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THE CLASS OF 2014

The Weak Economy Is Idling Too Many Young Graduates

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Introduction and key findings

The Great Recession officially ended in June 2009, nearly five years ago. However, the labor market has made agonizingly slow progress toward a full recovery, and the slack that remains continues to be devastating for workers of all ages. The U.S. labor market still has a deficit of **more than 7 million jobs**, and the unemployment rate has been at 6.6 percent or higher for five-and-a-half years. (In comparison, the *highest* unemployment rate in the early 2000s downturn was 6.3 percent, for one month in 2003.) The weak labor market has been, and continues to be, very tough on young workers: At 14.5 percent, the March 2014 unemployment rate of workers under age 25 was slightly over twice as high as the overall unemployment rate, 6.7 percent. Though the labor market is headed in the right direction, it is improving very slowly, and the job prospects for young high school and college graduates remain dim.

A key finding of this paper is that there is little evidence that young adults have been able to “shelter in school” from the labor market effects of the Great Recession. Increases in college and university enrollment rates between 2007 and 2012 were no greater than before the recession began—and since 2012, college enrollment rates have dropped substantially. *This means there has been a large increase in the share of young high school and college graduates who are idled—neither employed nor enrolled in school—by the weak economy. This represents an enormous loss of opportunities for this cohort that will have lasting consequences.*

This paper’s title, *The Class of 2014*, is admittedly something of a misnomer, as we do not yet know the labor market outcomes of these soon-to-be graduates. However, the outcomes of recent high school and college graduates provide a good sense of the labor market conditions the young men and women graduating this spring will face. This briefing paper examines the labor market that confronts young graduates who are not enrolled in further schooling—specifically, high school graduates age 17–20 and college graduates age 21–24. We look at young graduates who are not enrolled in further schooling in an attempt to focus as closely as possible on the labor market outcomes of those who are starting their careers. Key findings include:

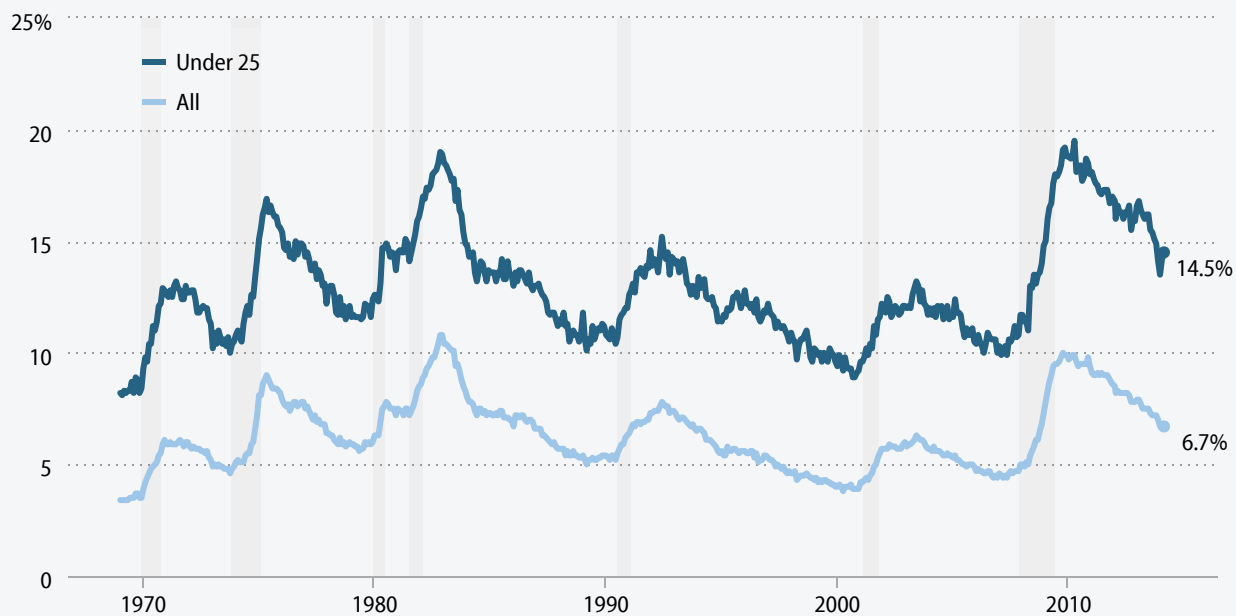
- Unemployment of young graduates is extremely high today not because of something unique about the Great Recession and its aftermath that has affected young people in particular. Rather, it is high because young workers *always* experience disproportionate increases in unemployment during periods of labor market weakness—and the Great Recession and its aftermath is the longest, most severe period of economic weakness in more than seven decades.
- In today’s labor market, there are nearly 1 million “missing” young workers—potential workers who are neither employed nor actively seeking work (and are thus not counted in the unemployment rate) because job opportunities remain so scarce. If these missing workers were in the labor market looking for work, the unemployment rate of workers under age 25 would be 18.1 percent instead of 14.5 percent.
- Unemployment and underemployment rates among young graduates are improving but remain substantially higher than before the recession began.
 - For young college graduates, the unemployment rate is currently 8.5 percent (compared with 5.5 percent in 2007), and the underemployment rate is 16.8 percent (compared with 9.6 percent in 2007).

- For young high school graduates, the unemployment rate is 22.9 percent (compared with 15.9 percent in 2007), and the underemployment rate is 41.5 percent (compared with 26.8 percent in 2007).
- Overall unemployment rates of young graduates mask substantial disparities in unemployment by race and ethnicity. The unemployment rates of blacks and Hispanics are substantially higher than the unemployment rates of white non-Hispanics, for both young high school graduates and young college graduates.
- The large increases since 2007 in the unemployment and underemployment rates of young college graduates, and in the share of employed young college graduates working in jobs that do not require a college degree, underscore that the current unemployment crisis among young workers did not arise because today's young adults lack the right education or skills. Rather, it stems from weak demand for goods and services, which makes it unnecessary for employers to significantly ramp up hiring.
- The long-run wage trends for young graduates are bleak, with wages substantially lower today than in 2000. Since 2000, the real (inflation-adjusted) wages of young high school graduates have dropped 10.8 percent, and those of young college graduates have dropped 7.7 percent.
- The erosion of job quality for young graduates is also evident in their declining likelihood of receiving employer-provided health insurance or pensions.
- Graduating in a bad economy has long-lasting economic consequences. For the next 10 to 15 years, those in the Class of 2014 will likely earn less than if they had graduated when job opportunities were plentiful.
- The cost of higher education has grown far more rapidly than median family income, leaving students with little choice but to take out loans which, upon graduating into a labor market with limited job opportunities, they may not have the funds to repay.
- Because the scarcity of job opportunities for the Class of 2014 is a symptom of weak demand for workers more broadly, what will bring down young workers' unemployment rates most quickly and effectively are policies that will generate strong job growth overall. These include fiscal relief to states, substantial additional investment in infrastructure, expanded safety net measures, and direct job creation programs in communities particularly hard-hit by unemployment.

In good times and bad, unemployment rate twice as high for young workers

In economic recessions as well as expansions, the unemployment rate of young workers (those under age 25) is typically a little more than twice as high as the overall unemployment rate. On average between 1989 and 2007, the unemployment rate of workers under age 25 was 2.2 times as high as the overall unemployment rate (see **Figure A** for national data and **Appendix Table A1** for state-level data). This trend persists over time because young workers are relatively new to the labor market—often looking for their first or second job—and they may be passed over in hiring decisions due to lack of experience. As for young workers who are already employed, their lack of seniority makes them likely candidates for being laid off if their firm falls on hard times or is restructuring. Young workers also tend to be more mobile than older workers, moving between employers, careers, or cities, and thus spend a larger share of their time as job seekers.

Unemployment rate of workers under age 25 and all workers, 1969–2014



Note: Shaded areas denote recessions. Data are seasonally adjusted.

Source: Authors' analysis of Bureau of Labor Statistics Current Population Survey public data series

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The historical fact that the unemployment rate of young workers tends to be a little more than twice the overall rate continues to be true today. In March, the overall unemployment rate was 6.7 percent, and the unemployment rate of workers under age 25, at 14.5 percent, was 2.2 times as high.

This raises two key points. First, because the unemployment rate of young workers is typically slightly more than twice as high as the overall rate, young workers experience much greater-than-average increases in unemployment during economic downturns. When the overall unemployment rate is elevated by 1 percentage point, the unemployment rate of young workers will likely be elevated by around 2 percentage points.

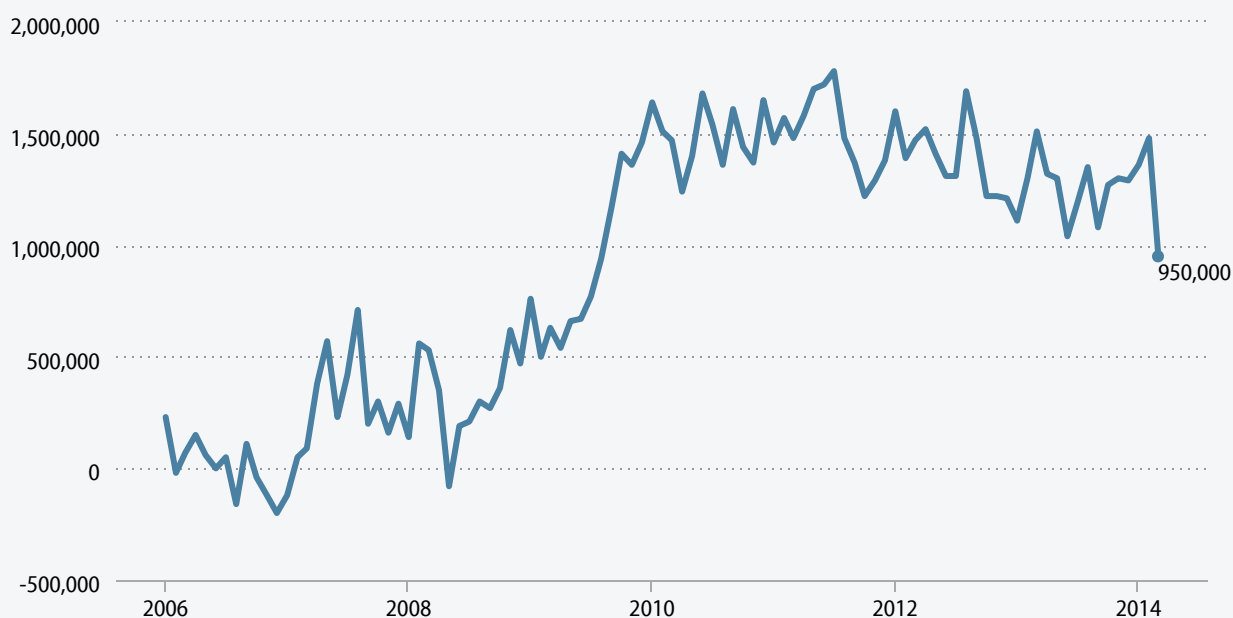
Second, the dire situation young workers face today *is not unexpected* given overall labor market weakness. In other words, unemployment of young workers is extremely high today not because of something unique about the Great Recession and its aftermath that has affected young people in particular. Rather, it is high because young workers *always* experience disproportionate increases in unemployment during downturns—and the Great Recession and its aftermath is the longest, most severe period of economic weakness in more than seven decades.

“Missing” young workers

At 14.5 percent, the unemployment rate of workers under age 25 is far higher than it was before the recession began; in 2007 their unemployment rate was 10.5 percent. However, in today’s labor market, the unemployment rate—as

FIGURE B [VIEW INTERACTIVE on epi.org](#)

Missing workers* under age 25, January 2006–March 2014



* Potential workers who, due to weak job opportunities, are neither employed nor actively seeking work, and are thus not reflected in the unemployment rate

Source: Authors' analysis of Toossi (2007) and Current Population Survey public data series

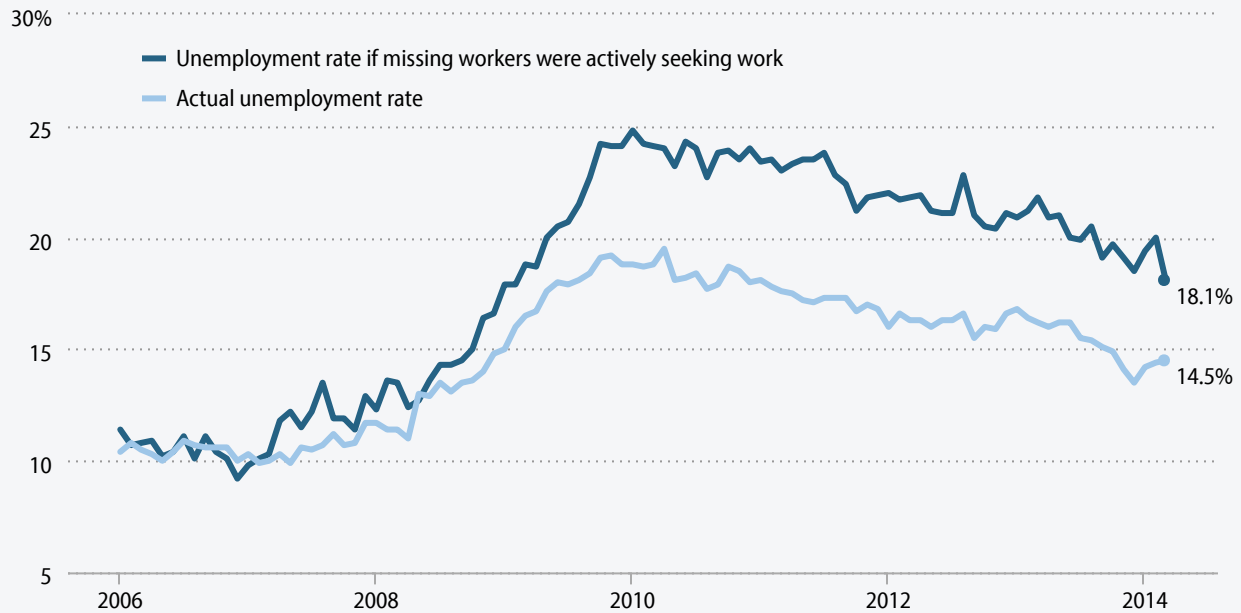
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elevated as it is—drastically understates the weakness of job opportunities. This is because there are currently a huge number of “missing workers”—potential workers who are neither employed nor actively seeking work simply because job opportunities remain so scarce. Because jobless workers are only counted as unemployed if they are actively seeking work, these missing workers are not reflected in the unemployment rate. **Figure B** shows the number of missing workers under age 25 (for missing workers of all ages, see [EPI 2014](#)). The number of young missing workers shot up to 1.6 million between early 2007 and early 2010, and then fluctuated around that level for a year-and-a-half, before declining to its current level of 950,000. It is important to note that this calculation of missing workers takes into account long-run trends in labor force participation, such as lower labor force participation of young people due to increasing college enrollment over recent decades. (The methodology for calculating the number of missing workers is described in [EPI 2014](#).) But it is also true that today’s missing young workers have not been able to “shelter in school” from the labor market effects of the Great Recession. Increases in college and university enrollment rates between 2007 and 2012 were no greater than the increases seen before the recession began—and since 2012, college enrollment rates have dropped substantially. This is discussed in more depth in the section “Young people are not ‘sheltering in school.’”

