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# How Much Protection Does a College Degree Afford?

## The Impact of the Recession on Recent College Graduates

JANUARY 2013

The Pew Charitable Trusts is driven by the power of knowledge to solve today's most challenging problems. Pew applies a rigorous, analytical approach to improve public policy, inform the public, and stimulate civic life.

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For additional information on The Pew Charitable Trusts and the Economic Mobility Project, please visit [www.economicmobility.org](http://www.economicmobility.org) or email us at [info@economicmobility.org](mailto:info@economicmobility.org).

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# Executive Summary

Past research from Pew's Economic Mobility Project has shown the power of a college education to both promote upward mobility and prevent downward mobility.<sup>1</sup> The chances of moving from the bottom of the family income ladder all the way to the top are three times greater for someone with a college degree than for someone without one. Moreover, when compared with their less-credentialed counterparts, college graduates have been able to count on much higher earnings and lower unemployment rates.

Even during the Great Recession, college graduates maintained higher rates of employment and higher earnings compared with less educated adults.<sup>2</sup> However, the question of how *recent* college graduates have fared has remained largely unexamined, and many in the popular media have suggested that the advantageous market situation of college graduates is beginning to unravel under the pressure of the economic downturn.

This study examines whether a college degree protected these recent graduates from a range of poor employment outcomes during the recession, including

unemployment, low-skill jobs, and lesser wages. The report draws upon data from the 2003–2011 Current Population Survey (CPS) to examine the early labor market outcomes of 21- through 24-year-olds.

The report's key findings include:

**Although all 21- to 24-year-olds experienced declines in employment and wages during the recession, the decline was considerably more severe for those with less education.**

- Before the recession, just over half (55 percent) of young adults with a high school degree (HS) were employed, compared with almost two-thirds (64 percent) of those with an associate degree (AA) and 7 in 10 (69 percent) of those with a bachelor's degree (BA).<sup>3</sup>
- Job losses during the recession made existing employment gaps even worse. The employment declines for those with HS and AA degrees were 16 and 11 percent, respectively, compared with 7 percent for those with a BA degree.

The comparatively high employment rate of recent college graduates was not driven by a sharp increase in those settling for lesser jobs or lower wages.

- Before the recession, BA graduates had more than twice as many college-level jobs as AA graduates and more than four times as many college-level jobs as HS graduates.<sup>4</sup> This advantage did not deteriorate during the recession. Six percent of the HS and AA groups lost college-level jobs compared with only 3 percent of BA graduates.<sup>5</sup>
- Although wages decreased for all education groups, the decrease was less pronounced for recent four-year college graduates. The decline in weekly wages was only 5 percent for BA graduates, whereas the corresponding declines were as high as 12 and 10 percent for AA and HS graduates, respectively.

The share of non-working graduates seeking further education did not markedly change during the recession.

- During the recession, the non-working population increased in size for all three education groups, but the share of that population attending school did not increase. Approximately two-thirds of all non-working graduates were attending school, a proportion that did not differ much by degree type.

Out-of-work college graduates were able to find jobs during the downturn with more success than their less-educated counterparts.

- The proportion of BA degree-holders who made the transition from being excluded from the labor market (i.e., not working or in school) to employment barely changed during the recession.
- By contrast, the proportions of HS and AA graduates who found employment declined significantly with the recession—by approximately 10 percent for those with AA degrees and 8 percent for those with HS degrees.

The findings show that the deteriorating market situation of recent college graduates, while real and troubling, is nonetheless less extreme than that experienced by less-educated groups.

# Introduction

As the economic downturn plays out, the distinctive challenges faced by new labor market entrants have been frequently commented upon, with particular attention on college graduates. The concern focused on recent college graduates is perhaps surprising in light of the long and distinguished tradition of research on the labor market benefits of higher education.

Previous research by Pew's Economic Mobility Project has shown that a college degree not only increases the chances of upward economic mobility, but also reduces the chances of downward mobility. The economic returns to college are substantial: For children born into the bottom family income quintile, acquiring a college education increases the chances of moving to the top quintile by a factor of three.<sup>6</sup> Additional research has shown that relative to their less-credentialed counterparts, college graduates have been able to count on relatively low unemployment rates.<sup>7</sup> A recent study found that college graduates have maintained higher

rates of employment and higher earnings compared with those lacking a college degree.<sup>8</sup>

However, these earlier studies pertain to labor market outcomes for *all* college graduates—regardless of when they graduated. It is possible that *recent* college graduates, aged 21 to 24, have not been protected against the economic downturn to the same degree as the broader graduate population. Whereas those who graduated from college years ago have the benefit of accumulated market power and seniority, the newly graduated are potentially more vulnerable to the recession.

The popular media has been concerned that the labor market is beginning to unravel for recent graduates.<sup>9</sup> However, the findings in *How Much Protection Does a College Degree Afford? The Impact of the Recession on Recent College Graduates* show that, contrary to much popular commentary, recent college graduates are better protected from the downturn than less-educated groups.

