondary education and training system mimics and magnifies inequality and projects it into the labor market.

On the whole, we find that the dream of acquiring a good job by one's 30s comes true for many American youth, but that getting a good job is increasingly likely to require postsecondary education or training. High-quality work experiences could help fill the gaps, but such experiences are too few and far between. Supportive services and career counseling could help young people navigate complex and disjointed educational and labor-market silos, but such services are too often unavailable.

Thus, for too many young adults, the chances of getting a good job are only a shadow of what they used to be—and that reality is likely to continue. Particularly for workers without a bachelor's degree, the dream of a good job may be out of reach, like a mirage on the horizon that is always farther away than it appears. Moreover, the longer it takes for young people to latch on to a good job, the worse it is for their long-term economic prospects. On the whole, for young people today, American optimism may be somewhat rooted in reality—but reality is not the same for all young adults.

³² Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1972–86, 2007–20.

³³ Carnevale et al., *The Cost of Economic and Racial Injustice in Postsecondary Education*, 2021.

³⁴ We explore these differences by race/ethnicity and gender in our companion to this report, *How Racial and Gender Bias Impede Progress toward Good Jobs*.

³⁵ Carnevale et al., *Born to Win*, 2019.

³⁶ Georgetown University Center on Education and the Workforce analysis of data from the US Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), 1997–2014.

PART 1

The Newly Elongated Pathway to a Good Job

Today's young adults are navigating journeys from school to work that differ substantially from those of previous generations.³⁷ Young people today may have goals that are similar to those their parents and grandparents had when they were young—to complete their education and obtain a good job that provides financial independence and security. But the economy has changed considerably over the past 50 years, and so has the best way of pursuing these goals.

As rapidly changing technology has transformed the world of work and required workers to master increasingly complex tasks, postsecondary education has become more important than ever as a pathway to good jobs. Young people who obtain a college credential are rewarded handsomely—throughout their 20s and 30s, they are more likely to have a good job than similarly educated members of the previous generation. But earning a college credential takes time, and young adults are enrolled in school longer now than they were in the past. For most young people, attaining additional education and work experience delays and sometimes precludes landing a good job, which can have negative consequences for other aspects of the transition from youth to adulthood, including independent living, homeownership, and the decision to marry and have children.

Structural economic change and a failing youth labor market have increased the demand for postsecondary education.

The nature of work has changed dramatically since the 1970s. An extensive array of new digital technologies increasingly complements the work people do or substitutes for some of their tasks—or in some cases, even for workers themselves. The labor market now demands and rewards workers who have the competencies to use these complex technologies, while sidelining some whose tasks can be done more efficiently by computers or other machines.³⁸

Consequently, today's economy increasingly requires education and training beyond high school. Relative to workers from past generations, today's workers have less need for competencies like mechanical and fine-motor abilities but greater need for competencies like leadership, teaching and learning, and problem-solving and complex thinking—the competencies most strongly associated with a college degree.³⁹ This transformation of the economy is often described as “skill-biased technological change”—the structural change, driven by new technologies, that increased

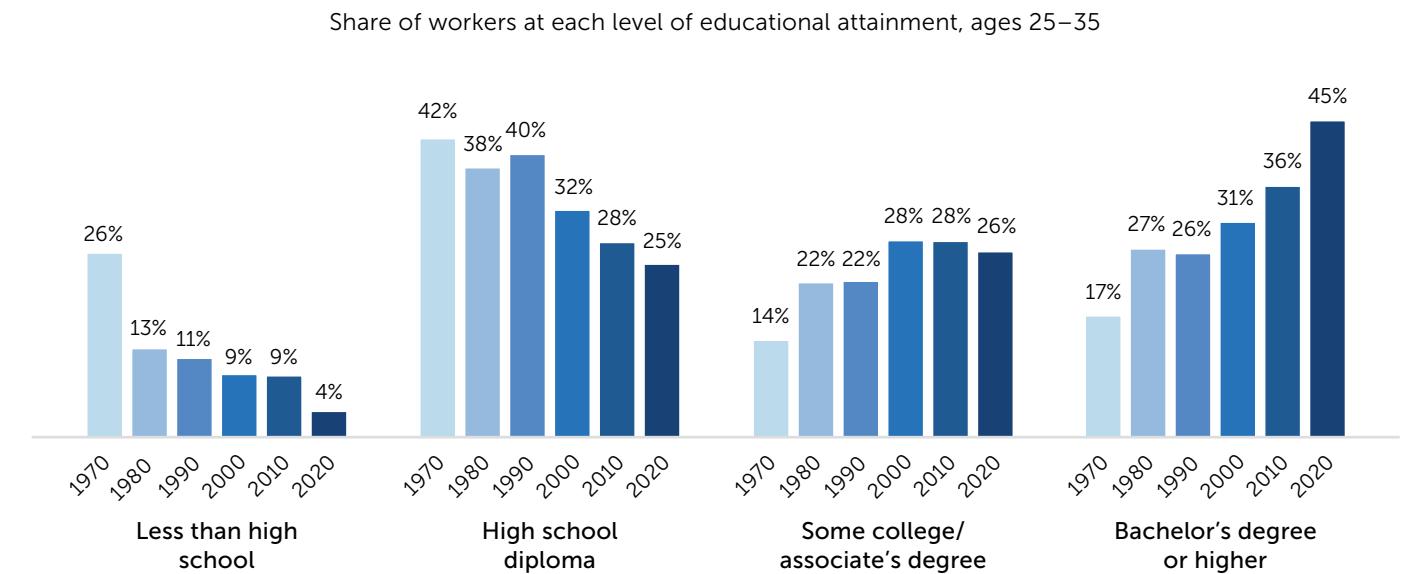
the value of the advanced competencies associated with postsecondary education.⁴⁰

The rising demand for highly educated workers relative to their supply has increased the earnings premium associated with having a bachelor's degree or higher.⁴¹ In 1980, workers with a bachelor's degree or higher earned 36 percent more than workers with a high school diploma; by 2017, that figure had grown to 71 percent.⁴²

Young people have responded logically to these shifts in opportunity by acquiring higher levels of

education and training.⁴³ Over time, the share of workers ages 25 to 35 with a bachelor's degree or higher has skyrocketed. Fifty years ago, less than 20 percent of young workers had a bachelor's degree. Today, 45 percent of them do. Over the same period, the share of workers with some college or an associate's degree has risen from 14 percent to 26 percent, while the shares of workers with only a high school diploma and those with less than a high school diploma have fallen from 42 percent to 25 percent and from 26 percent to 4 percent, respectively (Figure 1).

FIGURE 1. The education level of workers ages 25 to 35 has risen steadily since 1970.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1970–2020.

Note: The figure is based on data for 25-to-35-year-olds in the labor force. Values may not sum to 100 percent due to rounding.

³⁷ Arnett, *Emerging Adulthood*, 2014.

³⁸ When combined with other trends like globalization, the shift toward automation has had a particularly devastating impact on employment in the American manufacturing industry. Carnevale et al., *Upskilling and Downsizing in American Manufacturing*, 2019.

³⁹ These changes have occurred hand in hand with a shift in the labor market away from blue-collar occupations and toward professional occupations. Carnevale et al., *Workplace Basics*, 2020.

⁴⁰ Goldin and Katz examine the role of skill-biased technological change in the rising bachelor's degree premium, attributing much of the increase to relatively slow growth in the supply of workers with bachelor's degrees. See Goldin and Katz, “The Race between Education and Technology,” 2007; see also Autor et al., “Extending the Race between Education and Technology,” 2020.

⁴¹ Carnevale and Rose, *The Undereducated American*, 2011.

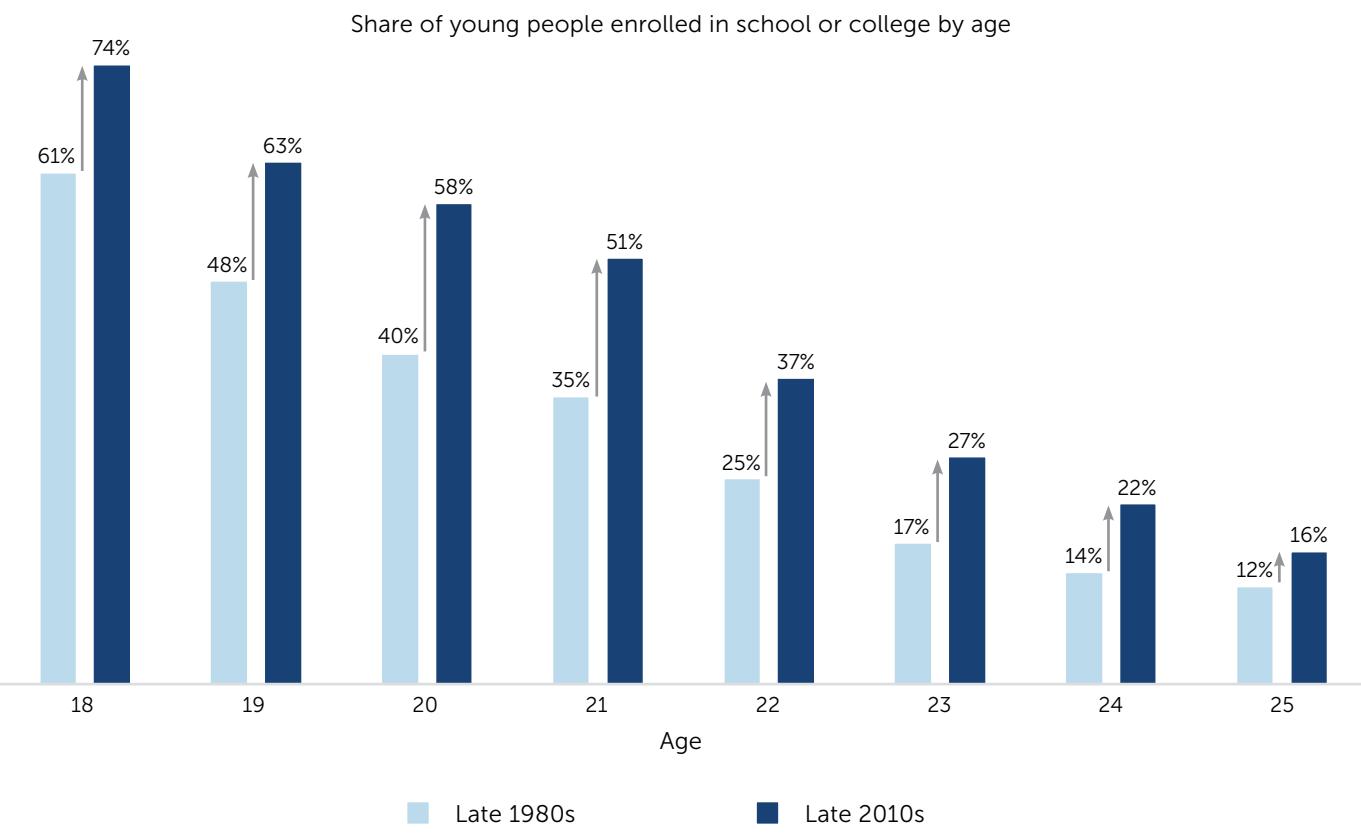
⁴² Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey, 1980 and 2017.

⁴³ Carnevale et al., *Workplace Basics*, 2020.

These gains in workers' educational attainment have required substantially higher shares of young people than in the past to continue their education into their 20s. In doing so, they are acquiring the additional credentials and competencies to be successful in the modern labor market. In effect,

young people have turned from the workforce to the postsecondary education system as their primary pathway to the skills they need to succeed in their careers. This changing pathway is reflected in the fact that higher shares of people are enrolled in school or college today than in the past (Figure 2).

FIGURE 2. School or college enrollment rates are higher than in the past for young adults ages 18 to 25.



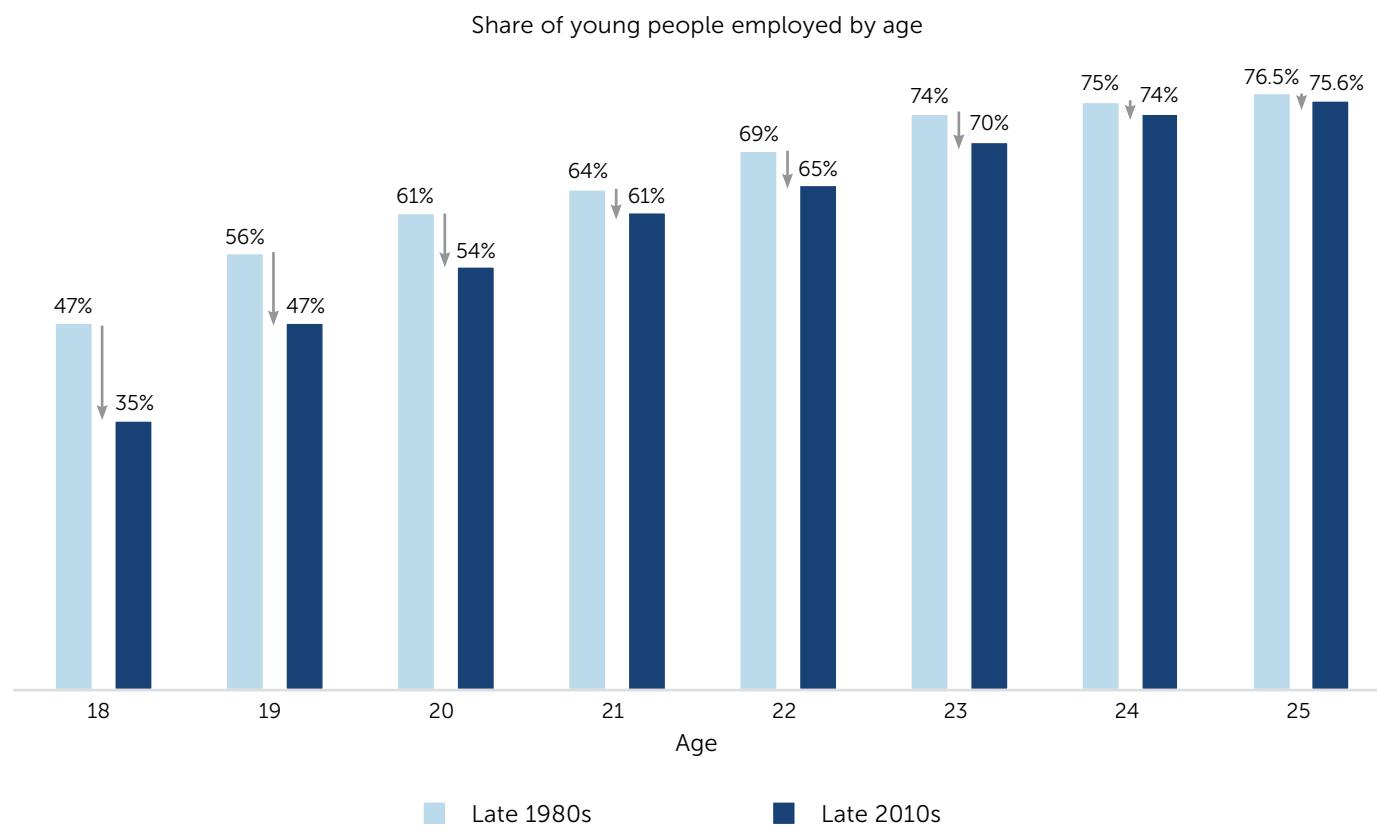
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), October Supplement, 1985–89 (pooled); 2015–19 (pooled).

Note: The series labeled "late 1980s" shows the data for 1985–89 (pooled); the series labeled "late 2010s" shows the data for 2015–19 (pooled).

Yet higher enrollment in postsecondary education is not the only factor that had an impact on young people's employment in recent decades. Three major economic downturns since the beginning of the 21st century damaged young peoples' employment prospects: the burst of the dot-com bubble in 2000, the Great Recession from 2007 to 2009, and the recession precipitated by the COVID-19 pandemic. They represented successive hits to the economy that disproportionately hurt young people and prevented them from gaining effective work experience.⁴⁴

The overall impact of these structural and cyclical trends is that young people in their teens and 20s are less likely to have a job than they were 30 years ago. While 47 percent of 18-year-olds were employed in the late 1980s, only 35 percent were employed in the late 2010s. The share of young people who were employed in the late 2010s remained lower than the share employed in the 1980s until after age 25 (Figure 3).

FIGURE 3. Young adults ages 18 to 25 have lower employment rates than in the past.

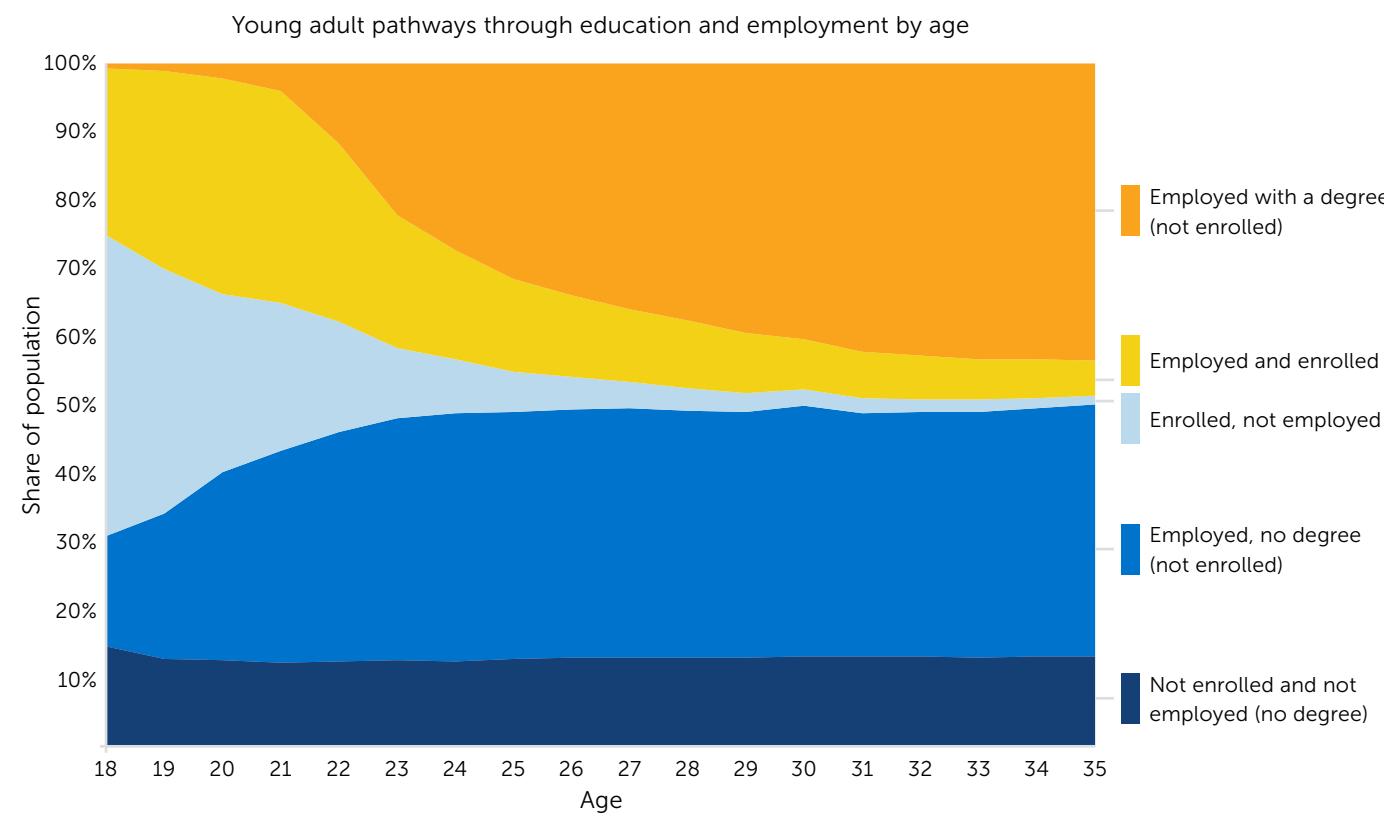


Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1985–90 (pooled) and 2015–19 (pooled).

