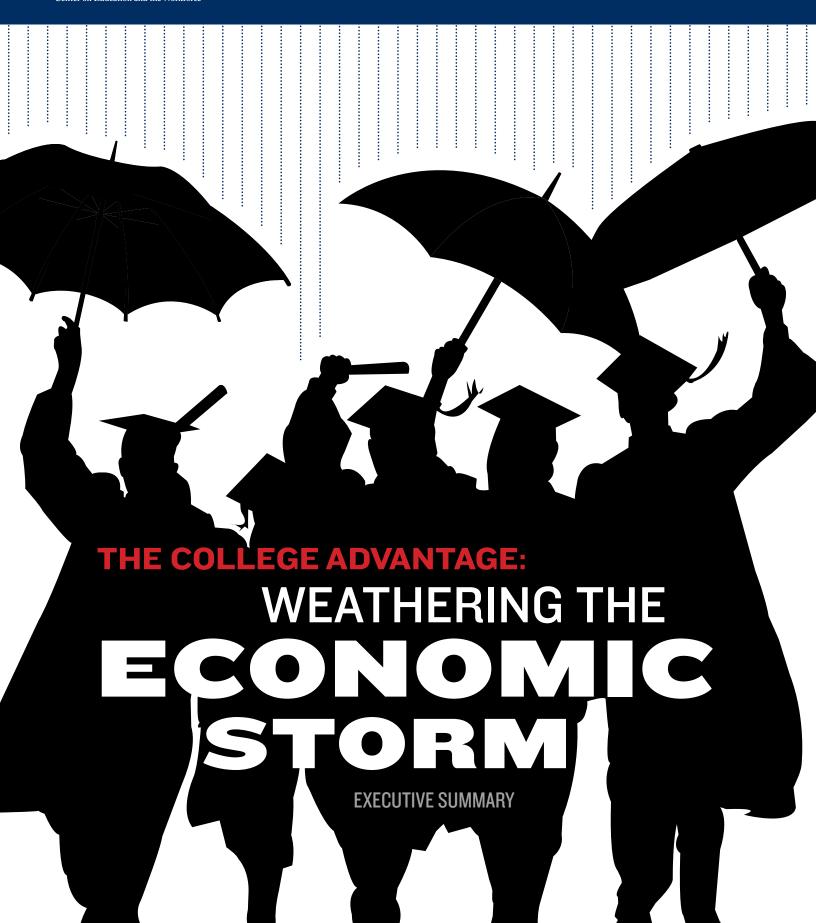


Center on Education and the Workforce



# THE COLLEGE ADVANTAGE: WEATHERING THE ECONOMIC STORM

#### **EXECUTIVE SUMMARY**

hen it rains hard enough and long enough, everyone gets a little wet. Economic storms are like that, too. In the Great Recession that began in December 2007, even college graduates lost jobs or ended up in jobs beneath their skill levels. Unemployment and underemployment for new college graduates approached double digits. But college has proved to be the best umbrella in this historic economic storm and the best preparation for the economy that is emerging in recovery. For college graduates, the dark clouds have come with a silver lining.

#### IT IS A TOUGH JOB MARKET FOR COLLEGE **GRADUATES BUT FAR WORSE FOR THOSE** WITHOUT A COLLEGE EDUCATION.

Since the recession began, the economy has not been able to create enough jobs for the collegeeducated labor force, but unemployment rates for college-educated workers have stayed low relative to unemployment rates among those with only a high school diploma or less.

• The unemployment rate for all four-year college graduates is 4.5 percent, but the unemployment rate for recent four-year college graduates is more than 50 percent higher at 6.8 percent.1 At the same time, unemployment rates for recent high school graduates are near 24 percent.

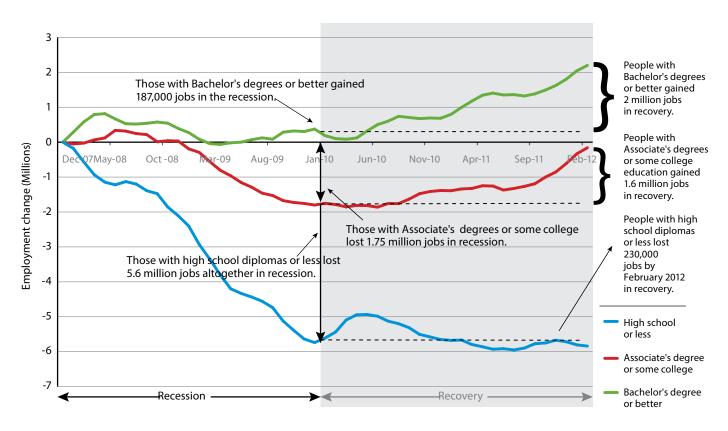
#### For college graduates, the dark clouds have come with a silver lining.