Figure C shows that if the missing young workers were in the labor force looking for work—and thus counted as unemployed—the unemployment rate of young workers would be 18.1 percent instead of 14.5 percent. In other words, the unemployment rate in today’s recovery greatly understates how difficult it is for workers to find a job. In the following

FIGURE C [VIEW INTERACTIVE on epi.org](#)

Unemployment rate of workers under age 25, actual and if missing workers* were looking for work, January 2006–March 2014



* Potential workers who, due to weak job opportunities, are neither employed nor actively seeking work, and are thus not reflected in the unemployment rate

Source: Authors' analysis of Toossi (2007) and Current Population Survey public data series

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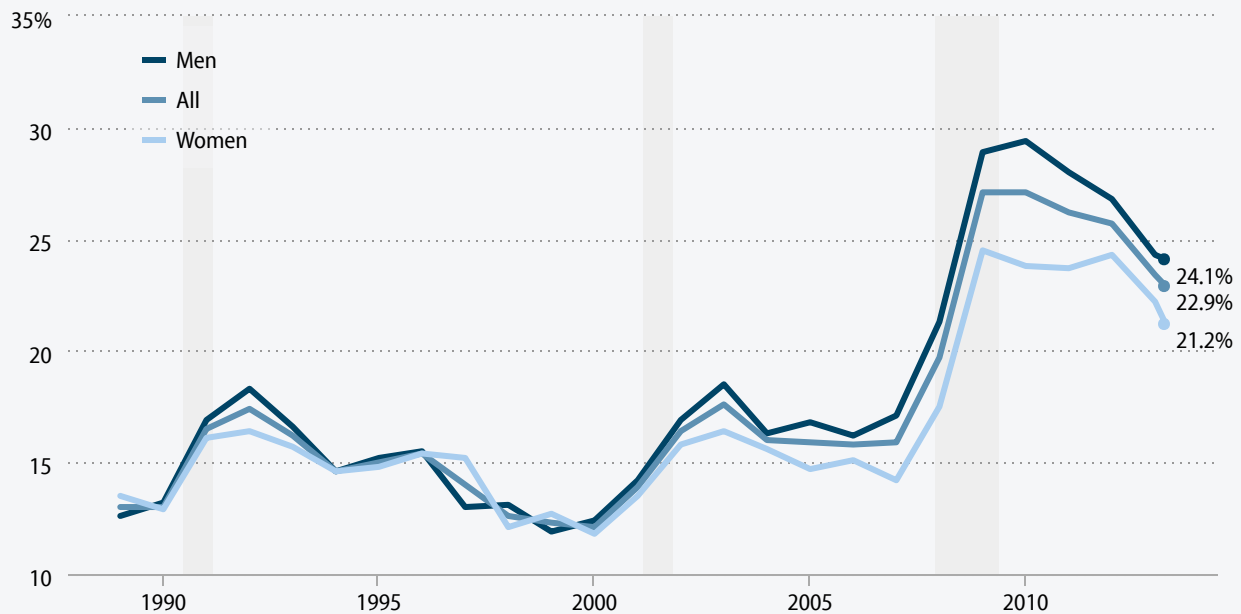
discussion of unemployment rates of young high school and college graduates, it is important to keep in mind that unemployment rates today, as high as they are, are making things look better than they actually are.

For young high school graduates, very high unemployment and underemployment

Among young high school graduates, unemployment rates are astonishingly high. **Figure D** shows the unemployment rate of young high school graduates between age 17 and 20 who are not enrolled in additional schooling. (Most data presented in this paper on graduates who are not enrolled, along with data on enrollment itself, begin in 1989, the first business cycle peak for which enrollment data are available from the Bureau of Labor Statistics.)

As Figure D shows, the unemployment rate of young high school graduates who are not enrolled in additional schooling jumped from 15.9 percent in 2007 to 27.1 percent in 2010, dwarfing the increases in prior recessions. The rate has since declined, to 22.9 percent. The increase between 2007 and 2010 was particularly pronounced for young male high school graduates, from 17.1 percent to 29.4 percent. Men's unemployment rates tend to disproportionately increase during downturns in large part because men are more concentrated in industries particularly hard-hit by recessions, such as manufacturing, construction, and transportation. Since 2010, unemployment rates by gender for young high

Unemployment rate of young high school graduates, by gender, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Shaded areas denote recessions. Data are for high school graduates age 17–20 who are not enrolled in further schooling.

Source: Authors’ analysis of basic monthly Current Population Survey Outgoing Rotation Group microdata

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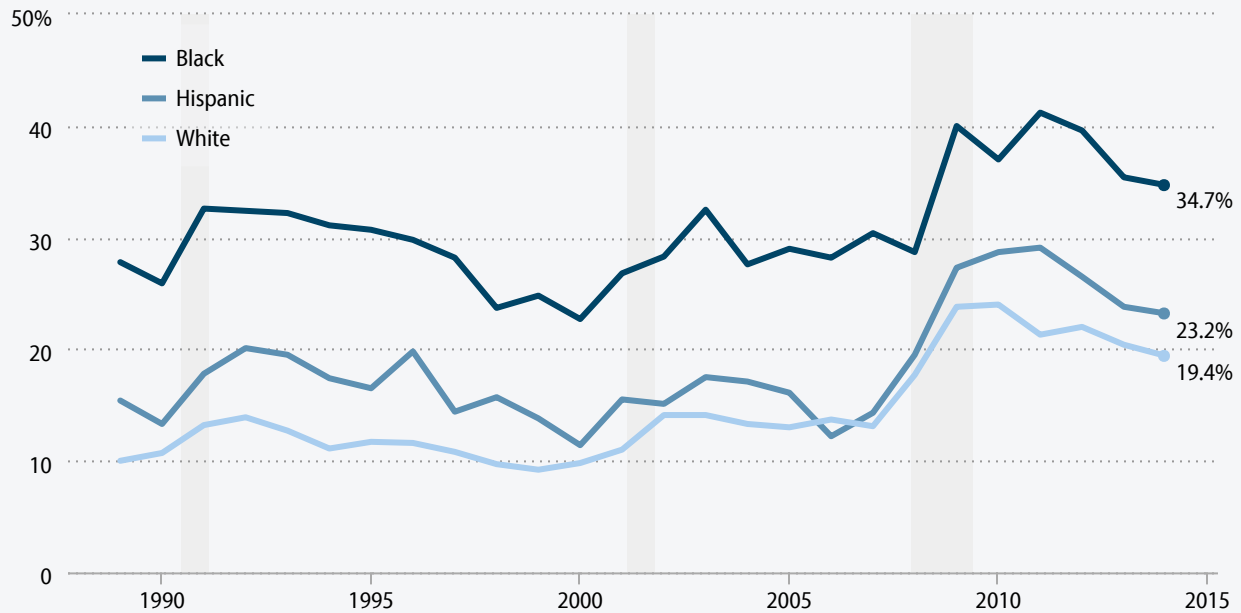
school graduates have become more equal; the latest data show that the unemployment rate was 24.1 percent for young male high school graduates and 21.2 percent for young female high school graduates.

Figure E shows that among young high school graduates, the unemployment rate of racial and ethnic minorities—particularly young black graduates—tends to be higher than that of whites, in good times and bad. In 2007, the unemployment rate of young white high school graduates age 17–20 who are not enrolled in further schooling was 13.1 percent. It rose to 24.0 percent in 2010 and has since improved slightly to 19.4 percent. In 2007, the unemployment rate of young black high school graduates was 30.4 percent. It continued on a general upward trend until 2011, when it was 41.2 percent, and has since declined to 34.7 percent. In 2007, the unemployment rate of young Hispanic high school graduates was 14.3 percent. That rate also rose until 2011, when it was 29.1 percent, and has since improved somewhat to 23.2 percent.

Earlier we discussed how the unemployment rate currently understates weakness in the labor market because of the existence of so many missing workers (i.e., jobless workers who are neither working nor actively seeking work because job opportunities are so grim). A more comprehensive measure of labor market slack than the unemployment rate is the “underemployment rate” (officially, the U-6 measure of labor underutilization). In addition to the unemployed (jobless workers who report that they are actively seeking work), the underemployment rate also includes those who work part

FIGURE E [VIEW INTERACTIVE on epi.org](#)

Unemployment rate of young high school graduates, by race and ethnicity, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Shaded areas denote recessions. Data are for high school graduates age 17–20 who are not enrolled in further schooling. Race/ethnicity categories are mutually exclusive (i.e., white non-Hispanic, black non-Hispanic, and Hispanic any race).

Source: Authors’ analysis of basic monthly Current Population Survey Outgoing Rotation Group microdata

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time but want full-time work (“involuntary” part timers), and those who want a job and have looked for work in the last year but have given up actively seeking work (“marginally attached” workers).

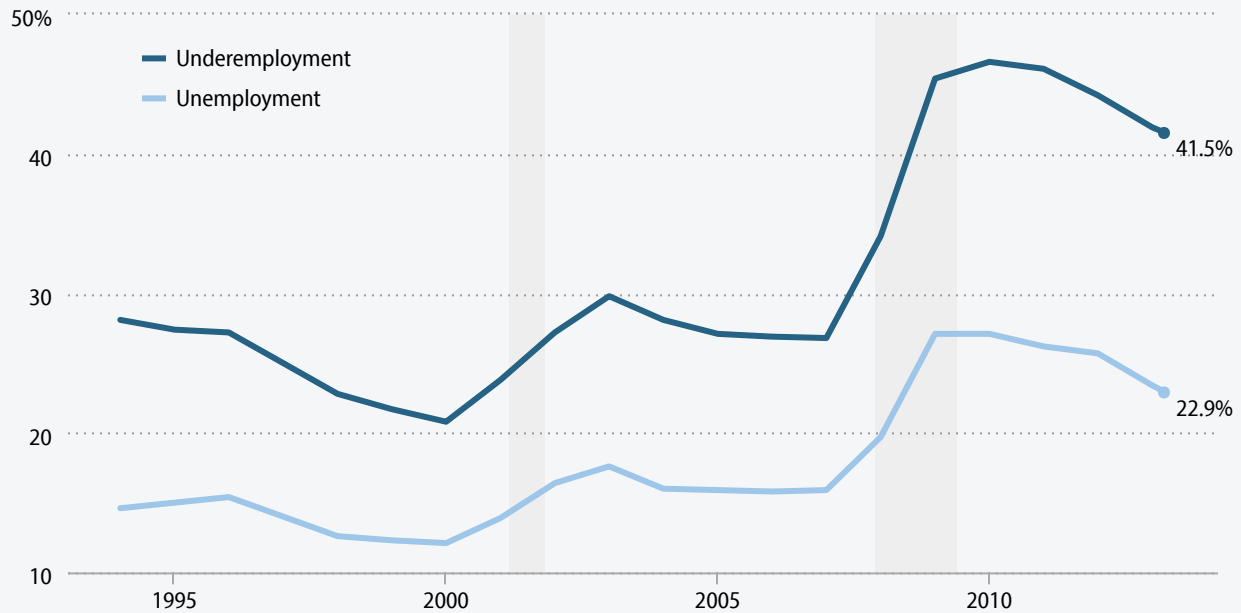
Figure F presents data on both unemployment and underemployment among young high school graduates (those age 17–20 who are not enrolled in further schooling). Currently, while the unemployment rate of young high school graduates is 22.9 percent, their *underemployment* rate is above 40 percent (41.5 percent). In other words, in addition to the officially unemployed, a significant share of young people either want a job but have simply given up looking for work, or have a job that does not provide the hours they need. While state breakdowns of underemployment by educational attainment are not available, **Appendix Table A2** shows state-level underemployment rates of all workers by age.

Young college graduates also struggle to find work

By attending and finishing college, young college graduates have made a significant down payment on their career in terms of both time and money, and they typically have very high labor force participation. And because a college degree affords more opportunities in the labor market—not least of which is the fact that college graduates are often more competitive relative to non-college graduates when it comes to landing jobs not requiring a college degree—unemployment

FIGURE F [VIEW INTERACTIVE on epi.org](#)

Unemployment and underemployment rates of young high school graduates, 1994–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Shaded areas denote recessions. Underemployment data are only available beginning in 1994. Data are for high school graduates age 17–20 who are not enrolled in further schooling.