Note: "Share of young people employed" refers to the employment-to-population ratio. The series labeled "late 1980s" shows the data for 1985–89 (pooled); the series labeled "late 2010s" shows the data for 2015–19 (pooled).

The general effect of these changes in young people's engagement with education and work has been a delay in their overall ability to latch on to a good job—that is, a job that allows them to achieve financial independence. While the costs of living and thus the earnings needed to support oneself vary geographically, at a national level, we consider a good job to be one that pays at least \$35,000 per year; at the median, good jobs pay \$57,000 for young workers (ages 25 to 35). (For the minimum earnings that constitute a good job in each state, see Table A1 in Appendix A.)

FIGURE 4. Young people follow a variety of pathways that traverse education and employment.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2017–19 (pooled).

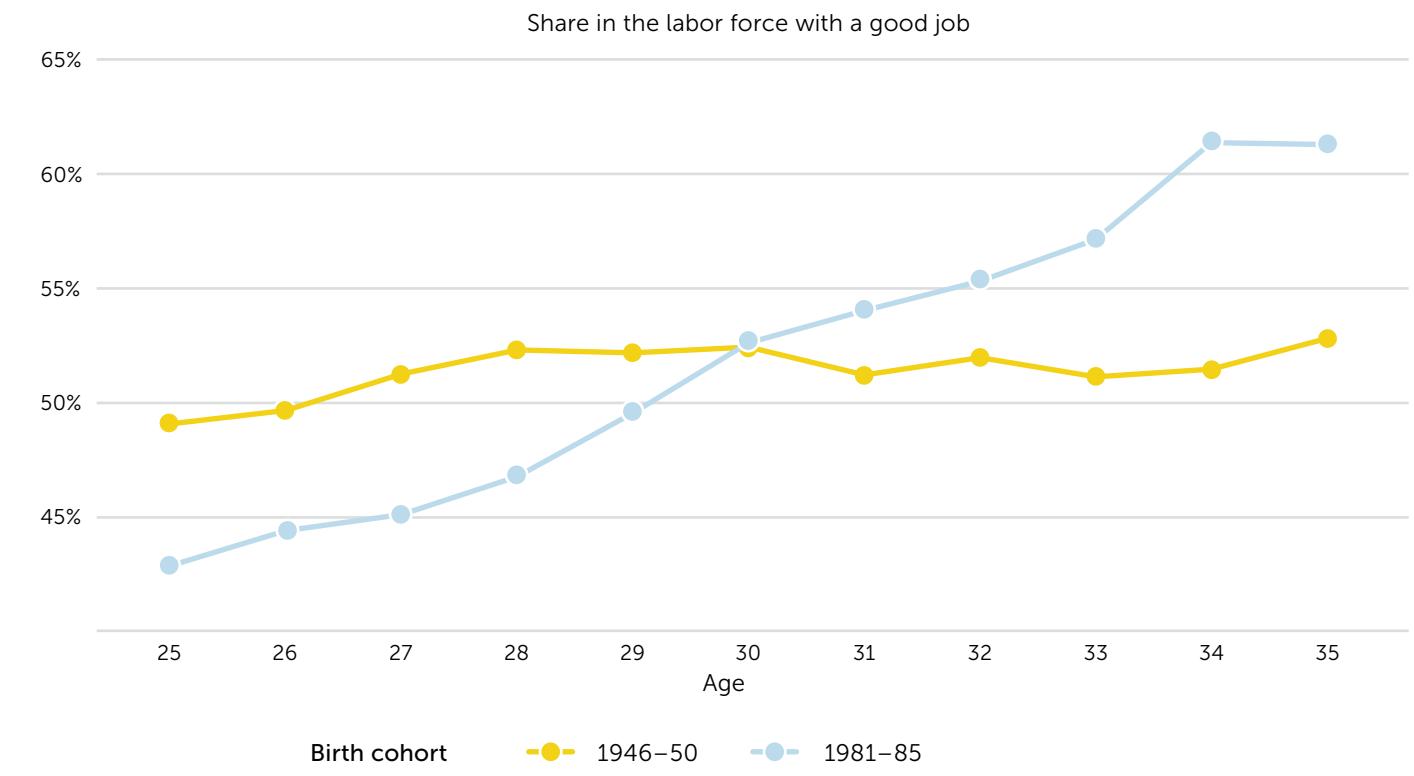
Note: Employment includes both full-time and part-time work.

While young people's decreasing employment has corresponded with their rising enrollment in school or college, the choice between employment and postsecondary education is not binary. Many young adults combine postsecondary education and employment, and some are disconnected from both the labor market and the education system. As young adults reach their late 20s, there is a substantial decline in the share who are enrolled without a degree, while there is an increase in the share who are not enrolled but employed with a degree (Figure 4).

In recent decades, the increasing costs of postsecondary education have fallen heavily on students and their families, making education an expensive investment.⁴⁵ The rising cost of education has corresponded with a rising reliance on loans to finance it. Nonetheless, this investment in education is generally worthwhile for most young people. Young people take longer today to catch up with previous generations' earnings, but as they transition to young adulthood and gain education and work experience, they not only catch up but

are even more likely to have a good job than their counterparts in the past. As with enrollment patterns, the crossover point occurs around age 30. Before age 30, young people are still acquiring the education and work experience they now need to thrive in the labor market, so they have worse chances of having a good job than young people in the previous generation did. After age 30, the circumstances reverse, and young people's chances of having a good job are much better than those of their counterparts in the previous generation (Figure 5).

FIGURE 5. Age 30 is a crossover point at which young people begin to do better than their counterparts from the earlier cohort.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1972–86, 2007–20.

Note: Data are for 25-to-35-year-olds in the labor force. Nationwide, young workers with good jobs are those with earnings of \$35,000 or more. The good jobs threshold has been adjusted based on cost-of-living differences among states, using data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020.

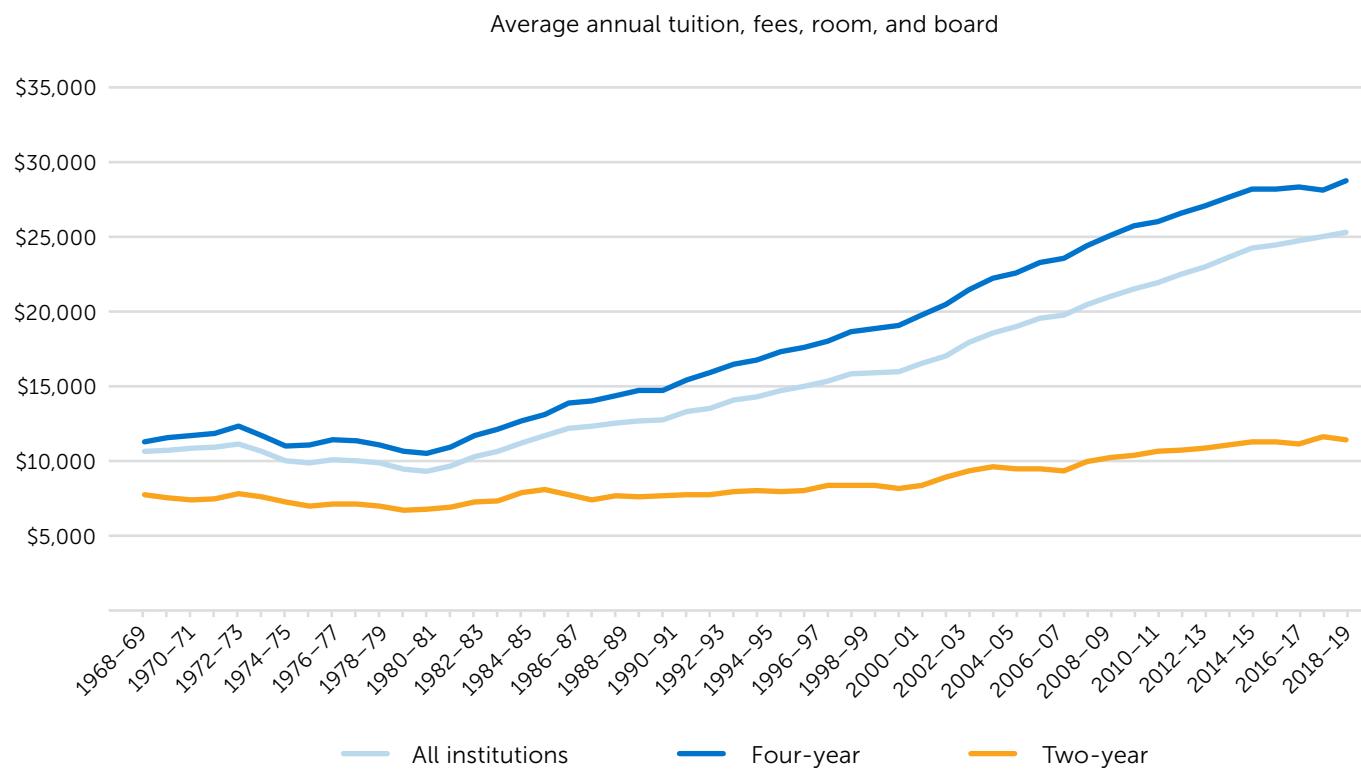
Three hurdles to acquiring education and work-based learning have delayed young adults' transitions to good jobs.

Today's young adults are caught between a rock and a hard place. The need for more education and high-quality work experience has grown at the same time as three hurdles to attaining this education and experience have risen. These three hurdles—educational affordability, limited access to work-based learning, and the insufficient availability of career

and guidance counseling—are new impediments to the transition to economic independence.

The first hurdle—educational affordability—is widely recognized in current debates about educational debt cancellation and free community college. The costs of college have risen precipitously since the baby boomers were of traditional college age. While the annual cost of tuition, fees, room, and board was around \$10,000 for students in four-year institutions in the early 1960s, today it is closer to \$30,000 (Figure 6).

FIGURE 6. The first hurdle: the annual cost of attendance at four-year institutions has risen precipitously.



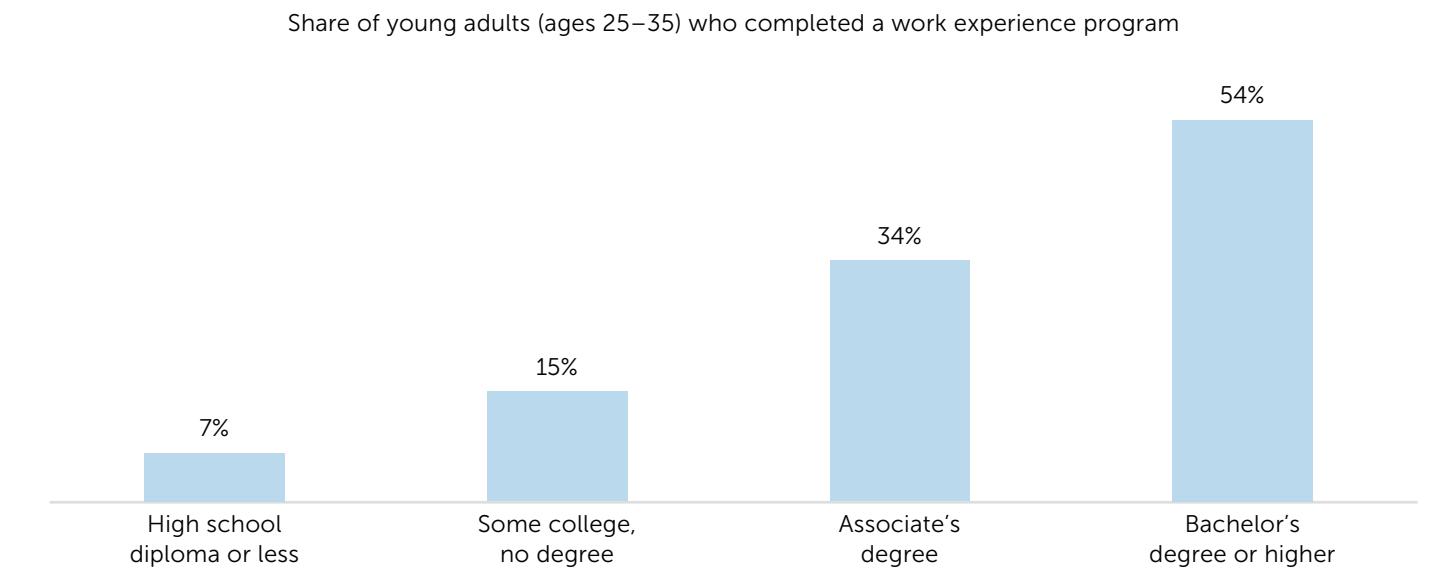
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, *Digest of Education Statistics*, 2020, table 330.10.

Note: The figure shows the average annual undergraduate tuition, fees, room, and board rates charged for full-time students in degree-granting postsecondary institutions (in 2019–20 dollars).

The second hurdle—limited access to high-quality work-based learning—has been less prominent in recent policy debates but is also important to young people's outcomes. Education beyond high school has replaced early work-based learning as direct preparation for good jobs, but workers who are book smart may not be work-ready. The evidence on work-based learning (which we discuss in Part 5 of

this report) suggests that it has potential to improve young people's transitions into the workforce. But relatively few young adults (31 percent of those ages 25 to 35) have completed a work-based learning program.⁴⁶ Regrettably, workers with lower levels of education tend to participate less than those with higher levels of education in work-based learning programs (Figure 7).

FIGURE 7. The second hurdle: access to work-based learning is limited for young adults with less education.



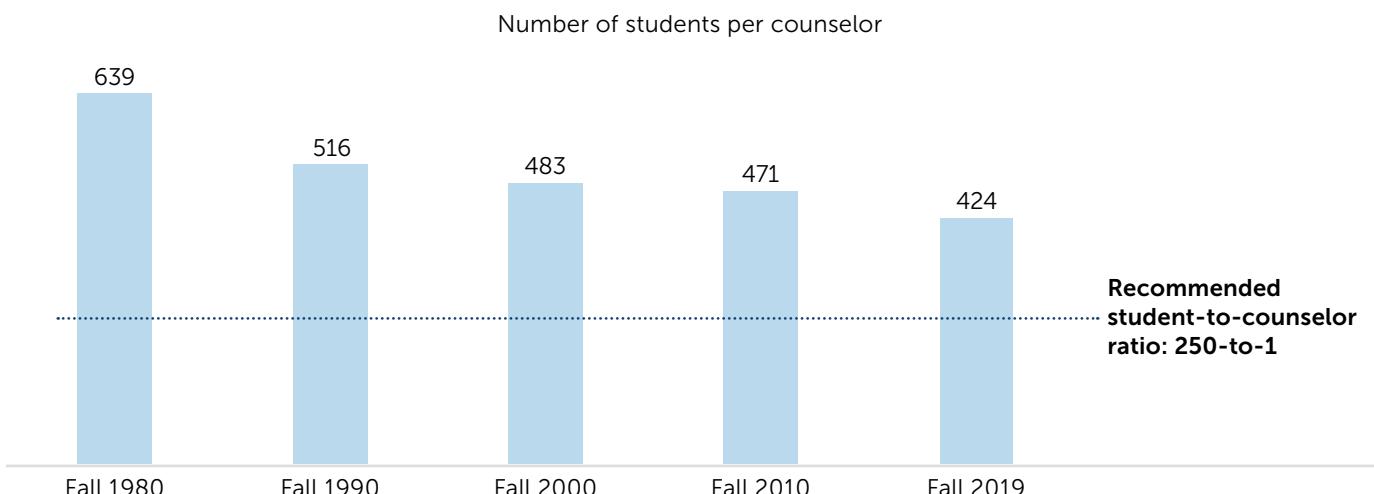
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Adult Training and Educational Survey (ATES), 2016.

Note: The figure shows the share of young adults ages 25–35 who have completed a work experience program, such as an internship, apprenticeship, co-op, externship, practicum, residency, clinical experience, or similar program.

⁴⁶ Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Adult Training and Education Survey (ATES), 2016.

The third hurdle—inadequate access to high-quality career and guidance counseling—prevents students from making fully informed decisions about their educational and career pathways. Career and guidance counseling have been shown to have a variety of benefits for students, including increased career knowledge, enhanced career decision-making skills, and improvements in academic performance.⁴⁷ Even though the number of students assigned to a counselor has improved at the elementary and secondary school levels, the student-to-counselor ratio is still very high, with almost 70 percent more students per counselor than the recommended level (Figure 8).

FIGURE 8. The third hurdle: there are not enough guidance counselors in public schools to meet students' needs.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, *Digest of Education Statistics*, 2020, Table 213.10, and the US Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Public Elementary/Secondary Education Survey," 2019–20 v.1a. The recommended student-to-counselor ratio is from the American School Counselor Association (ASCA), "Student-to-School-Counselor Ratio 2019–2020," n.d.

The student-to-counselor ratio is better at the college level than at the K–12 level, but there is a gap between 2-year and 4-year institutions. Students at four-year colleges and universities have better access to counselors (with a student-to-counselor ratio of 199 to 1) than their peers at two-year colleges (with a student-to-counselor ratio of 234 to 1).⁴⁸

Together, these hurdles complicate and prolong the journey from youth dependency to good jobs. Without adequate access to affordable education, work-based learning, and career counseling, young people take longer to latch on to good jobs.

Delayed attachment to good jobs may contribute to broad social trends.

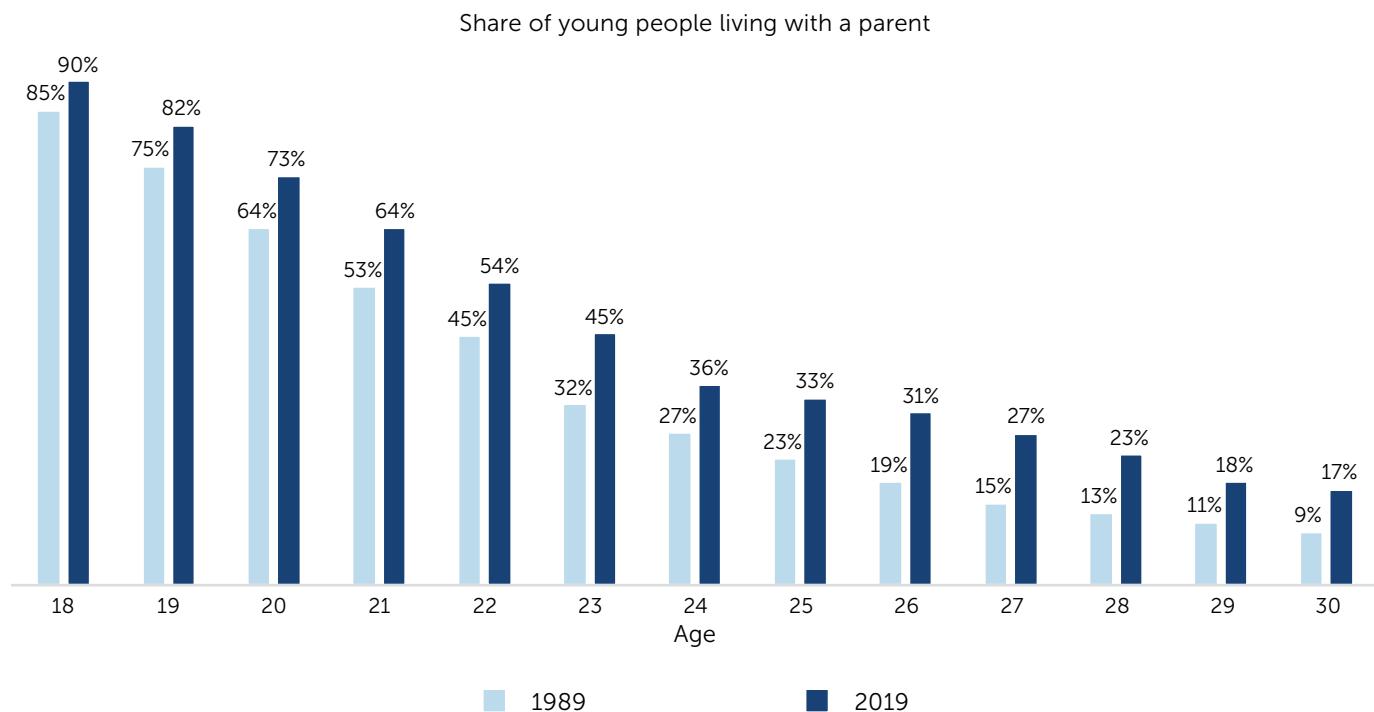
The fact that it takes longer for today's young people to latch on to good jobs has broad implications for their status in young adulthood as well as for society. This delay is one of the factors contributing to well-documented social changes in young people's life trajectories, affecting the timing of independent living, homeownership, and the decision to marry and have children. Economics alone does not explain these changing patterns, but a reduced sense of economic security may be affecting whether and when young people choose to move forward with

major life transitions that previously were associated with crossing the threshold to adulthood.