- Unemployment rates for four-year college graduates went up during the recession but never exceeded 6.3 percent, compared to the peak 13.4 percent in February 2010 and the current 9.4 percent unemployment rate for high school graduates.
- Unemployment rates for new four-year college graduates peaked at 11.1 percent in July 2011 before declining to 6.8 percent in May 2012. Meanwhile, unemployment rates for new high school graduates peaked at 30 percent in January 2010 and are still at 24 percent in May 2012.2

<sup>&</sup>lt;sup>1</sup>The unemployment rate for all college graduates is the May unemployment rate from the Current Population Survey (CPS) for those 18 years and older with a Bachelor's degree. The recent college graduates unemployment rate is the May unemployment rate from the Current Population Survey (CPS) for individuals 21 to 25 years of age with a Bachelor's degree. The unemployment rate for recent high school graduates is for 17- to 20-year-old individuals with a high school diploma.

<sup>&</sup>lt;sup>2</sup>The new four-year college graduates are the Bachelor's degree-holders from age 21 to age 25. The new high school graduates are the 17- to 20-year-old high school graduates. The unemployment rates of the new college graduates and new high school graduates are from the Current Population Survey (CPS).

FIGURE 1: Workers with high school diplomas or less bore the brunt of the recession's job losses. Job gains in the recovery have been confined to those with education beyond high school.



Source: Authors' estimate of the Current Population Survey data (2007–2012.) Employment includes all workers aged 18 and older.

Note: The monthly employment numbers are seasonally adjusted using the U.S. Census Bureau X-12 procedure and smoothed using four-month moving averages. The graph represents the total employment losses by education since the beginning of the recession in December 2007 to January 2010 and employment gains in recovery from January 2010 to February 2012.

Much the same is true for underemployment.<sup>3</sup>

- The underemployment rate for four-year college graduates is currently (May 2012) at 8.4 percent, but the underemployment rate for high school graduates is more than twice that at 17.3 percent.
- One out of seven new four-year college graduates was underemployed in May 2012. In comparison, nearly half of the new high school graduates were underemployed in 2012.

The most striking statistic shows that nearly 200,000 jobs for workers with at least a Bachelor's degree were added during the recession, and 2 million more jobs for college-educated workers have been added during the recovery (see Figure 1 and Table 1). More than half of the jobs created in the recovery have gone to workers with a Bachelor's degree or better, even though these highly educated workers make up just a little more than a third of the labor force.

<sup>&</sup>lt;sup>3</sup> The underemployment rates are estimated from the Current Population Survey (CPS). The underemployment rate for all college graduates is the May underemployment rate for those 18 years and older with a Bachelor's degree. The recent college graduates underemployment rate is the May underemployment rate for individuals 21 to 25 years of age with a Bachelor's degree. The underemployment rate for recent high school graduates is for 17- to 20-year-old individuals with a high school diploma. The underemployed include the unemployed, those who are employed part-time for economic reasons, and those who are marginally attached to the labor force. Persons marginally attached to the labor force are those who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the past 12 months. Persons employed part-time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule.

TABLE 1: Job gains by individuals with Bachelor's degrees or better made up for over a third of job losses by those with a high school diploma during recession and recovery.

Educational Attainment	Job Change			Percent Job Change (%)		
	Recession*	Recovery**	Net Change***	Recession*	Recovery**	Net Change***
High school or less Some college/Associate's degree Bachelor's degree or better All	-5,611,000 -1,752,000 187,000 -7,176,000	-230,000 1,592,000 2,012,000 3,374,000	-5,841,000 -160,000 2,199,000 -3,802,000	-10% -4% 0% -5%	0% 4% 4% 2%	-10% 0% 5% -3%

Source: Authors' estimate of the Current Population Survey data (2007-2012.) Employment includes all workers aged 18 and older.

Workers with an Associate's degree or some college lost 1.75 million jobs because of the recession and have regained 1.6 million jobs in the recovery.