# What Questions Guide the Analyses?

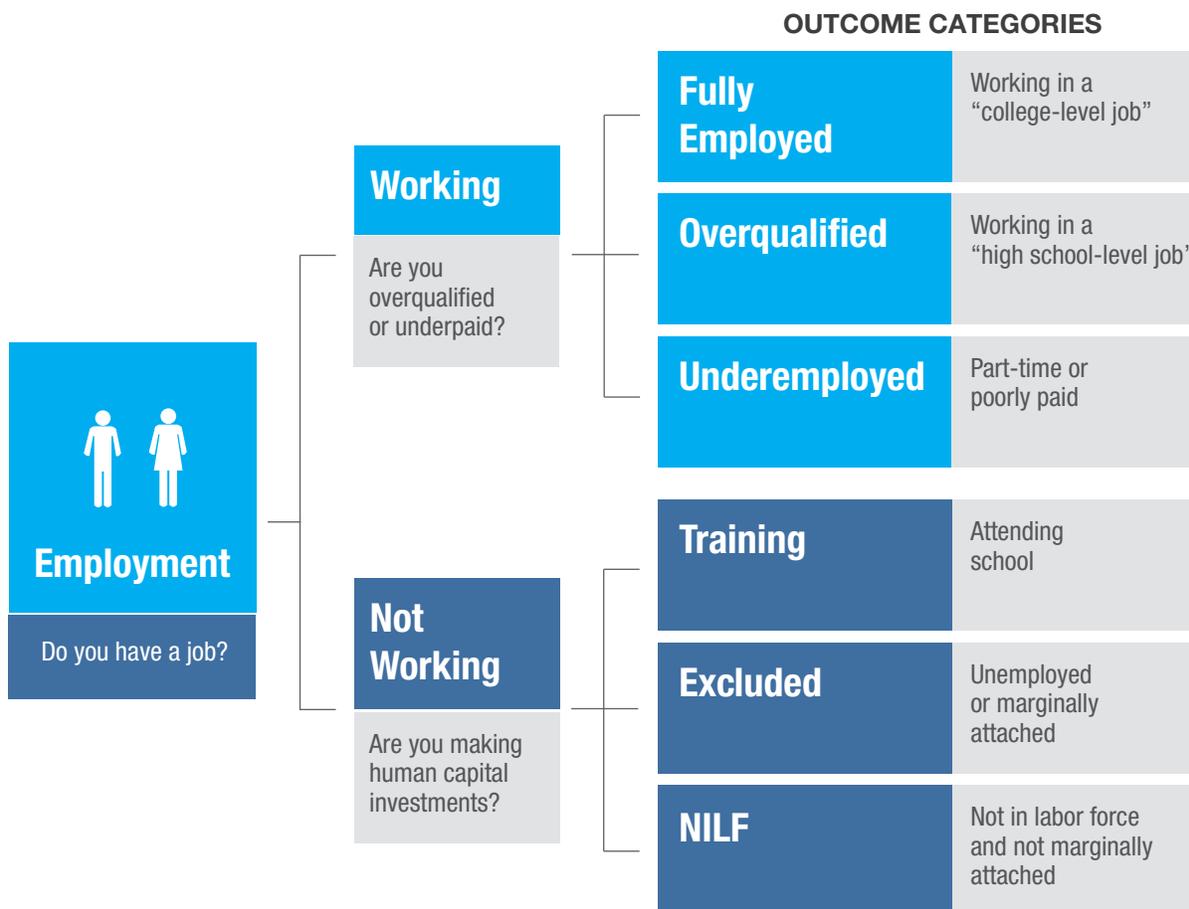
There is a long history of research on the effects of economic downturns on labor market entrants. These studies show, for example, that college graduates in past recessions in the United States settled for jobs for which they were overqualified,<sup>10</sup> often took their first jobs at small and low-paying firms,<sup>11</sup> and generally suffered both short-term and long-term wage penalties.<sup>12</sup> In other countries, past recessions have had similar scarring effects; indeed, some studies suggest that such effects are quite long-lasting and can color a person's entire life course.<sup>13</sup> The analyses in this report examine whether the current downturn had similar negative consequences for recent college graduates and other young adults.

The existing literature on the market situation of recent college graduates is surprisingly thin relative to the amount of recession research. It also is difficult to interpret because it does not compare how college graduates fared relative to other educational groups<sup>14</sup> or take into account the many options that college graduates have in a down economy.<sup>15</sup>

The approach taken in this report, by contrast, is to examine trends in labor market outcomes for recent college graduates in conjunction with trends for those the same age with high school or two-year college associate degrees. As shown in Figure 1 (see page 5), the analyses in this report also take into account the many options that college graduates face in a down economy, considering six potential outcomes for recent graduates.

Because existing research typically has not analyzed all of the potential pathways that recent college graduates face, this paper provides a more complete picture of the fate of college graduates during the downturn than was previously available. As the following summaries illustrate, the labor market outcomes of recent graduates reflect the complex interplay between individual choices and situational constraints.

FIGURE 1:  
**LABOR MARKET OUTCOMES FOR RECENT COLLEGE GRADUATES**



1. Are recent college graduates fully employed, working in college-level jobs?

The first and most important question to be answered is whether recent college graduates are continuing to secure high-level occupations of the sort that have long gone to college graduates. It is quite possible that the demand for highly qualified labor has remained relatively strong through the downturn and has afforded some protection for recent college graduates.<sup>16</sup>

2. Are recent college graduates overqualified, working in jobs that do not require a college degree?

Although demand for highly qualified labor remains relatively strong, many college graduates still may be unable to find college-level jobs. At some point in the search process, these jobless graduates may ultimately expand their search and begin to consider less attractive jobs of the sort that, at least in the past, had been reserved for less-qualified workers. This account implies, then, that the demand

## WHAT QUESTIONS GUIDE THE ANALYSES?

for college-level jobs is decreasing and that graduates are reacting to the diminished demand by dropping down to a lower-status sector.<sup>17</sup>

### 3. Are recent college graduates underemployed, working for reduced wages?

The overqualification issue, as described above, assumes that college-sector employers have reacted to diminishing demand by eliminating jobs and that college graduates have then dropped down to less desirable jobs. But what if college-sector employers instead react by reducing wages or by converting existing full-time jobs into part-time ones? Under such an “underemployment” account, many college graduates will choose to remain within the desirable college-job sector, albeit at the cost of settling for part-time or reduced-pay jobs within that sector.<sup>18</sup>

### 4. Are recent college graduates in training, pursuing further education?

If opportunities in the labor market are sufficiently bleak, some college graduates might instead decide to pursue post-graduate education. According to this logic, the best time to engage in additional training is when labor market demand is down and wages are not necessarily foregone by exiting the labor force, and

thereby the opportunity cost of training is minimized. With this reasoning, a substantial uptick in postsecondary enrollment will be in evidence.