Higher Likelihood of Living with Parents

Since at least the Great Recession, much handwringing has occurred over the increased share of young adults who remain in the parental home instead of setting out on their own.⁴⁹ Indeed, from the ages of 18 to 30, fewer young people are living independently than in the past, as higher shares of young adults are living with at least one parent. In 1989, 9 percent of 30-year-olds were living with a parent; by 2019, that share had almost doubled, to 17 percent (Figure 9). The coronavirus pandemic

FIGURE 9. Thirty-year-olds are almost twice as likely to live with a parent today as in 1989.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1989, 2019.

⁴⁷ Hughes and Karp, *School-Based Career Development*, 2004.

⁴⁸ The junior colleges industry (NAICS code 611200) is used as a proxy for two-year colleges; the colleges, universities, and professional schools industry (NAICS code 611300) is used as a proxy for four-year colleges. Georgetown University Center on Education and the Workforce analysis of data from the US Bureau of Labor Statistics, Occupational Employment and Wage Statistics (OEWS), May 2019, and the US Department of Education, *Digest of Education Statistics*, table 303.25, 2019.

⁴⁹ Pew Research Center data published in 2012 suggest that some of this handwringing may be misplaced, as young adults living with their parents reported being largely satisfied with their living situations. Pew Research Center, "The Boomerang Generation," 2012.

seems to have pushed those numbers even higher. For the first time since the Great Depression, a majority of young adults ages 18 to 29 were living with their parents as of April 2020, according to the Pew Research Center.⁵⁰

Lower-income young adults are more likely to be living with their parents than their higher-income peers, but young adults of any income are more likely to choose this living arrangement than they once were. In 2017, 33 percent of young adults (ages 25 to 34) making less than \$5,000 annually were living with their parents, compared to 9 percent of young adults ages 25 to 34 making more than \$50,000 annually.⁵¹

While the ability to live independently is one marker of economic independence, the choice to stay in the parental home can be complicated. In some cases, parents may benefit as much as children from shared living arrangements; pooling household income can push both adult children and their parents above the poverty line.⁵² Moreover, the decision to live at home may both reflect and influence changing societal norms as well as changing economic circumstances.⁵³ Just as living with a partner other than a spouse has become more socially accepted over time,⁵⁴ living with one's parents as a young adult may carry less stigma as young adults become more likely to live at home.⁵⁵

Delayed Marriage and Childbirth

Both the average age at first marriage and the mother's average age at first birth have increased over time. In 2020, the average age of first marriage for men was 30.5 years (compared to 24.7 years in 1980); for women, it was 28.1 years (compared to 22 years in 1980). Over roughly the same period of time, the average age of the mother at first birth increased from 22.7 years in 1980 to 26.9 years in 2018 (see Figures B1 and B2 in Appendix B).

A sense of economic stability can play an important role in young people's decisions to marry or have children. Thus, the increased time that young people are spending in school to acquire the education they need to become economically independent may partially explain why young adults are marrying at more advanced ages.⁵⁶ Young adults may postpone marriage while acquiring education and building a career, but once they have established a basis for economic stability, they marry at higher rates than their peers with less education.⁵⁷ Just as young adults are latching on to good jobs in their 20s more slowly but are more likely to have a good job in their 30s than previous generations, young women are delaying childbearing until their 30s but are then having

more children than women in their 30s did a decade ago.⁵⁸

As with changes in the likelihood of living with a parent, these changes in marriage and childbearing patterns may reflect changing social norms along with economic pressures. For example, while Maria Sironi postulates that increased unemployment could make having children less affordable,⁵⁹ Sheldon Danziger and Cecilia Rouse argue that changes in young women's personal and professional options, not necessarily changes in the overall economy, help explain why many young people are marrying and having biological children later.⁶⁰ People simply have more socially affirmed options in both their personal and professional lives than they did in the past, with marriage and childbearing carrying less weight as markers of adulthood than they once did.

Declining Rates of Homeownership

Young adults are less likely to own homes now than they once were. In 1960, 44 percent of households headed by adults ages 20 to 34 owned their homes; in 2017, that share had dropped to 34 percent. In comparison, the same share of households headed by adults ages 35 to 64—67 percent—owned their own homes in 2017 as in 1960, and a higher share of households headed by adults ages 65 and older owned their own homes (78 percent in 2017, compared to 69 percent in 1960).⁶¹

Researchers point to a range of economic factors to explain the drop in homeownership rates among young people, including high educational debt and high rental prices that impede young people's ability to save for a down payment to buy a home. Fallout from the Great Recession hurt young people's employment rates and the credit market for housing, and memories of the housing bust have made some younger adults less likely to see homeownership as a reliable investment. Young people today also tend to prefer to live in high-cost urban areas with inelastic housing supplies, which constrains their ability to buy a home.⁶²

Buying a home at a younger age is associated with having significantly more home equity at an older age.⁶³ Adults who purchased their first home between ages 25 and 34 have the greatest home equity at ages 60 or 61 (\$149,000, compared to \$76,000 for those who first purchased a home between ages 35 and 44), boosting their potential to accumulate wealth.⁶⁴ Significantly, researchers have identified student loan debt as hindering young people's ability to buy a home.⁶⁵

⁵⁰ Fry et al., "A Majority of Young Adults in the United States Live with Their Parents for the First Time since the Great Depression," 2020.

⁵¹ In 1990, 16 percent of young adults making less than \$5,000 annually were living with their parents, compared to 6 percent of young adults making more than \$50,000 annually. Choi et al., *Young Adults Living in Parents' Basements*, 2019.

⁵² Creamer et al., "Estimated 17.8% of Adults Ages 25 to 34 Lived in Their Parents' Household Last Year," 2020.

⁵³ Settersten and Ray, "What's Going on with Young People Today?," 2010; Danziger and Rouse, "Introduction," 2007.

⁵⁴ Settersten and Ray, "What's Going on with Young People Today?," 2010.

⁵⁵ Research on European youth suggests that living with one's parents as a young adult is less likely to have negative effects on "life satisfaction" in countries in which such arrangements are more common. Danziger and Rouse, "Introduction," 2007. Survey data also supports the idea that young American adults who live with their parents are largely satisfied about their living situations and optimistic about their futures. Pew Research Center, "The Boomerang Generation," 2012.

⁵⁶ Settersten et al., "What's Going on with Young People Today?," 2010.

⁵⁷ Researchers have affirmed that people who are better off socioeconomically are more likely to marry than those who are less well-off. For more on the relationship between marriage and socioeconomic status, see Smith et al., "Family Background and Contemporary Changes in Young Adults' School-Work Transitions and Family Formation in the United States," 2016; Karney, "Socioeconomic Status and Intimate Relationships," 2021; Gurrentz, "Millennial Marriage," 2018; Penn Wharton Budget Model, "Socioeconomic Patterns of Marriage and Divorce," 2016.

⁵⁸ Livingston, "They're Waiting Longer, but U.S. Women Today More Likely to Have Children Than a Decade Ago," 2018.

⁵⁹ Sironi, "Economic Conditions of Young Adults before and after the Great Recession," 2018.

⁶⁰ Danziger and Rouse, "Introduction," 2007.

⁶¹ Lee et al., "U.S. Homeownership Rates Fall among Young Adults, African Americans," 2020.

⁶² Choi et al., *Millennial Homeownership*, 2018.

⁶³ This general rule has a significant exception: homes purchased before the homeowner was 25 tended to have lower overall value, although these homeowners' investments have the greatest payoff in terms of percentage gains. Choi and Goodman, "Buy Young, Earn More," 2018.

⁶⁴ Choi and Goodman, "Buy Young, Earn More," 2018.

⁶⁵ A 1-percent increase in student loan debt has been associated with a 0.15-percentage-point drop in the likelihood of owning a home. Choi et al., *Millennial Homeownership*, 2018.

Higher earnings later on may not make up for lost time.

Together, the economic and sociological trends summarized above suggest that there are long-term consequences to the delay in latching on to a good job. Over the course of a career, the investment of time and money in postsecondary education and training pays off. At the same time, lower earning power and higher student debt accumulated before age 30 can affect young people's life decisions and impede their ability to begin accruing wealth.

In Part 4 of this report, we take a closer look at the consequences of the prolonged journey to good jobs related to educational debt and wealth accumulation.

First, however, we acknowledge that those consequences aren't felt uniformly by young people at all levels of education. In Parts 2 and 3, we examine the role that education plays on the pathway to a good job and the equity gaps in socioeconomic mobility that exist as a result.⁶⁶

PART 2

Postsecondary Education and Economic Independence

While young people as a whole are taking longer than previous generations to latch on to good jobs, their pathways to these good jobs vary according to their levels of education. Higher levels of education improve a young person's chances of having a good job before reaching middle age. In fact, having a bachelor's degree or higher gives young people a distinct advantage over cohorts from previous generations with similar levels of education.

More than workers with any other level of education, workers with a bachelor's degree or higher are doing much better as young adults than similar workers did in the past. In contrast, workers with a high school diploma or less and those with some college or an associate's degree are doing worse than their past counterparts were at the same age. In addition, young workers' chances of having a good job are better if they majored in high-paying fields of study, work in high-paying occupations, and have full-time jobs.

While workers with a bachelor's degree or higher have the best chance of having a good job by their

30s, there are still opportunities available for workers with less than a four-year degree. In fact, there is substantial overlap in earnings at each level of educational attainment, depending on factors like field of study and occupation. Among young workers with a bachelor's degree or higher, 80 percent have a good job at age 35; among those with some college or an associate's degree, 56 percent have a good job at the same age. Among young workers with a high school diploma, 42 percent have a good job at age 35, compared to 26 percent of those who never completed high school.

In fact, among full-time, full-year workers, 31 percent of those with a high school diploma earn more than the median for workers with an associate's degree, and 28 percent of those with an associate's degree earn more than the median for workers with a bachelor's degree.⁶⁷ Thus, the pathway to a good job is more complicated than simply attaining a higher level of education.

⁶⁶ In this report, we focus on overall historical trends and socioeconomic gaps in opportunity. For a discussion of racial/ethnic and gender gaps in the likelihood of having a good job, see the companion to this report, *How Racial and Gender Bias Impede Progress toward Good Jobs*.

⁶⁷ Carnevale et al., *The College Payoff*, 2021.

Workers with a bachelor's degree or higher are the only group doing better, on average, than the previous generation.

Age 30 is a turning point in the relative fortunes of millennials compared to their counterparts from the baby boom generation. On average, up to age 29, older millennials were less likely to have a good job than older baby boomers were at the same age. Beginning at age 30, however, the relative advantage reverses, with higher shares of the later cohort than the earlier cohort holding good jobs as young adults.

Beneath that overall pattern, there are important differences according to educational attainment. In fact, from ages 25 to 35, only workers with a bachelor's degree or higher are more likely to have a good job than workers from the previous generation were at the same age (Figure 10).

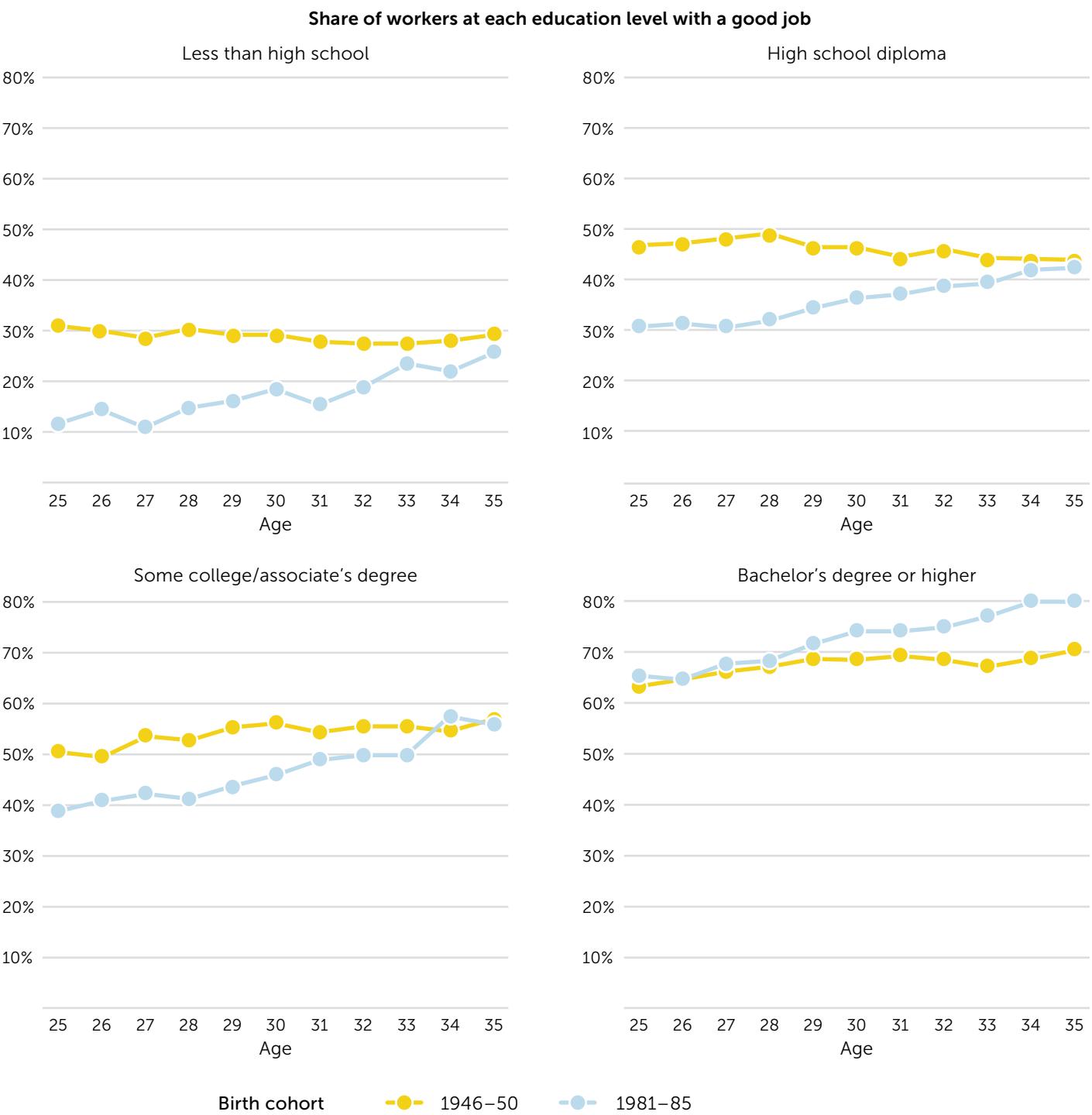
This pattern reflects the distinctive advantage enjoyed by workers with a bachelor's degree or higher in the modern economy. The rising bachelor's degree premium and the higher demand for workers with more advanced competencies have combined to give workers with a bachelor's degree or higher an indisputable edge.

Clearly, getting a bachelor's degree or higher is increasingly the best bet when it comes to boosting one's chances of having a good job. By age 25, 65 percent of workers in the 1981–85 birth cohort who had a bachelor's degree or higher already had a good job, compared to only 11 percent of workers with less than a high school diploma, 31 percent with a high school diploma, and 39 percent with some college or an associate's degree.

By age 35, the share of workers with a good job had jumped at all education levels, to 26 percent for workers with less than a high school diploma, 42 percent for workers with a high school diploma, and 56 percent for workers with some college or an associate's degree. But only workers with a bachelor's degree or higher had an 80 percent chance of having a good job, and only workers with this level of education were doing substantially better than the previous generation.

While educational attainment is a key factor in the prospect that a young adult will have a good job, additional factors can affect this likelihood. Among these factors are academic major and occupation, as well as the ability to work full time.

FIGURE 10. Only young workers with a bachelor's degree or higher are consistently more likely than those in the previous generation to have a good job.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1972–86, 2007–20.

Note: Data are for 25-to-35-year-olds in the labor force. Nationwide, young workers with good jobs are those with earnings of \$35,000 or more. The good jobs threshold has been adjusted based on cost-of-living differences among states, using data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020.

The likelihood of having a good job is higher in some majors and occupations.