At the same time, workers with a high school education or less lost more than 5.6 million jobs during the recession—and have continued to lose jobs during the slow recovery.

Correspondingly, nearly four out of every five jobs destroyed by the recession were held by workers with a high school diploma or less.

• Even in traditionally blue-collar industries, better educated workers fared better. In manufacturing, employment dropped by 19 percent for workers with a high school diploma or less, but only 9 percent for workers with Bachelor's degrees or better. In construction, employment dropped by 4 percent for workers with Bachelor's degrees or better and 24 percent for those with high school diplomas or less.

• In every industry except healthcare services and public administration, workers with high school diplomas or less lost many more jobs than those with more education. Workers with high school diplomas or less lost 4 million more jobs than those with higher education. Healthcare services and public administration added workers with high school diplomas or less through the recession.

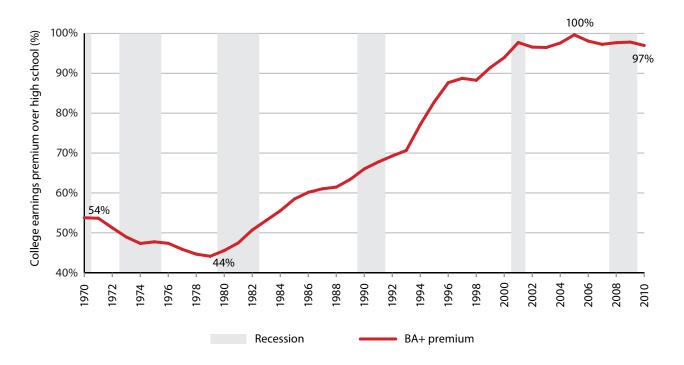
**Nearly four out of every five jobs destroyed** by the recession were held by workers with a high school diploma or less.

Recession - The period from December 2007 to January 2010.

<sup>\*\*</sup> Recovery - The period from January 2010 to February 2012.

<sup>\*\*\*</sup> Net Change - The period from December 2007 to February 2012.

FIGURE 2: Earnings of workers with a Bachelor's degree or better are still nearly twice that of high school-educated workers.



Source: Authors' estimate of the March Current Population Survey data (1970–2010). Employment includes all workers aged 18 and older.

Note: The estimates are the three-month moving averages of mean earnings of full-time, full-year wage and salary workers ages 25 to 54. The college earnings premium is estimated as the percentage difference between the mean earnings of workers with college degrees or better and the mean earnings of workers with only a high school diploma. The areas shaded in gray represent periods of recession as reported by the National Bureau of Economic Research.

# Earnings of college graduates declined slightly in the recession, but held up during the recovery.

Earnings of college graduates declined slightly in the recession, but held up during the recovery. Yet, on average, college graduates still earn nearly twice as much as high school graduates.

## THE GREAT RECESSION AND THE GRINDING RECOVERY HAVE NOT BEEN SEX NEUTRAL.

Men with Bachelor's degrees lost nearly 200,000
jobs during the recession, but the number of jobs
gained by college-educated women more than
made up for those losses.

- Women with a high school diploma or less lost
   2 million jobs, while men with a high school
   diploma or less lost 3.6 million jobs.
- Overall, most of men's job losses were in bluecollar industries: Two out of every three jobs lost by men were in construction and manufacturing, industries that were hit hard early in the recession. Because of those early losses, men initially lost more jobs than women. Later, when federal financial support for education and state and local jobs began to wane, women lost jobs in accelerating numbers. In addition to job losses in the public sector, women lost jobs in leisure and hospitality, healthcare services, and financial services early in the recovery.

#### THE GREAT RECESSION HAS BEEN A COLLEGE WAKE **UP CALL FOR MEN.**

For decades, the economy has allowed young men to skip college—trading long-term wages and benefits for short-term wages. Jobs in the male-dominated blue-collar economy, where good jobs only required high school or less, have been declining since 1979, when manufacturing jobs peaked. The decline in blue-collar male-dominated jobs has been an important cause of the steady decline in wages among jobs available to high school graduates. But these jobs are still a substantial share of employment opportunities, primarily because of job openings due to retirements. The real estate bubble that preceded the economic collapse of 2007 artificially inflated the number of male-dominated jobs in construction. Currently, about onethird of high school graduates can get jobs that will pay an average of \$35,000 a year over a career and these jobs are concentrated in male-dominated occupations. By way of comparison, women get very little labor market traction from high school

diplomas or postsecondary certificates and only get their economic legs underneath them with college degrees.