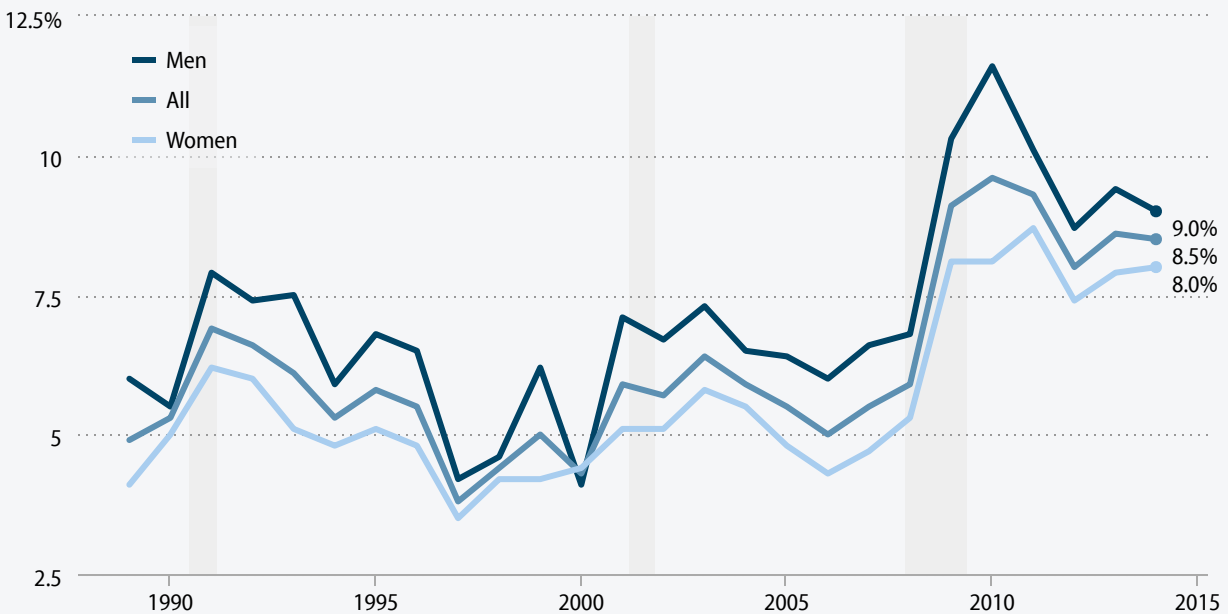
Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

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among young workers with a college degree is substantially lower than among other young workers. However, young college graduates' job prospects have deteriorated dramatically since the start of the Great Recession. In this section we examine the labor market outcomes of college graduates between age 21 and 24 who do not have an advanced degree and are not enrolled in additional schooling.

Figure G shows that the unemployment rate of young college graduates jumped from 5.5 percent in 2007 to 9.6 percent in 2010, dwarfing the increases in prior recessions. It declined somewhat between 2010 and 2012, to 8.0 percent. It should be noted that most of that decline was not for "good" reasons—the share of young college graduates with a job increased by only one-tenth of a percentage point over this period. The improvement was due primarily to young college graduates either dropping out of, or never entering, the labor force because job opportunities were so weak. Since 2012, some of the 2010–2012 trends have reversed. The unemployment rate increased modestly and is now at 8.5 percent, but most of that increase was not for bad reasons—the share of young college graduates with a job held steady since 2012. The increase in the unemployment rate since 2012 was due to workers entering or reentering the labor market looking for work. Since the unemployment rate of young college graduates remains significantly elevated,

Unemployment rate of young college graduates, by gender, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Shaded areas denote recessions. Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling.

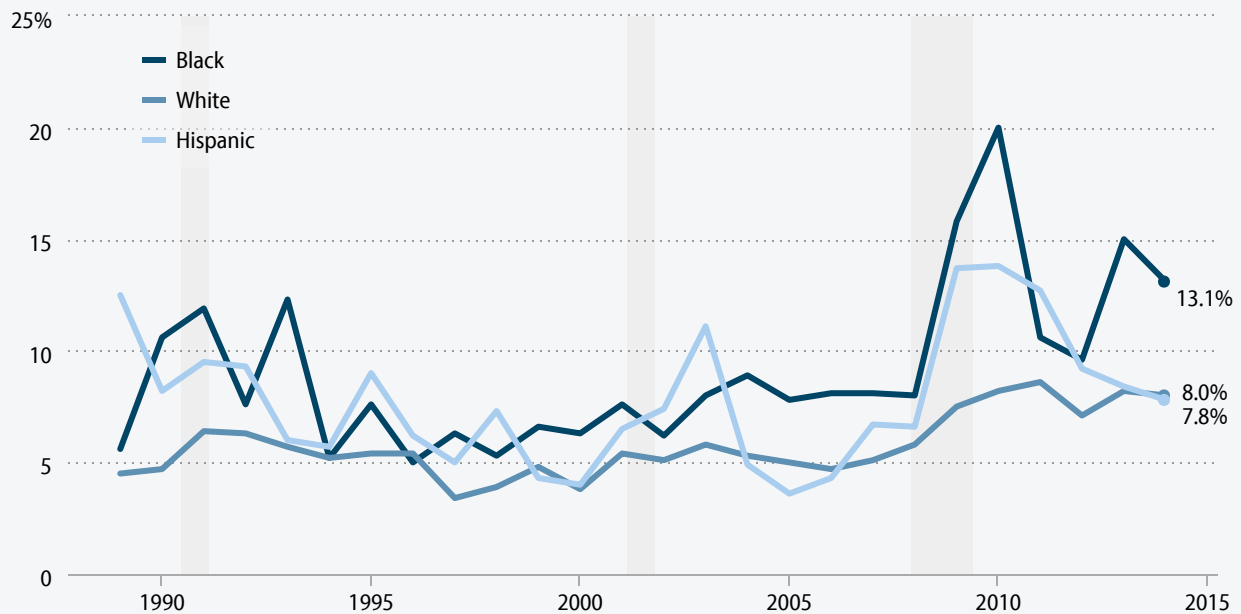
Source: Authors’ analysis of Current Population Survey microdata

the Class of 2014 will join a sizable backlog of unemployed college graduates from the last *five* graduating classes (the classes of 2009–2013) in an extremely difficult job market.

Unemployment data by gender, though somewhat volatile due to relatively small sample sizes, show that the increase in unemployment was larger for young male college graduates (from 6.6 percent in 2007 to a peak of 11.6 percent in 2010) than young female college graduates (from 4.7 percent in 2007 to a peak of 8.7 percent in 2011). The unemployment rate of young male college graduates has since improved to 9.0 percent, compared with 8.0 percent for young female college graduates. This gender gap in unemployment is likely due largely to industry concentration; women are more likely to be employed in industries, such as health and education, which are less sensitive to downturns.

Figure H shows unemployment rates by race and ethnicity of college graduates age 21–24 who are not enrolled in further schooling. The data by race and ethnicity are very volatile year-to-year due to small sample sizes, so it is important not to emphasize year-over-year changes and to instead focus on longer-run trends. What they show is that the unemployment rate of young college graduates who are racial and ethnic minorities tends to be higher than that of young white non-Hispanic college graduates, in good times and bad. The unemployment rate of young black college graduates was 8.1 percent in 2007, rose to 20.0 percent by 2010, and has since improved to 13.1 percent. The unemployment rate of young Hispanic college graduates was 6.7 percent in 2007, rose to 13.8 percent by 2010, and has improved to 7.8

Unemployment rate of young college graduates, by race and ethnicity, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling. Shaded areas denote recessions. Race/ethnicity categories are mutually exclusive (i.e., white non-Hispanic, black non-Hispanic, and Hispanic any race).

Source: Authors’ analysis of Current Population Survey microdata

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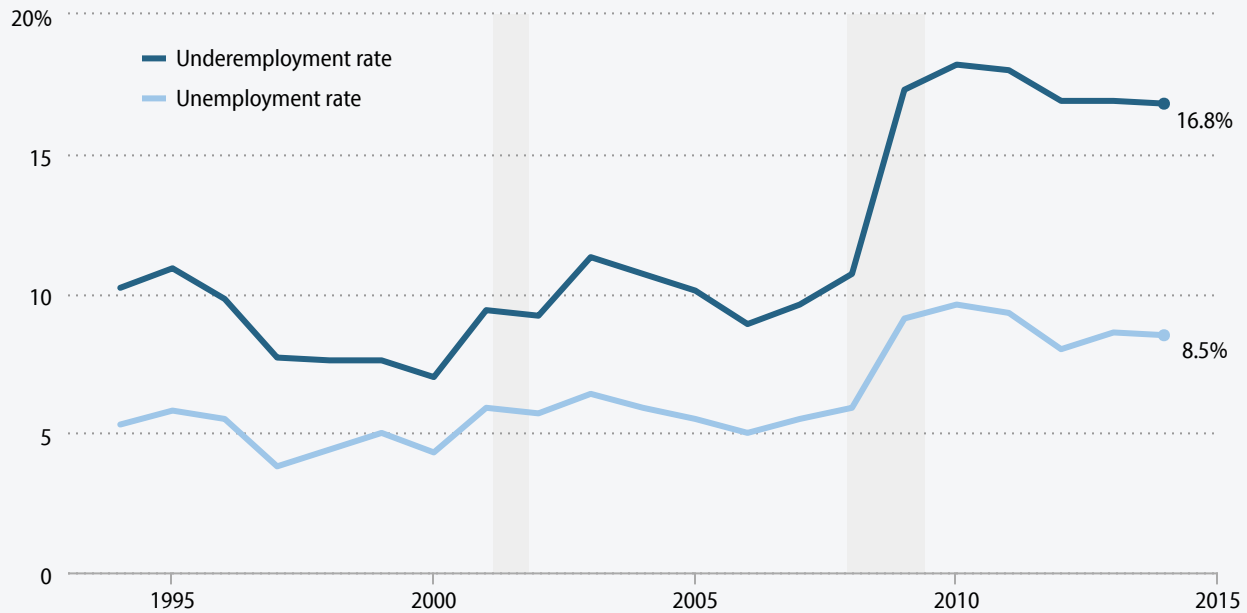
percent, currently slightly below the unemployment rate of white non-Hispanic graduates. Among young white non-Hispanic college graduates, the unemployment rate was 5.1 percent in 2007, rose to 8.6 percent in 2011, and improved to 8.0 percent.

One would think there would be little disparity in the unemployment rates of young college graduates, who have the same basic degree and are in the same labor market position (i.e., college graduates, age 21–24, not enrolled in school, and either employed or actively seeking work). It is notable that having an equivalent amount of higher education and a virtual blank slate of prior professional work experience still does not generate parity in unemployment across races and ethnicities. This suggests other factors may be at play, such as minorities not having equal access to the informal professional networks that often lead to job opportunities, and discrimination against young racial and ethnic minorities.

Figure I presents unemployment and underemployment data for young college graduates age 21–24 who are not enrolled in further schooling. Currently, while the unemployment rate of this group is 8.5 percent, the underemployment rate is almost twice that, at 16.8 percent. In other words, in addition to the substantial share who are officially unemployed, a large swath of these young, highly educated workers either have a job but cannot attain the hours they need, or want a job but have given up looking for work.

FIGURE I [VIEW INTERACTIVE on epi.org](#)

Unemployment and underemployment rates of young college graduates, 1994–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Underemployment data are only available beginning in 1994. Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling. Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey microdata

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Employed college graduates ending up in lower-level jobs

Although the measure of underemployment used in Figure I—the U-6 measure of labor underutilization—includes hours-based underemployment (i.e., part-time workers who want full-time work), it does *not* include “skills/education-based” underemployment (e.g., the young college graduate working as a barista). A recent paper by researchers at the Federal Reserve Bank of New York (Abel, Deitz, and Su 2014) offers insight into skills/education-based underemployment of recent college graduates. They categorize occupations according to whether the U.S. Department of Labor’s Occupational Information Network (O*NET) characterizes them as requiring a four-year college degree, and calculate what share of recent college graduates with jobs are working in jobs that actually require a college degree. First, it is important to note that even in good economic times, a surprisingly high share of young college graduates work in jobs that do not require their college degree. For example, in 2000—when jobs were plentiful and the unemployment rate was 4.0 percent—36 percent of employed college graduates age 22–27 worked in jobs that did not require a college degree. No matter how strong the labor market is, recent college graduates often require some time to transition into the labor market.

However, the share of young college graduates working in jobs not requiring a college degree increased over the weak 2000–2007 business cycle, increased further in the Great Recession, and has not yet begun to improve. In 2007, 38 percent of employed college graduates under age 27 were working in a job that did not require a college degree, and this share increased to 44 percent by 2012. Furthermore, the “non-college” jobs that workers with a college degree are ending up in are of lower quality now than they used to be. In 2000, half of recent college graduates who were in a job that did not require a college degree were nevertheless in a “good” job that tended to be career-oriented and fairly well-compensated—such as electrician, dental hygienist, or mechanic. That share has dropped substantially, while at the same time, there has been an increase in the share of recent college grads who are in very low-wage jobs, such as bartender, food server, or cashier. The bottom line is that for recent college graduates, finding a good job has become much more difficult. These findings are consistent with other research showing that among the workforce as a whole, there has been a decline in the demand for “cognitive skills” since 2000 (Beaudry, Green, and Sand 2013).

These trends also underscore that the unemployment crisis since 2007 among young workers more broadly did not arise because young people today lack enough education or skills. Rather, it stems from weak demand for goods and services, which makes it unnecessary for employers to significantly ramp up hiring. For more on the fact that today’s labor market weakness is due to weak demand and not workers lacking the right skills or education, see [Shierholz \(2014\)](#).

Later, in the section “Downturn affects young workers’ futures,” we discuss how the fact that young workers entering the labor market in a downturn are more likely to have to settle for lower-level jobs contributes to the severe and long-lasting negative impact on earnings of starting out when the economy is weak.

