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The Class of 2016

The labor market is still far from ideal for young graduates

Report • By Teresa Kroeger, Tanyell Cooke, and Elise Gould • April 21, 2016

Summary: Young high school and college graduates were hit hard in the Great Recession. While young graduates' economic prospects have brightened in recent years, they still face elevated unemployment rates and stagnant wages. Many groups—including young graduates of color, as well as young high school graduates entering the workforce—face particularly difficult economic realities. This report looks at trends in unemployment, underemployment, and wages of young high school and college graduates to paint a picture of the economy facing the Class of 2016.

Introduction and key findings

The Great Recession has had lasting effects on employment prospects of young people entering the workforce after graduating from high school or college. Despite officially ending in June 2009, the recession left millions unemployed for prolonged spells, with recent workforce entrants such as young graduates being particularly vulnerable. The slow pace of the recovery has meant that eight classes of students have graduated into an acutely weak labor market and have had to compete with more-experienced workers for a limited number of job opportunities. This is on top of the fact that graduates since 2000 have confronted suboptimal labor market conditions, resulting in stagnant wages and limited job opportunities. While sustained but slow improvements in economic conditions in recent years have brightened young graduates' job prospects, the labor market is still far from recovered from the Great Recession—and is even further from the full employment economy of 2000.

This paper focuses on recent high school (age 17–20) and college graduates (age 21–24) who are not enrolled in further schooling. We analyze their employment, enrollment, and wage trends in order to glean the Class of 2016's economic prospects as they start their careers.

Due to the progression of the economic recovery and a substantial improvement in the unemployment rate, members of the Class of 2016 currently have better job prospects than the classes of 2009–2015. However, the Class of 2016 still faces real economic challenges, as evidenced by elevated levels of unemployment and underemployment, and a large share of graduates who still remain "idled" by the economy. In addition, wages of young high school and college graduates have failed to reach their prerecession levels, and have in fact stagnated or declined for almost every group since 2000.

Key findings include:

 Unemployment of young graduates remains elevated today, but not because of something unique about the

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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.

- The vast majority (65.8 percent) of people age 24–29
 do not have a college degree. Access to good jobs for
 these individuals is especially critical, as stable
 employment allows them to build a career or pay for
 further schooling.
- Unemployment and underemployment rates among young graduates have improved but remain higher than before the recession began.
 - In addition to the unemployed (jobless workers who report that they are actively seeking work), the underemployment rate also includes those who work part 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 in the last four weeks ("marginally attached" workers).
 - For young college graduates, the unemployment rate is currently 5.6 percent (compared with 5.5 percent in 2007), and the underemployment rate is 12.6 percent (compared with 9.6 percent in 2007).
 - For young high school graduates, the unemployment rate is 17.9 percent (compared with 15.9 percent in 2007), and the underemployment rate is 33.7 percent (compared with 26.8 percent in 2007).
- The high share of unemployed and underemployed young college graduates and 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.

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- The share of young graduates who are "idled" by the economy—neither enrolled in further schooling nor employed—remains elevated in the wake of the Great Recession. This indicates that many graduates are unable to take the two main paths—receiving further education or getting more work experience—that enable future career success.
 - Among young college graduates, 9.7 percent are neither enrolled nor employed (compared with 8.4 percent in 2007).
 - Among young high school graduates, 15.5 percent are neither enrolled nor employed (compared with 13.7 percent in 2007).
- The overall unemployment rates and idling rates of young graduates mask substantial racial and ethnic disparities in these measures.
 - The unemployment rates of young black and Hispanic graduates are substantially higher than the unemployment rates of white non-Hispanics, for both young high school graduates and young college graduates.
 - Young black college graduates currently have an unemployment rate of 9.4 percent—higher than the peak unemployment rate for young white college graduates during the recession (9.0 percent).
 - The share of young black and Hispanic graduates who remain unemployed and not enrolled in further schooling is substantially higher than that of white graduates.
- Wages of young college and high school graduates are performing poorly—and have experienced little to no growth since 2000.
 - Among young high school graduates, real (inflation-adjusted) average wages stand at \$10.66 per hour—2.5 percent lower than in 2000. Young college graduates have average wages of \$18.53—roughly the same as in 2000 (only 0.7 percent higher).
 - Young high school and college graduates' wages follow the same trends as those of older graduates, signaling that the slowdown in young graduates' wages stems from a wider wage growth problem.
 - Among young high school graduates, women are currently paid 92 cents for every dollar paid to men, while among young college graduates, women are paid 79 cents for every dollar paid to men. It is noteworthy that stark wage disparities between men and women occur even at this early part of their careers, when they have fairly comparable labor market experience.
 - Gender wage inequality among college graduates has grown since 2000. Young male college graduates earned 8.1 percent more in 2016 than in 2000, while young female college graduates earned 6.8 percent less than in 2000. These gender wage discrepancies are likely driven by men at the top of the wage distribution earning more than ever before and driving up the average male wage.
- The quality of jobs for young graduates has deteriorated in recent decades.

- In 1989, just 10.1 percent of new high school graduates (age 17–20) with jobs had a pension through their workplace, and that share fell even further to 4.5 percent by 2015.
- Pension coverage among working college graduates (age 21–24) fell from 30.6 percent in 1989 to 29.4 percent in 2015.
- Updating the overtime salary threshold (the level below which all workers are eligible for overtime pay) would result in nearly one million additional young workers receiving overtime pay for the extra hours they work.
- 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 find difficult to repay.
 - From the 1984–1985 enrollment year to the 2014–2015 enrollment year, the
 inflation-adjusted cost of a four-year education, including tuition, fees, and room
 and board, increased 119.5 percent for private school and 124.7 percent for public
 school (according to the College Board).
 - Between 2004 and 2014, there was a 92 percent increase in the number of student loan borrowers and a 74 percent increase in average student loan balances (according to the Federal Reserve Bank of New York).
 - Due to young college graduates' limited job opportunities, stagnating wages, and the rising cost of higher education, college is becoming an increasingly difficult investment.

Why this matters

Graduating in a weak economy has long-lasting economic consequences. For the next 10 to 15 years, those in the Class of 2016 will likely earn less, and have more spells of unemployment, than if they had graduated when job opportunities were plentiful.

How we can fix it

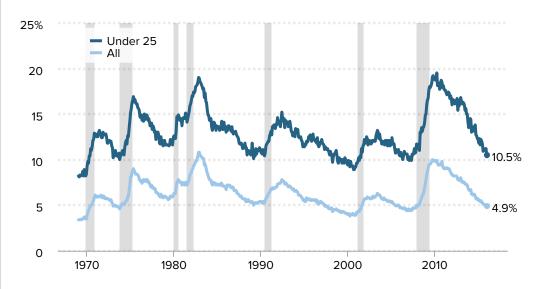
The policy solutions to improve the job prospects of young high school and college graduates and raise their wages are the same solutions needed to help all workers.

- To lower young graduates' unemployment rates, we should ensure that all workers
 who want a job can find one. The Federal Reserve can help by keeping interest rates
 low until the economy strengthens.
- To lift young graduates' pay, we should raise the minimum wage; make it easier for workers to bargain collectively for higher wages; strengthen and enforce labor standards (for example, we should make more workers eligible for overtime pay and combat wage theft by employers); provide earned sick leave and paid family leave; provide undocumented workers a path to citizenship, which will give these workers (and native workers in similar fields of work) more leverage to command higher pay; and end discriminatory practices that contribute to race and gender inequities.

Figure A

Young workers' unemployment rate is roughly twice the overall rate

Unemployment rate of workers under age 25 and all workers, 1969–2016



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

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

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In good times and in bad, many young workers struggle to find employment

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 restructured. 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.