### 5. Are recent college graduates excluded from the labor market, by being either unemployed or marginally attached?

It also is possible that large numbers of college graduates will remain unemployed or only marginally attached to the labor force. This category combines unemployed workers with those who are not looking for work, but who indicate that they want and are available for a job (i.e., the marginally attached). The graduates who fall into this category include those who cannot afford to engage in further training, those who are holding out for an ideal job, and those who are holding out for a high wage.<sup>19</sup>

### 6. Are recent college graduates out of the labor force?

The final category of Figure 1 refers to those who are “Not in the Labor Force” (NILF) and not in school. This category includes, for example, full-time caregivers as well as those who have given up altogether on the possibility of securing a job.<sup>20</sup>

# Data and Methods

The analyses presented below examine the evidence for each of these possible scenarios by drawing upon data from the 2003–2011 Current Population Survey (CPS).<sup>21</sup> The sample includes graduates between the ages of 21 and 24 in the pre-recession, recession, and post-recession periods<sup>22</sup> with a high school degree (HS), a two-year associate degree (AA, typically awarded by community colleges, junior colleges, technical colleges, or four-year colleges), or a four-year college degree (BA).<sup>23, 24</sup>

This classification scheme distinguishes between the “fully employed” and “overqualified” by using the Occupational Information Network (O\*NET) coding of 974 occupations.<sup>25</sup> The 10 most common college-level and high school-level occupations are listed in Table 1 (see page 8), separately by gender.

As shown here, the college sector includes such occupations as computer systems analysts and registered nurses, while the high school sector includes such occupations as carpenters and childcare workers.

Although most of the analyses presented in this report are cross-sectional (i.e., a snapshot of a single point in time), the final set of analyses examines whether college graduates who start off in less desirable labor market states are able to improve their situation within a one-year period (see Appendix for the sample sizes of the cross-sectional and longitudinal analyses).

TABLE 1:  
**TEN MOST COMMON COLLEGE-LEVEL AND HIGH SCHOOL-LEVEL OCCUPATIONS, BY GENDER**

	Male	Female
<b>COLLEGE-LEVEL OCCUPATIONS</b>	Managers (other)	Elementary and middle school teachers
	Accountants and auditors	Registered nurses
	Sales representatives, wholesale and manufacturing	Preschool and kindergarten teachers
	Software developers, applications and systems software	Accountants and auditors
	First-line supervisors of non-retail sales workers	Teacher assistants
	Computer, automated teller, and office machine repairers	Health practitioner support technologists and technicians
	Computer systems analysts	First-line supervisors of office and administrative support workers
	Elementary and middle school teachers	Managers (other)
	Designers	Designers
	Computer programmers	Secondary school teachers
<b>HIGH SCHOOL-LEVEL OCCUPATIONS</b>	Retail salespersons	Cashiers
	Laborers and freight, stock, and materials movers	Waiters and waitresses
	Cooks	Retail salespersons
	Driver and sales workers, and truck drivers	Secretaries and administrative assistants
	First-line supervisors of retail sales workers	Nursing, psychiatric, and home health aides
	Construction laborers	Receptionists and information clerks
	Stock clerks and order fillers	Customer service representatives
	Carpenters	Childcare workers
	Waiters and waitresses	First-line supervisors of retail sales workers
	Grounds maintenance workers	Hairdressers, hairstylists, and cosmetologists

SOURCE: Occupational Information Network (O\*NET) scores and Current Population Survey (CPS), 2003-2011

# How Do the Demographic Characteristics of the Three Educational Groups Differ?

As Table 2 (see page 10) shows, analyzing the demographics of recent graduates with BA, AA, and HS degrees before, during, and after the recession (2003–2011) reveals significant differences in gender, race, family structure, and labor market participation.<sup>26</sup>

Recent BA respondents are especially likely to be female (59 percent), white (75 percent), and Asian (9 percent), while HS respondents are more likely to be black (15 percent), Hispanic (17 percent), and non-citizens (11 percent). The AA respondents have a spouse in the household (19 percent) more frequently than do HS (15 percent) or BA (14 percent) respondents.<sup>27</sup>

Focusing on labor market participation indicates that 42 percent of recent BA respondents are employed in college-level jobs, while 26 percent are employed in high school jobs. By contrast, very few are excluded from employment (6 percent), and likewise very few are outside the labor force (4 percent).

By contrast, less than a fifth of AA respondents are working in college jobs (17 percent), and well over two-fifths (44 percent) are working in high school jobs. These respondents, however, are more likely than BA respondents to be in training (28 percent vs. 22 percent).

The market situation of HS respondents is even worse. Although they are as likely as AA respondents to be in high school jobs (45 percent for HS vs. 44 percent for AA), they are more likely than AA respondents to be excluded from employment (9 percent for HS vs. 6 percent for AA) or to be out of the labor force (9 percent for HS vs. 5 percent for AA). But they also are slightly more likely than the other groups to be in school (30 percent for HS vs. 28 percent for AA and 22 percent for BA).