Young people are not “sheltering in school”

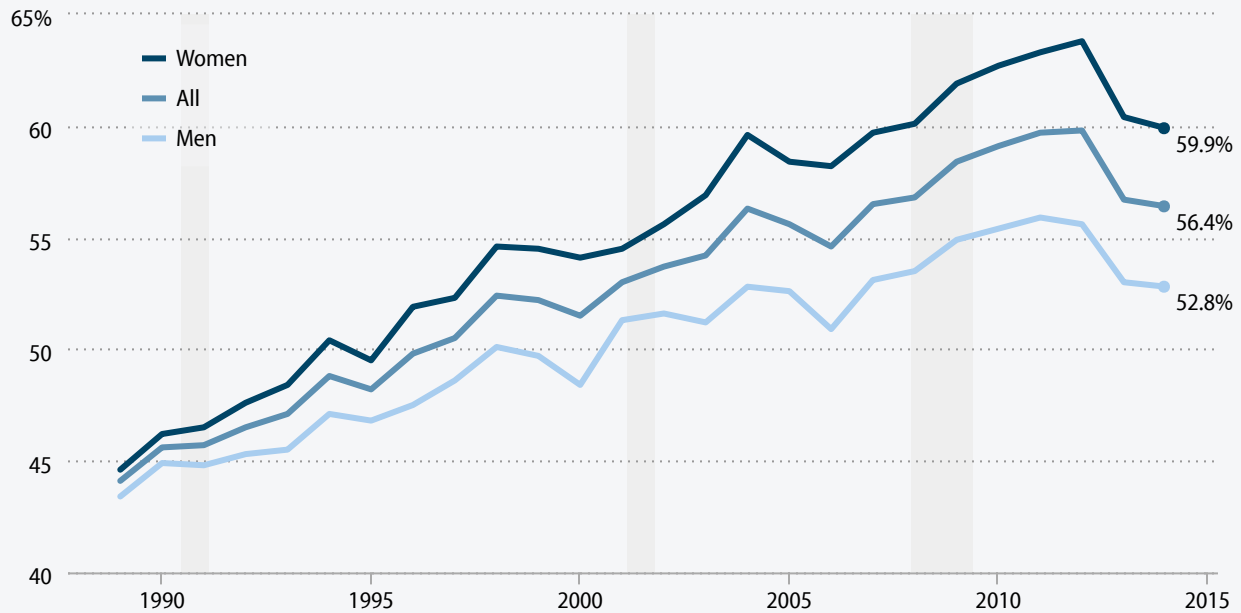
Educational opportunity is often identified as a possible silver lining to the dark cloud of unemployment and underemployment that looms over today’s young graduates. The assumption is that a lack of job opportunities propels young workers to “shelter” from the downturn by attaining additional schooling, which may improve their long-run career prospects. *However, there is little evidence of an uptick in enrollment due to the Great Recession, and since 2012 college enrollment has plummeted.*

Figure J shows the share of young high school graduates (age 17–20) enrolled in college or university. This share has greatly increased over time (from 44.1 percent in 1989 to 56.4 percent most recently), with particularly steep increases for women (44.6 percent to 59.9 percent) compared with men (43.4 percent to 52.8 percent). Notably, increases in enrollment between 2007 and 2012 were no greater than what had been happening before the Great Recession began. The overall enrollment rate increased 0.7 percentage points per year on average between 2000 and 2007, and it also increased 0.7 percentage points per year between 2007 and 2012 (for women, the increase was 0.8 percentage points per year for both periods, while for men, the increase in the two periods was 0.7 percentage points per year and 0.5 percentage points per year, respectively). In other words, there is little evidence of a Great Recession–induced increase in enrollment. *And since 2012, enrollment rates for both men and women have dropped substantially.*¹

Figure K shows the share of young college graduates (age 21–24) enrolled in additional schooling (for example, to get a master’s degree). This share has also greatly increased over time (from 18.0 percent in 1989 to 26.6 percent most recently), also with particularly steep increases for women (17.1 percent to 28.7 percent) compared with men (19.2 percent to 23.7 percent). The trends in Figure K are quite volatile due to small sample sizes, but they show that increases in

FIGURE J [VIEW INTERACTIVE on epi.org](#)

Share of young high school graduates enrolled in college or a university, by gender, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Shaded areas denote recessions. Data are for high school graduates age 17–20 who may have previous college experience.

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

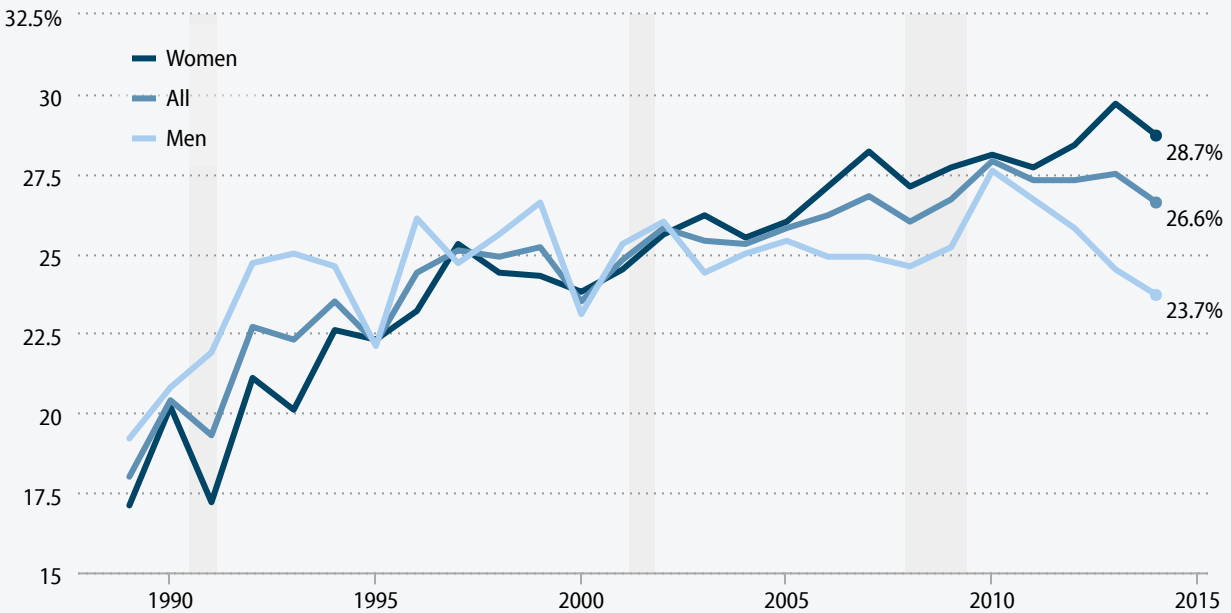
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enrollment of college graduates since 2007 were no greater than what had been happening before the Great Recession began. The overall enrollment rate increased 0.5 percentage points per year on average between 2000 and 2007, while it did not increase at all on average since 2007 (for women, the average increase was 0.6 percentage points per year from 2000 to 2007 and 0.1 percentage points per year since then, while for men, the average increase from 2000 to 2007 was 0.3 percentage points per year, while their enrollment *declined* by an average of 0.2 percentage points per year since 2007). Again, there is little evidence of a Great Recession–induced increase in enrollment. While state breakdowns of enrollment by educational attainment are not available, **Appendix Table A3** shows enrollment rates by state of all high school graduates (including those with college degrees) under age 25.

That enrollment has not meaningfully increased above its long-run trend despite the lack of job opportunities in the Great Recession and its aftermath is likely due largely to an often-overlooked fact: *Students and workers are not distinct groups*. Many students must work to pay for school or cover living expenses. In 2007, before the recession began, more than half (51.2 percent) of college students under age 25 were employed. By 2013, the share had dropped to 44.7 percent. For students who must work to afford school, but cannot find work due to the poor labor market, “sheltering in school” is not an option. Furthermore, many students depend on the support of their parents to get through college, and if their parents saw the value of their home drop when the housing bubble burst, or have had bad labor market out-

FIGURE K [VIEW INTERACTIVE on epi.org](#)

Share of young college graduates enrolled in further education, by gender, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Data are for college graduates (bachelor’s degree only) age 21–24. Shaded areas denote recessions.

Source: Authors’ analysis of Current Population Survey Outgoing Rotation Group microdata

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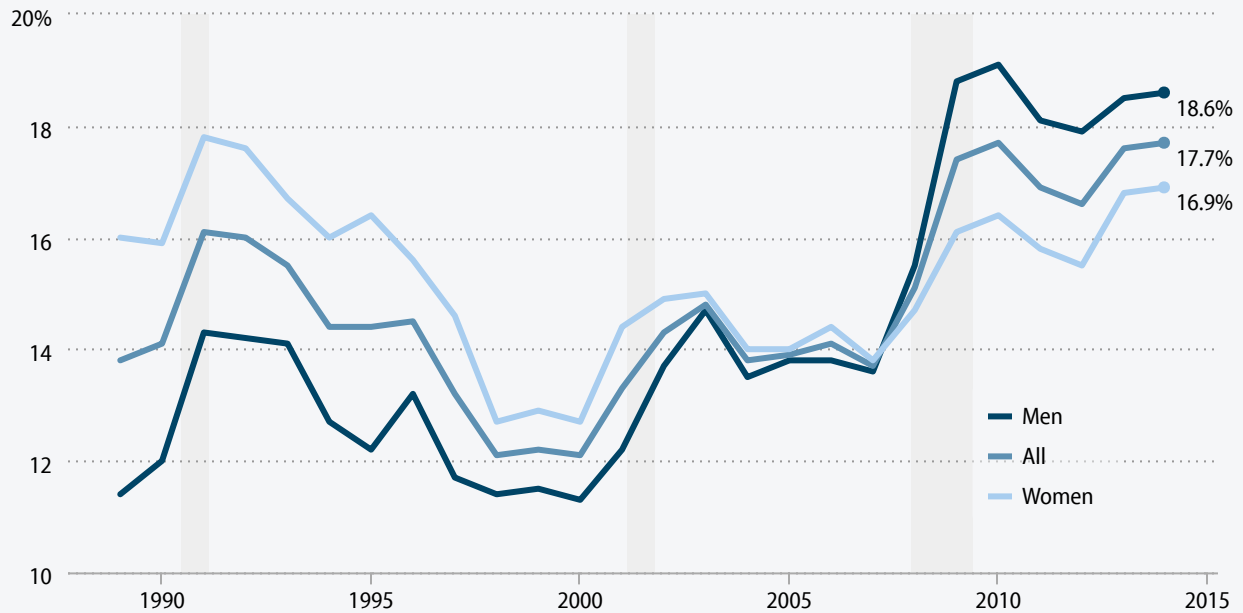
comes in the aftermath of the Great Recession, that avenue to college may also be unavailable (see, for example, Lovenheim and Reynolds 2013). In this downturn, certainly some students have had the financial resources to take shelter in school. However, the lack of a Great Recession–induced increase in enrollment suggests this group has been more than offset by students who have been forced to drop out of school, or never enter, because the effects of the bursting of the housing bubble and the ensuing Great Recession meant they could not afford to attend.

Number of young workers neither enrolled nor employed rises

The lack of a Great Recession–fueled increase in college or university enrollment, combined with the lack of job prospects, means a large share of young graduates are now idled, or “disconnected”—that is, neither enrolled nor employed. These young graduates are disconnected from two main paths—work experience or further education—that they could follow to begin setting themselves up for their future. **Figure L** shows the share of young high school graduates age 17–20 who are neither enrolled nor employed. In 2007, 13.7 percent of young high school graduates fell into this category, and that share spiked to 17.7 percent in 2010. It declined between 2010 and 2012, but because of the drop in enrollment since 2012, has shot back up to 17.7 percent. In other words, the share of young high school graduates who are now idled has made *no* sustained improvement in this recovery. The increase since 2007 was larger for

FIGURE L [VIEW INTERACTIVE on epi.org](#)

Share of young high school graduates not enrolled in college or a university and not employed, by gender, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Shaded areas denote recessions. Data are for high school graduates age 17–20 who may have previous college experience. "Not employed" includes those who are unemployed and those who are not in the labor force.

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

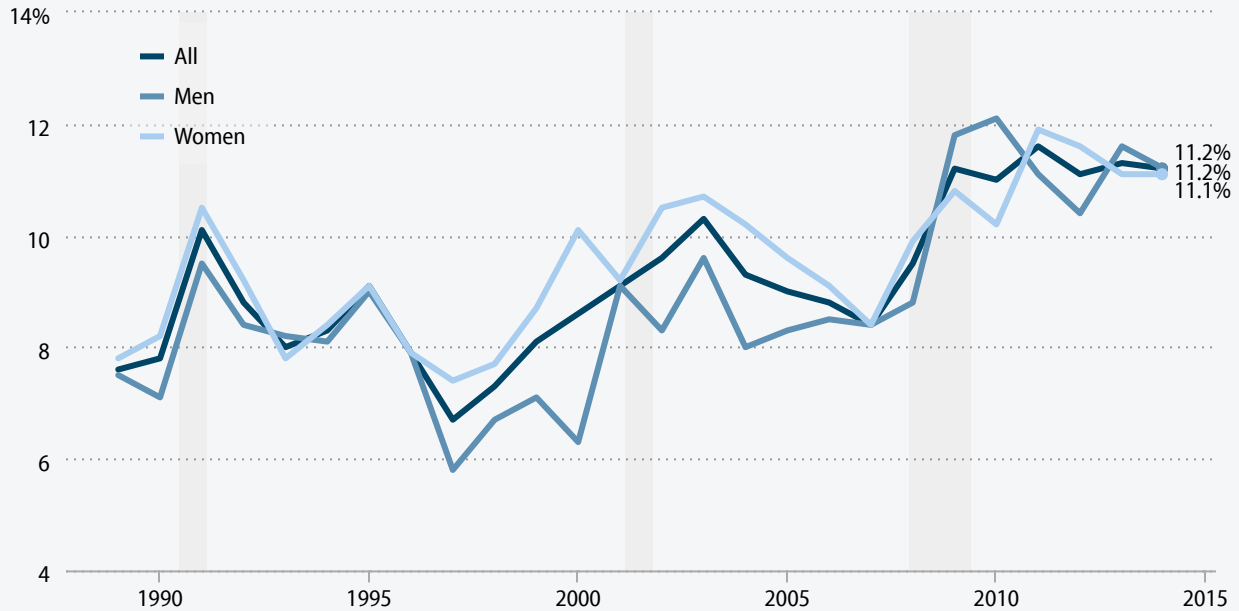
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young male high school graduates (from 13.6 percent to 18.6 percent) than young female high school graduates (from 13.8 percent in 2007 to 16.9 percent).