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 February 2016, the overall unemployment rate was 4.9 percent, and the unemployment rate of workers under age 25, at 10.5 percent, was 2.1 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

Table 1

Highest degree earned, by age and demographic, 2016*

	Age 17–24					Age 24–29						
	All	Men	Women	White	Black	Hispanic	All	Men	Women	White	Black	Hispanic
Less than high school	24.9%	26.2%	23.5%	23.2%	25.7%	29.5%	8.5%	9.4%	7.7%	4.7%	8.5%	20.5%
High school	28.5%	31.0%	26.1%	26.8%	33.1%	32.6%	26.5%	30.0%	22.9%	23.4%	34.4%	33.4%
Some college	36.5%	34.4%	38.7%	37.6%	34.9%	33.1%	30.8%	29.8%	31.8%	31.0%	36.0%	29.8%
Bachelor's degree	9.3%	7.9%	10.8%	11.5%	5.8%	4.6%	26.4%	24.6%	28.2%	32.0%	16.9%	13.1%
Advanced degree	0.8%	0.6%	1.0%	0.9%	0.4%	0.3%	7.8%	6.2%	9.4%	8.9%	4.2%	3.2%

^{*} Data reflect 12-month moving average as of February 2016.

Note: Race/ethnicity categories are mutually exclusive (i.e., white non-Hispanic, black non-Hispanic, and Hispanic any race).

Source: EPI analysis of basic monthly Current Population Survey microdata

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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 difficult situation many young workers face today is not unexpected given overall labor market weakness. In other words, unemployment of young workers is 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.

Most young workers do not have a bachelor's degree

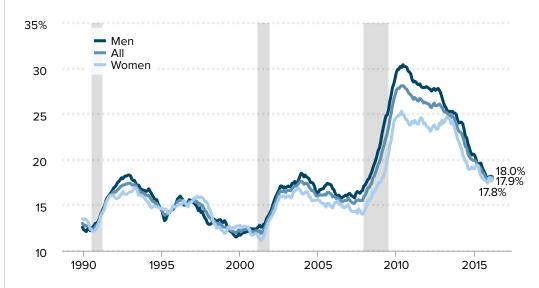
Although the remainder of this paper focuses on young high school and college graduates, it is necessary to note that these populations make up only a portion of young workers. In fact, as seen in **Table 1**, 75.1 percent of young workers (age 17–24) have a high school degree or more, but only 10.1 percent have at least a college degree.

This is important to keep in mind as we consider the role of high school and college graduates in our economy. Although we focus on high school and college graduates, a nontrivial part of the population age 17–24 (24.9 percent) has not graduated from high school or earned an equivalent degree. When we look at individuals who are slightly older (age 24 to 29), we find that a greater share have finished high school, but college graduates are still a minority. Among this age group, 35.0 percent have a high school degree or less, along with 30.8 percent who have some college experience. Only 34.2

Figure B

Despite improvement in recent years, young high school graduates' unemployment rate remains high

Unemployment rate of young high school graduates, by gender, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

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

Source: EPI analysis of basic monthly Current Population Survey microdata

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percent have completed college or received an advanced degree. This suggests that more attention should be paid to the job market for those with less than a bachelor's degree, as they comprise the vast majority (nearly two-thirds) of the 24–29 age group. Access to good jobs for these individuals is especially critical, as stable employment allows them to build a career or pay for further schooling.

High school graduates still struggle to find work in a weak labor market

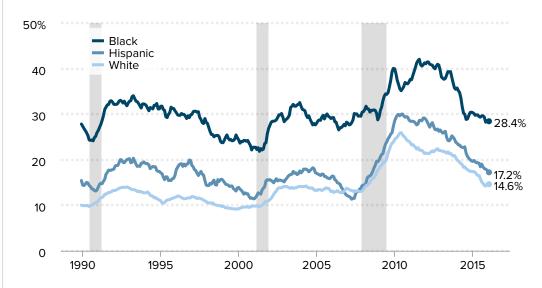
Among young high school graduates, unemployment rates are astonishingly high. **Figure B** shows the unemployment rate of high school graduates between age 17 and 20 who are not enrolled in additional schooling.¹

As Figure B shows, the unemployment rate of young high school graduates who are not enrolled in additional schooling jumped from 15.9 percent in 2007 to a peak of 28.1 percent in 2010, dwarfing the increases in prior recessions. The rate has since declined significantly to 17.9 percent. The increase between 2007 and 2010 was particularly pronounced for young male high school graduates, from 17.1 percent to 30.4 percent.

Figure C

Young high school graduates of color have higher unemployment rates than their white peers

Unemployment rate of young high school graduates, by race/ethnicity, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

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: EPI analysis of basic monthly Current Population Survey microdata

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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 school graduates have become more equal; the latest data show that the unemployment rate was 18.0 percent for young male high school graduates, compared with 17.8 percent for young female high school graduates.

Figure C shows that among young high school graduates, the unemployment rate of racial and ethnic minorities—particularly young non-Hispanic black graduates—tends to be higher than that of white non-Hispanic graduates, in good times and bad.² 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 a peak of 25.9 percent in 2010 and has since been cut nearly in half, to 14.6 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 reached 42.0 percent, and has since declined to 28.4 percent. In 2007, the unemployment rate of young Hispanic high school graduates was 14.3 percent. Similar to the trajectory for young white high school graduates, this rate also rose until 2010, when it reached a peak of 30.0 percent, and has since improved to 17.2 percent.

It's interesting to note that young black high school graduates are the only group to have dipped below their prerecession unemployment rate. Of course, these graduates had remarkably high unemployment rates before the Great Recession. Following the 2000 recession, their unemployment rate never really improved. Today, they are still much more likely to be unemployed than their Hispanic and white peers (1.7 and 1.9 times more likely, respectively).

Further, the unemployment rate may understate continued weakness in the labor market. 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 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 in the last four weeks ("marginally attached" workers).

Figure D 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 17.9 percent, their underemployment rate is 33.7 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 actively looking for work (i.e., they are marginally attached), or have a job that does not provide the hours they need (i.e., they are part time for economic reasons). Underemployment remains particularly elevated compared with its prerecession level, which has caused the ratio of the underemployment to unemployment rate to be near the highest it's ever been for young high school graduates, at 1.9. The wide gap between unemployment and underemployment suggests that a lack of job opportunities is either forcing young people to drop out of the labor force or take part-time jobs when they're looking for full-time jobs. 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 face a tough labor market

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 among young workers with a college degree is substantially lower than among other young workers. However, young college graduates' job prospects are significantly worse than they would be if the economy were truly healthy. In this section we examine the labor market outcomes of college graduates between age

Figure D

One-third of young high school graduates are underemployed

Unemployment and underemployment rates of young high school graduates, 1994–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

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: EPI analysis of basic monthly Current Population Survey microdata

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21 and 24 who do not have an advanced degree and are not enrolled in additional schooling.

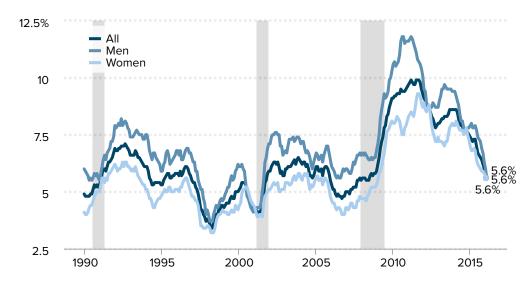
Figure E shows that the unemployment rate of young college graduates jumped between 2007 and 2011 from 5.5 percent to a peak of 9.9 percent, dwarfing the increases in prior recessions. It declined somewhat between 2011 and 2012, primarily due to young college graduates either dropping out of, or never entering, the labor force because job opportunities were so weak. In 2013, some of the 2011–2012 trends reversed: The unemployment rate increased modestly because the share of young college graduates actively looking for a job increased. The unemployment rate of young college graduates has since decreased due to stronger job growth, and now sits at 5.6 percent. However, it remains significantly elevated, especially in a historical context, and the Class of 2016 will join a sizable backlog of unemployed college graduates from the last seven graduating classes (the classes of 2009–2015) in a 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 11.8 percent in 2010) than young female college graduates (from 4.7 percent in 2007 to a peak of 9.3 percent in 2011). For young

Figure E

Despite recent improvement, unemployment among young college graduates remains higher than it would be in a truly healthy economy

Unemployment rate of young college graduates, by gender, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

Note: Shaded areas denote recessions. Data are for college graduates age 21–24 who are not enrolled in further schooling.