## HOW DO THE DEMOGRAPHIC CHARACTERISTICS OF THE THREE EDUCATIONAL GROUPS DIFFER?

TABLE 2:  
**DEMOGRAPHIC MAKE-UP AND EMPLOYMENT  
OUTCOMES OF RECENT GRADUATES DIFFER  
BY DEGREE TYPE**

EMPLOYMENT OUTCOMES	DEGREE			
	TOTAL	HS	AA	BA
High school job	42%	45%	44%	26%
College job	14%	7%	17%	42%
Excluded	8%	9%	6%	6%
Training	29%	30%	28%	22%
Not in labor force	8%	9%	5%	4%
Weekly wage earnings	\$480	\$425	\$493	\$665
(Standard deviation)	(323)	(278)	(304)	(399)
<b>DEMOGRAPHICS</b>				
Female	51%	48%	56%	59%
Race				
White	65%	62%	69%	75%
Black	13%	15%	10%	8%
Hispanic	15%	17%	14%	7%
Asian	5%	4%	4%	9%
Other and multiracial	2%	2%	2%	2%
Non-citizen	11%	11%	9%	10%
Spouse in household	15%	15%	19%	14%

NOTES: All between-group differences are significant at the 5 percent level with the exception of the differences in the proportions for "other and multiracial" (across all three education groups). The statistics are weighted for probability of selection and household non-response.

SOURCE: Current Population Survey (CPS), 2003-2011

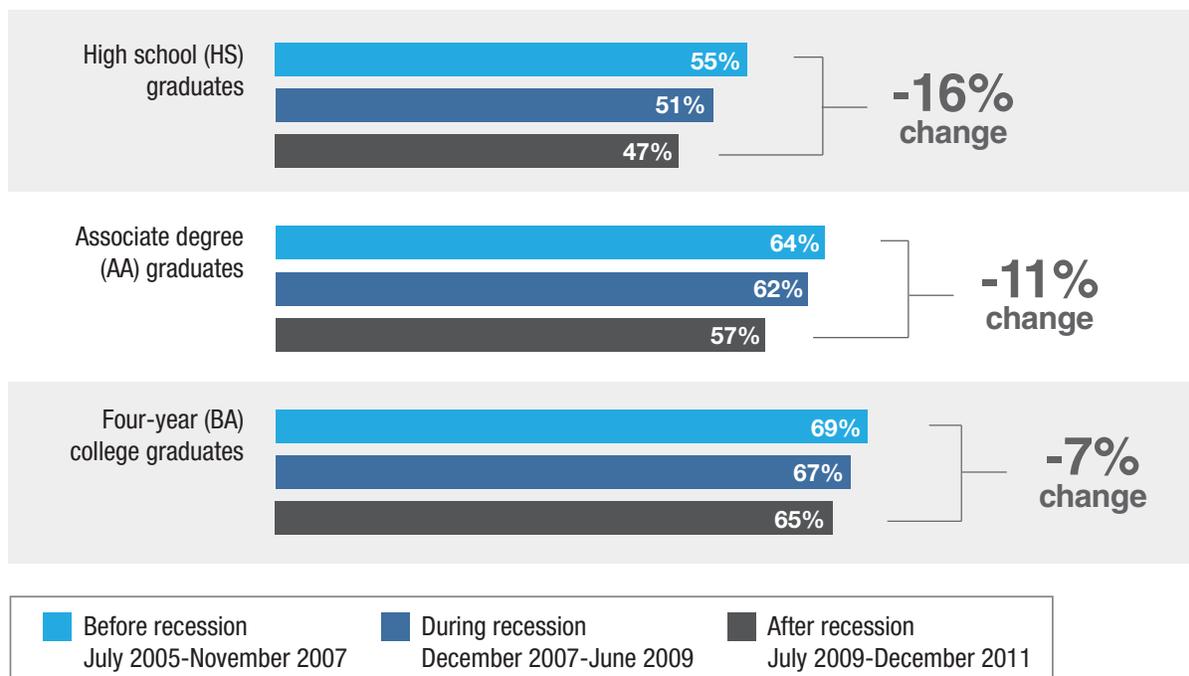
# Differences in How the Recession Was Experienced

Although all 21- to 24-year-olds experienced declines in employment during the recession, the decline was more severe and sustained for those with less education.

Figures 2 (this page) and 3 (see page 12) show that the BA group was indeed protected from the most severe declines in employment.<sup>28</sup> Even before the recession started, there were significant differences in labor market participation depending

FIGURE 2:  
**FOUR-YEAR COLLEGE GRADUATES EXPERIENCED A SMALLER EMPLOYMENT DECLINE**

## AVERAGE EMPLOYMENT RATE



NOTES: The percentage change is calculated with unrounded estimates and may not reproduce the percentage change exactly based on the rounded estimates presented here. Statistics are weight-adjusted for probability of selection and household non-response. All differences are significant at the .01 percent level with the exception of the percent change between the high school and associate degree groups.

SOURCE: Current Population Survey (CPS), 2005-2011

## DIFFERENCES IN HOW THE RECESSION WAS EXPERIENCED

on recent graduates' education level. Just over half (55 percent) of young adults with a high school degree were employed, compared with almost two-thirds (64 percent) of those with an associate degree and 7 in 10 (69 percent) of those with a bachelor's degree.