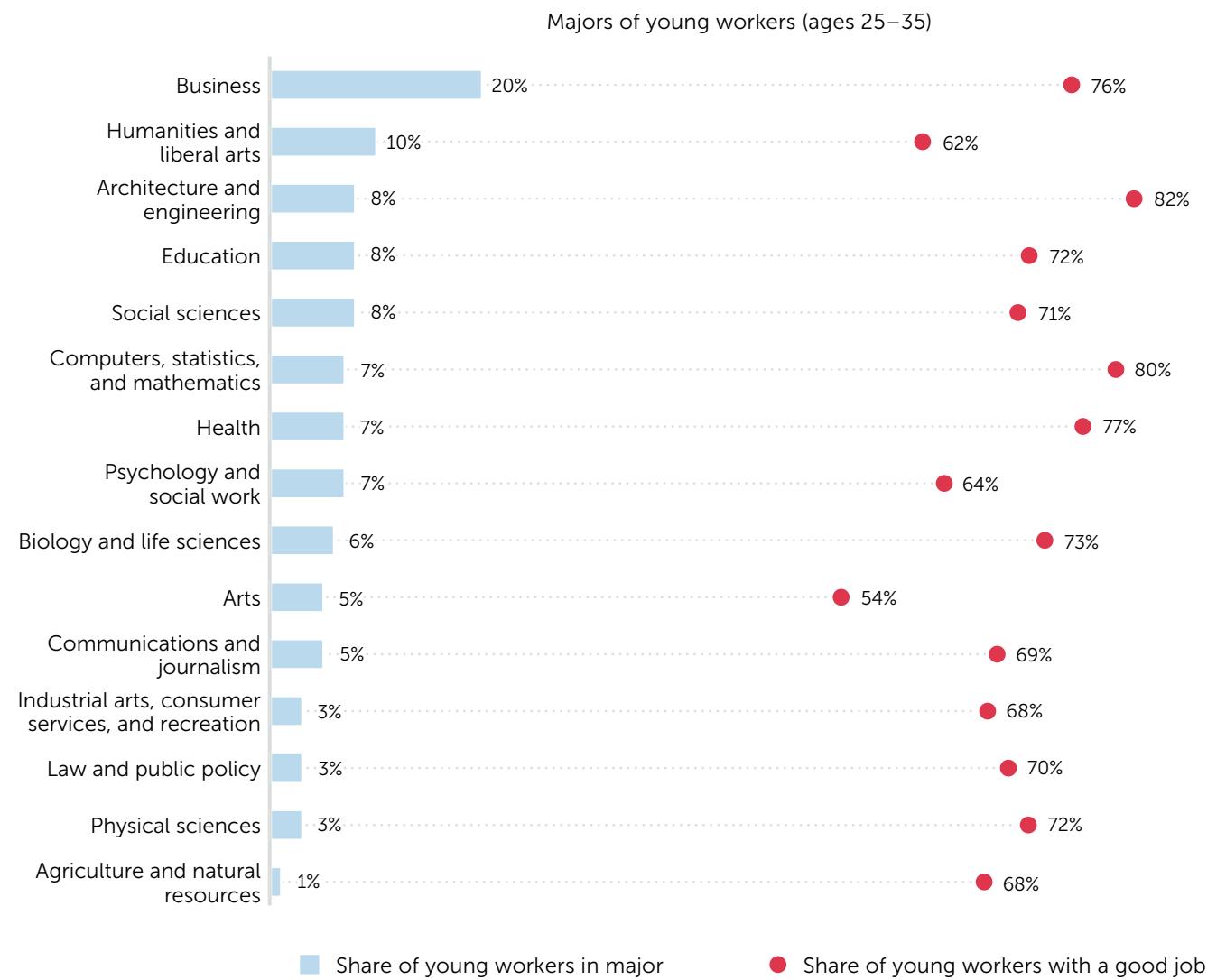
A person's major field of study and choice of occupation have a big impact on the likelihood of having a good job. People's educational decisions, including their academic major, help determine the workforce competencies they acquire and the occupations in which they can work.⁶⁸

By far, the most popular major among young workers with a bachelor's degree (ages 25 to 35) was

business, studied by 20 percent. Young workers who majored in business do fairly well in terms of getting a good job, with 76 percent of them having good jobs as young adults.

Among bachelor's degree holders, those who majored in architecture and engineering have the highest likelihood of having good jobs as young adults.⁶⁹ Eighty-two percent of young workers with bachelor's degrees in architecture and engineering have good jobs, while 8 percent of young workers with bachelor's degrees majored in these fields (Figure 11).

FIGURE 11. Eight percent of young workers with bachelor's degrees or higher majored in architecture and engineering, the field of study most strongly associated with having a good job.



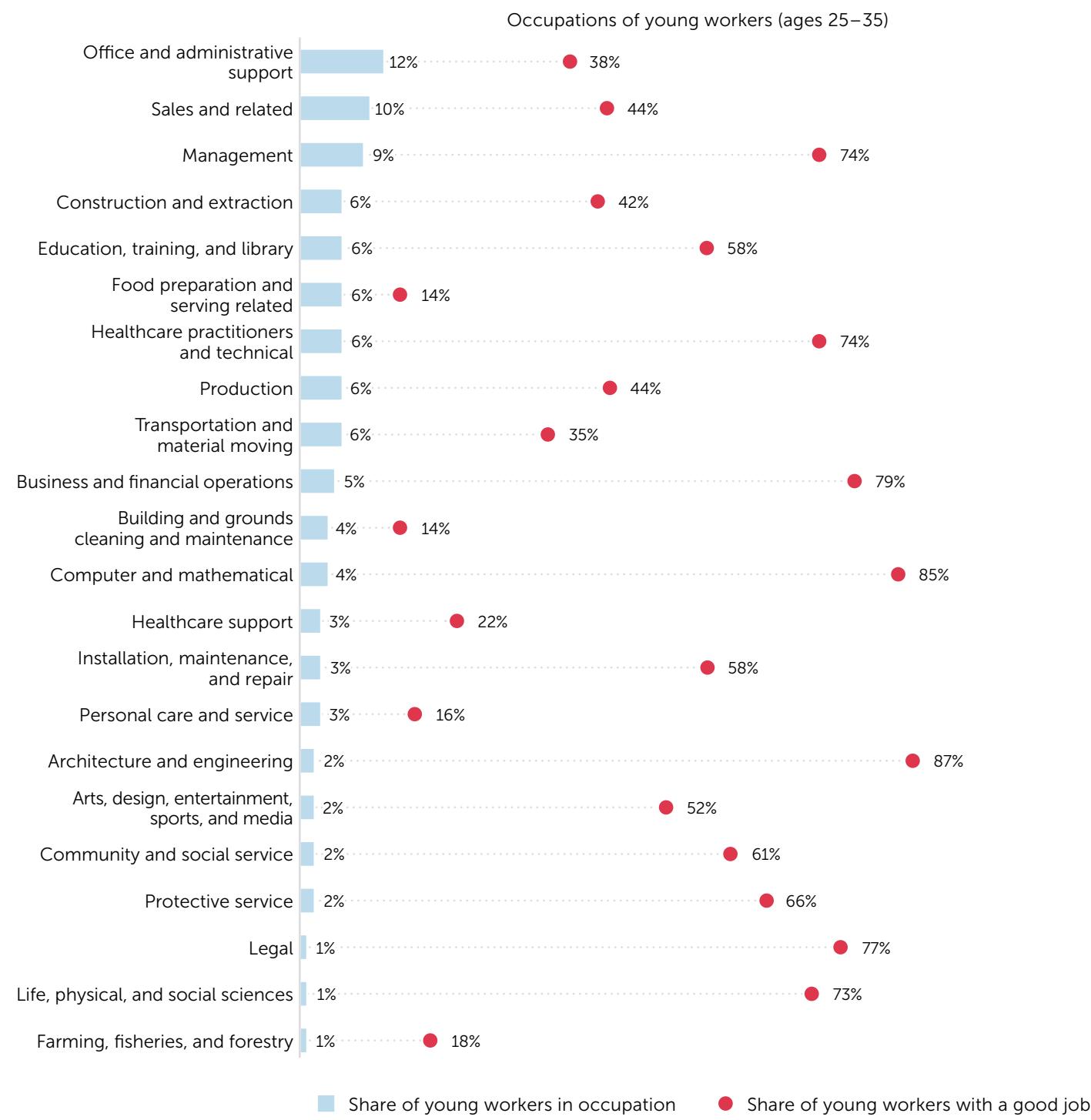
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–19 (pooled).

Note: Data are for 25-to-35-year-olds with a bachelor's degree or higher in the labor force (birth cohort 1981–85). Nationwide, young workers with good jobs are those with earnings of \$35,000 or more. The good jobs threshold has been adjusted based on cost-of-living differences among states, using data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020.

⁶⁸ Carnevale et al., *Workplace Basics*, 2020.

⁶⁹ The likelihood of having a good job varies within major groups. For example, among young architecture and engineering majors, the likelihood of having a good job ranges from 70 percent for mining and mineral engineering majors, 71 percent for environmental engineering majors, and 72 percent for architecture majors to 87 percent for aerospace engineering majors, 88 percent for petroleum engineering majors, and 88 percent for geological and geophysical engineering majors. Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–19 (pooled), for 25-to-35-year-olds with a bachelor's degree or higher in the labor force (birth cohort 1981–85).

FIGURE 12. Across education levels, young workers are most likely to have good jobs when they work in architecture and engineering occupations.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–19 (pooled).

Note: Data are for 25-to-35-year-olds in the labor force (birth cohort 1981–85). Nationwide, young workers with good jobs are those with earnings of \$35,000 or more. The good jobs threshold has been adjusted based on cost-of-living differences among states, using data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020.

Just as workers with architecture and engineering degrees are most likely to have good jobs as young adults, young workers in architecture and engineering occupations are also most likely to have good jobs when compared with young workers in other occupational groups. Eighty-seven percent of young workers in this occupational group have good jobs; a large share of young workers in this occupational group (75 percent) also have a bachelor's degree or higher. In contrast, only 14 percent of young workers in food preparation and serving occupations have good jobs (Figure 12). However, the majority of young workers in this occupational group do not have a bachelor's degree; only 13 percent of young workers in food preparation and serving have a bachelor's degree or higher.⁷⁰

As these data indicate, young workers can maximize their chances of getting a good job by getting higher levels of education, studying in better-compensated fields, and entering high-paying occupations. However, these choices are often constrained by factors outside of young people's control. Those who have access to the best education and

wraparound supports beginning in early childhood are often best equipped as young adults to pursue higher educational attainment in fields that prepare them for high-earning careers. Access to these resources often is dictated by socioeconomic status and stratified by race.⁷¹ As a result, the pathway to a good job is smoother for some young people than for others.

Moreover, there are many possible pathways to a good job, and no pathway is guaranteed to lead to the intended destination. In fact, among full-time, full year workers, 31 percent of those with a high school diploma earn more than the median for those with an associate's degree; likewise, 28 percent of those with an associate's degree earn more than the median for those with a bachelor's degree.⁷² Workers with higher levels of education have better chances of having good jobs at earlier ages, but workers with bachelor's degrees are not guaranteed to have good jobs, just as workers without postsecondary education are not necessarily condemned to jobs with lower earnings.

⁷⁰ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–19 (pooled).

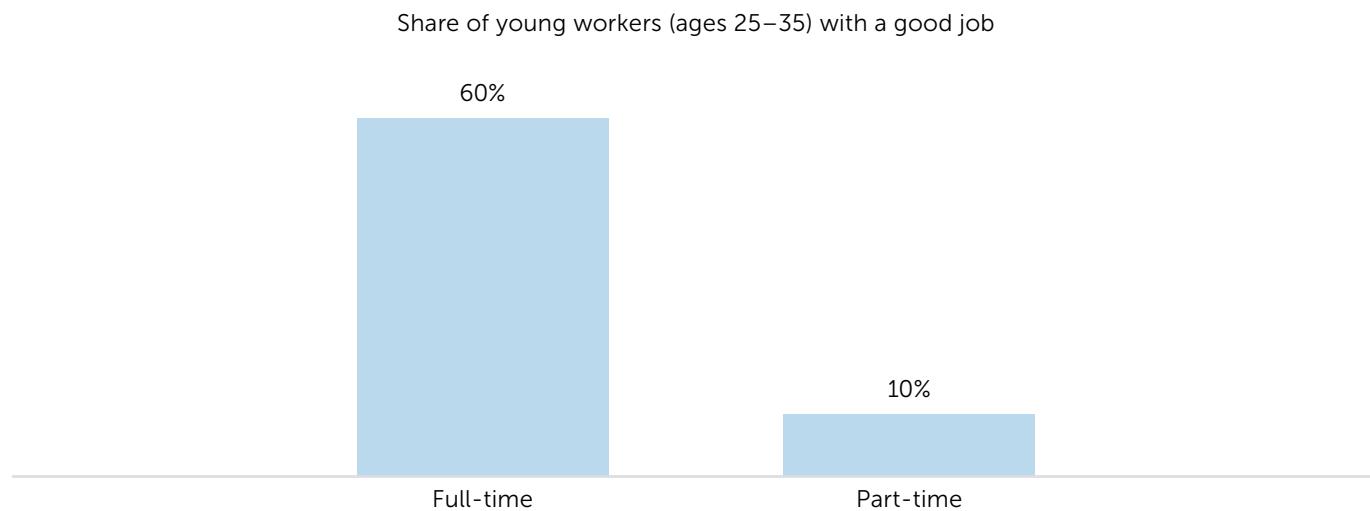
⁷¹ Carnevale et al., *Born to Win*, 2019.

⁷² Carnevale et al., *The College Payoff*, 2021.

The ability to secure full-time work improves with educational attainment and is critical to obtaining a good job.

Working full time is another important factor in having a good job. Working full time offers young workers a much greater likelihood of having a good job than working part time, with 97 percent of young workers

FIGURE 13. Young full-time workers are far more likely to have a good job than young part-time workers.



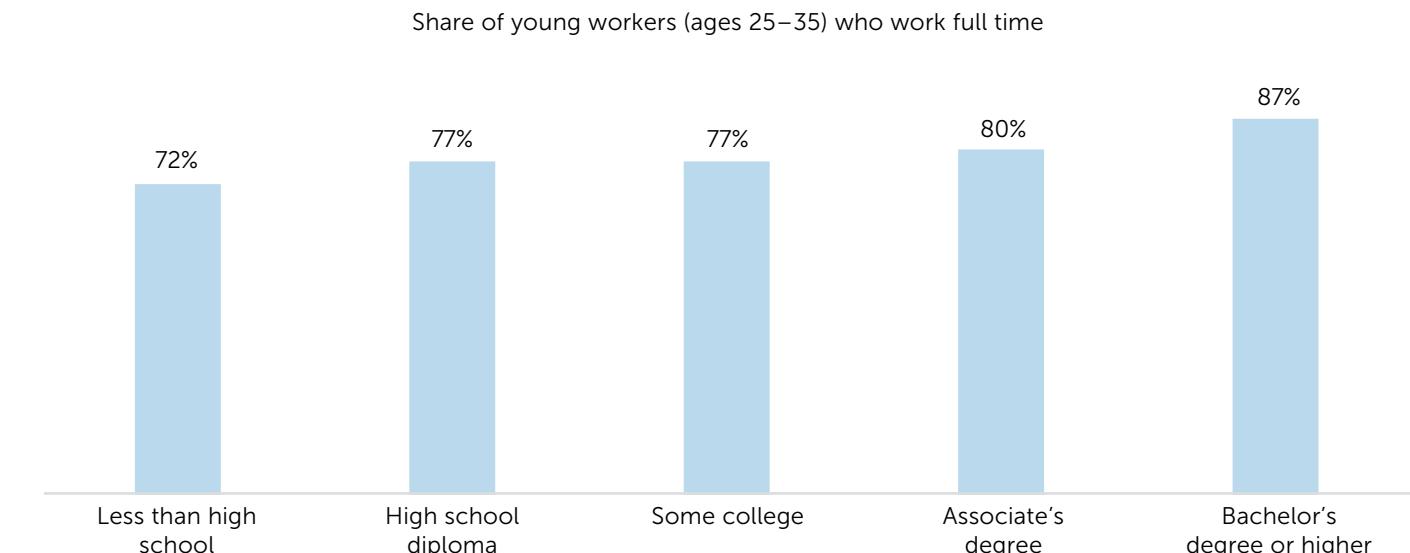
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–19 (pooled).

Note: Data are for 25-to-35-year-olds in the labor force (birth cohort 1981–85). Nationwide, young workers with good jobs are those with earnings of \$35,000 or more. The good jobs threshold has been adjusted based on cost-of-living differences among states, using data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020.

with good jobs working full time. Among young adults working full time, 60 percent have a good job, compared to 10 percent of part-time workers (Figure 13).

For young workers, higher educational attainment greatly improves the odds of working full time. Young workers with a bachelor's degree or higher are substantially more likely to work full time than those with a high school diploma or less (Figure 14).

FIGURE 14. Young workers with more education are more likely to work full time.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, American Community Survey (ACS), 2009–19 (pooled).

Note: Data are for 25-to-35-year-olds in the labor force (birth cohort 1981–85).

Thus, educational attainment affects the likelihood of having a good job, both directly and indirectly, through factors such as major, occupation, and likelihood of working full time. For young people, investing the time and money in getting higher levels of education and training generally seems to be a reliable way to increase the chances of acquiring economic independence as a young adult. At the same time, the increased reliance on loans to finance postsecondary attainment makes this pathway more precarious than it was in the past. While some young people might hope to reduce

the amount of student loans they have to borrow by working their way through college, that approach presents its own challenges. Working too many hours per week is associated with weaker academic performance, which can harm students' chances of completing their degrees.⁷³

As a result of these dynamics, young people too often face an unenviable choice: between either limiting themselves to a sub-baccalaureate pathway that is less certain to lead to a good job, or taking on substantial debt to strengthen their odds of attaining middle-class earnings by pursuing a bachelor's degree.

PART 3

The Intergenerational Advantages of Postsecondary Attainment

While higher education provides a clear advantage to young workers, not all young adults have equal chances of completing a postsecondary credential. Having a parent with a postsecondary degree increases one's own chances of attaining a degree, thereby improving the likelihood of having a good job as a young adult. When it comes to education and economic status, a person's background plays an outsized role in where they will most likely end up.

Parents with postsecondary credentials pass their advantages on to their children.

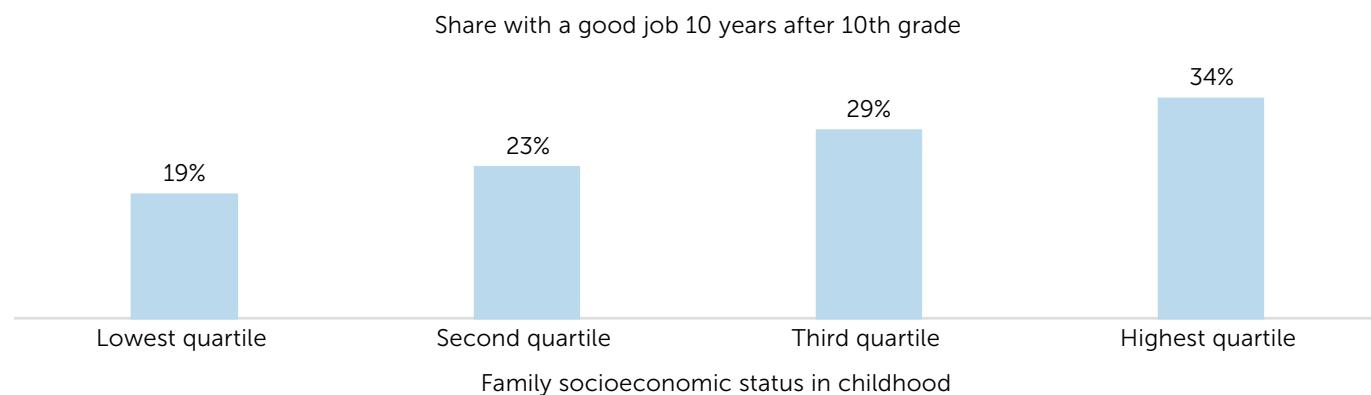
To some extent, young people define their own pathways in life by choosing the levels of

educational attainment, fields of study, occupations, and work schedules they pursue. But there are factors outside of young adults' control that affect their chances of having good jobs. These factors include parental socioeconomic status (SES), a measurement that captures their parents' income, their parents' highest level of educational attainment, and their parents' occupation.

Having a parent with higher socioeconomic status dramatically increases a young adult's chances of having a good job. Ten years after tenth grade, 34 percent of young people whose parental SES was in the highest quartile have a good job, compared to 19 percent of those whose parents were in the lowest SES quartile (Figure 15).

This correlation between parental SES and the likelihood that an adult child will have a good job

FIGURE 15. Young adults from families with high socioeconomic status are almost twice as likely to have a good job as those from families with low socioeconomic status.