Source: EPI analysis of basic monthly Current Population Survey microdata

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male college graduates the unemployment rate has since drastically improved to 5.6 percent, equal to that of their female peers.

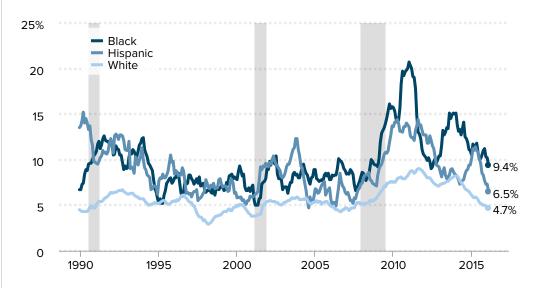
Figure F shows unemployment rates by race and ethnicity of college graduates age 21–24 who are not enrolled in further schooling. The data by race and ethnicity are very volatile year-to-year due to small sample sizes, so it is important not to emphasize year-over-year changes but to instead focus on longer-run trends. What they show is that the unemployment rates of young college graduates of color tend 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 20.7 percent by 2011, and has since decreased by over half to 9.4 percent, but has yet to reach the prerecession levels of 2007 or earlier. The unemployment rate of young Hispanic college graduates was 7.3 percent in 2007, rose to 14.4 percent by 2010, and has dropped to 6.5 percent in 2016. Among young white non-Hispanic college graduates, the unemployment rate was 5.1 percent in 2007, rose to 9.0 percent in 2011, and has since improved to 4.7 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

Figure F

Young college graduates of color have higher unemployment rates than their white peers

Unemployment rate of young college graduates, by race and ethnicity, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016

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: EPI analysis of basic monthly Current Population Survey microdata

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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. The unemployment rates of young black and Hispanic college graduates remain much more elevated than those of whites. In fact, the highest young white college graduate unemployment rate reached in the recession (9.0 percent) is still lower than that of young black college graduates today (9.4 percent). This suggests other factors may be in play, such as discrimination or unequal access to the informal professional networks that often lead to job opportunities.

Figure G 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 5.6 percent, the underemployment rate is more than twice that, at 12.6 percent. In other words, in addition to the substantial share who are officially unemployed, a large number of these young, highly educated workers either have a job but cannot attain the hours they need, or want a job but have recently given up looking for work. The underemployment-to-unemployment ratio for recent college graduates is the highest it's ever been, at 2.3. This illustrates that young college graduates are still experiencing significant labor market slack.

Figure G

One in eight young college graduates is underemployed

Unemployment and underemployment rates of young college graduates, 1994–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

Note: Shaded areas denote recessions. 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.

Source: EPI analysis of basic monthly Current Population Survey microdata

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Young college graduates are settling for lower-level jobs

Although the measure of underemployment used in Figure G-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). Research from the Federal Reserve Bank of New York (Abel and Deitz 2014) offers insight into skills/education-based underemployment of recent college graduates. The authors 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—38 percent of employed college graduates age 22-27 worked in jobs that did not require a college degree (Federal Reserve Bank of New York 2016). No matter how strong the labor market is, recent college graduates often require some time to transition smoothly into their desired career track.

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, 41.8 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 44.6 percent by 2015 (Federal Reserve Bank of New York 2016). 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 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.

Job quality has eroded for young graduates

Figure H shows the share of employed young graduates who receive pension coverage from their own employer (either defined-benefit or defined-contribution). In 1989, just 10.1 percent of new high school graduates (age 17–20) with jobs had a pension through their workplace, and that share fell even further to 4.5 percent by 2015. Pension coverage among working college graduates (age 21–24) increased from 30.6 percent to 41.5 percent between 1989 and 2001, presumably because of increased participation in defined-contribution plans. However, this group's pension coverage fell from 41.5 percent in 2001 to 29.4 percent in 2015. This sharp reduction in pension benefits for young college graduates since 2001 is yet another indicator of a substantial job quality problem even for those with high educational attainment.

Another measure of job quality, employer-provided health insurance, has displayed long-term losses for both young high school and college graduates (Shierholz, Davis, and Kimball 2014). However, because of the non-group health insurance expansions of the Affordable Care Act, and recent changes to health insurance coverage definitions in the Current Population Survey Annual Social and Economic Supplement, which make trend comparisons unreliable, we do not specifically look at those trends through 2015. If pension coverage is any indication, it is likely that health insurance provision through

Figure H

The vast majority of employed young graduates don't have employer-provided pension coverage

Share of employed recent high school graduates and college graduates with employer-provided pension coverage, 1989–2015



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: EPI analysis of Current Population Survey Annual Social and Economic Supplement microdata

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young people's own employers has not grown by a measurable extent. The Affordable Care Act, however, did substantially expand coverage of young people as dependents on their parents' policies (Gould 2013).

In addition to receiving fewer benefits in their jobs, young workers disproportionately do not receive overtime pay for the extra hours they work. Under current law, millions of workers are not paid time-and-a-half for their overtime hours, resulting in a substantial loss of income for these workers and higher profits for their employers. Young workers are taken advantage of through this policy more than any other age group. Increasing the overtime salary threshold (the level below which workers are automatically eligible for overtime pay) from \$455 per week (less than \$24,000 per year) to the Department of Labor's proposed threshold of \$947 per week (roughly \$50,000 per year) would affect an additional 34.1 percent of workers age 16–24 (DOL n.d.; Kimball 2016). If the proposed overtime salary threshold goes into effect, nearly one million young workers would finally be paid for their additional hours of work.

Young workers are not "riding out" the weak economy by "sheltering in school"

Educational opportunity is often identified as a possible silver lining to the 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 weak economy 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 in fact, enrollment plummeted over 2012–2014 and still has not recovered.

Figure I shows the share of young high school graduates (age 17–20) enrolled in college or university. The share of young high school graduates who go on to enroll in college has steadily increased over time, from 44.1 percent in 1989 to 57.9 percent in 2016. Women saw particularly steep increases in enrollment since 1989 (44.6 percent to 61.3 percent) compared with men (43.4 percent to 54.3 percent). Notably, the increases in enrollment between 2007 and 2012 simply followed this historical trend; they were no greater than the structural rise that 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.

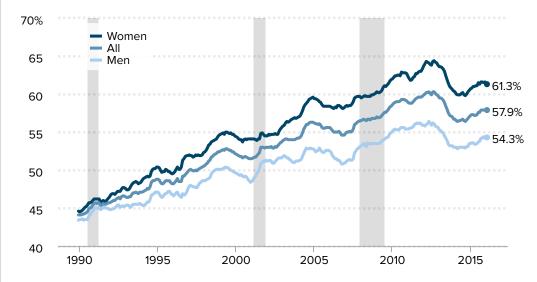
From 2012 to 2013, enrollment rates for both men and women dropped substantially. Enrollment rates have recently been on a slight upswing, in line with the historical trend, but have not fully recovered to the peak levels reached at the beginning of 2012. The share of young high school graduates enrolling in college is now in line with the 2009 share. Taken together, all of this suggests that young high school graduates have not been "riding out" the recession-induced lack of job opportunities by "sheltering in school."