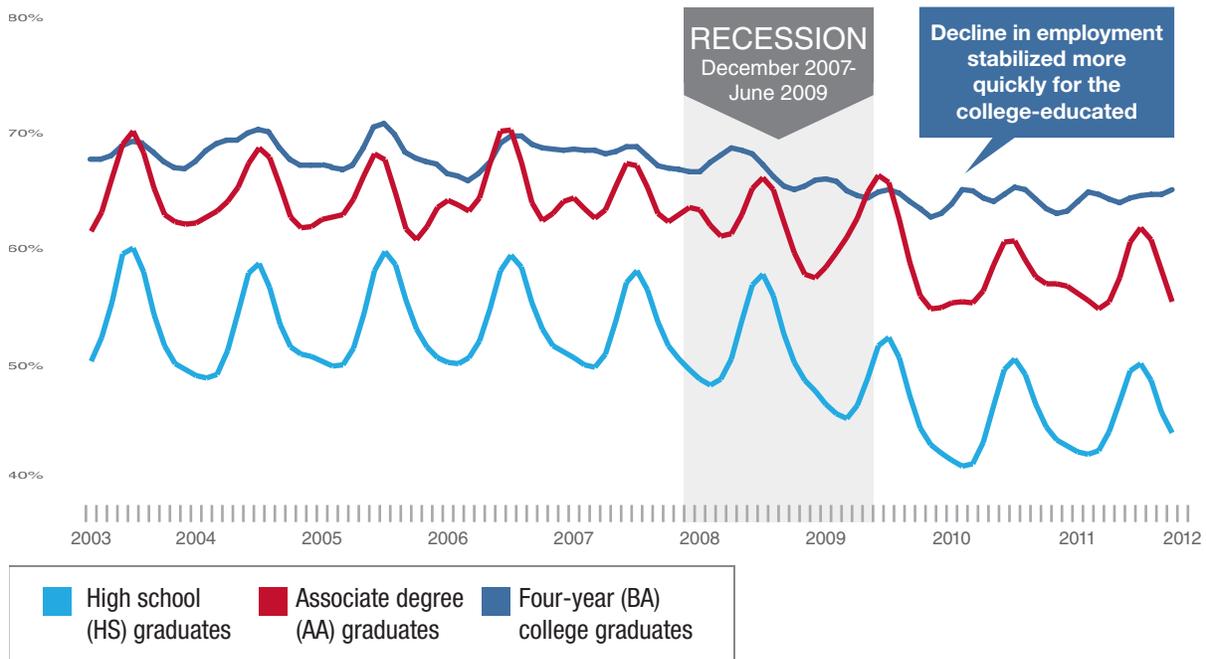
Recession losses further differentiated the employment outcomes of young adults holding high school or associate degrees from their bachelor's degree counterparts. The employment decline for BA graduates (7 percent) was significantly less than the corresponding declines for HS or AA

graduates. While HS graduates experienced the sharpest decline in employment during the recession (16 percent), this decline was not statistically different from that experienced by AA graduates (11 percent).

Why were those holding a four-year college degree protected from the worst losses? The main difference, as Figure 3 (this page) reveals quite clearly, is that the downward trend in employment stabilized more quickly for the four-year college graduates.

**FIGURE 3:  
DOWNWARD TREND IN EMPLOYMENT STABILIZED MORE QUICKLY FOR FOUR-YEAR COLLEGE GRADUATES**

### MONTHLY EMPLOYMENT RATE



NOTES: All graduates are ages 21-24 years old.  
SOURCE: Current Population Survey (CPS), 2003-2011

The comparatively high employment rate of recent college graduates was not driven by a sharp increase in those settling for lesser jobs.

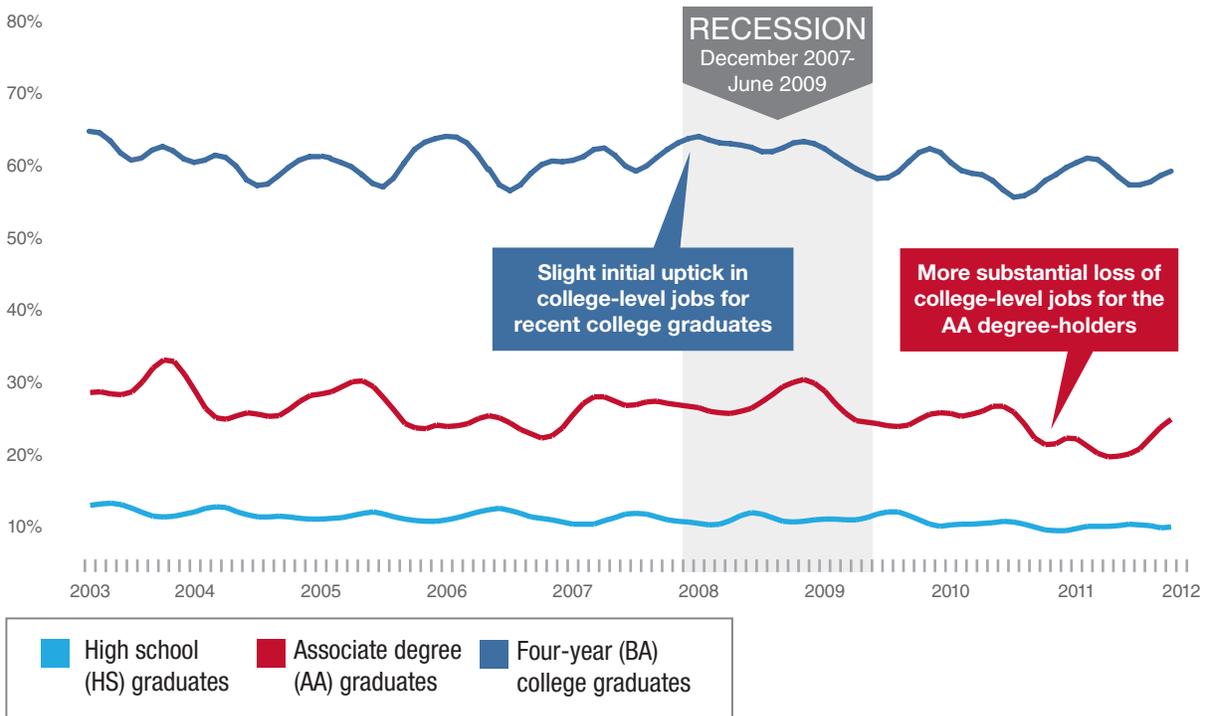
Although Figure 2 (see page 11) reveals that the four-year college group remained employed at comparatively high levels, it is unclear whether such protection was secured by resorting to lesser jobs. Is there any evidence that four-year college respondents settled for low-status jobs and squeezed out AA and HS respondents in the process?