#### Men are going back to school and moving into fields dominated by women.

The Great Recession has produced an economic reckoning for men who stopped their education after high school or before. Men, who in recent decades have lagged behind women in gaining postsecondary education, have been hit harder in the recession and, in response, their enrollment in postsecondary education is now growing faster than women's. Men now realize that they need more than a high school diploma to get a job and that they shouldn't limit themselves to fields dominated by men. They have been flocking to college at greater rates and moving into fields usually dominated by women—such as nursing—that also are more "recession proof" and least likely to be sent overseas.

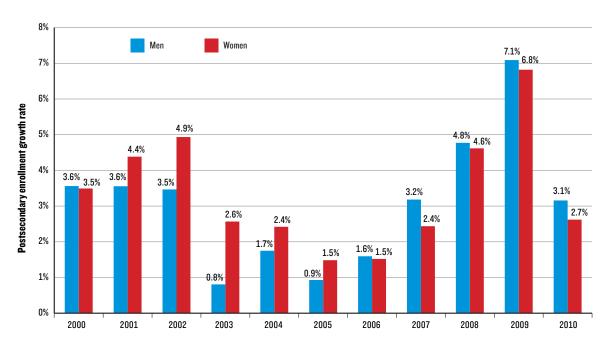


FIGURE 3. The postsecondary enrollment growth rate of men exceeded that of women with the beginning of the recession.

Source: Total fall enrollment in all postsecondary degree-granting institutions is obtained from Digest of Education Statistics 2011, published by the National Center for Education Statistics using Integrated Postsecondary Education Data System (IPEDS) data made available through the U.S. Department of Education (http://nces.ed.gov/programs/digest/d11/tables/dt11\_198.asp?referrer=report).

As Figure 3 shows, the enrollment growth among men is much larger this recession than in the 2001 recession. This is likely because men were hurt worse by the more recent recession. As traditionally male low-skill jobs disappear, men need more education to compete in industries that are adding jobs. And gaining an education is exactly what men are doing.

In addition, men are now moving into industries that have traditionally been dominated by women, such as healthcare, for which more postsecondary education or training—often a Bachelor's degree—is needed to land a good job. In healthcare, for example, only workers with postsecondary education have been able to find jobs in the recovery.

## COLLEGE-EDUCATED WORKERS HAVE MORE THAN SURVIVED THE GREAT RECESSION, THEY HAVE LED THE RECOVERY.

In the aftermath of the recession, the economic recovery has stagnated, but college-educated workers continue to fare better as more than half of all jobs created have gone to workers with Bachelor's degrees or better.

So far, the recovery has returned nearly half the number of jobs destroyed by the recession. Workers with an Associate's degree or some college have recaptured about 91 percent of the jobs they lost. In contrast, those with high school diplomas or less have continued to lose jobs, albeit at a much slower pace.

Those with a Bachelor's degree or better have more jobs than before the recession—even though the

Underneath the disappointing jobs numbers, the shift toward more postsecondary education continued and, perhaps, accelerated in the Great Recession. creation of new jobs has not been fast enough to keep up with the number of college-educated people joining the labor force. Out of all the net jobs gained in the recovery, 2 million have gone to workers with a Bachelor's degree or better and 1.6 million have gone to workers with an Associate's degree or some postsecondary education. Workers with a high school diploma or less have lost 230,000 more jobs in the recovery.

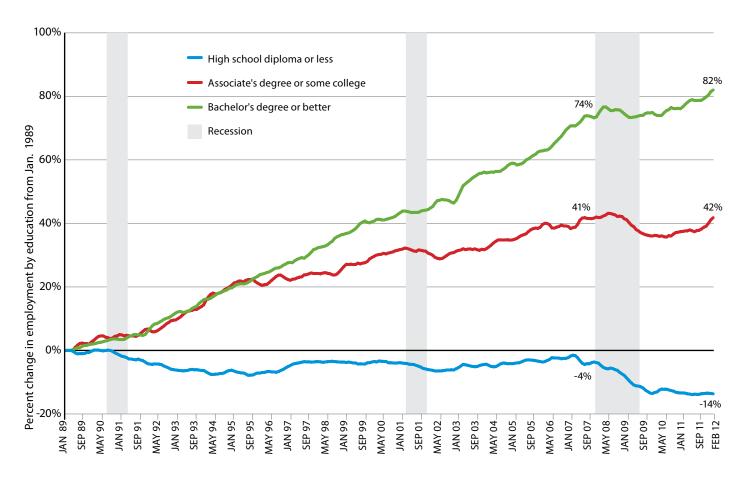
Why have college-educated workers weathered the recession better than less-educated workers? Part of the reason is the long-term decline in low-skill jobs in the American economy resulting from advances in labor-saving technology. Technological changes, principally computing technology, supercharged by global competition, have been automating repetitive tasks and routines in all jobs, leaving non-repetitive tasks and higher levels of human interaction to people. The result is increasing demand for hard cognitive knowledge, skills, and abilities, as well as softer interpersonal skills and personality traits. In the American institutional context, this has meant a shift from jobs that require high school or less to jobs that require at least some college.