The same holds true for young college graduates. **Figure J** 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 26.0 percent in 2016), also with particularly steep increases for women (from 17.1 percent to 27.6 percent) compared with men (from 19.2 percent to 23.7 percent). The data in Figure J are quite volatile due to small sample sizes, but they show that college graduates' increases in enrollment since 2007 have been no greater than what had been happening before the Great Recession. 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. Similar to high school graduates' post-recession dip in college enrollment, college graduates saw a large decrease in their graduate school enrollment rates, occurring over 2013–2014. Men in particular saw large decreases, with their graduate school enrollment rates declining 6.0 percentage points over 2011–2014.

Figure I

Young high school graduates aren't riding out the weak economy by "sheltering in school"

Share of young high school graduates enrolled in college or a university, by gender, $1989-2016^*$



* Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

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

Source: EPI analysis of basic monthly Current Population Survey microdata

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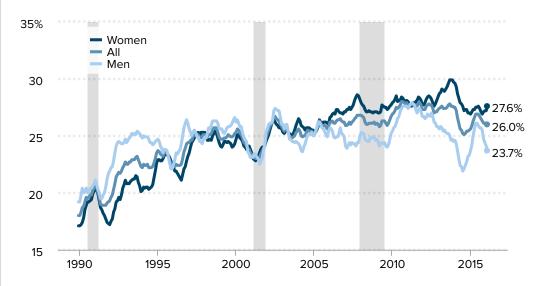
Women's enrollment rates experienced a decrease of 2.9 percentage points over 2013–2014. Since 2014, enrollment rates have been on a slight uptick and are in line with levels seen in 2009. In short, there is little evidence of a Great Recession–induced increase in enrollment among college graduates. 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.

The fact 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, half (50.4 percent) of college students under age 25 were employed. By 2016, the share had dropped to 44.0 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 outcomes in the aftermath of the Great Recession, that avenue to college may also be unavailable (see, for example, Lovenheim and

Figure J

Young college graduates didn't respond to the Great Recession by going back to school

Share of young college graduates enrolled in further education, by gender, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016

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

Source: EPI analysis of basic monthly Current Population Survey microdata

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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. These trends may have exacerbated the already disparate access to college by socioeconomic status (Mishel et al. 2012, Figure 3N).

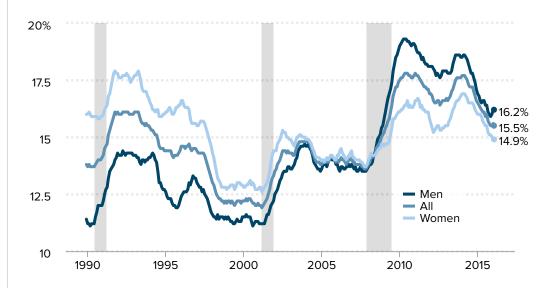
Many young graduates are still left idled after the Great Recession

The lack of a Great Recession—fueled increase in college or university enrollment, combined with a lack of job prospects, means a significant share of young graduates are now idled, or "disconnected"—that is, neither enrolled in school nor employed. These young graduates are deviating from the two main paths—getting work experience or receiving further education—that they could follow to begin setting themselves up for their future. (It is worth noting that this share measures only the young high school graduates within the civilian noninstitutionalized population, and does not take into account members of the population who are incarcerated.) **Figure K** shows the share of young high school

Figure K

The Great Recession has left many young graduates neither employed nor in college

Share of young high school graduates not enrolled in college or a university and not employed, by gender, 1989–2016*



* Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

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: EPI analysis of basic monthly Current Population Survey microdata

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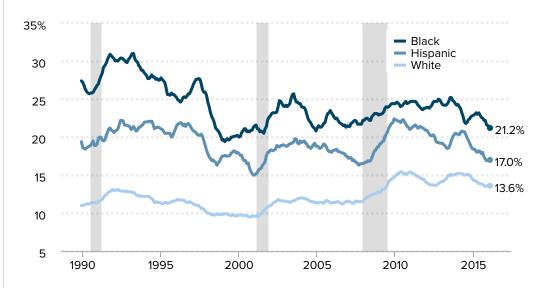
graduates age 17–20 (who may have previous college experience) who are idled, neither enrolled nor employed. In 2007, 13.7 percent of young high school graduates fell into this category, and that share spiked to 17.8 percent in 2010. It declined between 2010 and 2012, but because of the drop in enrollment discussed above, shot back up to 17.7 percent in 2014. Since then, it has declined again to 15.5 percent. Initially, idling rates rose more sharply for men than women (from 13.6 percent to 19.3 percent for men, and from 13.8 percent to 16.7 percent for women). By 2016, there still remained a slight gap in idling rates between men and women, with their rates standing at 16.2 percent and 14.9 percent, respectively.

The problem of young people being left idled disproportionately affects young black and Hispanic high school graduates. As shown in **Figure L**, 21.2 percent of young black high school graduates and 17.0 percent of young Hispanic high school graduates are currently not employed nor enrolled in further schooling, compared with 13.6 percent of whites. That means that a fifth of young black high school graduates and a sixth of young Hispanic high school graduates are not on the two major paths to future career success. All three racial and ethnic categories saw an increase in their idling rates after the Great Recession: Black graduates' share increased from 22.2 percent in 2007 to 24.7 percent in 2010, Hispanic graduates' share increased from 16.5 percent to 22.4 percent, and white graduates' share

Figure L

Among young black high school graduates, over one in five is neither employed nor in college

Share of young high school graduates not enrolled in college or a university and not employed, by race/ethnicity, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

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: EPI analysis of basic monthly Current Population Survey microdata

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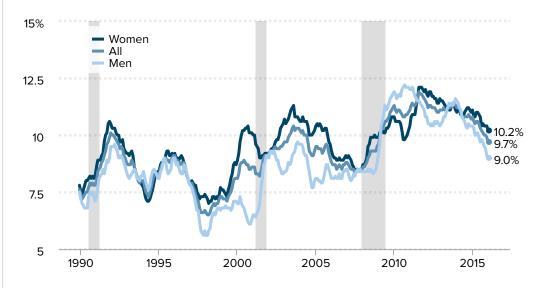
increased from 11.5 percent to 15.4 percent. All of these rates were much lower in the tight labor market of the late 1990s.

College graduates face a similar predicament, as many of them have been left idled in the wake of the Great Recession. **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 11.9 percent in 2011. It has since declined to 9.7 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 young high school and college graduates remain at least 1.1 times as high as they were before the recession began and as they were immediately prior to the 2001 recession. 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

One in 10 young college graduates is neither employed nor pursuing more education

Share of young college graduates not enrolled in college or a university and not employed, by gender, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

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: EPI analysis of basic monthly Current Population Survey microdata

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Young high school and college graduates are confronting lackluster wage growth

Due in part to the sustained economic weakness in the wake of the Great Recession, young high school and college graduates have seen stagnant or declining wages overall since 2000. **Figure N** presents average hourly wages of young high school graduates (age 17–20) and young college graduates (age 21–24); the underlying data for key years are provided in **Table 2**.³

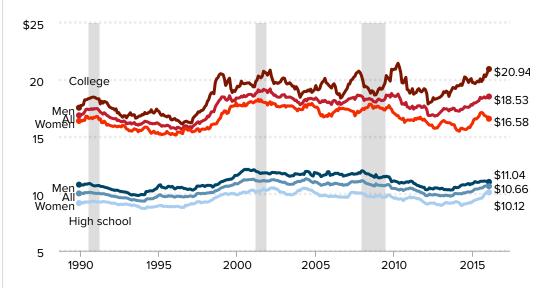
On average, young high school graduates had an hourly wage of \$10.66 in 2016. This wage rate would yield an annual income of roughly \$22,200 for a full-time, full-year worker. Young college graduates had an average hourly wage of \$18.53, which would translate into an annual income of roughly \$38,500 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 are currently paid 92 cents for every dollar paid to men, while among young

Figure N

For most young graduates, wages are no higher than in 2000

Real average hourly wages of young workers, by education and gender, 1989–2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016

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 2015 dollars. Shaded areas denote recessions.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata

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college graduates, women are paid 79 cents for every dollar paid to men. It is noteworthy that stark wage disparities between men and women occur even at this early part of their careers, when they have fairly comparable labor market experience.