Figure 4 (this page) shows that prior to the recession, the BA group had more than twice as many college jobs as the AA group and more than four times as many college jobs as the HS group. But did this advantage deteriorate during the downturn?

The simple answer: No. For the four-year college group, the trend line indicates a surprising (but modest) uptick in college jobs during the recession, then an equally slight decline after the recession. This is not the substantial downward drift of the sort that some commentators feared.

FIGURE 4:  
**COLLEGE GRADUATES HELD MORE COLLEGE-LEVEL JOBS**

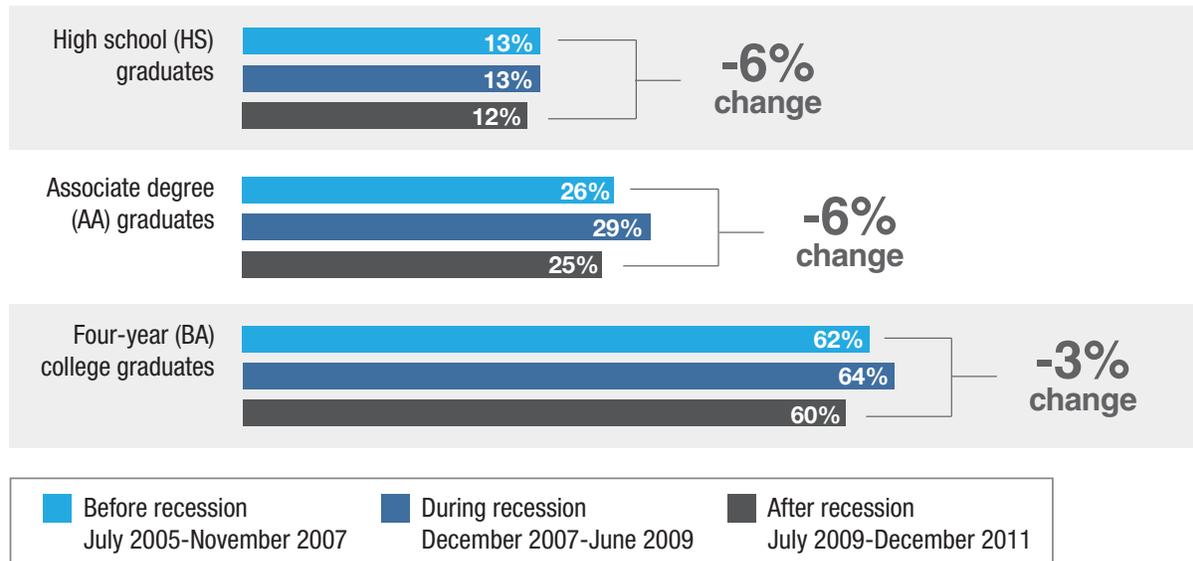
**PERCENT WITH A COLLEGE-LEVEL JOB**



NOTES: All graduates are ages 21-24 years old.  
SOURCE: Current Population Survey (CPS), 2003-2011

FIGURE 5:  
**DECLINE IN COLLEGE-LEVEL JOBS WAS TWICE AS HIGH FOR ASSOCIATE DEGREE AND HIGH SCHOOL GRADUATES**

**PERCENT HOLDING COLLEGE-LEVEL JOBS**



NOTES: The percentage change is calculated with unrounded estimates and may not reproduce the percentage change exactly based on the rounded estimates presented here. Statistics are weight-adjusted for probability of selection and household non-response. All differences are significant at the 5 percent level or lower with the exception of the percent change between the high school and bachelor's degree groups.

SOURCE: Current Population Survey (CPS), 2005-2011

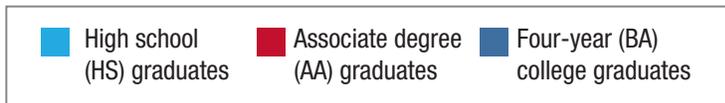
As shown in Figure 5 (this page), the proportion of HS and AA degree-holders with college jobs declined by 6 percent, while the corresponding proportion for BA degree-holders declined by 3 percent. The difference between the BA and AA decline is statistically significant, whereas the difference between the BA and HS decline is not quite significant.<sup>29</sup>

Although wages decreased for all education groups, the decrease was less pronounced for recent four-year college graduates.