Manufacturing, for example, shed 5.5 million jobs from 1980 to 2007. Simultaneously, globalization and the shift of American jobs overseas have led to a decline in the need for low-skilled labor. The economy is creating new jobs, but typically they require more education. For example, over the same time period, the economy created 11.6 million jobs in healthcare and education—areas in which most jobs require a Bachelor's degree or at least some college.<sup>4</sup>

Underneath the disappointing jobs numbers, the shift toward more postsecondary education continued and, perhaps, accelerated in the Great Recession. At the beginning of the recession, the workforce had 4 percent fewer workers with a high school diploma as their highest educational

<sup>4</sup>Peck, Don. (September 2011). Can the Middle Class Be Saved? *The Atlantic* (http://www.theatlantic.com/magazine/archive/2011/09/can-the-middle-class-be-saved/8600/).

FIGURE 4. The growth in employment in the past two decades has been entirely due to increases in college-educated workers while workers with a high school diploma or less have lost ground.



Source: Authors' estimate of the Current Population Survey data (1989-2012.) Employment includes all workers aged 18 and older. Note: The monthly employment numbers are seasonally adjusted using the U.S. Census Bureau X-12 procedure and smoothed using four-month moving averages.

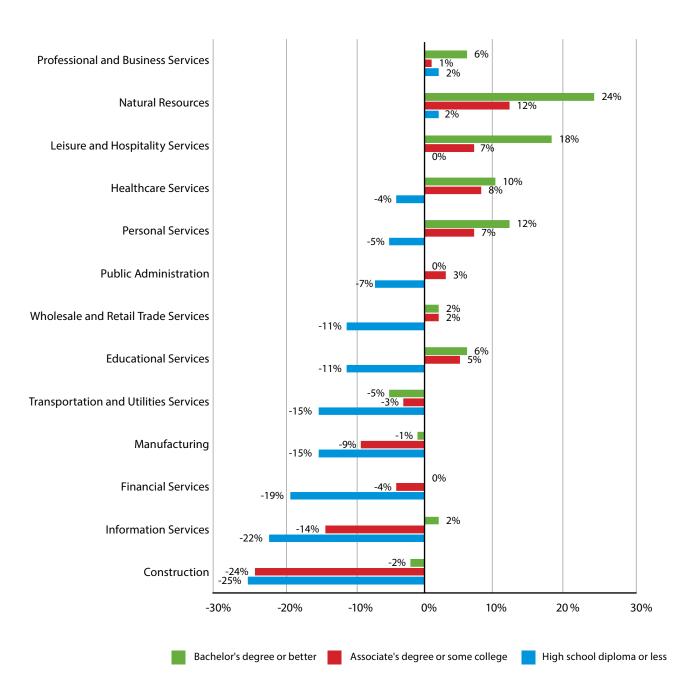
attainment than in 1989. In 2012, the workforce has 14 percent fewer workers with a high school diploma as their highest educational attainment than in 1989. That means the number of jobs available to those with just a high school diploma dropped by 10 percentage points in just five years. By comparison, the number of workers with some college or an Associate's degree increased by 40 percent from 1989 to 2012 and, over the same period, the number of workers with a Bachelor's degree or better nearly doubled. In other words, employment growth since 1989 has been driven entirely by workers with education beyond high school.

**Employment growth since 1989 has been** driven entirely by workers with education beyond high school.

Despite increases in the average education level of the workforce, those increases still haven't been enough to keep up with demand. Goldin and Katz (2008) and Carnevale and Rose (2011) detail rising wage premiums for college-educated workers over the past 30 years, suggesting that their supply continues to fall short of demand.