Wage trends over the last year

Over the last year, real wages have seen a healthy pickup for both young high school and college graduates. This growth is sorely needed after 16 years of either stagnant or declining wages. However, this recent wage growth is largely driven by a decline in inflation (Gould 2016b). As young high school and college graduates experienced wage growth of 3.3 percent and 3.1 percent, respectively, between 2015 and 2016, overall inflation fell from 1.4 percent between 2014 and 2015 to 0.3 percent between 2015 and 2016.

While the gains to real living standards between 2015 and 2016 allowed young graduates to stretch their paychecks further, relying on low inflation to increase living standards is a poor long-term strategy for two major reasons. One, low inflation has been driven by large declines in commodity prices (particularly gas and oil), which are historically volatile and likely to stabilize or even rise in the next year. And, two, low permanent inflation would

Table 2

Real average hourly wages of young workers, 1989–2016*

	н	igh school graduat	es	College graduates			
Year*	All	Men	Women	All	Men	Women	
1990	\$10.05	\$10.78	\$9.23	\$16.95	\$17.75	\$16.38	
2000	10.93	11.71	9.96	18.40	19.38	17.78	
2007	10.85	11.68	9.76	18.32	19.62	17.39	
2015	10.33	10.97	9.39	17.96	19.74	16.50	
2016	10.66	11.04	10.12	18.53	20.94	16.58	
Percent change							
1990–2000	8.8%	8.7%	7.8%	8.5%	9.2%	8.5%	
2000–2016	-2.5	-5.7	1.6	0.7	8.1	-6.8	
2000–2007	-0.8	-0.3	-1.9	-0.4	1.2	-2.2	
2007–2016	-1.7	-5.5	3.6	1.1	6.7	-4.6	
2015–2016	3.3	0.6	7.7	3.1	6.0	0.5	

^{*} Data represent 12-month averages as of February of the indicated year.

Note: Data are for college graduates age 21–24 and high school graduates age 17–20 who are not enrolled in further schooling. Wages are in 2015 dollars.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata

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surely slow growth in nominal wages (i.e., wages not adjusted for inflation) (Bivens 2016). Wage gains that rely on near-zero inflation are not likely to be durable going forward. However, it is worth noting that over 2015–2016, young female high school graduates experienced especially higher wage growth than their male counterparts (7.7 percent, compared with 0.6 percent). This difference may be due to state minimum-wage increases over this period, which had a larger effect on women's wages due to the disproportionately high composition of women in low-paying jobs (Davis and Gould 2015).

Wage trends during the Great Recession and its aftermath

The boost in wages over the last year notwithstanding, the wages of most groups of young graduates have declined or stagnated during the Great Recession and its aftermath, as shown in Table 2. The real (inflation-adjusted) wages of young high school graduates are 1.7 percent lower today than in 2007. Wages of high school-educated men declined 5.5 percent during this time, while women's wages increased 3.6 percent.⁴ This pattern is reversed for young college graduates. Their wages increased slightly over 2007–2016, by 1.1 percent, with men seeing an increase of 6.7 percent, whereas women experienced a decline of 4.6 percent.

Wage trends since 2000

The lackluster wage growth during the Great Recession and its aftermath is a continuation of a longstanding trend. Figure N shows that the wages of young graduates fared poorly

even before the Great Recession; 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 2.5 percent (with a decline of 5.7 percent for men and an increase of 1.6 percent for women). The wages of young college graduates have increased 0.7 percent, with men's wages increasing 8.1 percent, and women's wages falling 6.8 percent. This means that wage inequality among young college graduates has increased since 2000, while it has narrowed among young high school graduates.

The lackluster wage performance since 2000 stands 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 10.4 percent for young high school graduates and 14.8 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 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).

Young graduates aren't the only workers experiencing stagnant wages

Although it may be tempting to point to young graduates' age or lack of previous work experience as the reason their wages have failed to grow since 2000, when we look at the population as a whole, similar wage trends emerge. **Figures O** and **P** show wages of young high school graduates (age 17–20) and young college graduates (age 21–24) compared with high school and college graduates' wages in the age 16–64 population. While young graduates have lower wages than the wider populations of high school and college graduates (which is expected due to their relative dearth of work experience), their wages display the same trends. Similar to young graduates, high school and college graduates age 16–64 saw a brief period of wage growth in the 1990s, but have had stagnant or declining wages since 2000. This is indicative of an economy-wide slowdown in wage growth driven both by a lack of demand for workers and by the erosion of workers' power to bargain with their employer for higher wages (Bivens et al. 2014).

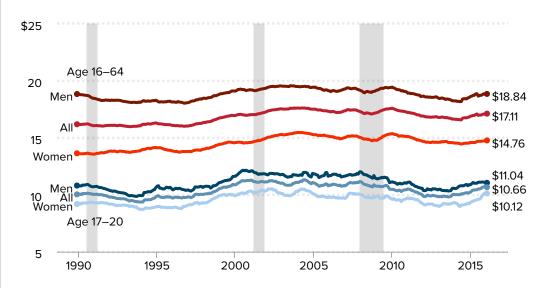
The high cost of higher education has put a strain on young graduates and their families

The high cost of college is one likely reason that college enrollment rates did not increase above their long-run trend in the last several years despite the lack of job opportunities during the Great Recession and its aftermath. In the 2015–2016 school year, the total cost

Figure O

Among those with a high school degree, wages have stagnated since 2000 for young workers and workers overall

Real average hourly wages of workers with a high school degree, by age, 1989-2016*



* Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

Note: The age 17–20 cohort includes only those workers who are not enrolled in further schooling. Wages are in 2015 dollars. Shaded areas denote recessions.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata

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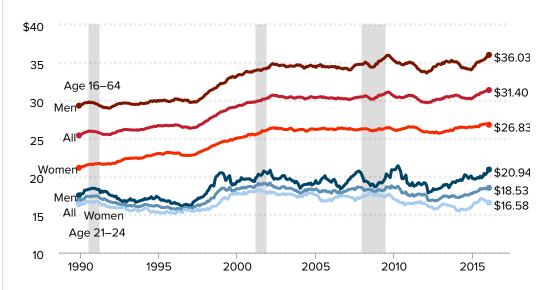
of attendance for an on-campus student—including in-state tuition, books, room and board, and transportation expenses—at a four-year in-state public school averaged \$24,061. For a four-year private school, it was \$47,831. The cost of higher education has risen faster than typical family incomes, making it harder for families to pay for college. From the 1984–1985 enrollment year to the 2014–2015 enrollment year, the inflation-adjusted cost of a four-year education, including tuition, fees, and room and board, increased 119.5 percent for private school and 124.7 percent for public school. Median family income increased only 16.1 percent over this 30-year period, leaving families and students increasingly unable to pay for most colleges and universities in full (College Board 2015; 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 (2014) shows that in 2010, 37 percent of the nation's households headed by an adult younger than age 40 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 is higher than the median because of very high amounts of debt owed by some: 10 percent of households owe \$61,895 or more (Fry 2012). Furthermore, the average student debt amount has

Figure P

Among those with a bachelor's degree, wages have stagnated since 2000 for young workers and workers overall

Real average hourly wages of workers with a bachelor's degree, by age, 1989-2016*



^{*} Data reflect 12-month moving averages; data for 2016 represent 12-month average from March 2015 to February 2016.