Figure M shows the share of young college graduates age 21–24 who are neither enrolled nor employed. In 2007, 8.4 percent of young college graduates fell into this category, and that share spiked to 11.6 percent in 2011. It has since declined only modestly, to 11.2 percent. The pattern was quite similar for men and women, though the male share peaked in 2010 while the female share peaked in 2011. *The "disconnection rates" for both young high school graduates and young college graduates remain 1.3 times as high as they were before the recession began.* The increase in the share of disconnected young people represents an enormous loss of opportunities for this cohort, as the loss of work experience or further education will have a lasting negative impact on their lifetime earnings. The long-term scarring effects of the Great Recession and its aftermath on young graduates are discussed in depth later in this paper.

FIGURE M [VIEW INTERACTIVE on epi.org](#)

Share of young college graduates not enrolled in college or a university and not employed, by gender, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Shaded areas denote recessions. Data are for college graduates (bachelor's degree only) age 21–24. "Not employed" includes those who are unemployed and those who are not in the labor force.

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

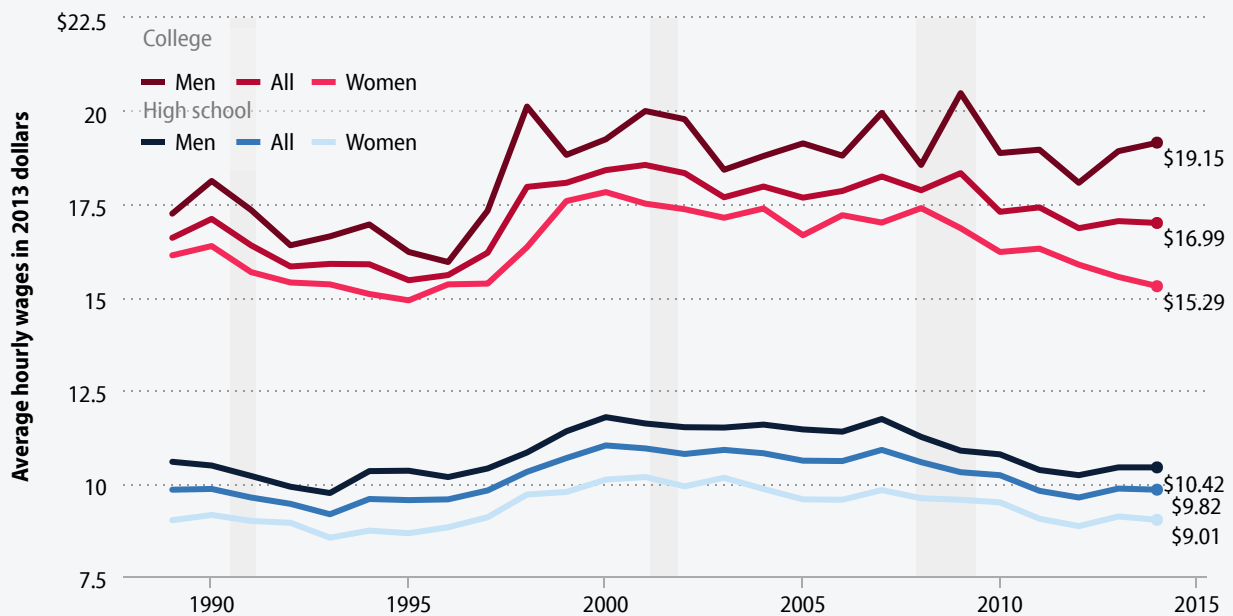
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Wages of new high school and college graduates have fallen for more than a decade

Figure N presents average hourly wages of young high school graduates (age 17–20) and young college graduates (age 21–24) who are not enrolled in further schooling; the underlying data for key years are provided in **Table 1**. It should be noted that these data include salaried workers (their earnings are converted to hourly rates based on the number of hours they work). On average, young high school graduates had an hourly wage of \$9.82 in the latest data. This wage rate would yield an annual income of roughly \$20,400 for a full-time, full-year worker. Young college graduates had an average hourly wage of \$16.99, which would translate into an annual income of roughly \$35,300 for a full-time, full-year worker. On average, wages of young female graduates remain far less than those of young male graduates, regardless of educational attainment. Among young high school graduates, women earn 13.5 percent less than men, while among young college graduates, women earn 20.2 percent less than men.

The wages of all groups of young graduates have fared extremely poorly during the Great Recession and its aftermath, as shown in Table 1. The real (inflation-adjusted) wages of young high school graduates have dropped 9.8 percent since 2007 (the declines were larger for men, at 11.0 percent, than for women, at 8.1 percent). The wages of young college

Real average hourly wages of young workers, by education, 1989–2014*



* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling, and high school graduates age 17–20 who are not enrolled in further schooling. Shaded areas denote recessions.

Source: Authors’ analysis of Current Population Survey Outgoing Rotation Group microdata

graduates have also dropped since 2007, by 6.9 percent (for young college graduates, the declines were *much* larger for women, at 10.1 percent, than for men, at 4.0 percent).

As Figure N shows, however, the wages of young graduates fared poorly even before the Great Recession began; they saw virtually no growth over the entire period of broad wage stagnation that began during the business cycle of 2000–2007. Since 2000, the wages of young high school graduates have declined 10.8 percent (11.4 percent for men and 10.7 percent for women), and the wages of young college graduates have decreased 7.7 percent (0.5 percent for men and 14.2 percent for women). These drops translate into substantial amounts of money. For full-time, full-year workers, the hourly wage declines since 2000 represent a roughly \$2,500 decline in annual earnings for young high school graduates, and a roughly \$3,000 decline for young college graduates.

The wage declines since 2000 stand in sharp contrast to the strong wage growth for these groups from 1995 to 2000. During that period of low unemployment and strong overall wage growth, wages rose 15.4 percent for young high school graduates and 19.1 percent for young college graduates. The stark difference between these two economic periods illustrates how the wages of young graduates vary considerably depending on whether the overall economy is experiencing low unemployment and strong wage growth, or high unemployment and wage stagnation. Young graduates

TABLE 1

Real average hourly wages of young workers, 1989–2014*

	Young high school graduates			Young college graduates		
	All	Men	Women	All	Men	Women
1989	\$9.82	\$10.57	\$9.00	\$16.59	\$17.24	\$16.12
1995	9.54	10.33	8.65	15.45	16.21	14.91
2000	11.01	11.77	10.09	18.41	19.24	17.82
2007	10.89	11.72	9.81	18.24	19.95	17.00
2014*	9.82	10.42	9.01	16.99	19.15	15.29
1989–2000	12.1%	11.3%	12.1%	10.9%	11.6%	10.5%
1989–1995	-2.9	-2.3	-3.9	-6.9	-6.0	-7.5
1995–2000	15.4	13.9	16.6	19.1	18.7	19.5
2000–2014*	-10.8	-11.4	-10.7	-7.7	-0.5	-14.2
2000–2007	-1.1	-0.5	-2.8	-0.9	3.7	-4.6
2007–2014*	-9.8	-11.0	-8.1	-6.9	-4.0	-10.1

* Data for 2014 represent 12-month average from April 2013–March 2014.

Note: Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling, and high school graduates age 17–20 who are not enrolled in further schooling. Wages are in 2013 dollars.

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

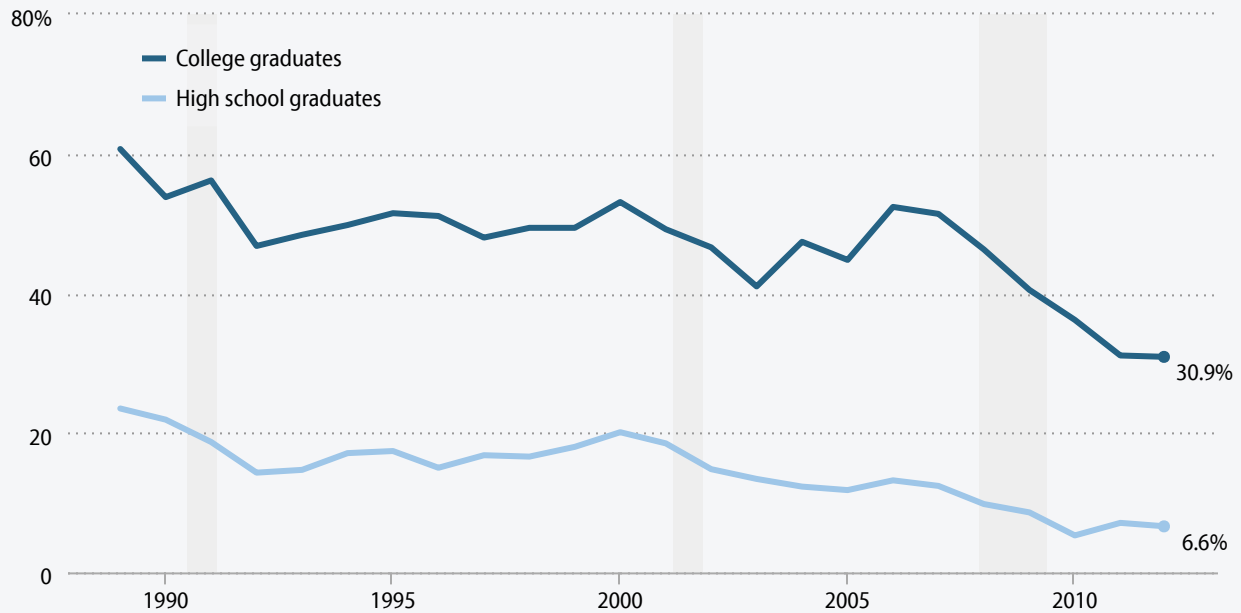
who enter the labor market during periods of strength (e.g., 1995–2000) face much stronger wage prospects than young graduates who enter the labor market during periods of weakness (e.g., 2001 to the present).

Employer-provided health insurance and pension coverage rates have fallen

The erosion of job quality for young graduates is also evidenced by their declining likelihood of receiving employer-provided health insurance or pensions. In particular, we focus here on whether these entry-level workers receive these benefits from their *own* employers (in the section “Weak safety net for young workers,” we discuss the impact on health insurance coverage of the provision of the Patient Protection and Affordable Care Act of 2010 that allows adults under age 26 to remain on their parents’ employer-sponsored health insurance or to participate in state-based health insurance exchanges).

Figure O presents the share of employed young graduates who receive health insurance coverage from their own employer. In 1989, more than a fifth (23.5 percent) of new high school graduates (age 17–20) with jobs had health insurance through their workplace, as did well over half (60.7 percent) of employed new college graduates (age 21–24).

Share of employed recent high school and college graduates with health insurance provided by their own employer, 1989–2012



Note: Coverage is defined as being included in an employer-provided plan where the employer paid for at least some of the coverage. Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling, and high school graduates age 17–20 who are not enrolled in further schooling. Shaded areas denote recessions.

Source: Authors' analysis of Current Population Annual Social and Economic Supplement microdata

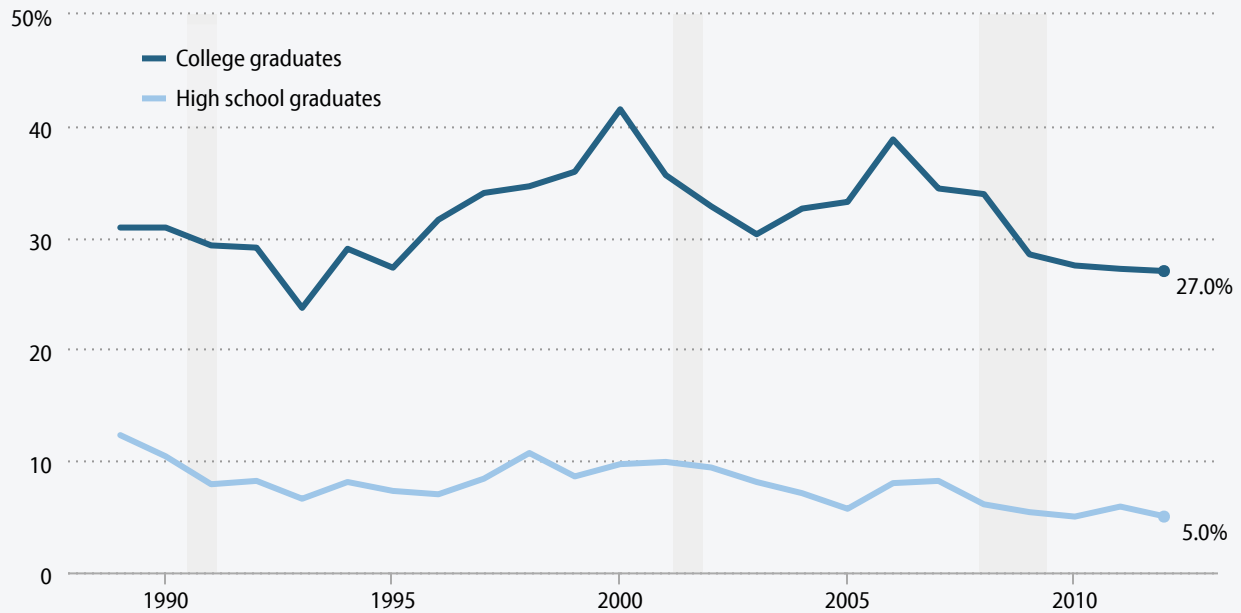
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These numbers have since declined dramatically. In 2013, just 6.6 percent of employed new high school graduates and less than a third (30.9 percent) of employed new college graduates received health insurance through their job.