FIGURE 5: The more educated have fared better in the recession and recovery, within every industry.

(Percent Jobs Change by Education Level, December 2007-February 2012)



Source: Authors' estimate of the Current Population Survey data (2007–2012.) Employment includes all workers aged 18 and older. The percentage change is as a share of total employment in December 2007. A negative sign indicates a negative change (job losses).

#### **INDUSTRY CHANGES INCREASED THE DEMAND** FOR COLLEGE.

Industries that had lower proportions of jobs requiring postsecondary education, such as manufacturing and construction, were the industries hit hardest during the recession and accounted for nearly 5.2 million of the 7.2 million jobs lost; wholesale and retail trade accounted for an additional 1 million of the jobs lost. Industries with high concentrations of college-educated workers, such as public administration, education, and healthcare, held up relatively well during the recession, adding 1.5 million jobs as federal aid to state and local governments and fiscal stabilizers combatted some of the downturn's impact.

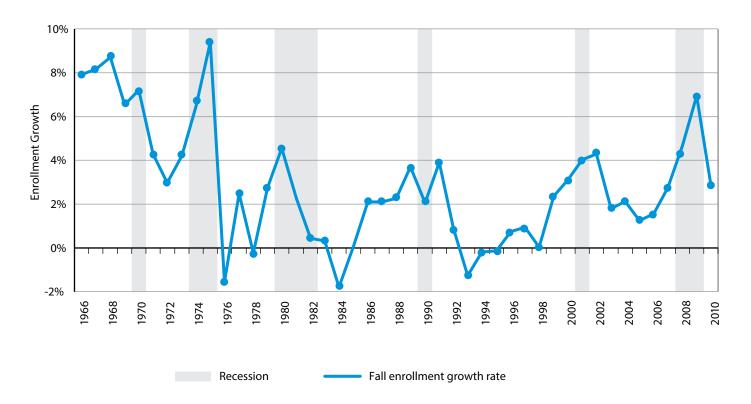
New jobs in all industries are demanding more education. Job gains during the recovery did not narrow the differences education made in the recession. In every industry except public administration, the demand for more-educated workers is greater than for less-educated workers. Deep cuts in federal, state, and local governments have hurt both the less educated as well as the more educated. A significant number of highly educated workers in public sector occupations such as education, community and social services, business and financial operations, computer and mathematical science, and architecture and engineering have lost jobs.

The affected industries are changing the composition of their workforces. In manufacturing-traditionally considered in the low-skill, blue-collar sector—employment has dropped by 15 percent for workers with a high school diploma or less since the recession began, but only 1 percent for workers with a Bachelor's degree or better. In construction, employment dropped by 25 percent for those with a high school diploma or less but only 2 percent for workers with a Bachelor's degree or better.

#### New jobs in all industries are demanding more education.

Postsecondary enrollment rates jumped in the recession and have remained high. During a weak labor market, when jobs are scarce and wages are stagnant, workers often seek to improve their training and leverage that for better employment. Delaying entry into the labor market by enrolling in postsecondary education is also a way to seek shelter and build human capital until the labor market improves. Figure 6 shows that postsecondary enrollment grew by 7 percent in 2009 after only 1 percent growth in 2005. But it has plummeted since then to 3 percent in 2010.

FIGURE 6. Postsecondary enrollment skyrocketed in the recession, as potential labor market entrants sought shelter from a harsh job market.



Source: Total fall enrollment in all postsecondary degree-granting institutions is obtained from Digest of Education Statistics 2011, published by the National Center for Education Statistics using Integrated Postsecondary Education Data System (IPEDS) data made available through the U.S. Department of Education (http://nces.ed.gov/programs/digest/d11/tables/dt11\_198.asp?referrer=report).

#### **CONCLUSION**

The Great Recession that began in December 2007 laid bare many of the shortcomings of the American workforce, especially the lack of workers with postsecondary education. A large majority of jobs lost in the recession and in the recovery had been held by workers with a high school diploma or less. The only real gains made during the still struggling recovery have been in jobs filled by workers with at least some postsecondary education. The gradual shift to more-educated workers has been going on for decades, but the recession gave it a mighty push. It also left the country with an urgent need to find a way to train workers for the more skilled jobs.



### NOTES





The College Advantage comprises a full report and an executive summary.

Both can be accessed at cew.georgetown.edu/collegeadvantage.

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