Note: The age 21–24 cohort includes only those who do not have an advanced degree and are not enrolled in further schooling. Wages are in 2015 dollars. Shaded areas denote recessions.

Source: EPI analysis of Current Population Survey Outgoing Rotation Group microdata

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nearly tripled since 1989. Using the Federal Reserve Board of New York's Consumer Credit Panel, Brown et al. (2015a) find that between 2004 and 2014, the number of student loan borrowers increased by 92 percent, and average debt per borrower increased by 74 percent. Debt can be damaging to graduates' future incomes and lifelong earnings. After graduation, those with higher educational debt are more likely to accept jobs with initially higher wages, yet slower wage growth over time (Minicozzi 2004). High debt can steer graduates into worse-fitting careers than their debtless peers and stifle their lifelong earnings.

Most Class of 2016 college graduates enrolled in college four years ago, in fall 2012. Though the recession officially ended in June 2009, the recovery has been slow, 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, it is likely that many of the families of the students in the Class of 2016 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 2014–2015 school year, state appropriations for higher education per full-time enrolled student fell by 20.3 percent, and in response, public colleges and universities have had to steeply increase tuition (Mitchell and Leachman 2015). The share of Class of 2016 graduates with large student loan amounts has likely risen accordingly.

Students in the Class of 2016, most of whom started college after the Great Recession was officially over, were unlikely, when taking on student loans, to have foreseen how slow the recovery would be. They likely also did not foresee that upon graduation they would enter a still-weak labor market and face 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 while 17 percent of borrowers are delinquent, only 37 percent of all student debt holders are making regular payments on schedule. They also find that the recent growth in student loan balances and delinquencies was accompanied by a decrease in other types of borrowing for younger age groups, suggesting that student loan debt is indeed crowding out other investments (Brown et al. 2015b). Fry finds that young college-educated adults without student debt obligations have about seven times the typical net worth of households headed by a young, college-educated adult with student debt (Fry et al. 2014).

The rising cost of college combined with the failure of wages to grow for young college graduates signals that a college education is becoming a more uncertain investment. The college premium, or the relative edge young workers receive in earnings from obtaining a college degree, experienced rapid growth in the 1980s and 1990s, but the growth has been relatively slow since 2000 (Mishel et al. 2012, Figure 4N). Any rise in the premium that has occurred in the last 15 years is due to larger wage losses for high school graduates, rather than strong wage growth for college graduates. Recall from Table 2 that on average, young college graduates have an hourly wage of \$18.53, which translates to an annual salary of roughly \$38,500 for a full-time, full-year worker. This is nearly the same as what a typical college graduate would have made in 2000 (\$38,200). In comparison, over 2000–2016 the average cost of college rose between 69.0 percent for a public university and 42.9 percent for private schools, and the average debt burden of student borrowers has risen 92 percent since 2004 (College Board 2015; Brown et al. 2015a). Although wages of new college graduates are much higher than those of their high school counterparts, their wages are failing to keep up with the rising cost of college and therefore the rising levels of student loans needed to pay for college, signaling that college is becoming an increasingly difficult investment. On top of this, the only way to access this college premium is by completing a college degree. Of the 67.7 percent of young adults who began college, 37.7 haven't completed their degree by age 29 (BLS

2016), often leaving with debt but without the relative benefits in employment and wages that the college premium offers.

The safety net for young workers is weak

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 Affordable Care Act, 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. That said, other Affordable Care Act provisions—namely, Medicaid expansions and the institution of health insurance exchanges with their accompanying subsidies—should accelerate the increase in health insurance coverage of young adults (particularly for those living in states that chose to expand Medicaid).

Though the Affordable Care Act 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 2015, for example, 55.0 percent of 18- to 24-year-olds were living with their parents, an increase of 3.8 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 limited opportunities.

Conclusion: We can help the Class of 2016 by implementing policies that boost employment and wages

Although the economy is slowly improving, the Class of 2016 still faces a difficult job market. Young workers who have the bad luck to enter the labor market during a downturn have worse outcomes in the short run than if they had entered in a healthy labor market—and 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 ensuing 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 improvement since the unemployment rate for young workers peaked in 2010, the labor market has still not completely recovered. Thus, the Class of 2016 will be the eighth consecutive graduating class to enter the labor market during a period of weakness. The evidence suggests that because of their unlucky timing—in other words, through absolutely no fault of their own—this cohort is likely to fare poorly for at least the next decade.

It doesn't have to be this way. Although young workers are a unique group, their current higher levels of unemployment and underemployment do not have a solution unique to them. The most direct way to quickly bring down the unemployment rate and spur wage growth of young workers is to institute measures that would boost aggregate demand and encourage full employment, and to bolster labor standards.

We should use all tools of macroeconomic stabilization policy to pursue full employment. Most immediately, this means the Federal Reserve can help by keeping interest rates low until full employment is achieved. In order to spur wage growth, we must pursue policies that strengthen workers' collective bargaining rights, as well as update and strongly enforce labor standards. In particular, we should raise the minimum wage, update the overtime threshold, provide earned sick leave and paid family leave, provide undocumented workers a path to citizenship (which will give these workers, and native workers in similar fields of work, more leverage to command higher pay), and end discriminatory practices that contribute to race and gender inequities.

The bottom line is that policies that will generate demand for U.S. goods and services and therefore demand for workers who provide them, policies that will bring down unemployment, policies that will give workers more leverage, and policies that will raise workers' wages are the keys to giving young people a fighting chance as they enter the labor market in the aftermath of the Great Recession.

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About the authors

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Endnotes

- 1. 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. Furthermore, from this point forward, the data from the Current Population Survey [CPS] basic monthly and CPS Outgoing Rotation Group are presented in 12-month moving averages, as this removes any need for seasonal adjustment and provides sufficient sample sizes. For example, the most recent data point is a 12-month average from March 2015 to February 2016, and appears in the figures as February 2016. Consequently, references to data points in the text may not represent calendar-year averages.
- 2. Racial and ethnic categories in this paper are mutually exclusive—i.e., white non-Hispanic, black non-Hispanic, and Hispanic of any race.
- 3. These data include salaried workers (their earnings are converted to hourly rates based on the number of hours they work).
- 4. The decline in average wages from 2007 to 2016 is not equal to the changes for both men and women separately due to compositional effects.
- **5**. Average college wages were affected by similar compositional effects as described in the previous endnote.