That employer-provided health insurance coverage is much higher among new college graduates than new high school graduates reminds us that completing college can result in significant economic benefits. But the fact that health insurance coverage is increasingly less likely to be provided to entry-level college graduates tells us that job quality among college graduates, too, is deteriorating. After wages, employer-provided health insurance coverage is perhaps the single best indicator to workers of whether they have a good-quality job. This dramatic erosion of health coverage among new graduates—both new high school graduates and new college graduates—is a telling indicator of their loss of good jobs over the last two decades.

Figure P shows that the share of employed young graduates who receive pension coverage from their own employer (either defined-benefit or defined-contribution) fell over this period as well. In 1989, just 12.3 percent of new high school graduates (age 17–20) with jobs had a pension through their workplace, and that share fell even further to 5.0 percent by 2012. Pension coverage among new college graduates (age 21–24) increased from 30.9 percent to 41.5 percent between 1989 and 2000, presumably because of increased participation in defined-contribution plans. However,

Share of employed recent high school and college graduates with employer-provided pension coverage, 1989–2012



Note: Coverage is defined as being included in an employer-provided plan where the employer paid for at least some of the coverage. Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling, and high school graduates age 17–20 who are not enrolled in further schooling. Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement microdata

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this group's pension coverage fell from 41.5 percent in 2000 to 27.0 percent in 2012. This sharp reduction in pension benefits for young college graduates over the last decade indicates in yet another way a substantial job quality problem even for those with high educational attainment.

To isolate trends in benefits received by new graduates who work relatively full schedules, **Appendix Figure AA** and **Appendix Figure AB** show employer-provided health insurance and pension coverage for new graduates who work 20 hours or more per week and at least 26 weeks per year (as distinct from figures O and P, which show employer-provided health insurance and pension coverage for all employed new graduates, regardless of how many hours per week or weeks per year they work). Unsurprisingly, workers with fuller schedules are somewhat more likely to have employer-provided health insurance and pension coverage. The differences are not dramatic, however, and the trends are very similar to those for all employed new graduates, indicating that employer-provided benefits have been reduced regardless of full- or part-time work status.

Low voluntary quits underscore lack of advancement opportunities for young workers

While finding a stable job is important for workers of all ages, it is nevertheless true that one way many workers gain advancement is by leaving one job and taking another that offers better pay or opportunities. This is particularly true for young workers, who are more likely to be in the process of identifying their own abilities and interests and tend to change jobs more frequently than older workers as they search for a job that is a good match and that either pays more or has better potential for wage growth.

One measure of such opportunities for advancement is the number of voluntary quits throughout the workforce. All else equal, a larger number of people voluntarily quitting jobs indicates a labor market in which job opportunities are plentiful and employed workers have the flexibility to look for jobs that pay better and more closely match their skills and interests. During downturns, the number of voluntary quits falls as outside job opportunities become scarce. While the low level of voluntary quits represents lost opportunities for workers of all ages, it illustrates a critical loss of opportunities for young workers, because they in particular often benefit from leaving one job and moving onto another that is a better fit. Think, for example, of a young person who was lucky enough to graduate and find a job in 2007, the last spring graduation before the Great Recession began. Under normal circumstances that young person may have greatly benefited at some point in the last seven years from leaving her job for one that was a better match or offered better pay. Instead, she may have been locked in, unable to change jobs because of the lack of outside job opportunities.

Data on voluntary quits are not available by age, so **Figure Q** simply presents the total number of voluntary quits over time. Between 2007 and the middle of 2009, the average number of voluntary quits dropped by 43 percent, from 2.9 million per month to 1.6 million. The voluntary quit level has picked up somewhat since that time, but by early 2014 it was still nearly 20 percent below its 2007 level. This represents millions of lost opportunities for young workers, and is one of the factors underlying their wage declines since the start of the Great Recession.

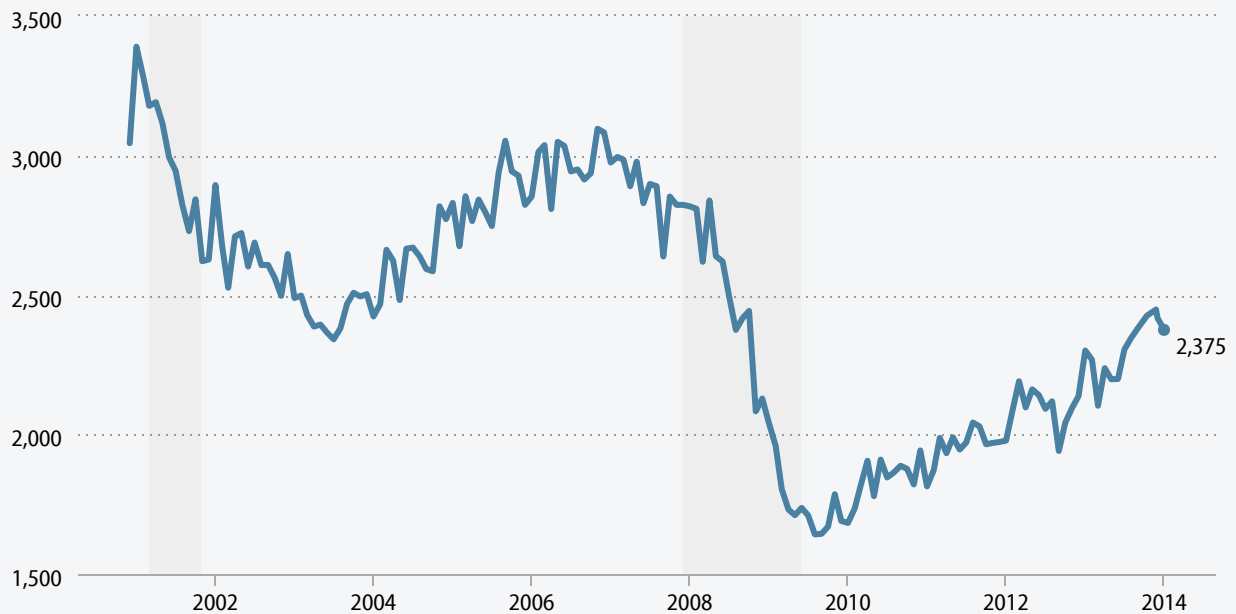
Downturn affects young workers' futures

Young workers who have the bad luck to enter the labor market during a downturn not only have worse outcomes in the short run than if they had entered in a healthy labor market; these negative effects can last a very long time. Research shows that entering the labor market in a severe downturn can lead to reduced earnings, greater earnings instability, and more spells of unemployment over the next 10 to 15 years. Unsurprisingly, given the data presented earlier on underemployment, the evidence suggests that part of the decline in earnings is due to the fact that young workers entering the labor market in a downturn often have to settle for jobs at less-attractive employers or in lower-level occupations than they otherwise would have (this is often referred to as “cyclical downgrading”). This initial effect does tend to fade over time as workers find better jobs or move up within their companies, but that process can take well over a decade. In short, the labor market consequences of graduating in a bad economy are not just large and negative, but also long-lasting (Oreopolous, von Wachter, and Heisz 2013; Kahn 2010; Hershbein 2012; Altonji, Kahn, and Speer 2013).

Though there has been some improvement since the unemployment rate for young workers peaked in 2010, job prospects remain dim. Thus, the Class of 2014 will be the sixth consecutive graduating class to enter the labor market during a period of profound weakness. The evidence suggests that because of their unlucky timing—in other words, through absolutely no fault of their own—this cohort is very likely to fare poorly for at least the next decade.

FIGURE Q [VIEW INTERACTIVE on epi.org](#)

Total voluntary quits (in thousands), December 2000–February 2014



Note: Shaded areas denote recessions.

Source: Authors' analysis of Bureau of Labor Statistics Job Openings and Labor Turnover Survey

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Weak safety net for young workers

As previously demonstrated, the unemployment rates of young workers are significantly higher than before the recession began. Without jobs or the benefits that often accompany employment, what safety net exists for new entrants to the labor market who are unemployed?

Many federal and state assistance programs that comprise the safety net for unemployed and underemployed workers are not available to young people who have little or no work experience. Unemployment Insurance (UI), the primary safety net for workers who are laid off through no fault of their own, helps the unemployed make ends meet until they can find another job. Young workers are often ineligible for this program, however, because they must first meet state wage and work minimums during an established reference period. Young workers often fail to meet these eligibility requirements due to their more intermittent attachment to the labor market and the fact that many are entering the labor market for the first time. Our unemployment system is simply not designed to help workers who are looking for their first job at a time when the labor market is weak.

Temporary Assistance for Needy Families (TANF) program benefits have work requirements and are only available to individuals with children, which excludes most young graduates. The Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp program, is offered to young adults without work experience or dependents. However, if they are not currently working or participating in a work-training program, benefits are generally

only available for three months in a 36-month period. The earned income tax credit (EITC), a refundable federal income tax credit for low- to moderate-income individuals, is only available to those with earned income and is very modest for workers without children.

The Patient Protection and Affordable Care Act (PPACA), enacted in 2010, expanded health insurance options by allowing adults under age 26 to remain on their parents' employer-sponsored health insurance policy. Gould (2013) showed that this provision has improved rates of health insurance coverage for adults age 19–25. However, it should be noted that young adults whose parents do not have employer-sponsored health insurance (disproportionately non-whites and/or those with less education and/or lower incomes and/or who are unemployed) are unable to take advantage of this provision. The full phase-in of the PPACA over the next few years, including the introduction of the state-based health insurance exchanges last fall, should accelerate the increase in health insurance coverage of young adults.

Though PPACA has made positive strides in providing some protections for some young graduates facing an especially harsh labor market, young workers do not have a strong public safety net to fall back on, even in times of persistent high unemployment. Therefore, many new graduates turn to their families for assistance. In 2013, for example, 55.3 percent of 18- to 24-year-olds were living with their parents, an increase of 4.1 percentage points since 2007 (CPS ASEC, Table AD-1). This trend may be burdensome to parents, many of whom may have also been hit hard by the recession, facing job loss; hour reductions; and/or the loss of their home, home equity, or retirement savings. Unfortunately for many young workers, family and friends are the only safety net available in a labor market with severely limited opportunities.

The high cost of education, and not enough money to pay for it

The high cost of college is one likely reason that college enrollment rates did not increase above their long-run trend despite the lack of job opportunities during the Great Recession and its aftermath, and have dropped since 2012. In the 2013–2014 school year, the total cost of attendance for an on-campus student—including in-state tuition, books, room and board, and transportation expenses—at a four-year in-state public school averaged \$22,826. For a four-year private school, it was \$44,750. The cost of higher education has risen faster than family incomes, making it harder for families to pay for college. From the 1983–1984 enrollment year to the 2012–2013 enrollment year, the inflation-adjusted cost of a four-year education, including tuition, fees, and room and board, increased 125.5 percent for private school and 129.1 percent for public school. Median family income only increased 15.6 percent over this period, leaving families and students unable to pay for most colleges and universities in full (College Board 2013; CPS ASEC).

As tuition costs have risen at rates vastly exceeding income growth, it is not surprising that many students have to take on debt to pay for college. Using the Survey of Consumer Finances, Fry (2012) shows that in 2010 (the latest data available) about one in five of the nation's households owed money on student debt, a proportion that has more than doubled since 1989. For households with student loan debt, the average amount was \$26,682 in 2010, and the median was \$13,410. The average amount, which has nearly tripled since 1989, is higher than the median because of very high amounts of debt owed by some: 10 percent of households owe \$61,895 or more. Among households headed by adults age 35 and younger, 40 percent held outstanding student debt in 2010 (Fry 2012). Using the Federal Reserve Board of New York's Consumer Credit Panel, Brown et al. (2014) find that between 2004 and 2012, the number of student debt borrowers increased by 70 percent, and average debt per borrower also increased by 70 percent.

Most Class of 2014 college graduates enrolled in college four years ago, in fall 2010. Though the recession officially ended in June 2009, the recovery has been very weak, and family incomes continued to deteriorate in the aftermath of the recession. Between 2007—the start of the Great Recession—and 2010, median family income dropped by 6.6 percent, and between 2010 and 2012, it dropped by an additional 1.9 percent (CPS ASEC Table F-5). In other words, during the lead up to the time they were in college, and during the time they were in college, it is likely that many of the families of the students in the Class of 2014 faced real income declines due to job loss or lack of wage growth. At the same time, higher education costs increased to make up for asset losses (at private universities) and funding cuts (at public universities) during the downturn. For example, between the 2007–2008 school year and the 2012–2013 school year, state appropriations for higher education per full-time enrolled student fell by 27.7 percent, and in response, public colleges and universities have had to steeply increase tuition (Oliff et al. 2013). The share of Class of 2014 graduates with large student loans has likely risen accordingly.

Students in the Class of 2014, most of whom started college *after the Great Recession was officially over*, were unlikely, when taking on student loans, to have foreseen that upon graduation they would be entering into a very weak labor market and facing the very real possibility of not being able to find a job that would provide the income needed to repay their loans. Although most student loans have a grace period of six months before payments are expected, recent graduates who do not find a stable income source may be forced to miss a payment or default altogether on their loans. Default can ruin young workers' credit scores and set them back years when it comes to saving for a house or a car. Researchers at the Federal Reserve Bank of New York find that more than 30 percent of student loan borrowers who are not in deferment or forbearance were at least 90 days past due on their educational debt in the fourth quarter of 2012. They also find that the recent growth in student loan balances and delinquencies was accompanied by a decrease in mortgage and auto loan borrowing for younger age groups, suggesting that student loan debt is indeed crowding out other investments (Brown et al. 2014).