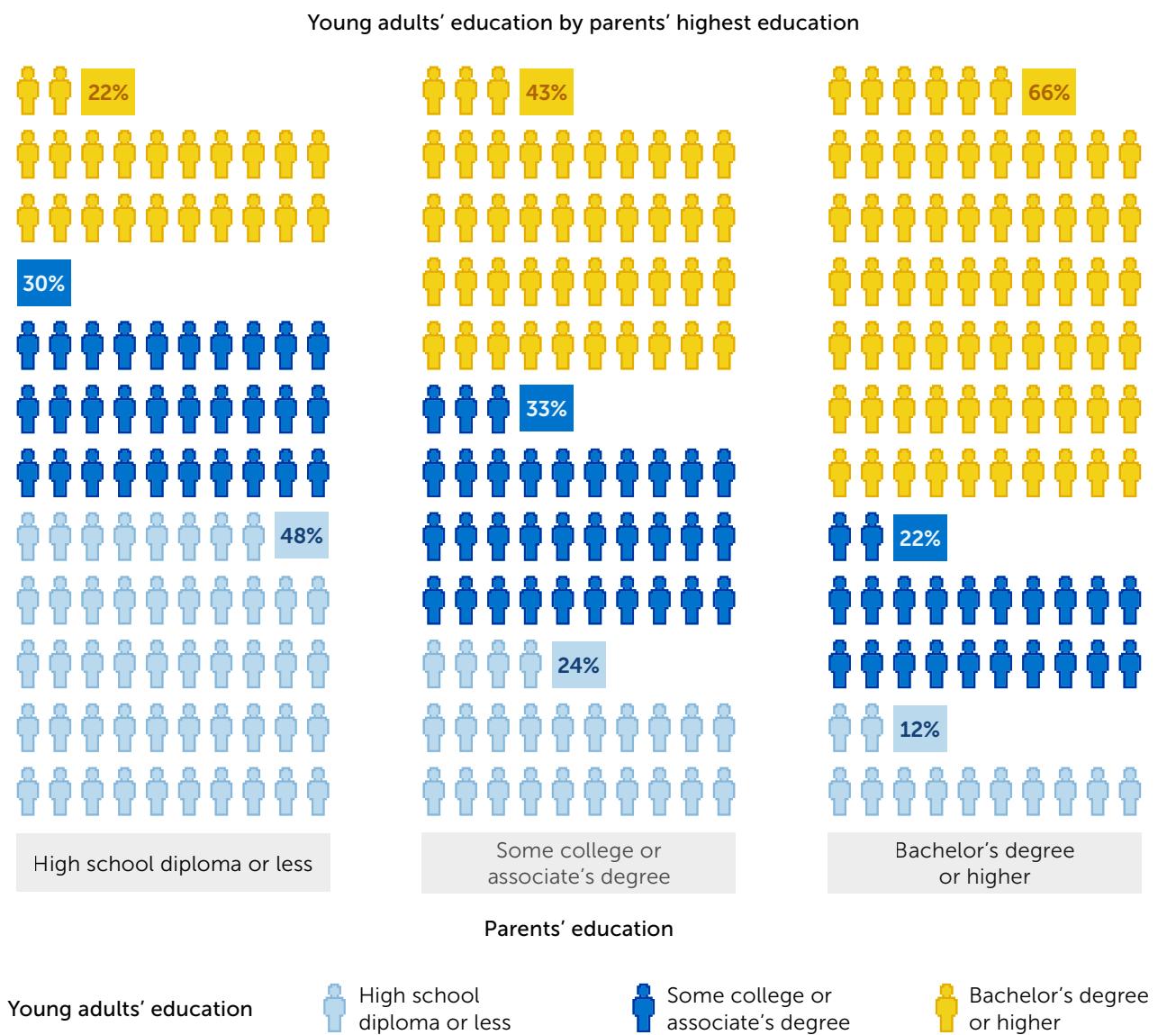


Source: Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Education Longitudinal Study of 2002 (public use data), 2014.

by his or her mid-20s is partly explained by the relationship between a parent's education and a child's. Young adults who have at least one parent with a bachelor's degree or higher are more likely to attain a bachelor's degree or higher themselves—which, in turn, boosts their chances of having a

good job. Sixty-six percent of young people whose most-educated parent has a bachelor's degree or higher go on to earn a bachelor's degree or higher themselves, compared to only 22 percent of children whose parents have a high school diploma or less (Figure 16).

FIGURE 16. Children whose parents have higher levels of education are much more likely to attain postsecondary education themselves.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), 1997–2014.

Note: The figure reflects the highest level of educational attainment when survey respondents were in their early-to-mid-30s.

These statistics point to the likelihood that education improves people's chances of having a good job not just for themselves but also for their descendants.

While parental education correlates with improved chances of having a good job as a young adult, the inverse also appears to be true: that is, a lack of parental education correlates inversely with the chances that a child will have a good job as a young adult. The less education one's parents have, the more likely one is to leave school with a high school diploma or less. Forty-eight percent of young adults whose parents have a high school diploma or less also have a high school diploma or less, compared to 12 percent of young adults whose parents have a bachelor's degree or higher.

Socioeconomic mobility is far too limited.

In sum, socioeconomic mobility toward higher levels of education and good jobs is far too limited. People's family resources determine their chances in life at least as much as their talent, or even more so. As our previous research has confirmed, in the United States, it's better to be born rich than smart. A kindergartner with high math scores but the lowest-quartile family SES has a much lower likelihood (31 percent) of having a high SES as a young adult than a kindergartner with low math scores but the highest-quartile family SES (71 percent).⁷⁴ These SES disparities are connected to and exacerbated by racial and ethnic disparities.⁷⁵

Affluent parents are in the best position to ensure that their children have all the social and academic supports they need to meet their full academic and earnings potential. These parents can afford to live in neighborhoods with well-funded public schools, invest more time and money in their children's social and academic development, and model and reinforce the expectation that their children will go to college.⁷⁶

Meanwhile, children whose parents have fewer financial resources and less experience with college are left to rely on the weakest links of our unequal and often inadequate public education system for crucial social and academic supports.⁷⁷ The US Supreme Court shut the door on the right to equal educational funding or need-based funding in *San Antonio Independent School District v. Rodriguez* in 1973, so young people have no federal legal right to the education they need for the best opportunity to succeed in the modern economy.⁷⁸

For the 63 percent of young adults whose parents' highest attainment is a high school diploma or less, and the 16 percent whose parents' highest attainment is some college or an associate's degree, that's a sad reality to face.⁷⁹ It is made all the more daunting by the high costs associated with the slow journey to good jobs.

PART 4

The Lasting Financial Consequences of Slow Journeys to Good Jobs

For today's young adults, widespread economic and social changes have converged to transform the journey from childhood financial dependence to adult economic independence. Just as young adults are staying enrolled in school longer and taking more time to latch on to good jobs, they are also marrying and having children, leaving their family homes, and buying their own homes later than previous generations.

A variety of social and economic circumstances may be contributing to young adults' decisions to delay these life choices or to take different paths altogether. One factor that almost certainly plays a role is the sense of delayed financial security that accompanies this generation's comparatively slow

accumulation of wealth. When it comes to wealth, young adults are in a much less secure position today than young adults were in the past. Moreover, racial/ethnic and gender gaps in wealth are deep and persistent; we explore wealth gaps by race/ethnicity and gender in our companion report, *How Racial and Gender Bias Impede Progress toward Good Jobs*.

These wealth disparities with previous generations begin to unfold while people are in their 20s. The high cost of postsecondary education—in both tuition and time—slows the pace at which young adults accrue wealth. Meanwhile, educational debt encumbers young adults' ability to save and invest.

⁷⁴ Carnevale et al., *Born to Win*, 2019.

⁷⁵ For more on racial and gender disparities in the transition to good jobs, see our companion to this report, *How Racial and Gender Bias Impede Progress toward Good Jobs*.

⁷⁶ Carnevale et al., *Born to Win*, 2019.

⁷⁷ Carnevale et al., *Born to Win*, 2019.

⁷⁸ Carnevale et al., *Youth Policy*, 2021.

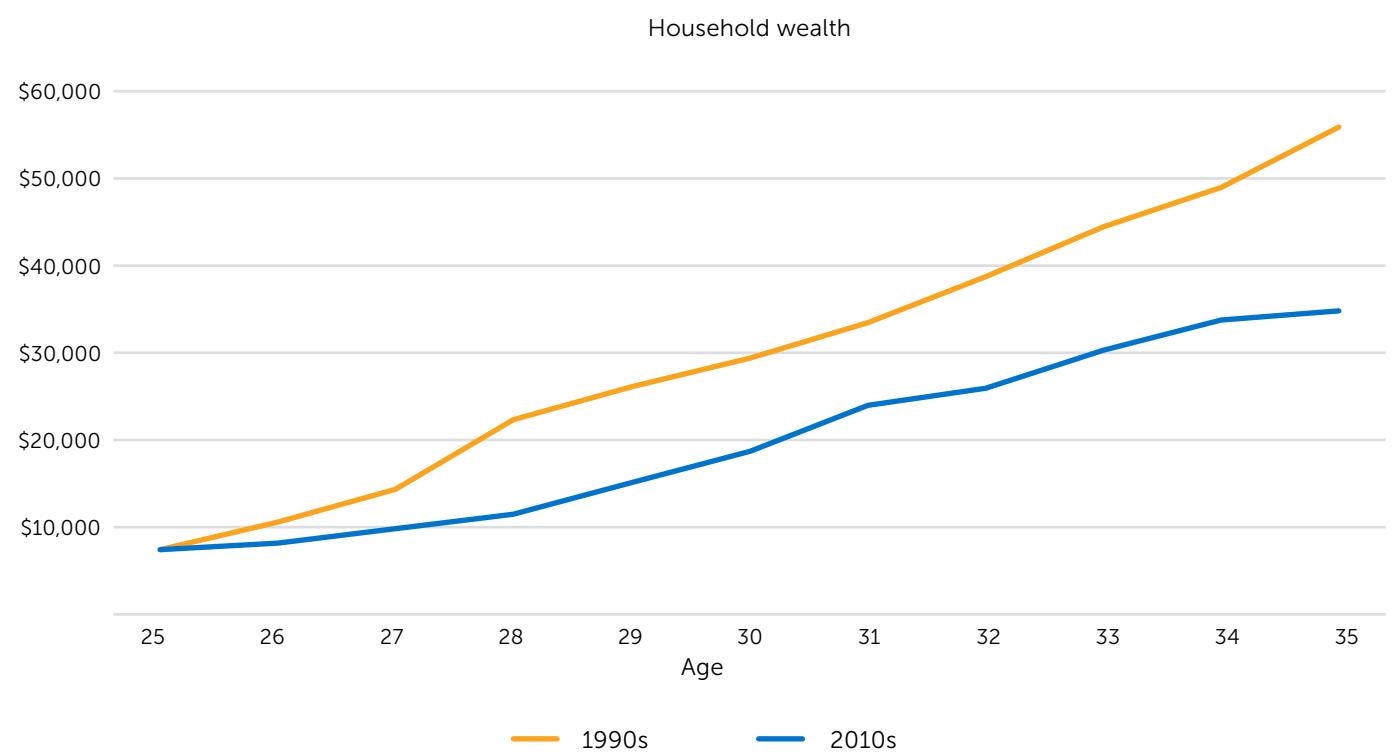
⁷⁹ Georgetown University Center on Education and the Workforce analysis of data from the US Bureau of Labor Statistics, National Longitudinal Survey of Youth 1997 (NLSY97), 1997–2014.

Young adults are accumulating wealth more slowly than their counterparts did in the past.

The slow journey to good jobs has long-term consequences for young people's economic status. Although today's young adults are more likely to

have good jobs from age 30 onward than their counterparts were in the past, their relative strength in earnings doesn't translate into relative strength in wealth. After slower gains in net worth throughout their 20s, households led by 35-year-olds have only 63 percent of the net worth that similar households held 20 years earlier (Figure 17).

FIGURE 17. Households led by 35-year-olds have less than two-thirds the net worth of similar households in the past.



Source: Georgetown University Center on Education and the Workforce analysis of data from the Board of Governors of the Federal Reserve System, Survey of Consumer Finances (SCF), 1989, 1992, 1995, 1998, 2010, 2013, 2016, 2019.

Note: The data have been smoothed using a three-year moving average and inflation-adjusted to 2019 dollars. The line labeled "1990s" shows the data for 1989, 1992, 1995, and 1998 (pooled); the line labeled "2010s" shows the data for 2010, 2013, 2016, and 2019 (pooled). These data may not fully capture the differences in wealth between young adults today and young adults in the 1990s because SCF collects data by head of household. It therefore does not include data on the wealth held by the increasing share of young adults who live with their parents, who may have fewer financial resources than young adults who live independently.

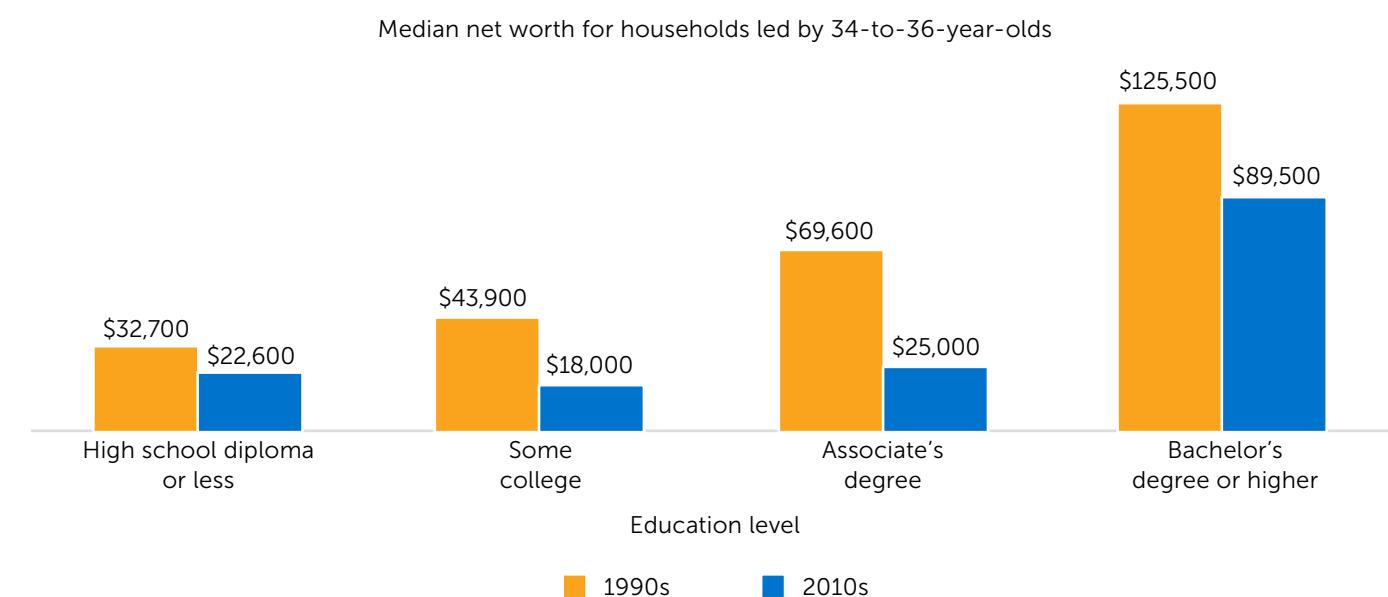
This change in wealth among households led by young adults represents a significant generational shift in young people's financial security. Families headed by older millennials are 34 percent behind where previous generations were at similar ages; for families headed by older millennials without a bachelor's degree, that gap is 44 percent. While families with household heads older than 60 have higher wealth than similar families did three decades ago, families with younger heads of household have fallen behind where similar families were three decades ago.⁸⁰

Median household wealth is stratified by educational attainment, as is the likelihood of having a good job. Across all education levels, households led by young adults have lower median net worth than similar

households did a quarter century ago. However, households headed by young adults with bachelor's degrees or higher have much higher median wealth (\$89,500) than those headed by young adults with associate's degrees (\$25,000), some college (\$18,000), or a high school diploma or less (\$22,600) (Figure 18).

The imperative of having a bachelor's degree or higher is striking. Households led by young adults with less than a bachelor's degree in the 2010s have a lower median net worth than households led by young adults with a high school diploma or less had in the early 1990s. In other words, having a household head with no postsecondary credential was more beneficial 20 years ago than having a household head with an associate's degree is today.

FIGURE 18. A bachelor's degree is still associated with more wealth for young households, although the advantage is smaller than in the 1990s.



Source: Georgetown University Center on Education and the Workforce analysis of data from the Board of Governors of the Federal Reserve System, Survey of Consumer Finances (SCF), 1989, 1992, 1995, 1998, 2010, 2013, 2016, 2019.

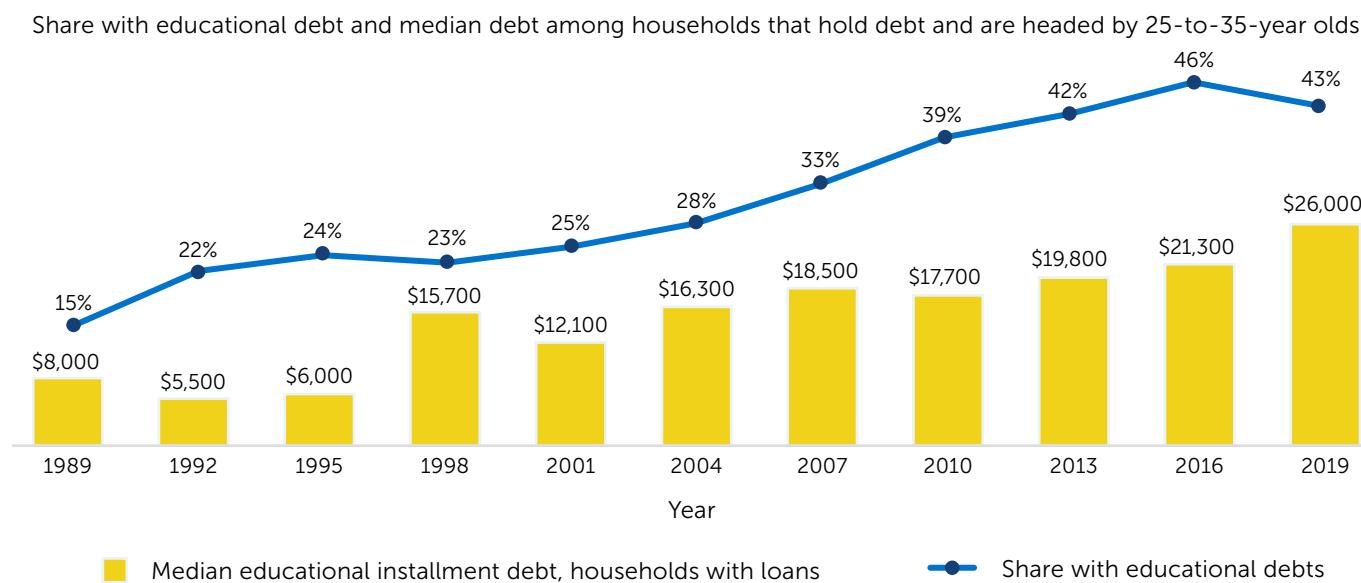
Note: The data are restricted to 34-to-36-year-old adults and inflation-adjusted to 2019 dollars. The series labeled "1990s" shows the data for 1989, 1992, 1995, and 1998 (pooled); the series labeled "2010s" shows the data for 2010, 2013, 2016, and 2019 (pooled).

⁸⁰ Kent et al., "Are Millennials a Lost Generation Financially?," 2019.

Educational debt restricts wealth accumulation for young adults with bachelor's or graduate degrees.

Increased college attendance in response to the need for more education has corresponded with rising college debt. College is more expensive than ever before, and reduced postsecondary funding from states and the federal government has put more of the financial burden on students and their families. For example, even after accounting for inflation, the cost of tuition, fees, room, and board is 169 percent higher than in 1980.⁸¹ Student loans have become a key means of filling the growing affordability gap. Low-income students are more likely to take out loans to pay for their education, and they borrow more on average to complete the same credentials.⁸²

FIGURE 19. The share of young households holding educational debt and the median debt among those households have both risen substantially over the past three decades.