Appendix Table A1

Unemployment rates of workers under age 25 and all workers,* by state, 2000–2015

		Workers ur	nder age 25		All workers*				
State	2000	2007	2014	2015	2000	2007	2014	2015	
Alabama	12.5%	11.0%	15.9%	13.5%	4.5%	4.0%	7.1%	6.1%	
Alaska	14.0%	12.8%	13.5%	12.4%	6.7%	6.2%	7.1%	6.7%	
Arizona	7.5%	8.9%	16.8%	12.5%	4.0%	3.9%	7.0%	6.0%	
Arkansas	11.2%	10.3%	11.5%	11.2%	4.4%	5.6%	6.0%	5.2%	
California	10.5%	11.6%	14.6%	13.4%	4.9%	5.3%	7.5%	6.2%	
Colorado	7.2%	8.7%	11.0%	8.3%	2.8%	3.7%	4.9%	3.9%	
Connecticut	5.6%	10.0%	12.1%	10.0%	2.2%	4.5%	6.6%	5.6%	
Delaware	9.6%	7.3%	13.2%	11.7%	3.9%	3.5%	5.8%	5.0%	
District of Columbia	14.3%	12.7%	15.2%	14.8%	5.7%	5.5%	7.8%	6.9%	
Florida	9.2%	9.2%	14.0%	11.1%	3.6%	4.1%	6.3%	5.4%	
Georgia	8.2%	10.6%	16.7%	14.8%	3.7%	4.3%	7.2%	5.8%	
Hawaii	11.8%	8.2%	11.2%	8.9%	4.3%	2.9%	4.4%	3.7%	
Idaho	9.3%	7.3%	11.3%	8.3%	4.9%	3.0%	4.7%	4.3%	
Illinois	9.9%	10.4%	15.0%	13.3%	4.3%	5.1%	7.0%	5.9%	
Indiana	8.3%	11.4%	13.5%	11.5%	3.2%	4.6%	6.1%	4.8%	
Iowa	6.8%	8.0%	7.6%	8.6%	2.6%	3.7%	4.6%	3.6%	
Kansas	8.6%	9.3%	8.8%	7.6%	3.7%	4.1%	4.6%	4.3%	
Kentucky	9.8%	12.7%	15.0%	13.2%	4.1%	5.4%	6.5%	5.4%	
Louisiana	13.3%	9.0%	13.1%	13.6%	5.4%	4.3%	6.4%	6.2%	
Maine	8.7%	11.6%	12.7%	10.2%	3.5%	4.7%	5.7%	4.4%	
Maryland	9.6%	11.4%	14.1%	12.3%	3.8%	3.6%	5.8%	5.2%	
Massachussetts	6.7%	9.1%	13.4%	10.1%	2.6%	4.6%	5.8%	4.9%	
Michigan	8.0%	13.9%	15.5%	11.9%	3.5%	7.1%	7.2%	5.4%	
Minnesota	6.4%	9.2%	8.3%	7.7%	3.3%	4.6%	4.0%	3.8%	
Mississippi	14.1%	14.7%	18.7%	14.5%	5.6%	6.1%	7.7%	6.5%	
Missouri	8.1%	11.3%	12.4%	10.3%	3.4%	5.0%	6.4%	5.0%	
Montana	10.0%	7.6%	7.7%	7.2%	5.0%	3.6%	4.6%	4.1%	
Nebraska	6.7%	6.8%	6.7%	6.4%	3.0%	3.1%	3.3%	3.0%	
Nevada	7.7%	8.4%	14.5%	13.6%	4.0%	4.6%	7.7%	6.9%	
New Hampshire	6.9%	8.3%	9.1%	7.2%	2.8%	3.6%	4.2%	3.4%	
New Jersey	9.6%	9.9%	13.7%	12.0%	3.7%	4.2%	6.7%	5.8%	
New Mexico	12.0%	8.8%	16.0%	14.1%	5.0%	3.7%	7.0%	6.8%	
New York	10.4%	11.9%	13.3%	14.2%	4.6%	4.6%	6.4%	5.3%	
North Carolina	9.8%	10.3%	15.8%	14.4%	3.6%	4.5%	6.2%	5.9%	
North Dakota	6.6%	5.5%	6.2%	4.4%	3.0%	3.2%	2.8%	2.7%	
Ohio	8.7%	12.0%	12.1%	12.3%	4.0%	5.6%	5.6%	4.9%	
Oklahoma	6.6%	8.7%	10.3%	8.9%	3.1%	4.4%	4.5%	4.3%	
Oregon	9.6%	11.2%	17.3%	12.6%	4.9%	5.2%	7.1%	5.7%	
Pennsylvania	9.9%	10.9%	13.2%	10.1%	4.1%	4.3%	5.7%	5.2%	
Rhode Island	11.5%	9.5%	14.9%	10.5%	4.1%	4.9%	7.7%	5.9%	
South Carolina	10.6%	14.0%	15.4%	16.3%	3.8%	5.6%	6.4%	5.9%	
South Dakota	5.6%	6.5%	7.7%	9.5%	2.3%	2.9%	3.5%	3.5%	
Tennessee	8.9%	11.6%	14.5%	12.5%	3.9%	4.6%	6.6%	5.7%	

Appendix Table A1 (cont.)

		Workers un	der age 25		All workers*				
State	2000	2007	2014	2015	2000	2007	2014	2015	
Texas	10.2%	9.8%	11.1%	9.2%	4.2%	4.3%	5.0%	4.4%	
Utah	5.8%	6.1%	7.8%	6.9%	3.3%	2.6%	3.9%	3.6%	
Vermont	6.3%	9.6%	11.1%	9.3%	2.9%	4.0%	4.2%	3.6%	
Virginia	6.0%	7.5%	12.6%	10.0%	2.2%	3.1%	5.2%	4.5%	
Washington	12.8%	11.8%	16.5%	11.7%	5.2%	4.6%	6.3%	5.6%	
West Virginia	11.9%	12.8%	13.9%	17.3%	5.5%	4.6%	6.6%	6.9%	
Wisconsin	7.2%	11.8%	13.1%	9.3%	3.6%	5.0%	5.6%	4.6%	
Wyoming	9.8%	7.5%	10.4%	8.6%	3.9%	2.9%	4.4%	4.1%	
United States	9.3%	10.5%	13.4%	11.6%	4.0%	4.6%	6.2%	5.3%	

^{*} Includes all workers age 16 and older.

Source: EPI analysis of basic monthly Current Population Survey microdata

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Appendix Table A2

Underemployment rates of workers under age 25 and all workers,* by state, 2000–2015