A recent issue in student debt policy relates to interest rates on subsidized federal Stafford loans, which increased from 3.4 percent to 3.86 percent for undergraduate students on July 1, 2013. In 2013, Congress failed to reauthorize the College Cost Reduction and Access Act of 2007, which would have kept interest rates on these loans at 3.4 percent, and instead reached a new agreement in the Bipartisan Student Loan Certainty Act of 2013, which now ties interest rates on these loans to the 10-year Treasury rate. The rate for Stafford loans will fluctuate each year based on current market rates, which are expected to rise over the next 10 years. For example, the Congressional Budget Office expects that the rate will rise to 7.05 percent by 2018 (CBO 2014), slightly higher than the 6.8 percent rate that existed before Congress dropped the rates in response to the Great Recession.

Conclusion: Strong overall job growth is needed to boost young workers' employment

Although the job situation is slowly improving, the Class of 2014 faces an extremely difficult job market. The dramatic increase since 2007 in unemployment among new college graduates underscores that today's unemployment crisis among young workers did not arise because workers lack the right skills. Instead, the weak labor market the Class of 2014 is entering into is due to weak demand for workers in the economy overall. Continued improvement in the labor market is expected to be slow, with the overall unemployment rate unlikely to fall below even 6 percent for nearly three years. (As a reminder of what a healthy unemployment rate looks like, consider that in spring 2007 the unemployment

rate was 4.4 percent.) Given that the unemployment rate of young workers generally parallels the overall unemployment rate but at a much higher level—recall Figure A—improvement in the unemployment rate of young workers is also expected to be slow. Thus, the classes of 2015, 2016, and 2017 will likely also face the negative consequences of entering the labor market during a period of very high unemployment.

It doesn't have to be this way. Although young workers are a unique group, their current high unemployment does not have a solution unique to them. The most direct way to quickly bring down the unemployment rate of young workers is to institute measures that would boost aggregate demand. In the current moment this can best be accomplished through expansionary fiscal policy: large-scale ongoing public investments, the reestablishment of public services and public-sector employment cut in the Great Recession and its aftermath, and strengthening safety net programs. One of the most effective policies available to help the economy would be to simply reinstate the emergency unemployment insurance benefits program that was allowed to expire last December.

Policies that would spread the total hours of work across more workers could also bring down unemployment from the supply side. Work sharing would encourage employers who experience a drop in demand to cut back average hours per employee instead of cutting back the number of workers on staff. While layoffs are no more prevalent now than before the recession began, there are currently around 1.5 million layoffs every month, meaning a work-sharing program could avoid many layoffs and significantly reduce unemployment. Another possibility is to allow earlier entry into Social Security and Medicare for those workers wishing to move up their retirement. Early, voluntary retirements would decrease the labor supply while holding labor demand fixed, thereby allowing the unemployment rate to fall. Finally, mandatory paid leave policies could reduce the average annual hours worked. An obvious place to start would be providing paid sick days to the almost 40 percent of private-sector workers who lack the right to even a single day of paid sick leave so that they can stay home when they or their children are sick (Lafer 2013). The bottom line is that policies that will generate demand for U.S. goods and services (and therefore demand for workers who provide them), or policies that would spread the total hours of work across more workers, are the keys to giving young people a fighting chance as they enter the labor market during the aftermath of the Great Recession.

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Heidi Shierholz joined the Economic Policy Institute as an economist in 2007. She has researched and spoken widely on the economy and economic policy as it affects middle- and low-income families, especially in regards to employment, unemployment, labor force participation, compensation, income and wealth inequality, young workers, unemployment insurance, and the minimum wage. Shierholz is a coauthor of *The State of Working America, 12th Edition*, is a frequent contributor to broadcast and radio news outlets, is regularly quoted in print and online media outlets, and has repeatedly been called to testify in Congress on labor market issues. Prior to joining EPI, Shierholz worked as an assistant professor of economics at the University of Toronto. She holds a Ph.D. in economics from the University of Michigan at Ann Arbor.

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Unemployment rates of workers under age 25 and all workers,* by state, 2000–2013

State	Workers under age 25				All workers			
	2000	2007	2012	2013	2000	2007	2012	2013
<i>Alabama</i>	12.5%	11.0%	15.9%	16.2%	4.5%	4.0%	8.0%	6.9%
<i>Alaska</i>	14.0%	12.8%	14.7%	12.3%	6.7%	6.2%	7.4%	6.6%
<i>Arizona</i>	7.5%	8.9%	17.5%	19.7%	4.0%	3.9%	8.2%	8.0%
<i>Arkansas</i>	11.2%	10.3%	17.6%	19.6%	4.4%	5.6%	7.6%	7.8%
<i>California</i>	10.5%	11.6%	20.4%	18.3%	4.9%	5.3%	10.4%	8.9%
<i>Colorado</i>	7.2%	8.7%	16.6%	14.7%	2.8%	3.7%	8.1%	6.6%
<i>Connecticut</i>	5.6%	10.0%	17.1%	13.8%	2.2%	4.5%	8.4%	7.7%
<i>Delaware</i>	9.6%	7.3%	15.4%	15.4%	3.9%	3.5%	7.2%	7.0%
<i>District of Columbia</i>	14.3%	12.7%	15.9%	14.8%	5.7%	5.5%	9.0%	8.6%
<i>Florida</i>	9.2%	9.2%	16.2%	12.0%	3.6%	4.1%	8.4%	7.1%
<i>Georgia</i>	8.2%	10.6%	20.6%	18.7%	3.7%	4.3%	9.1%	8.2%
<i>Hawaii</i>	11.8%	8.2%	13.7%	12.0%	4.3%	2.9%	6.0%	4.8%
<i>Idaho</i>	9.3%	7.3%	17.2%	13.9%	4.9%	3.0%	7.1%	6.5%
<i>Illinois</i>	9.9%	10.4%	18.6%	19.5%	4.3%	5.1%	8.7%	9.1%
<i>Indiana</i>	8.3%	11.4%	15.2%	15.3%	3.2%	4.6%	8.3%	7.7%
<i>Iowa</i>	6.8%	8.0%	11.0%	9.5%	2.6%	3.7%	5.1%	4.7%
<i>Kansas</i>	8.6%	9.3%	13.2%	12.1%	3.7%	4.1%	5.6%	5.6%
<i>Kentucky</i>	9.8%	12.7%	16.6%	16.1%	4.1%	5.4%	8.0%	8.1%
<i>Louisiana</i>	13.3%	9.0%	16.7%	14.3%	5.4%	4.3%	7.1%	7.0%
<i>Maine</i>	8.7%	11.6%	16.9%	13.4%	3.5%	4.7%	7.7%	6.8%
<i>Maryland</i>	9.6%	11.4%	13.6%	14.6%	3.8%	3.6%	7.0%	6.7%
<i>Massachusetts</i>	6.7%	9.1%	12.1%	16.0%	2.6%	4.6%	6.7%	7.0%
<i>Michigan</i>	8.0%	13.9%	16.7%	17.9%	3.5%	7.1%	9.1%	8.6%
<i>Minnesota</i>	6.4%	9.2%	11.1%	9.8%	3.3%	4.6%	5.8%	4.9%
<i>Mississippi</i>	14.1%	14.7%	23.2%	24.2%	5.6%	6.1%	8.9%	8.8%
<i>Missouri</i>	8.1%	11.3%	16.0%	13.7%	3.4%	5.0%	6.9%	6.6%
<i>Montana</i>	10.0%	7.6%	11.4%	10.1%	5.0%	3.6%	6.1%	5.5%
<i>Nebraska</i>	6.7%	6.8%	8.9%	8.3%	3.0%	3.1%	4.0%	4.1%
<i>Nevada</i>	7.7%	8.4%	17.6%	17.3%	4.0%	4.6%	11.0%	9.8%

APPENDIX TABLE A1 (CONTINUED)

State	Workers under age 25				All workers			
	2000	2007	2012	2013	2000	2007	2012	2013
<i>New Hampshire</i>	6.9%	8.3%	13.3%	12.2%	2.8%	3.6%	5.6%	5.2%
<i>New Jersey</i>	9.6%	9.9%	18.2%	16.7%	3.7%	4.2%	9.5%	8.2%
<i>New Mexico</i>	12.0%	8.8%	12.6%	11.7%	5.0%	3.7%	7.1%	7.2%
<i>New York</i>	10.4%	11.9%	18.0%	15.7%	4.6%	4.6%	8.7%	7.6%
<i>North Carolina</i>	9.8%	10.3%	18.8%	19.4%	3.6%	4.5%	9.2%	7.9%
<i>North Dakota</i>	6.6%	5.5%	7.2%	5.2%	3.0%	3.2%	3.2%	2.9%
<i>Ohio</i>	8.7%	12.0%	12.8%	15.0%	4.0%	5.6%	7.2%	7.6%
<i>Oklahoma</i>	6.6%	8.7%	10.6%	11.0%	3.1%	4.4%	5.1%	5.6%
<i>Oregon</i>	9.6%	11.2%	17.5%	17.1%	4.9%	5.2%	8.9%	7.9%
<i>Pennsylvania</i>	9.9%	10.9%	13.4%	15.1%	4.1%	4.3%	7.8%	7.5%
<i>Rhode Island</i>	11.5%	9.5%	17.2%	16.5%	4.1%	4.9%	10.5%	9.2%
<i>South Carolina</i>	10.6%	14.0%	22.6%	16.6%	3.8%	5.6%	9.4%	7.6%
<i>South Dakota</i>	5.6%	6.5%	9.8%	8.2%	2.3%	2.9%	4.6%	3.6%
<i>Tennessee</i>	8.9%	11.6%	13.6%	18.9%	3.9%	4.6%	7.8%	8.0%
<i>Texas</i>	10.2%	9.8%	13.4%	13.5%	4.2%	4.3%	6.7%	6.3%
<i>Utah</i>	5.8%	6.1%	12.1%	8.9%	3.3%	2.6%	5.8%	4.4%
<i>Vermont</i>	6.3%	9.6%	13.1%	10.9%	2.9%	4.0%	5.1%	4.3%
<i>Virginia</i>	6.0%	7.5%	17.1%	14.8%	2.2%	3.1%	6.0%	5.6%
<i>Washington</i>	12.8%	11.8%	16.8%	17.6%	5.2%	4.6%	8.3%	7.0%
<i>West Virginia</i>	11.9%	12.8%	15.8%	13.5%	5.5%	4.6%	7.4%	6.6%
<i>Wisconsin</i>	7.2%	11.8%	13.1%	12.9%	3.6%	5.0%	7.1%	6.7%
<i>Wyoming</i>	9.8%	7.5%	12.8%	10.4%	3.9%	2.9%	5.5%	4.6%
United States	9.3%	10.5%	16.2%	15.5%	4.0%	4.6%	8.1%	7.4%

* Includes all workers ages 16 and older

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

Underemployment rates of workers under age 25 and all workers,* by state, 2000–2013

State	Workers under age 25				All workers			
	2000	2007	2012	2013	2000	2007	2012	2013
<i>Alabama</i>	19.5%	17.2%	24.2%	26.9%	8.2%	7.1%	13.5%	12.2%
<i>Alaska</i>	23.6%	22.4%	25.4%	21.5%	12.1%	11.2%	13.0%	12.1%
<i>Arizona</i>	11.9%	15.1%	28.1%	32.3%	6.7%	7.4%	15.9%	16.0%
<i>Arkansas</i>	17.7%	16.7%	27.2%	30.3%	7.5%	9.5%	13.0%	13.7%
<i>California</i>	16.6%	19.1%	34.1%	32.4%	8.8%	9.9%	19.3%	17.3%
<i>Colorado</i>	12.0%	15.2%	28.4%	25.3%	5.2%	7.3%	14.6%	12.5%
<i>Connecticut</i>	10.3%	17.2%	28.5%	24.8%	4.2%	8.2%	14.7%	13.9%
<i>Delaware</i>	15.5%	12.7%	31.4%	30.2%	6.4%	6.4%	13.9%	13.5%
<i>District of Columbia</i>	22.0%	19.0%	24.5%	26.2%	9.8%	9.3%	14.1%	14.1%
<i>Florida</i>	14.4%	16.0%	28.4%	23.8%	6.5%	8.0%	16.0%	14.2%
<i>Georgia</i>	13.1%	17.7%	31.6%	30.7%	6.0%	8.1%	15.7%	14.8%
<i>Hawaii</i>	19.7%	15.5%	25.5%	24.1%	9.4%	6.4%	12.8%	11.5%
<i>Idaho</i>	14.6%	12.9%	28.7%	24.9%	8.5%	6.1%	14.0%	12.7%
<i>Illinois</i>	15.4%	16.6%	30.2%	32.0%	7.2%	8.6%	16.0%	16.0%
<i>Indiana</i>	12.6%	17.5%	27.7%	25.4%	5.6%	7.8%	14.2%	13.2%
<i>Iowa</i>	9.9%	12.5%	20.1%	17.7%	5.0%	7.0%	10.0%	9.2%
<i>Kansas</i>	13.3%	15.0%	20.6%	22.1%	6.1%	7.3%	10.2%	11.0%
<i>Kentucky</i>	15.0%	19.6%	27.8%	30.5%	6.9%	9.3%	13.8%	15.0%
<i>Louisiana</i>	20.4%	13.3%	25.6%	24.2%	9.2%	7.2%	11.9%	12.7%
<i>Maine</i>	13.1%	19.9%	31.4%	26.4%	6.9%	8.9%	15.0%	13.7%
<i>Maryland</i>	13.7%	16.7%	24.2%	26.7%	5.7%	6.3%	12.1%	12.5%
<i>Massachusetts</i>	10.6%	13.5%	24.9%	28.6%	4.8%	7.3%	12.9%	13.2%
<i>Michigan</i>	13.0%	23.8%	30.3%	30.6%	6.3%	12.8%	16.6%	15.3%
<i>Minnesota</i>	11.3%	15.5%	21.8%	19.5%	5.7%	8.2%	11.7%	10.6%
<i>Mississippi</i>	22.7%	22.9%	35.3%	33.0%	9.5%	10.8%	15.1%	14.6%
<i>Missouri</i>	12.5%	18.5%	27.1%	23.1%	5.7%	8.3%	12.5%	11.6%
<i>Montana</i>	16.9%	12.7%	24.2%	20.9%	9.8%	7.1%	13.8%	11.6%
<i>Nebraska</i>	10.5%	12.1%	17.4%	15.7%	5.3%	5.7%	8.8%	8.0%
<i>Nevada</i>	12.8%	12.5%	31.9%	30.9%	6.8%	7.6%	20.4%	18.1%