Source: Georgetown University Center on Education and the Workforce analysis of data from the Board of Governors of the Federal Reserve System, Survey of Consumer Finances (SCF), 1989, 1992, 1995, 1998, 2001, 2004, 2007, 2010, 2013, 2016, and 2019.

Note: The data in this chart are inflation-adjusted to 2019 dollars.

⁸¹ Carnevale et al., *If Not Now, When?*, 2021.

⁸² Whistle, "Millennials and Student Loans," 2019.

Since the late 1980s, the share of households headed by young adults who have educational debt has risen steeply, from 15 percent in 1989 to 43 percent in 2019. Within households that have educational debt and are headed by young adults, the median loan debt has risen from nearly \$8,000 to \$26,000 over the same period (Figure 19).

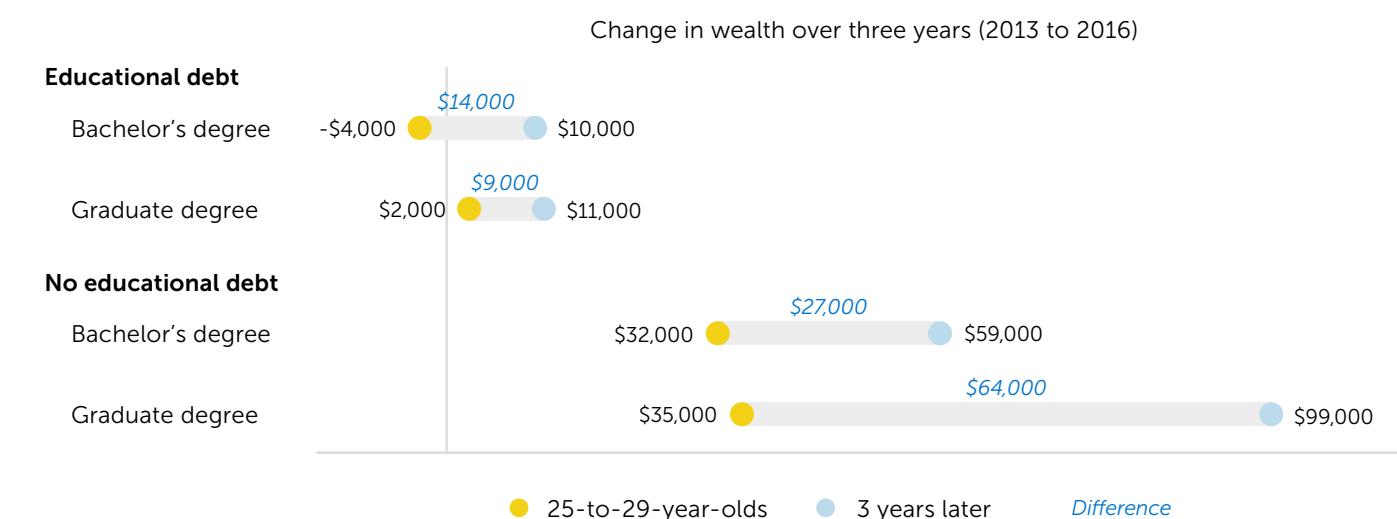
Young adults with debt leave school with a substantial challenge—repaying the money that they borrowed in the hope of setting up a financially secure life. Debt essentially functions as negative wealth: any money that young people use to pay off loans is money that they cannot save or invest. Those without educational debt in their 20s are able to save substantially more money as young adults than those who have outstanding student loans (Figure 20).

Among young adults with bachelor's degrees, for example, those with no educational debt are able to accrue \$27,000 over three years, compared to \$14,000 for those with educational debt. Young adults with a graduate degree but no educational debt are able to accrue \$64,000 over three years, compared to only \$9,000 among those who have educational debt. Thus, for young adults who attain a bachelor's or graduate degree, freedom from educational debt is a major step toward attaining financial security. Young adults with educational debt not only start with significantly lower median wealth, but they also have little chance during the early years of their careers of catching up to those without educational debt.

Thus, the extra time and money young people spend acquiring higher levels of education can pay off, at least by the time they are in their mid-30s. At the same time, educational debt can prevent young adults from making other investments that can increase their wealth over the long term, such as buying a home.⁸³

Young people have less wealth today than they did 25 years ago. To the degree that wealth opens the door to a wider range of life choices, young people are on shakier ground now than they were in the past, despite having higher levels of education. It's no surprise that the economic goals at the end of young adults' pathways to good jobs might seem more elusive than they once did, especially for those with less education than a bachelor's degree.

FIGURE 20. Educational debt restricts the ability to accumulate wealth at an early age.



Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, Survey of Income and Program Participation (SIPP), 2014–17, waves 1–4.

Note: We restricted the data to adults ages 25 to 29 with bachelor's and graduate degrees who were not enrolled in further education in the first SIPP wave. Wealth amounts are inflation-adjusted to 2019 dollars.

⁸³ Surveys of millennials indicate that educational debt often prevents or delays homeownership. Choi et al., *Young Adults Living in Parents' Basements*, 2019.

PART 5

The Triple Deficits of Education, Work-Based Learning, and Career Counseling

Young people's prospects in transitioning to adult economic independence are harmed by current limitations in postsecondary education, work-based learning, and career counseling. The infrastructure supporting all three is grossly inadequate to meet the demands of the 21st-century labor market, which requires workers to have high-quality education and work experience as well as the knowledge to navigate the complex pathways among the disjointed silos within our education and labor-market systems.

Young adults who have access to high-quality postsecondary education, work-based learning, and career counseling are in the best position to attain good jobs before middle age. But too many young people have to overcome triple hurdles in these areas and are left behind on the pathway to good jobs.

Too few people have clear pathways to postsecondary credentials that offer strong connections to a good job.

As established in this report, having a bachelor's degree or higher puts young people in the strongest possible position to attain a good job when they

enter the workforce, although the likelihood of having a good job varies substantially by factors like field of study and occupation. For young workers with a bachelor's degree or higher, the likelihood of having a good job is around 80 percent at age 35. In contrast, the likelihood of having a good job at age 35 is 56 percent for workers with some college or an associate's degree; 42 percent for workers with only a high school diploma; and 26 percent for workers with less than a high school diploma.⁸⁴

Despite the clear advantages associated with bachelor's degree attainment, more than half of young adults do not have bachelor's degrees. Although educational attainment among young adults has risen steadily over the years, only 45 percent of young adults ages 25 to 35 have a bachelor's degree or higher, compared to 26 percent who have some college or an associate's degree, 25 percent who have only a high school diploma, and 4 percent who have less than a high school diploma.⁸⁵

Notably, each year half a million college-ready students graduate from high school but don't earn a college credential by their mid-20s.⁸⁶ These students have demonstrated a level of preparedness that would allow them to succeed in college, although

they would still face barriers that could derail their progress. These students would be in a better position to secure a good job with better guidance on navigating college-to-career pathways.⁸⁷

Our education system also fails children from families with low socioeconomic status (SES) who demonstrate high achievement early in their educational journeys. Among kindergartners with top-half test scores who are from families in the bottom quartile of SES, only 25 percent have an associate's degree or higher by age 25, compared to 60 percent of those with bottom-half test scores and families in the top quartile of SES.⁸⁸ Even though they start out with high academic achievement, top-scoring students from low-SES families often disconnect from school before earning a bachelor's degree, the gold standard in the American economy.

Our disjointed education system does not support these students in reaching their full potential. Rather than providing smooth pathways for all young people to achieve success in college and careers, it reinforces the differences between the haves and the have-nots.

First, the system fails to provide need-based funding for K–12 education, which would help ensure equitable outcomes for students. Instead, the highest-poverty districts across the country receive about \$1,000 less per student than the lowest-poverty districts—even though high-poverty districts need more funding to meet student needs.⁸⁹ The funding gaps are even larger between districts that predominantly teach students of color and those that predominantly teach White students.⁹⁰ The

⁸⁷ Schwartz and Loyd, *Career Pathways in Action*, 2019.

⁸⁸ Carnevale et al., *Born to Win*, 2019.

⁸⁹ Morgan and Amerikaner, *Funding Gaps 2018*, 2018.

⁹⁰ Ross et al., *Work-Based Learning Can Advance Equity and Opportunity for America's Young People*, 2020.

⁹¹ Morgan and Amerikaner, *Funding Gaps 2018*, 2018.

⁹² Carnevale et al., *Born to Win*, 2019.

system thus amplifies the economic disparities between neighborhoods that are highly segregated by class and race, instead of alleviating the equity gaps among socioeconomic and racial groups.⁹¹

Second, it relies on family resources to convey opportunity. As a result, gaps in family resources put students from low-SES families at a disadvantage beginning at birth and continuing to adulthood. Families in the highest quartile of SES spend five times as much money as those in the lowest quartile of SES on enrichment activities such as recreation and education. Parents with a college degree are more likely than those without one to advise their children to go to college, and high-SES families are more likely than low-SES families to be able to pay for college. Under-resourced schools can't step in to fill the gaps in children's life circumstances.⁹² And without a free-college policy, students from low-income families often have to rely on educational loans to finance their postsecondary educations.

Third, the system's effectiveness is limited by gaps between silos, especially the gap between education and work. The educational system isn't sufficiently preparing young people for careers, and it isn't adequately accountable for job-related outcomes at either the school or program level. Increasingly available data collected through State Longitudinal Data Systems and the US Department of Education's College Scorecard will help motivate K–12 schools and colleges to look to outcomes long after graduation to determine whether they have successfully prepared their graduates for independent adulthood.

⁸⁴ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1972–86, 2007–20.

⁸⁵ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 1972–86, 2007–20.

⁸⁶ Georgetown University Center on Education and the Workforce, "The Forgotten 500,000 College-Ready Students," 2018.

Work-based learning can help fill in the gaps between education and careers, but its current reach is too limited.

Work-based learning has been integral throughout human history. Most learning once occurred on the job. As schooling became more widespread, on-the-job learning continued to complement formal schooling as preparation for careers. At the same time, the education system increasingly provided skill development alongside preparation for citizenship that has helped shield democratic republics against authoritarianism.⁹³ Yet, despite the long history of education and work experience providing dual preparation for careers and citizenship, the outsized role of postsecondary education and training as a pathway to economic opportunity is relatively new.

Postsecondary education and training became the most well-traveled pathway to good entry-level jobs in the late 20th century. Before the 1980s, most people learned their specific job skills on the job; now, most people need at least some postsecondary education and work experience to get a good entry-level job.⁹⁴ Employers are seeking workers with more education than in the past because they believe those workers have accumulated both the specific occupational skills needed for the job and the general skills that allow for further learning. Meanwhile, employers persistently complain about skill shortages at the entry level, even among highly educated workers.⁹⁵ Improved access to high-quality work-

based learning at all levels of the education system would help close those skill gaps.

While work involves some learning on the job, the best work-based learning involves structured work experiences and opportunities for reflection, often connected to schooling. Advocates for work-based learning argue that it could be an effective complement or alternative to school-based learning during the transition from youth to adulthood. Indeed, work-based learning shows substantial promise for strengthening the connections between education and careers and building complements—and, in more limited cases, alternatives—to traditional college credentials. A range of longstanding and emerging practices create deliberate, guided connections between the high school or college curriculum and jobs:

- **Apprenticeships** prepare workers to enter a new career through formal intensive learning on the job paired with classroom instruction.
- **Co-ops** (cooperative education programs) connect academic programs and work by allowing students to gain academic credit for time-limited, structured, applied work experiences related to their studies under the supervision of a mentor.
- **Internships** allow students and recent graduates to try out a field or occupation for a short period of time while developing competencies related to an industry and learning about careers of interest.

- **Mentorship** provides opportunities for youth and young adults to build personal connections with experienced workers who can provide advice and encouragement.
- **On-the-job training** allows workers to acquire or develop needed competencies after starting a job and can be used to retrain incumbents or quickly re-employ displaced workers.⁹⁶

In addition to offering opportunities for young people to explore different types of careers, apply what they are learning in school, and build personal connections with professional networks and employers, these opportunities may lead directly to jobs. For example, according to a survey conducted by the National Association of Colleges and Employers (NACE), an average of 66 percent of internships were converted to full-time employment.⁹⁷ This share rose by more than 10 percentage points in 2021 (compared to 56 percent in 2020), likely because the COVID-19 pandemic impeded other recruiting activities.⁹⁸ For co-ops, the conversion rate was 62 percent.⁹⁹

Importantly, work-based learning may lead not just to jobs, but to good jobs. For example, among young workers (ages 25 to 35) with a bachelor's degree, 64 percent of those who completed a work-based learning program have annual earnings exceeding \$40,000, compared to 56 percent for those who

did not complete such a program.¹⁰⁰ In addition, Martha Ross and her colleagues found that for disadvantaged youth, participating in "relationship-focused career and technical education (CTE)" is positively associated with having a "high-quality job" at age 29.¹⁰¹ NACE's survey findings support the connection between work-based learning and good jobs. They find that the average hourly wage for interns was \$20.76.¹⁰² An intern who secured a full-time job at an equivalent wage would make an annual salary of \$43,000, well above the good jobs threshold of \$35,000 for young workers. For co-ops, the average hourly wage was \$20.20,¹⁰³ which could translate to an annual salary of \$42,000 for a worker whose co-op was converted to full-time work at the same wage.

Despite these promising outcomes, access to work-based learning is too limited, especially for young adults without a bachelor's degree. Only 31 percent of young adults (ages 25 to 35) have completed a work-based learning program; another 2 percent are enrolled in such a program but have not yet completed it.¹⁰⁴ Young adults with lower levels of educational attainment are also less likely to have access to work-based learning programs. Among young adults with a bachelor's degree or higher, more than half (54 percent) have completed a work-based learning program, compared to 34 percent of young adults with an associate's degree, 15 percent

⁹³ Carnevale et al., *The Merit Myth*, 2020; Carnevale et al., *The Role of Education in Taming Authoritarian Attitudes*, 2020.

⁹⁴ Carnevale et al., *Three Educational Pathways to Good Jobs*, 2018; Carnevale et al., *Failure to Launch*, 2013; Morgan, "Why Inexperienced Workers Can't Get Entry-Level Jobs," 2021.

⁹⁵ For example, only 6 in 10 employers surveyed by the American Association of Colleges and Universities in 2020 indicated "that recent graduates possess the knowledge and skills needed for success in entry-level positions at their companies or organizations." The survey points to "critical thinking skills" and "application of knowledge/skills in real-world settings" as two areas with the highest preparedness gaps. Finley, *How College Contributes to Workforce Success*, 2021.

⁹⁶ For additional descriptions of many of these forms of work-based learning, see Cahill, *Making Work-Based Learning Work*, 2016.

⁹⁷ National Association of Colleges and Employers, *2021 Internship and Co-Op Survey Report: Executive Summary*, 2021.

⁹⁸ Collins, "Intern Conversion Rate Climbs," 2021.

⁹⁹ National Association of Colleges and Employers, *2021 Internship and Co-Op Survey Report: Executive Summary*, 2021.

¹⁰⁰ Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Adult Training and Education Survey (ATES), 2016.

¹⁰¹ Ross and her colleagues define relationship-focused CTE programs as including co-ops, internship/apprenticeship, and mentoring. They evaluate "high-quality jobs" based on factors that include earnings, benefits, hours of work, and job satisfaction. Ross et al., *Pathways to High-Quality Jobs for Young Adults*, 2018.

¹⁰² National Association of Colleges and Employers, *2021 Internship and Co-Op Survey Report: Executive Summary*, 2021.

¹⁰³ National Association of Colleges and Employers, *2021 Internship and Co-Op Survey Report: Executive Summary*, 2021.

¹⁰⁴ Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Adult Training and Education Survey (ATES), 2016.

of young adults with some college education, and 7 percent of young adults with a high school diploma or less.¹⁰⁵ Thus, instead of offering youth with lower levels of educational attainment a way to strengthen their labor-market competencies and build fruitful personal connections, work-based learning experiences may be most likely to benefit those who are already at a relative advantage.

And yet, disadvantaged youth may have the most to gain from work-based learning experiences, especially if those experiences are paid. Low-income working learners—who are disproportionately likely to be Black/African American, Hispanic/Latino, female, immigrants, or first-generation college-goers—generally work more hours when enrolled in college than higher-income working learners, which can harm their grades.¹⁰⁶ Moreover, low-income working learners are more likely than their higher-income counterparts to work in jobs that are not connected to their field of study or in occupations like food services or administrative support that are less likely to offer pathways to high-wage career jobs.¹⁰⁷ Paid work-based learning opportunities could allow these students to better connect earning and learning for the benefit of their educational experiences and their future careers.¹⁰⁸

At the high school level, well-designed work-based learning opportunities could help students develop in-demand technical and soft skills.

¹⁰⁵ Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Adult Training and Education Survey (ATES), 2016.

¹⁰⁶ Carnevale and Smith, *Balancing Work and Learning*, 2018.

¹⁰⁷ Carnevale and Smith, *Balancing Work and Learning*, 2018.

¹⁰⁸ The overall evidence on the benefits of working during college is mixed. College students who work too many hours may incur an academic penalty. At the same time, research suggests that working during college can provide a post-college earnings boost on par with the boost associated with completing a degree. Douglas and Attewell, "The Relationship between Work during College and Post College Earnings," 2019.

¹⁰⁹ Business Wire, "New Survey," 2017.

¹¹⁰ Alfeld et al., *Work-Based Learning Opportunities for High School Students*, 2013.

¹¹¹ Alfeld et al., *Work-Based Learning Opportunities for High School Students*, 2013.

¹¹² Alfeld et al., *Work-Based Learning Opportunities for High School Students*, 2013; Hoffman, *Schooling in the Workplace*, 2011; Hoffman and Schwartz, *Learning for Careers*, 2017.

Indeed, results from a 2017 survey suggest that the vast majority of people in the United States think that high school students should have more chances to learn real-world skills and participate in programs that teach skills relevant to fields such as information technology, business, manufacturing, and healthcare.¹⁰⁹ However, program evaluations have revealed that few programs actually implement research-backed best practices, such as ensuring that students see the connections between their coursework and the work-based learning experience, requiring reflection, and incorporating a culminating activity.¹¹⁰ This results in substantial disconnects between the academic curriculum, the career and technical education curriculum, the work-based learning experience, and the students' ultimate educational and career goals.¹¹¹

Well-designed work-based learning opportunities could both improve young people's life trajectories and remedy a competitive disadvantage resulting from our country's inefficient approach to human capital development. Many other countries build strong education-to-workforce connections through public-private partnerships involving educators, employers, and labor unions and ensure quality through state oversight; the United States takes a more haphazard and arguably more expensive approach.¹¹²

While interest in work-based learning has grown in recent years, there is substantial room for improvement in ensuring that high school and college students have equitable access to high-quality work-based learning experiences. Martha Ross and her colleagues identify three foundational aspects of high-quality work-based learning: "positive relationships" between young people and adults, the opportunity to build "social capital and social networks," and experiences that involve "new environments and expectations."¹¹³

Expanding access to quality work-based learning experiences will mean addressing thorny issues that have frustrated education reformers for decades, however. Vocational preparation in the form of educational experiences designed as specific job training has not fared well in the K–12 system, for good reason. In 1983, the seminal report *A Nation at Risk* launched decades of K–12 reform, including changes that substantially reduced the role of specific vocational preparation in the high school curriculum. At that point in American history, it had become clear that young people needed better basic academic skills and that the separation between academic and vocational programs was providing an educational foundation for the tracking of students by race, class, and gender, ultimately compounding intergenerational economic disparities.¹¹⁴

To address these issues, education reformers first amended vocational education to include Tech Prep or "2+2" programs, in which students

took two years of vocational education in high school followed by two years of postsecondary technical education. Career-themed high schools and technical high schools also gained popularity. Ultimately, however, vocational education was displaced by Career and Technical Education (CTE). CTE focuses on using applied contexts to teach general academic skills and provide initial exposure to particular occupational and industry clusters. Overall, it has been a success. It reinforces general academic content and standards, links secondary and postsecondary preparation in career clusters, and improves earnings (although not necessarily the likelihood of employment) after high school.¹¹⁵ Some evidence suggests that participation in CTE may also lower dropout rates and ease transitions to the postsecondary sphere.¹¹⁶

Despite its successes, CTE remains thinly spread across high school populations and crowded academic curriculums, and it provides no real intensive job training or work experience. Nonetheless, the support for deeper and more active learning in the academic curriculum has moved the general notion of applied learning into the traditional academic sphere.¹¹⁷ Project-based learning, service learning, school-based enterprises, and the move toward experiential learning are all cousins of work-based learning. Results of a recent survey conducted by the American Association of Colleges and Universities (AAC&U) indicate that employers place a high value on such learning, ranking "application of knowledge/skills in real-world settings" among the top five qualities that are important for college

¹¹³ Ross et al., *Work-Based Learning Can Advance Equity and Opportunity for America's Young People*, 2020.