Although college graduates did not settle for lesser jobs in large numbers, some might still contend that recent college graduates were able to retain their college jobs only by taking internships, part-time

FIGURE 6:  
**ALL GROUPS EXPERIENCED WAGE DECLINES DURING THE RECESSION, BUT COLLEGE GRADUATE WAGES STABILIZED AFTER THE RECESSION**

**AVERAGE WEEKLY WAGES**

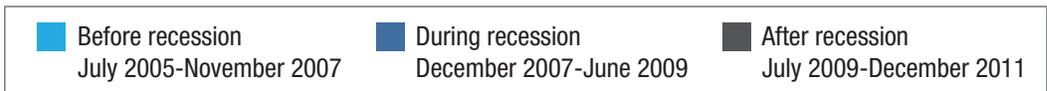
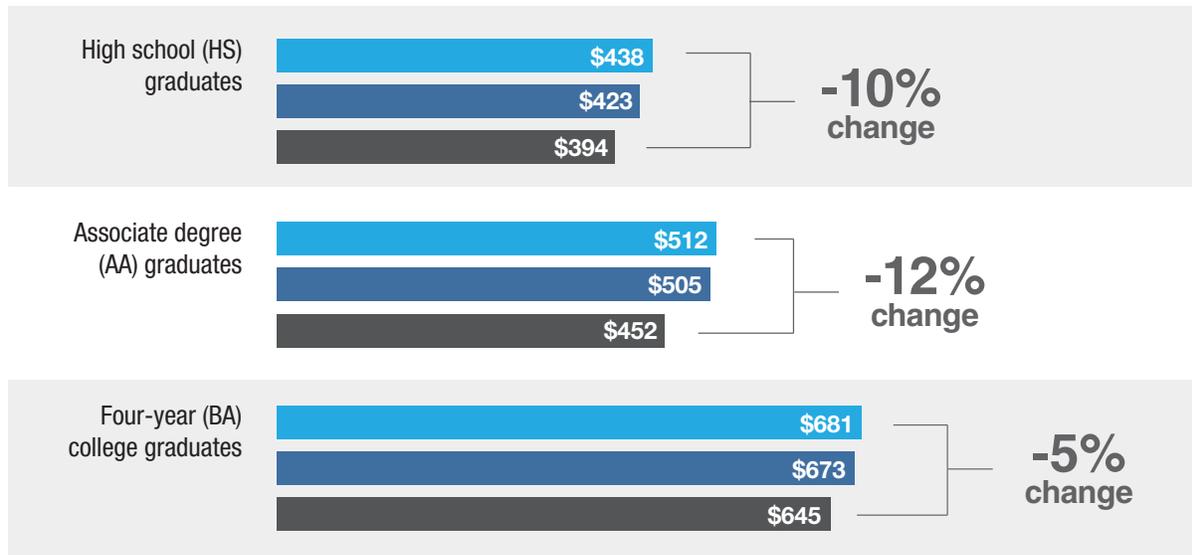


NOTES: All graduates are ages 21-24 years old.

SOURCE: Current Population Survey (CPS), 2003-2011

FIGURE 7:  
**ASSOCIATE DEGREE AND HIGH SCHOOL GRADUATE WAGE DECLINES WERE TWO TIMES HIGHER**

**AVERAGE WEEKLY WAGE**



NOTES: The percentage change is calculated with unrounded estimates and may not reproduce the percentage change exactly based on the rounded estimates presented here. All statistics are weight-adjusted for probability of selection and household non-response. All differences are significant at the 1 percent level or lower with the exception of the percent change between the high school and associate degree groups.

SOURCE: Current Population Survey (CPS), 2005-2011

jobs, or otherwise settling for lower pay. If they were indeed doing so, a substantial decline in wages should be in evidence. The data suggest otherwise.

Figure 6 (see page 15) graphs the mean weekly wages of working respondents for each of the three education groups. There is clear evidence of wage deterioration both during and after the recession for all three groups. It is nonetheless striking that the fall-off in wages was significantly larger for the HS and AA samples compared with the BA sample.<sup>30</sup>

As Figure 7 (this page) shows, the decline in weekly wages was only 5 percent for the recent BA respondents, whereas the corresponding declines were as high as 12 and 10 percent for the AA and HS respondents, respectively. It is simply not the case that recent college graduates took a wage hit to the same extent as their less-credentialed counterparts.

The share of non-working graduates seeking further education did not markedly change during the recession.