		Workers ur	ider age 25		All workers*				
State	2000	2007	2014	2015	2000	2007	2014	2015	
Alabama	19.5%	17.2%	25.4%	23.4%	8.2%	7.1%	12.6%	11.2%	
Alaska	23.6%	22.4%	20.1%	21.1%	12.1%	11.2%	11.6%	12.1%	
Arizona	11.9%	15.1%	27.6%	22.9%	6.7%	7.4%	14.7%	12.8%	
Arkansas	17.7%	16.7%	18.7%	19.4%	7.5%	9.5%	10.2%	9.5%	
California	16.6%	19.1%	28.4%	24.6%	8.8%	9.9%	15.2%	12.7%	
Colorado	12.0%	15.2%	19.0%	14.4%	5.2%	7.3%	9.4%	7.9%	
Connecticut	10.3%	17.2%	23.4%	18.4%	4.2%	8.2%	12.6%	10.9%	
Delaware	15.5%	12.7%	23.9%	21.7%	6.4%	6.4%	11.2%	9.6%	
District of Columbia	22.0%	19.0%	22.1%	22.7%	9.8%	9.3%	11.9%	10.9%	
Florida	14.4%	16.0%	24.2%	22.1%	6.5%	8.0%	12.8%	11.5%	
Georgia	13.1%	17.7%	28.7%	25.4%	6.0%	8.1%	13.3%	11.1%	
Hawaii	19.7%	15.5%	23.1%	21.7%	9.4%	6.4%	10.2%	9.7%	
ldaho	14.6%	12.9%	23.1%	16.4%	8.5%	6.1%	10.3%	8.6%	
Illinois	15.4%	16.6%	23.7%	22.8%	7.2%	8.6%	12.7%	11.0%	
Indiana	12.6%	17.5%	23.0%	18.6%	5.6%	7.8%	11.3%	9.0%	
lowa	9.9%	12.5%	14.8%	13.7%	5.0%	7.0%	8.8%	7.0%	
Kansas	13.3%	15.0%	16.4%	14.3%	6.1%	7.3%	9.0%	8.3%	
Kentucky	15.0%	19.6%	23.4%	23.3%	6.9%	9.3%	11.7%	10.4%	
Louisiana	20.4%	13.3%	20.8%	23.0%	9.2%	7.2%	11.3%	11.1%	
Maine	13.1%	19.9%	25.4%	20.6%	6.9%	8.9%	11.9%	9.8%	
Maryland	13.7%	16.7%	25.4%	20.8%	5.7%	6.3%	10.7%	9.3%	
Massachussetts	10.6%	13.5%	22.0%	19.1%	4.8%	7.3%	11.5%	9.7%	
Michigan	13.0%	23.8%	28.2%	23.0%	6.3%	12.8%	13.9%	11.4%	
Minnesota	11.3%	15.5%	16.0%	15.7%	5.7%	8.2%	8.7%	8.2%	
Mississippi	22.7%	22.9%	31.0%	24.8%	9.5%	10.8%	13.6%	11.7%	
Missouri	12.5%	18.5%	21.1%	17.9%	5.7%	8.3%	11.8%	9.3%	
Montana	16.9%	12.7%	18.3%	16.2%	9.8%	7.1%	10.3%	9.0%	
Nebraska	10.5%	12.1%	12.7%	12.5%	5.3%	5.7%	7.0%	6.6%	
Nevada	12.8%	12.5%	28.0%	24.9%	6.8%	7.6%	15.3%	13.9%	
New Hampshire	11.5%	13.9%	21.3%	16.0%	4.8%	6.5%	9.7%	8.0%	
New Jersey	14.7%	16.9%	25.0%	20.6%	6.3%	7.4%	12.4%	10.4%	
New Mexico	18.7%	15.2%	28.0%	22.8%	8.6%	7.3%	13.1%	12.6%	
New York	17.2%	18.5%	26.9%	25.4%	7.9%	8.1%	12.4%	10.6%	
North Carolina	14.3%	18.1%	26.3%	24.1%	6.2%	8.5%	12.1%	11.3%	
North Dakota	10.1%	9.2%	11.0%	9.3%	6.1%	5.8%	5.4%	5.3%	
Ohio	13.4%	19.8%	21.6%	21.1%	6.8%	9.7%	10.9%	10.1%	
Oklahoma	11.8%	15.1%	17.1%	15.6%	6.0%	7.5%	8.6%	8.1%	
Oregon	17.8%	19.7%	29.8%	24.4%	8.5%	10.0%	14.2%	11.7%	
Pennsylvania	15.6%	16.2%	24.7%	21.4%	7.3%	7.7%	11.6%	10.7%	
Rhode Island	17.3%	15.3%	23.7%	20.3%	6.9%	8.3%	13.5%	11.4%	
South Carolina	16.3%	21.3%	27.7%	26.6%	6.7%	9.5%	12.5%	11.4%	
South Dakota	9.8%	11.6%	13.1%	14.7%	4.9%	5.7%	6.4%	6.3%	
Tennessee	14.9%	19.8%	27.5%	21.5%	7.5%	8.0%	13.1%	10.7%	

Appendix Table A2 (cont.)

		Workers un	der age 25		All workers*				
State	2000	2007	2014	2015	2000	2007	2014	2015	
Texas	16.3%	15.9%	19.6%	15.9%	7.4%	7.7%	9.9%	8.4%	
Utah	10.7%	10.5%	16.1%	13.1%	5.9%	5.0%	8.2%	7.5%	
Vermont	12.3%	15.0%	21.0%	18.4%	5.8%	7.0%	8.8%	8.2%	
Virginia	11.1%	13.6%	24.4%	21.1%	4.2%	6.1%	10.4%	9.9%	
Washington	20.7%	20.5%	29.3%	22.4%	9.6%	8.8%	12.5%	10.9%	
West Virginia	20.6%	22.6%	26.4%	27.9%	10.2%	9.2%	12.4%	12.4%	
Wisconsin	12.8%	17.8%	21.8%	14.8%	6.4%	8.4%	10.3%	8.2%	
Wyoming	15.9%	12.0%	17.2%	14.6%	7.1%	5.6%	7.5%	8.2%	
United States	14.9%	17.3%	24.0%	21.0%	7.0%	8.3%	12.0%	10.5%	

^{*} Includes all workers age 16 and older.

Source: EPI analysis of basic monthly Current Population Survey microdata

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Appendix Table A3

College enrollment rates of those under age 25 with at least a high school degree, by state, 2000–2015

State	2000	2007	2014	2015
Alabama	39.5%	34.7%	37.8%	38.9%
Alaska	27.0%	33.9%	29.1%	23.4%
Arizona	34.4%	36.3%	40.9%	41.7%
Arkansas	27.0%	31.7%	38.3%	37.8%
California	44.0%	48.3%	49.6%	50.1%
Colorado	28.5%	34.7%	40.2%	38.7%
Connecticut	45.8%	46.7%	47.6%	51.5%
Delaware	35.3%	41.1%	36.9%	39.6%
District of Columbia	36.1%	39.6%	31.4%	37.4%
Florida	37.5%	38.1%	44.6%	43.2%
Georgia	29.6%	43.7%	42.5%	41.9%
Hawaii	42.5%	39.8%	36.6%	38.9%
Idaho	31.1%	27.5%	35.8%	37.5%
Illinois	37.6%	45.3%	44.5%	46.6%
Indiana	36.6%	37.8%	40.0%	39.1%
Iowa	37.6%	41.2%	34.4%	37.7%
Kansas	45.0%	41.6%	42.4%	41.7%
Kentucky	39.9%	36.7%	34.8%	35.7%
Louisiana	38.2%	39.9%	33.1%	36.0%
Maine	34.2%	41.0%	37.9%	32.1%
Maryland	38.4%	47.3%	44.4%	39.4%
Massachusetts	39.6%	46.4%	47.0%	44.2%
Michigan	37.5%	45.0%	41.3%	38.5%
Minnesota	35.0%	43.6%	46.6%	41.9%
Mississippi	38.1%	40.0%	42.6%	37.5%
Missouri	37.1%	38.2%	39.1%	38.4%
Montana	34.3%	34.4%	32.2%	33.6%
Nebraska	37.6%	41.8%	41.7%	40.4%
Nevada	31.7%	29.5%	35.3%	35.6%
New Hampshire	35.9%	41.8%	37.0%	33.8%
New Jersey	43.5%	49.4%	48.7%	52.8%
New Mexico	38.8%	45.3%	43.4%	44.1%
New York	42.4%	48.6%	48.8%	47.7%
North Carolina	32.1%	41.2%	42.1%	39.1%
North Dakota	37.2%	39.9%	34.8%	34.4%
Ohio	38.2%	38.6%	35.5%	39.2%
Oklahoma	35.0%	38.8%	30.8%	30.2%
Oregon	29.6%	34.3%	38.9%	36.6%
Pennsylvania	41.2%	40.3%	38.7%	40.3%
Rhode Island	37.6%	44.0%	41.6%	42.3%
South Carolina	37.0%	38.8%	41.0%	36.0%
South Dakota	32.9%	34.9%	38.9%	34.4%
Tennessee	36.1%	39.0%	34.3%	36.7%
Texas	34.2%	41.3%	36.3%	40.8%
Utah	33.7%	33.1%	32.9%	35.7%

Appendix Table A3 (cont.)

State	2000	2007	2014	2015
Vermont	38.2%	40.7%	37.3%	36.8%
Virginia	38.3%	39.4%	41.3%	42.3%
Washington	36.4%	31.2%	33.9%	30.4%
West Virginia	34.9%	31.1%	36.9%	33.9%
Wisconsin	30.4%	37.7%	39.0%	42.0%
Wyoming	36.6%	35.0%	32.2%	35.9%
United States	37.9%	41.8%	41.9%	42.2%

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

Source: EPI analysis of basic monthly Current Population Survey microdata

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