¹¹⁴ Carnevale et al., *The Merit Myth*, 2020.

¹¹⁵ US Department of Labor et al., "What Works in Job Training," 2014.

¹¹⁶ Kuczera and Field, *A Skills beyond School Review of the United States*, 2013.

¹¹⁷ National Research Council, *Education for Life and Work*, 2012.

graduates' success in the workforce.¹¹⁸ In fact, employers indicate that they are more likely to hire recent college graduates who completed a work-based learning experience.¹¹⁹

Employers try to address these skill gaps directly by investing in training for new and established workers, reflecting an understanding that the workforce needs job-specific preparation and opportunities to keep up with changing skill requirements. These investments can be substantial—in 2019, employers spent more than \$184 billion on formal employee training and an additional \$430 billion on resources to facilitate informal learning on the job.¹²⁰ Recent case studies show that employers favor training and on-the-job learning as means of skills acquisition for current employees.¹²¹ These employer-provided experiences most likely vary enormously in type and quality, and the skills they convey are not always generalizable beyond the context of the current employer.

Advocates have created some notable boundary-breaking efforts to forge stronger connections between educational institutions and employers, although those programs have not yet led to systemic change.¹²² These promising efforts include broad approaches like career pathways, career academies, guided pathways, Linked Learning, youth apprenticeships, and school-to-work

programs, as well as specific programs like Year Up and Braven. Models with strong employer and labor-market connections include those of the National Academy Foundation, the Pathways to Prosperity Network, P-TECH, the Urban Alliance, Genesys Works, and Per Scholas; these suggest there is room for employer involvement to grow in the United States.¹²³ At present, vocationally oriented programs in the United States tend to be more geared toward career exploration and have less direct connection to specific careers than vocational programs in Europe.¹²⁴

Some of the better efforts at connecting schooling and careers have arisen from the generally underfunded arena of youth policy. Notable among these are the Labor Department's Job Corps program and the youth programs funded under the Workforce Innovation and Opportunity Act (WIOA). At the same time, youth policy has failed to fill the gaps in access to high-quality work experiences that have arisen over the past two decades due to repeated recessions and the same technological forces that have eliminated jobs in the industrial workforce.¹²⁵ In addition, while employment rates among high school students in the United States are similar to those in European countries such as Germany, Norway, Austria, and Sweden, youth in many of those countries are more likely than

¹¹⁸ Among employers surveyed by the American Association of Colleges and Universities (AAC&U) in 2020, 56 percent indicated that "application of knowledge/skills in real-world settings" was "very important" to success in the workforce and another 36 percent indicated that it was "somewhat important." Finley, *How College Contributes to Workforce Success*, 2021.

¹¹⁹ Among employers surveyed by AAC&U, 9 out of 10 indicated that they would be "more likely" to hire a candidate who completed an internship or an apprenticeship, and 5 out of 10 indicated that they would be "much more likely" to hire such a candidate. Finley, *How College Contributes to Workforce Success*, 2021.

¹²⁰ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, Survey of Income and Program Participation (SIPP), 2008, and from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 2019. Carnevale et al., *College Is Just the Beginning*, 2015, and Association for Talent Development (ATD) Research, *2019 State of Industry*, 2019.

¹²¹ Curnow et al., *Measuring Skills at Work*, 2021.

¹²² There was some progress in promoting work-based learning as an alternative to college in the 1990s with the School-to-Work Opportunities Act enacted in 1994. For a review of the history, see Hamilton, *Career Pathways for All Youth*, 2020.

¹²³ Carnevale et al., *Youth Policy*, 2021.

¹²⁴ Kuczera and Field, *A Skills beyond School Review of the United States*, 2013.

¹²⁵ Carnevale et al., *Youth Policy*, 2021.

American youth to be employed in apprenticeships that provide on-the-job career training. In contrast to European youth, American youth are more often employed in part-time or summer jobs in which they learn some soft skills and general employability competencies but not the specific occupational competencies they need for future careers.¹²⁶

Apprenticeship has long been the gold standard for work-based learning in the United States.¹²⁷ Since the Clinton era, every White House has announced its support for apprenticeship, seeking to emulate the European models—the German system in the 1990s and the Swiss system more recently. As a result, participation in registered apprenticeships has grown fairly steadily over the past decade, with 70 percent more new registered apprentices in 2020 than in 2011.¹²⁸ But despite the enthusiasm for apprenticeship and the growth in the number of apprentices, apprenticeship remains a narrow pathway within the postsecondary education and training arena. In the United States, less than 5 percent of prime-age workers have completed a classical apprenticeship—a work-based learning experience that incorporates on-the-job training and classroom-based learning for which trainees are paid a wage below that of fully qualified workers.¹²⁹

Case studies conducted by Case Western Reserve University and the US Department of Commerce show that while apprenticeships are expensive,

¹²⁶ Kuczera and Field, *A Skills beyond School Review of the United States*, 2013.

¹²⁷ Lerman et al., *The Benefits and Challenges of Registered Apprenticeships*, 2009; McCarthy et al., "Connecting Apprenticeship and Higher Education," 2017.

¹²⁸ US Department of Labor, "Registered Apprenticeship National Results Fiscal Year 2020," n.d.

¹²⁹ Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Adult Training and Education Survey (ATES), 2016.

¹³⁰ Helper et al., *The Benefits and Costs of Apprenticeship*, 2016.

¹³¹ Kuczera and Field, *A Skills beyond School Review of the United States*, 2013; Jacoby, "Why Germany Is So Much Better at Training Its Workers," 2014.

¹³² Kuczera and Field, *A Skills Beyond School Review of the United States*, 2013.

¹³³ Baum et al., *Should the Federal Government Fund Short-Term Postsecondary Certificate Programs?*, 2020. Cellini and Blanchard, "Quick College Credentials," 2021.

with the costs ranging from under \$25,000 to \$250,000 per apprentice, the companies that offer them generally feel that they are well worth the investment.¹³⁰ At the same time, the kinds of partnerships between employers, unions, educators, and governments that are the foundation for European apprenticeships are hard to come by in the American system. The decentralized and deregulated nature of the US labor market and the pressure to focus on short-term financial performance make investments in workforce development and the education of young adults a tough proposition for many American employers.¹³¹ In addition, most employer involvement takes place at the local level.¹³²

In response to skill shortages in a tight labor market, recent policy debates have revealed growing support for targeted postsecondary training within fields such as information technology and skilled services. The support cuts across partisan divides and industry and educational boundaries, especially when it comes to relationships between community colleges and employers. Thus far, there is strong support for short-term training, including a proposal to allow the use of Pell Grants for short-term training programs—although there is also a lively debate over employment and earnings standards for publicly funded training programs.¹³³

The future of work-based learning may hinge on expanded government support of training, especially

at the federal level. Based on existing survey data, only 19 percent of employers believe that the responsibility for workforce readiness rests with the hiring employer, compared to 76 percent who feel the responsibility lies with K–12 schools, 45 percent who say it rests with two-year colleges or technical schools, and 68 percent who say it rests with four-year colleges or universities.¹³⁴ US employers seem reluctant to invest in training that would create a shared pool of qualified trainees instead of a direct recruitment channel serving their needs. Employer involvement inevitably necessitates complicated relationships among employers, governments, and educators, requiring effective intermediaries and a fair amount of training for employers and educators. Nonetheless, major employer stakeholder groups like the Business Roundtable and the US Chamber of Commerce have increasingly shown interest in an expanded employer role in public education and training.¹³⁵

The persistence of economic change and the shrinking labor supply may continue to spur support for work-based learning in all its variations, especially at the postsecondary level. Labor force growth is sputtering in America, a trend that is likely to intensify in the coming decades. This trend may prompt employers to invest more proactively and directly in work-based learning.¹³⁶

Comprehensive career counseling is necessary but too underdeveloped to maximize young people's chances of reaching their personal goals.

At its most successful, the student-counselor relationship brings together the respective benefits of access to transparent information and encouragement from a caring adult. Yet the current career counseling infrastructure falls far short of ensuring that all young adults have complete information about the most reliable pathways to economic opportunity.¹³⁷ In part, this is because counselors are stretched too thin. The American School Counselor Association recommends a student-to-counselor ratio of 250 to 1 in elementary and secondary schools, but the current national average is almost 70 percent higher, at 424 to 1.¹³⁸ Moreover, counselors' duties include a substantial amount of administrative work, which limits the time that counselors can spend on direct advising and enrichment activities.¹³⁹ At the college level, career counseling is often siloed in a separate area from academic advising, and many students fail to take advantage of it. Students are more likely to report that their academic advisors give good information about majors than about careers, and yet 35 percent of college seniors have never sought guidance from their school's career services resources.¹⁴⁰

To be effective in helping young people make informed decisions about their futures, school counselors need complete information about the typical outcomes of various education-to-career pathways as well as adequate opportunities to share that information in a useful way. Indeed, young people often need this information to meet their stated goals, especially when they are on a college track—more than 90 percent of young adults who were just starting college or planning to enroll soon said that improvement in employment opportunities was an important or very important reason to go to college.¹⁴¹

And yet, trained career counselors are rarely people's first source for information about the connections between institutions, programs, and employment outcomes. Young adults often get information about college and careers from their social networks instead of from informed career counseling professionals. In fact, according to Michael T. Brown, a young person's family may be "the single most powerful influence of vocational behavior."¹⁴² The family influences a young person's interests, aspirations, and vocational identity and is a major source of career advice.¹⁴³ Peer groups also have an outsized influence on young people's career decisions. For example, research has shown that college students at elite institutions select career pathways after being exposed to high-prestige career paths through their peers.¹⁴⁴

When young people's educational and career tracks are defined largely by those of their families and social networks, their potential pathways to good jobs are restricted. As noted earlier in this report, children are more likely to obtain a college degree if their parents have a college degree. In addition, parents with lower socioeconomic status are less likely than affluent parents to report having friends in middle- or upper-class occupations, thus limiting their children's exposure to professionals in those occupations.¹⁴⁵ The career exposure that occurs naturally through young people's social networks is thus unlikely to encourage upward socioeconomic mobility.

When they are making decisions about their education-to-career pathways, young people would benefit from having a trusted source who could provide (1) transparent information about the likely labor-market outcomes of various education and career pathways and (2) assistance and support in interpreting that information. With substantial reforms to the profession, career counselors could act as that trusted source. Ideally, these career counselors would provide advice across the education-to-career cycle, beginning in middle school and continuing into the workforce. They would act as independent advisors untethered and un beholden to educational institutions, so their advice could not be tainted by any institution's enrollment needs.

¹³⁴ Respondents were asked to select the top three options. Casner-Lotto and Barrington, *Are They Really Ready to Work?*, 2006.

¹³⁵ Business Roundtable, *Work in Progress*, 2017; US Chamber of Commerce Foundation, *TPM Resource Guide*, 2020.

¹³⁶ Hetrick et al., *The Demographic Drought*, 2021.

¹³⁷ A 2012 study of comprehensive school counseling in Rhode Island found a strong correlation between higher amounts of counseling services in a school and positive student outcomes as well as a correlation between substantially lower amounts of counseling services and high shares of underrepresented minority students and students who qualify for free or reduced-price lunch. Dimmitt and Wilkerson, "Comprehensive School Counseling in Rhode Island," 2012.

¹³⁸ American School Counselor Association, "Student-to-School-Counselor Ratio 2019–2020," n.d.

¹³⁹ Bridgeland and Bruce, *2011 National Survey of School Counselors*, 2011.

¹⁴⁰ Strada Education Network and Gallup, *2017 College Student Survey*, 2017.

¹⁴¹ Survey respondents "consisted of U.S. residents ages 16 to 40 who do not have college degrees and plan on enrolling in a two-year or four-year college within the next 12 months," as well as "individuals who were in the first semester of their first year at a two-year or four-year college." Fishman, *Deciding to Go to College*, 2015.

¹⁴² Brown, "The Career Development Influence of Family of Origin," 2004.

¹⁴³ Whiston and Keller, "The Influences of the Family of Origin on Career Development," 2004.

¹⁴⁴ Binder et al. document how students at a set of highly selective institutions pursue careers in finance and consulting after learning about these career paths from their peer groups. Binder et al., "Career Funneling," 2016.

¹⁴⁵ Carnevale et al., *Born to Win*, 2019.

Effective counseling can promote economic justice and narrow class, race, and gender equity gaps—but only if it is designed to interrupt the tracking by socioeconomic status, race, and gender that already occurs in the education system and society. Too often, stereotypes and discrimination constrain young people's career aspirations and labor-market outcomes. For example, female students seeking career advice from professionals are more likely than male students to receive information about work-life balance, and they report that this information deters them from pursuing certain careers.¹⁴⁶ Youth who anticipate that they will face racial discrimination in the labor market have been shown to have lower expectations for their careers or a lesser sense of their own self-efficacy.¹⁴⁷ Counselors must be prepared to help counter the potential negative impacts of these dynamics, and they must take care not to let their own implicit biases affect the advice they give to students.

A career counseling system that provides seamless support in middle school, high school, postsecondary institutions, and the workforce could help ensure that students have complete information when forming their career goals and planning their pathways into the labor market. This system would require staffing from an adequate number of counselors with sufficient time to focus on advising and providing enrichment activities, and these counselors would need sufficient independence from the education system to put students' needs over the needs of institutions.

¹⁴⁶ Gallen and Wasserman, "Informed Choices," 2021.

¹⁴⁷ Conkel-Ziebell et al., "Anticipation of Racism and Sexism," 2019.

¹⁴⁸ Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS), 2007–20, 1981–85 birth cohort.

¹⁴⁹ Carnevale et al., *The College Payoff*, 2021.

¹⁵⁰ Carnevale et al., *The College Payoff*, 2021.

A modernized career counseling system is all the more necessary because of the changing relationship between education and the economy. It is still true that higher levels of postsecondary attainment mean higher earnings, on average. As we show in this report, the chances of making it to a good job by age 35 differ significantly by education level. Among young workers with a bachelor's degree or higher, 80 percent have a good job at age 35. Among young workers with some college or an associate's degree, 56 percent have a good job at the same age. Among young workers with only a high school diploma, 42 percent have a good job at 35, and among young workers who never completed high school, that share is 26 percent.¹⁴⁸

There is substantial variation underneath these averages, however. While postsecondary education and training have become more powerful in economic terms, their value has become more complicated. Median earnings vary considerably by program or field of study, regardless of attainment level. In fact, 31 percent of full-time, full-year workers with a high school diploma earn more than the median for full-time, full-year workers with associate's degrees; likewise, 28 percent of full-time, full-year workers with an associate's degree earn more than the median for full-time, full-year workers with bachelor's degrees.¹⁴⁹ Much of this variation relates to the impact of major field of study and occupation on earnings.¹⁵⁰

Moreover, navigating a career has become more arduous in recent decades as the number of occupations, programs of study, schools, and students has exploded. The number of occupations nearly tripled between 1950 and 2020, growing from 270 to 790.¹⁵¹ Postsecondary programs more than quintupled between 1985 and 2020, increasing from 410 to 2,200.¹⁵² The number of colleges and universities more than doubled, from 1,850 to 3,980, between 1949–50 and 2019–20.¹⁵³ The number of college students swelled almost tenfold between 1949 and 2019, from 2.4 million to 19.6 million.¹⁵⁴ Furthermore, the variety of postsecondary credentials now includes degrees, certificates, certifications, licenses, and badges and other micro-credentials. In short, the path from school to career is a lot more complicated now than it used to be.¹⁵⁵

A career counseling system that provides professional support for career navigation will need to do more than match people to available jobs, especially with regard to young people whose competencies, personalities, and aspirations are not fully formed. In every occupation, high performance is tied to a range of interconnected factors, including personal career interests and values as well as knowledge, skills, and abilities. Effective career navigation could begin

with a process of self-reflection combined with exploration of occupations, guided by a competent career navigation professional.¹⁵⁶

This approach to career counseling could use new data that provide insight on the proliferating number of pathways from education to careers. With the expansion of the US Department of Education's College Scorecard to include program-level data and the growth of State Longitudinal Data Systems that trace young people's trajectories from school to careers, we have come a long way from the days when the best information we had about labor market value was the average wage within an occupation. We can now judge the economic value of individual programs within institutions; while the institution a student attends matters to their earnings potential, the program of study often matters more.¹⁵⁷ The better counseling systems would use longitudinal, program-specific data to help guide young people in making decisions about their futures.

At the college level, one great example of a program that is piloting a student-centered approach to academic and career counseling is the City University of New York's Accelerated Study in

¹⁵¹ Wyatt and Hecker, "Occupational Changes during the 20th Century," 2006; Georgetown University Center on Education and the Workforce analysis of US Bureau of Labor Statistics, Occupational Employment and Wage Statistics (OEWS), 2020.

¹⁵² Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, Classification of Instructional Programs (CIP), 1985, 2020.

¹⁵³ Georgetown University Center on Education and the Workforce analysis of data from the US Department of Education, *Digest of Education Statistics*, table 317.10, 2020.

¹⁵⁴ Georgetown University Center on Education and the Workforce analysis of US Department of Education, *Digest of Education Statistics*, table 303.10, 2019.

¹⁵⁵ Carnevale et al., *Navigating the College-to-Career Pathway*, 2021.

¹⁵⁶ Carnevale, "All One System," 2007.

¹⁵⁷ Mabel et al., "The Value of Using Early-Career Earnings Data in the College Scorecard to Guide College Choices," 2020.

Associate Programs (CUNY ASAP). CUNY ASAP connects students with both academic advisors and career specialists who help students design their academic programs to advance their personal and professional goals. The program also provides financial and social support (such as scholarships, transit assistance, and peer groups), along with guidance for skill development or transfer to a four-year program.¹⁵⁸ The program's graduation rate is

more than twice that of comparable students who did not participate in the program,¹⁵⁹ suggesting that this model is worth emulating at other institutions. Institutions participating in the CUNY ASAP National Replication Collaborative are taking the lead in expanding the model, with participating institutions in San Mateo County, California; Westchester County, New York; and Nashville, Tennessee; among other locations.¹⁶⁰

CONCLUSION

Our findings suggest that for many young adults, the dream of expanding economic opportunity is alive and well. For them, to a large degree, Americans' optimism about the future continues to be justified. Young people are taking longer to launch into good jobs than they did in the past, but by their 30s, they are more likely to have a good job than their baby boomer counterparts were at the same age. This is largely because young people on the whole are acquiring more education than they did in previous generations at a time when education is more crucial than ever for success in the labor market.