APPENDIX TABLE A2 (CONTINUED)

State	Workers under age 25				All workers			
	2000	2007	2012	2013	2000	2007	2012	2013
<i>New Hampshire</i>	11.5%	13.9%	23.5%	25.1%	4.8%	6.5%	11.2%	10.9%
<i>New Jersey</i>	14.7%	16.9%	28.3%	29.4%	6.3%	7.4%	15.7%	14.7%
<i>New Mexico</i>	18.7%	15.2%	24.3%	22.3%	8.6%	7.3%	14.1%	13.8%
<i>New York</i>	17.2%	18.5%	29.6%	27.4%	7.9%	8.1%	14.9%	13.8%
<i>North Carolina</i>	14.3%	18.1%	33.1%	31.9%	6.2%	8.5%	16.2%	14.7%
<i>North Dakota</i>	10.1%	9.2%	12.6%	9.7%	6.1%	5.8%	6.1%	5.6%
<i>Ohio</i>	13.4%	19.8%	23.7%	25.4%	6.8%	9.7%	13.6%	13.6%
<i>Oklahoma</i>	11.8%	15.1%	19.9%	19.4%	6.0%	7.5%	9.6%	10.2%
<i>Oregon</i>	17.8%	19.7%	34.6%	31.7%	8.5%	10.0%	17.2%	16.5%
<i>Pennsylvania</i>	15.6%	16.2%	25.3%	26.9%	7.3%	7.7%	13.9%	13.4%
<i>Rhode Island</i>	17.3%	15.3%	30.9%	28.4%	6.9%	8.3%	17.6%	15.5%
<i>South Carolina</i>	16.3%	21.3%	34.3%	27.6%	6.7%	9.5%	15.8%	14.0%
<i>South Dakota</i>	9.8%	11.6%	16.3%	14.7%	4.9%	5.7%	8.5%	7.1%
<i>Tennessee</i>	14.9%	19.8%	23.1%	31.1%	7.5%	8.0%	13.3%	14.7%
<i>Texas</i>	16.3%	15.9%	23.1%	22.6%	7.4%	7.7%	12.1%	11.3%
<i>Utah</i>	10.7%	10.5%	20.7%	16.9%	5.9%	5.0%	11.2%	9.7%
<i>Vermont</i>	12.3%	15.0%	24.4%	19.2%	5.8%	7.0%	11.0%	9.3%
<i>Virginia</i>	11.1%	13.6%	28.8%	25.9%	4.2%	6.1%	11.7%	11.5%
<i>Washington</i>	20.7%	20.5%	34.0%	30.3%	9.6%	8.8%	17.0%	14.0%
<i>West Virginia</i>	20.6%	22.6%	28.5%	26.2%	10.2%	9.2%	13.1%	12.0%
<i>Wisconsin</i>	12.8%	17.8%	23.5%	21.8%	6.4%	8.4%	13.1%	12.1%
<i>Wyoming</i>	15.9%	12.0%	19.8%	17.2%	7.1%	5.6%	10.0%	8.4%
United States	14.9%	17.3%	27.9%	27.0%	7.0%	8.3%	14.7%	13.8%

* Includes all workers ages 16 and older

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

College enrollment rates of those under age 25 with at least a high school degree, by state, 2000–2013

State	2000	2007	2012	2013
<i>Alabama</i>	39.5%	34.7%	42.6%	34.4%
<i>Alaska</i>	27.0%	33.9%	33.7%	31.1%
<i>Arizona</i>	34.4%	36.3%	45.3%	45.6%
<i>Arkansas</i>	27.0%	31.7%	31.2%	31.7%
<i>California</i>	44.0%	48.3%	51.5%	49.1%
<i>Colorado</i>	28.5%	34.7%	43.4%	42.6%
<i>Connecticut</i>	45.8%	46.7%	51.1%	51.2%
<i>Delaware</i>	35.3%	41.1%	45.7%	40.4%
<i>District of Columbia</i>	36.1%	39.6%	37.3%	35.2%
<i>Florida</i>	37.5%	38.1%	47.7%	44.3%
<i>Georgia</i>	29.6%	43.7%	42.1%	40.2%
<i>Hawaii</i>	42.5%	39.8%	42.2%	40.7%
<i>Idaho</i>	31.1%	27.5%	37.6%	36.8%
<i>Illinois</i>	37.6%	45.3%	46.4%	45.8%
<i>Indiana</i>	36.6%	37.8%	40.9%	45.5%
<i>Iowa</i>	37.6%	41.2%	44.4%	39.1%
<i>Kansas</i>	45.0%	41.6%	40.9%	40.3%
<i>Kentucky</i>	39.9%	36.7%	36.3%	34.8%
<i>Louisiana</i>	38.2%	39.9%	38.2%	36.0%
<i>Maine</i>	34.2%	41.0%	40.6%	38.7%
<i>Maryland</i>	38.4%	47.3%	48.9%	43.5%
<i>Massachusetts</i>	39.6%	46.4%	51.9%	47.4%
<i>Michigan</i>	37.5%	45.0%	51.3%	48.2%
<i>Minnesota</i>	35.0%	43.6%	45.7%	42.9%
<i>Mississippi</i>	38.1%	40.0%	44.3%	42.6%
<i>Missouri</i>	37.1%	38.2%	44.1%	38.3%
<i>Montana</i>	34.3%	34.4%	39.6%	28.6%
<i>Nebraska</i>	37.6%	41.8%	40.3%	40.4%
<i>Nevada</i>	31.7%	29.5%	35.6%	31.1%
<i>New Hampshire</i>	35.9%	41.8%	43.5%	40.6%

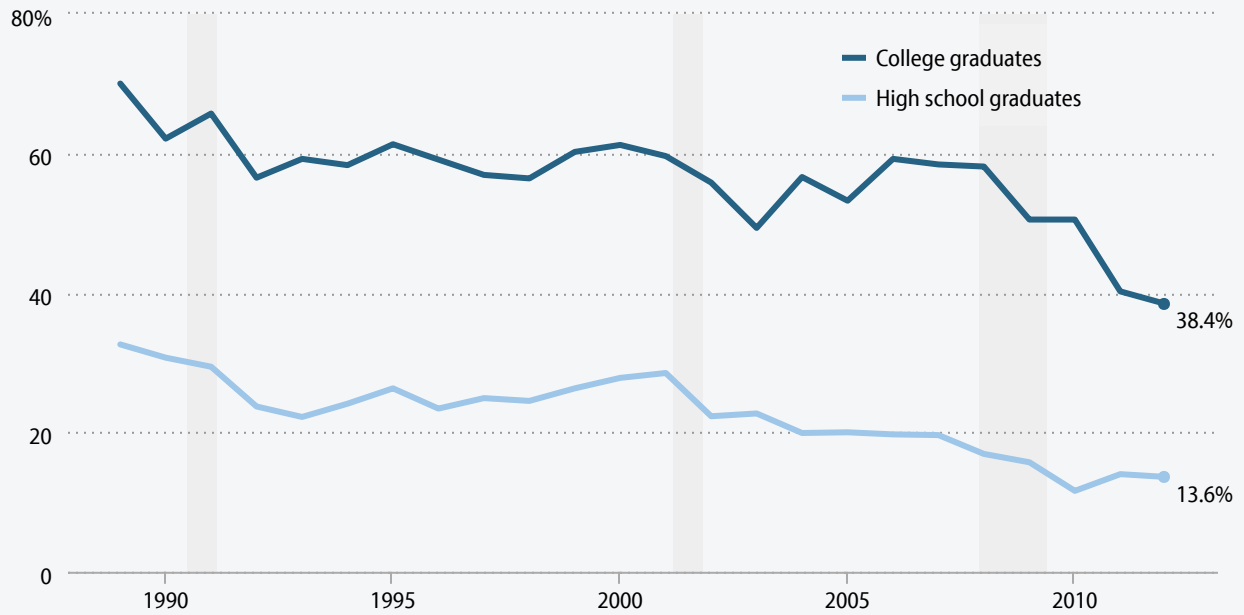
APPENDIX TABLE A3 (CONTINUED)

State	2000	2007	2012	2013
<i>New Jersey</i>	43.5%	49.4%	49.3%	48.7%
<i>New Mexico</i>	38.8%	45.3%	46.3%	40.6%
<i>New York</i>	42.4%	48.6%	51.4%	48.5%
<i>North Carolina</i>	32.1%	41.2%	42.1%	41.8%
<i>North Dakota</i>	37.2%	39.9%	36.7%	33.5%
<i>Ohio</i>	38.2%	38.6%	46.7%	40.5%
<i>Oklahoma</i>	35.0%	38.8%	33.0%	30.9%
<i>Oregon</i>	29.6%	34.3%	40.5%	42.1%
<i>Pennsylvania</i>	41.2%	40.3%	40.2%	39.9%
<i>Rhode Island</i>	37.6%	44.0%	41.7%	45.1%
<i>South Carolina</i>	37.0%	38.8%	44.3%	39.1%
<i>South Dakota</i>	32.9%	34.9%	38.3%	38.6%
<i>Tennessee</i>	36.1%	39.0%	37.8%	33.0%
<i>Texas</i>	34.2%	41.3%	40.9%	36.9%
<i>Utah</i>	33.7%	33.1%	37.2%	32.6%
<i>Vermont</i>	38.2%	40.7%	41.1%	37.0%
<i>Virginia</i>	38.3%	39.4%	41.7%	38.8%
<i>Washington</i>	36.4%	31.2%	41.6%	35.3%
<i>West Virginia</i>	34.9%	31.1%	38.1%	31.2%
<i>Wisconsin</i>	30.4%	37.7%	44.5%	40.7%
<i>Wyoming</i>	36.6%	35.0%	32.2%	35.8%
United States	37.9%	41.8%	45.0%	42.4%

Note: Data are limited to those age 17–24.

Source: Authors' analysis of Current Population Survey Outgoing Rotation Group microdata

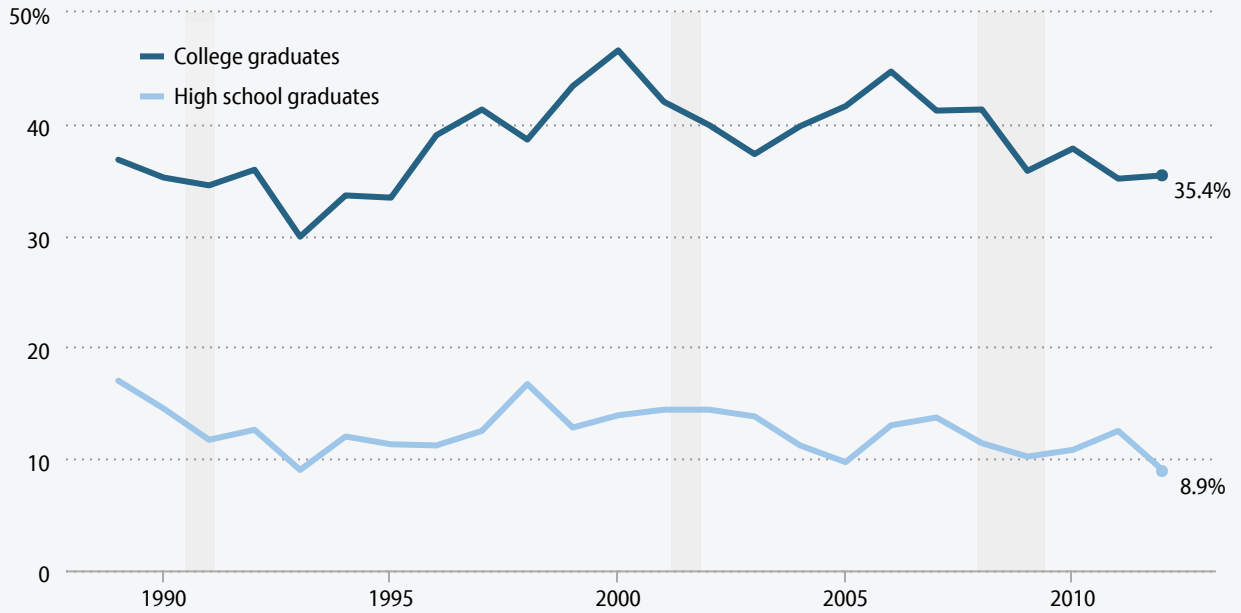
Share of recent high school and college graduates who work at least 20 hours per week and 26 weeks per year with health insurance provided by their own employer, 1989–2012



Note: Coverage is defined as being included in an employer-provided plan where the employer paid for at least some of the coverage. Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling, and high school graduates age 17–20 who are not enrolled in further schooling. Shaded areas denote recessions.

Source: Authors' analysis of Current Population Survey Annual Social and Economic Supplement microdata

Share of recent high school and college graduates who work at least 20 hours per week and 26 weeks per year with employer-provided pension coverage, 1989–2012



Note: Coverage is defined as being included in an employer-provided plan where the employer paid for at least some of the coverage. Data are for college graduates age 21–24 who do not have an advanced degree and are not enrolled in further schooling, and high school graduates age 17–20 who are not enrolled in further schooling. Shaded areas denote recessions.

Source: Authors’ analysis of Current Population Survey Annual Social and Economic Supplement microdata

Endnote

1. It is worth noting that we checked with the Bureau of Labor Statistics about the unusually large drop in college enrollment between 2012 and 2013; they noted the drop and verified that there was no change between 2012 and 2013 in the variable that identifies whether a person is enrolled, aside from the fact that it is now asked of everyone under age 55, not just people under age 25, which they also verified would have no effect here. Importantly, the drop continues into the first three months of 2014, which suggests that the decline is not just a one-year fluke in a volatile series.

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