One significant problem masked by this overall story is the substantial differences in outcomes by race, class, and gender. We described differential outcomes by socioeconomic status in this report; our companion report, *How Racial and Gender Bias Impede Progress toward Good Jobs*, explores differential outcomes by race and gender.

In other words, not everyone has equal access to education and training, work-based learning, or effective career counseling that lead to adult economic independence. Even though more than half of young adults have a decent chance of having a good job by their 30s, too many young adults have poor chances of reaching that milestone. Opportunity abounds for those with higher levels of education—specifically, a bachelor's degree or higher—but those with an associate's degree or less are considerably less likely to attain economic security in today's economy. While 80 percent of young workers with a bachelor's degree or higher have a good job at age 35, only 56 percent of young workers with some college or an associate's degree, 42 percent of those with no more than a high school diploma, and 26 percent of those who

never completed high school have a good job at the same age. Even for those with bachelor's degrees, the likelihood of having a good job varies by field of study and occupation. In addition, those from higher-income backgrounds have the best chance of becoming successful as young adults. Significant gaps also exist by race and gender, which we explore in our companion report.¹⁶¹

A second problem is that taking longer to land a good job has long-term consequences even for those who do reach the good jobs earnings threshold by their early 30s. Young people are spending more time and money acquiring the education and competencies demanded by the workforce, which means they're less able to save and invest during their 20s. As a result, they have less wealth than previous generations did at the same age, which may influence their decisions to wait longer on average to move out of their parents' homes, get married, or have children.

A third problem is that the high cost of education decreases young people's ability to build wealth. This is especially true for those who must go into debt to get the credentials that improve their access to economic opportunity—and particularly so for young people who acquire educational debt but never complete a credential. The mutually reinforcing relationship between education and wealth contributes to the socioeconomic divide; it takes money to earn the degrees that enable young workers to make money. Those who earn the degrees and make the money are on more solid footing to ensure that their children have the same opportunities that they did. And so the cycle continues, passing advantage from generation to generation.

¹⁵⁸ City University of New York, "ASAP at a Glance," 2021.

¹⁵⁹ City University of New York, "Significant Increases in Associate Degree Graduation Rates," 2021.

¹⁶⁰ City University of New York, "Significant Increases in Associate Degree Graduation Rates," 2021.

¹⁶¹ See Carnevale et al., *How Racial and Gender Bias Impede Progress toward Good Jobs*, 2022.

Thus, earnings and wealth aren't just a matter of dollars and cents—they're the monetary capital that can enable young people to take risks and follow their dreams. Major educational and labor market reforms are necessary to ensure that the American Dream is truly available to everyone, regardless of their socioeconomic background.

In short, the divisions in our educational silos, as well as the barriers between our education system and labor markets, are no longer useful. Since the mid-1980s, we have needed our education and labor markets to operate as all one system. Instead, their disjunction has simultaneously slowed young people's journeys to good jobs and compounded the effects of racial and economic injustice. In the 21st century, the most traveled pathway to a good job that provides economic independence by age 30 begins in preschool and generally includes some postsecondary education and training along with high-quality work-based learning. But too few young adults have access to that pathway, and too many encounter prohibitive barriers along the way. As a result, today's postsecondary education and training system has become the capstone of institutionalized economic inequality. It mimics and magnifies the disparities it inherits from the K–12 system and then projects them into the labor markets, housing markets, and local school districts, thereby ensuring the intergenerational transmission of privilege.

To break the cycle, we need effective education reform, beginning with an approach that treats our education and economic systems as interconnected. There must be crucial changes to academic and career counseling and broader support for the wraparound services that boost young peoples' chances of success.

1 We need to provide wraparound educational and social supports to young people, beginning at birth. An opportunity gap exists for young people as soon as they are born, based on factors like their parents' income and substantial funding disparities in public schools. For many children, that opportunity gap widens as they travel through the education system. To give every child the best chance at educational and economic success, we need to ensure universal access to free, high-quality education before kindergarten and throughout the K–16 pipeline. We need to dismantle funding inequality in our public school systems so children don't have to live in the wealthiest zip codes to get the best possible education. And we need to make sure that all children have the material supports they need to thrive, including access to healthy food and good jobs for their parents and guardians.

2 We need to ensure that all young people have access to career counseling and work-based learning to develop, pursue, and attain their education and career goals. America's educational system is increasingly our primary means of providing economic opportunity, but the connections between education and work are too often an afterthought. We need to provide more career exposure to young people beginning in middle school and continuing through high school and college, and we should help them develop their interests and aptitudes while acquiring the general and specific competencies they will need in the labor market. This should include exposure to both general education and career-focused education, as well as access to paid internships that carry academic credit and are aligned with students' interests and areas of study. We also need to ensure that all students build relationships with caring

and knowledgeable career counselors who are invested in their success over the long term, not just on the next step of their education pathway.

3 We need to make college more affordable and more convenient. Everyone who wants postsecondary education should have access to it without having to take on enormous debt. Free-college plans like the ones already used in many states can make this possible.¹⁶² In addition, we need to create a more fluid postsecondary education and training system so that postsecondary students can stop out and reenter without penalty according to their personal needs, such as by adopting stackable credentials and better transfer pathways. To facilitate more flexible pathways, four-year colleges should reserve one-fifth of their undergraduate seats for transfer students. In addition, more two-year colleges should offer baccalaureate options.

Reforms like these will help narrow the opportunity gaps that too often determine who travels the pathway to a good job most quickly and successfully in young adulthood.¹⁶³ With systemic change, we can start to ensure that postsecondary pathways to economic opportunity are open to all.

¹⁶² For more analysis of various free college plans, see Carnevale et al., *The Dollars and Sense of Free College*, 2020.

¹⁶³ For more details on the education and workforce reforms necessary to help youth and young adults succeed in the 21st-century economy, see Carnevale et al., *Youth Policy*, 2021.

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APPENDIX A. Methodology and Data Sources

Good jobs, geographically adjusted

We defined a good job for young adults using a threshold of \$35,000 in annual earnings, adjusted according to the cost of living in each state based on living wage data downloaded in October 2020 from the MIT Living Wage Calculator. To perform this adjustment, we multiplied the nationwide threshold by the annual state living wage for one adult with no children and divided by \$26,000, which roughly represents a nationwide average living wage for a single adult with no children.

For example, in Minnesota, the state living wage for one adult with no children was \$12.05 per hour, or \$25,064 per year for an adult working full time (2,080 hours per year). We adjusted the threshold for a good job by multiplying \$35,000 by 0.964, or the ratio of \$25,064 to \$26,000. Thus, we determined that individuals in Minnesota earning at least \$33,740 met our threshold for having a good job (Table A1).

TABLE A1. Adjusted good jobs threshold by state

| State | Adjusted Good Jobs Threshold | State | Adjusted Good Jobs Threshold | State | Adjusted Good Jobs Threshold |
|----------------------|------------------------------|----------------|------------------------------|----------------|------------------------------|
| Alabama | \$31,500 | Kentucky | \$30,700 | North Dakota | \$30,900 |
| Alaska | \$35,700 | Louisiana | \$32,000 | Ohio | \$30,400 |
| Arizona | \$33,600 | Maine | \$34,900 | Oklahoma | \$30,600 |
| Arkansas | \$29,900 | Maryland | \$40,800 | Oregon | \$37,800 |
| California | \$42,000 | Massachusetts | \$43,300 | Pennsylvania | \$32,300 |
| Colorado | \$37,600 | Michigan | \$31,800 | Rhode Island | \$35,900 |
| Connecticut | \$37,500 | Minnesota | \$33,700 | South Carolina | \$32,900 |
| Delaware | \$35,300 | Mississippi | \$30,500 | South Dakota | \$29,700 |
| District of Columbia | \$47,400 | Missouri | \$31,200 | Tennessee | \$30,700 |
| Florida | \$34,700 | Montana | \$30,700 | Texas | \$32,900 |
| Georgia | \$35,400 | Nebraska | \$30,700 | Utah | \$32,500 |
| Hawaii | \$44,300 | Nevada | \$31,500 | Vermont | \$35,700 |
| Idaho | \$30,900 | New Hampshire | \$35,300 | Virginia | \$39,200 |
| Illinois | \$35,800 | New Jersey | \$39,300 | Washington | \$37,700 |
| Indiana | \$30,900 | New Mexico | \$31,900 | West Virginia | \$30,300 |
| Iowa | \$30,800 | New York | \$43,600 | Wisconsin | \$31,900 |
| Kansas | \$30,400 | North Carolina | \$33,500 | Wyoming | \$30,900 |

Source: Georgetown University Center on Education and the Workforce estimates based on data from the Massachusetts Institute of Technology (MIT), "Living Wage Calculator," 2020.

Share of young workers with a good job by age

Data on young workers with a good job came from two sources: the US Census Bureau and Bureau of Labor Statistics' Current Population Survey (CPS) Annual Social and Economic (March) Supplement from 1972 through 1986 and from 1986 through 2020, and the US Census Bureau's American Community Survey (ACS) from 2009 through 2019.

We compared the two birth cohorts highlighted in the analysis (those born from 1946 to 1950 and those born from 1981 to 1985) using CPS data. We created detailed tables on major fields of study and occupations using ACS data. The data focused on individuals ages 25 through 35 and in the labor force (either employed or unemployed); we assigned annual earnings of zero to individuals who were unemployed.

Employment and enrollment

Analysis of the employment and enrollment of young adults in this report is based on cross-sectional data from three sources: the Current Population Survey (CPS) Annual Social and Economic (March) Supplement, the Current Population Survey (CPS) Education (October) Supplement, and the American Community Survey (ACS). Because the data are cross-sectional rather than longitudinal, each age represents a different population of young adults.

The analysis of the share of young people enrolled by individual age (18 to 25) uses the employment-to-population ratio metric by individual years of age. To attain sufficient sample size, we pooled five years of data from the CPS March Supplement for each comparison point, using data from 1985 to 1989 for "late 1980s" and data from 2015 to 2019 for "late 2010s." We selected these years because they represent similar points in the economic cycle for the two relevant comparison periods.

The analysis of the share of young adults enrolled in school or college by individual age (18 to 25) uses data from the Current Population Survey (CPS) Education (October) Supplement. We pooled five years of data from the CPS October Supplement for each comparison point, using data from 1985 to 1989 for the "late 1980s" and data from 2015 to 2019 for the "late 2010s."

To analyze young adults' pathways through education and employment, we combined data on educational attainment, school or college enrollment, and employment of young adults from the American Community Survey (ACS) to delineate five separate states in which young people find themselves on a journey from youth dependency to economic independence:

- **Not enrolled and not employed (no degree):** This group is often referred to as disconnected youth or "opportunity youth"; they are not working or studying and they have not attained a college degree.
- **Employed, no degree (not enrolled):** This group has entered the workforce without completing a degree; they either entered a job right after high school or they started postsecondary education but dropped out without getting an associate's or a bachelor's degree.
- **Enrolled, not employed:** This group is fully focused on pursuing postsecondary education, whether at the sub-baccalaureate level, in a bachelor's degree program, or in a graduate degree program.

- **Employed and enrolled:** This group represents working learners, who combine education and employment.

- **Employed with a degree (not enrolled):** This group represents young adults who have completed an educational credential, whether an associate's degree, a bachelor's degree, or a graduate degree, and who have ceased enrollment and entered the workforce.

To bolster the sample size and capture the full range of young adult pathways through education and employment, we pooled data from ACS 2017–19 rather than relying on the CPS data that we used for historical comparisons.

Intergenerational analysis

The intergenerational analysis of educational attainment is based on data from the US Bureau of Labor Statistics' National Longitudinal Survey of Youth 1997 (NLSY97). Information on parental education was collected in the survey's first round in 1997 and is coded based on the highest level of education of either parent. In our analysis, we used the educational attainment of whichever parent has a higher level of education, whether the father or the mother. The educational attainment for young adults was the most recent educational attainment information collected in any round through 2017, when young adults in the survey were ages 31 to 37.

The analysis of good jobs attainment eight years after high school is based on data from the Education Longitudinal Study of 2002 (ELS:2002), which is a nationally representative longitudinal study of high school students. We used data from the first follow-up survey (which occurred in 2004) and the third follow-up survey (which occurred in 2012). We defined young adults as holding a good job in 2012 if their income met or exceeded the \$35,000 threshold. We compared the good job status of this group in 2012 to the socioeconomic status of their parents in 2004. Socioeconomic status is based on parental income, education, and occupational prestige.

Wealth and student loan debt

Wealth and student debt information came from two data sources: the US Census Bureau's Survey of Income and Program Participation (SIPP) and the Federal Reserve System's Survey of Consumer Finances (SCF). SIPP allows us to evaluate individual assets using monthly longitudinal data, while the SCF captures household finances.

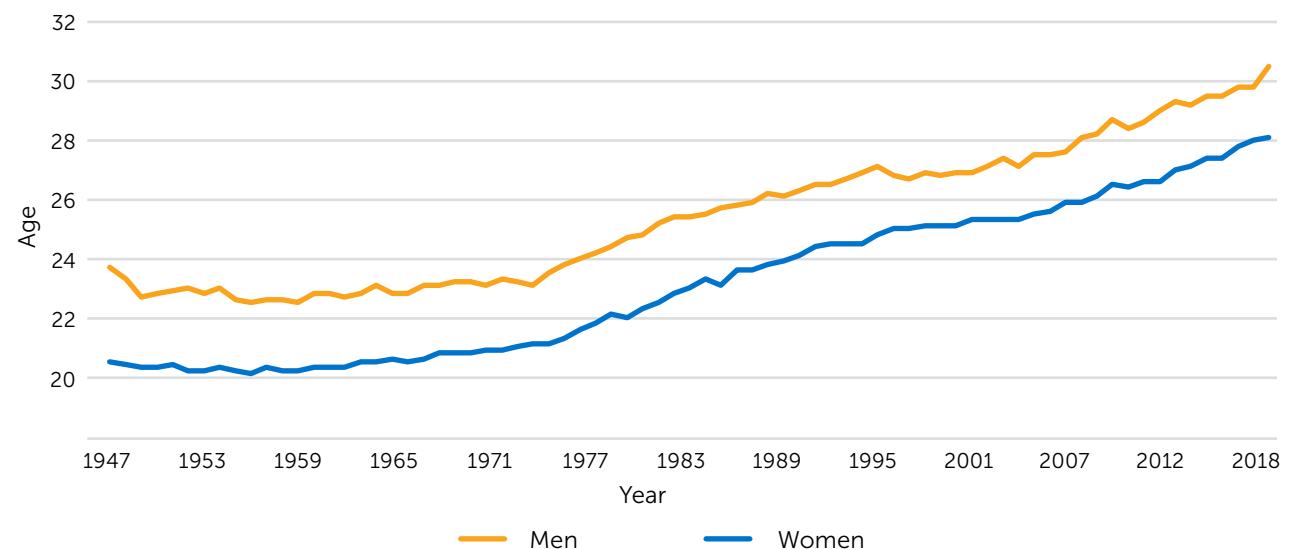
We use SCF data primarily for historical comparisons. "The 1990s" refers to data pooled from the survey years 1989, 1992, 1995, and 1998. "The 2010s" refers to data pooled from the survey years 2010, 2013, 2016, and 2019. Ages are based on the reported age of the head of household.

We use SIPP to examine changes in wealth over a three-year period by comparing median net worth data for individual respondents in 2013 and 2016. For this analysis, we restricted the population to people who were ages 25 to 29 in 2013. We excluded data for anyone enrolled in a postsecondary institution at any point during this time period.

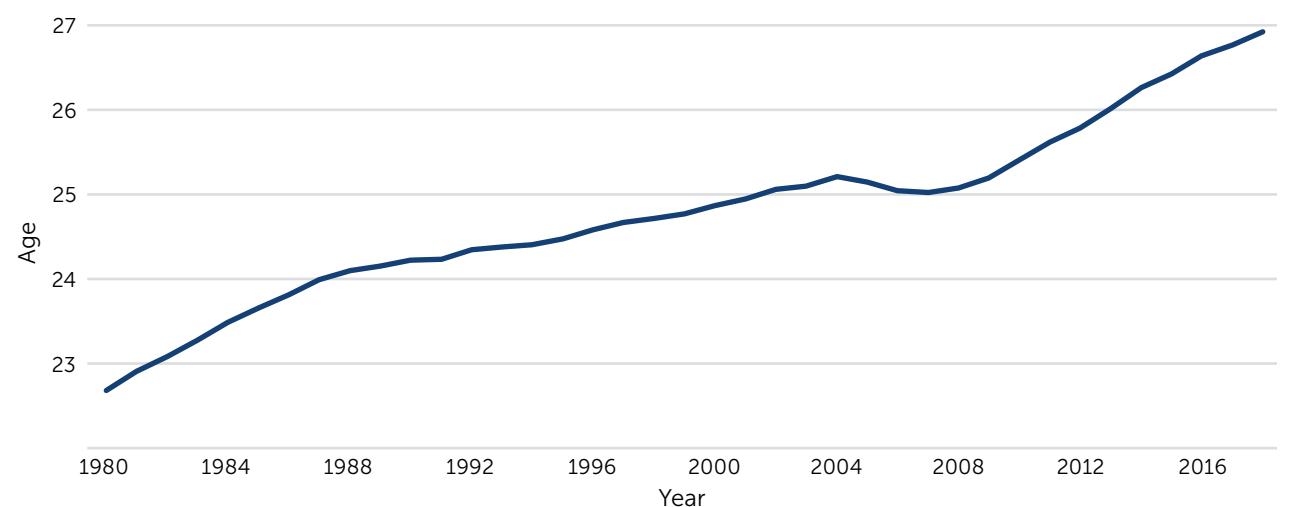
Nominal dollars are inflation-adjusted to 2019 dollars in this report.

APPENDIX B.

Additional Trends Over Time

FIGURE B1. Average age at first marriage

Source: Georgetown University Center on Education and the Workforce analysis of data from the US Census Bureau, "Historical Marital Status Tables," 2020.

FIGURE B2. Mother's average age at first live birth

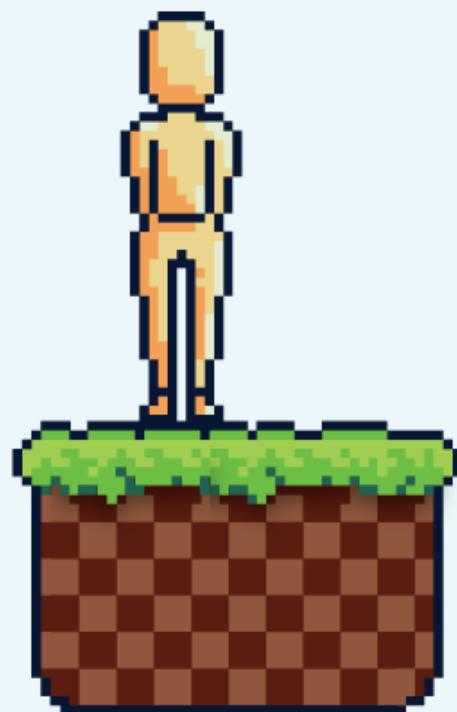
Source: Georgetown University Center on Education and the Workforce analysis of data from the US Centers for Disease Control and Prevention, "Vital Statistics Online Data Portal," 2019.



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*The Uncertain Pathway from Youth to a Good Job:
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