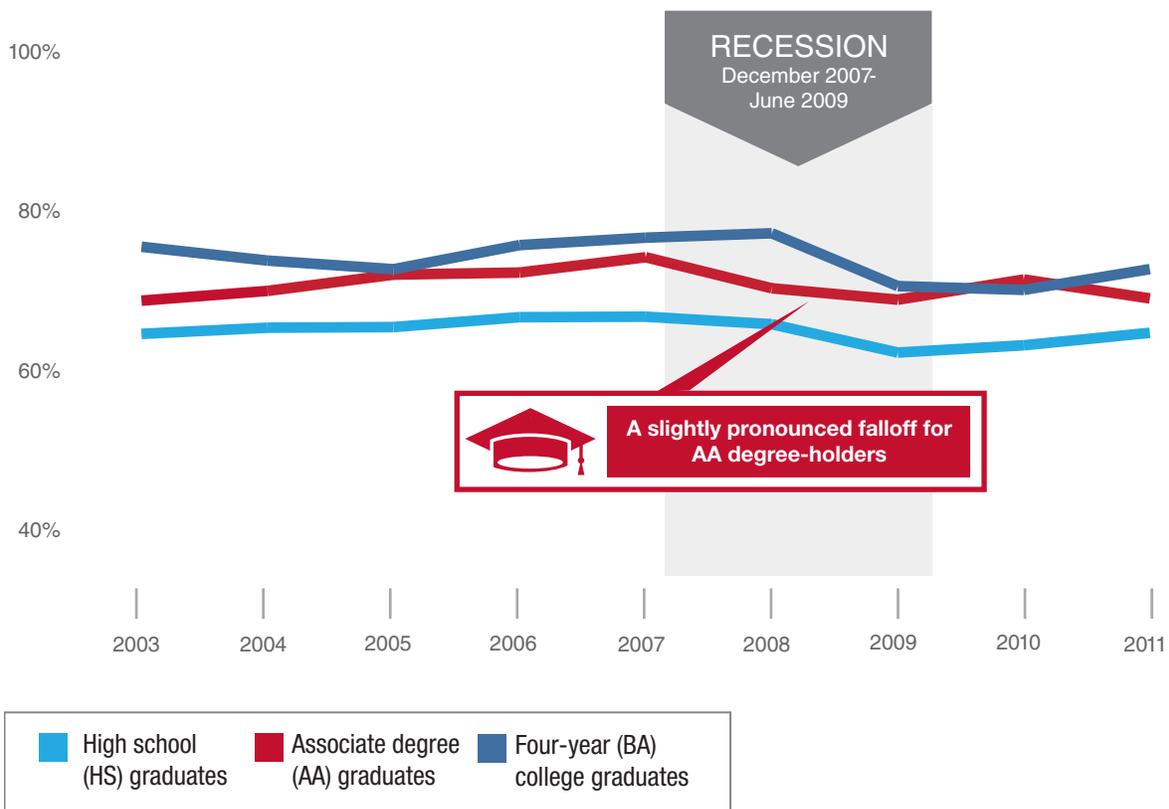
The population of recent graduates who were *not* working can be divided into those attending school (i.e., “training”), those who were unemployed or marginally attached (i.e., “excluded”), and those who were otherwise outside the labor force (i.e., “NILF”). Analyzing their outcomes during the recession yields a simple conclusion: Although the non-

working population increased in size for all three education groups, the share of that population attending school did not increase.<sup>31</sup>

This means that HS and AA holders were not able to use their time not working to undertake major investments in four-year college training. It follows that BA holders were not facing growing competition from other workers and could, therefore, more easily maintain their advantageous position in the queue of workers.

FIGURE 8:  
**RATES OF SCHOOL ENROLLMENT REMAINED STABLE FOR ALL**

**PERCENT NOT WORKING AND ENROLLED IN SCHOOL**

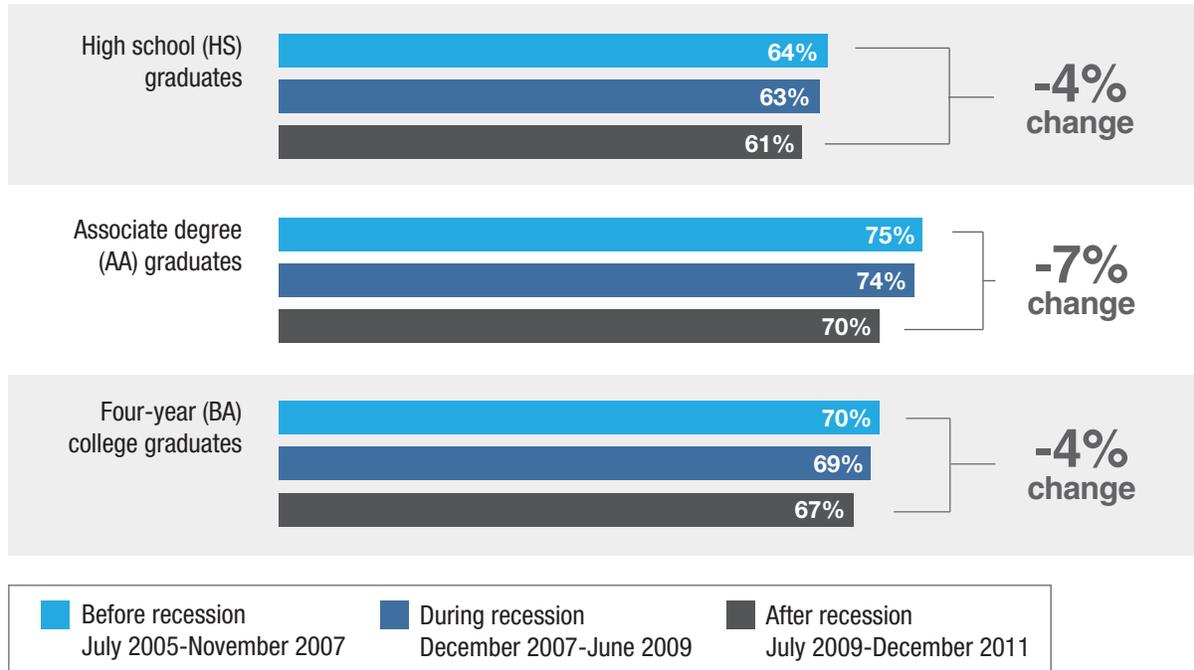


NOTES: All graduates are ages 21-24 years old. All proportions are based on annual averages of CPS reports.

SOURCE: Current Population Survey (CPS), 2003-2011

FIGURE 9:  
**DECLINE IN TRAINING WAS SLIGHTLY GREATER FOR ASSOCIATE DEGREE GRADUATES**

**AVERAGE PERCENT NOT WORKING AND ENROLLED IN SCHOOL**



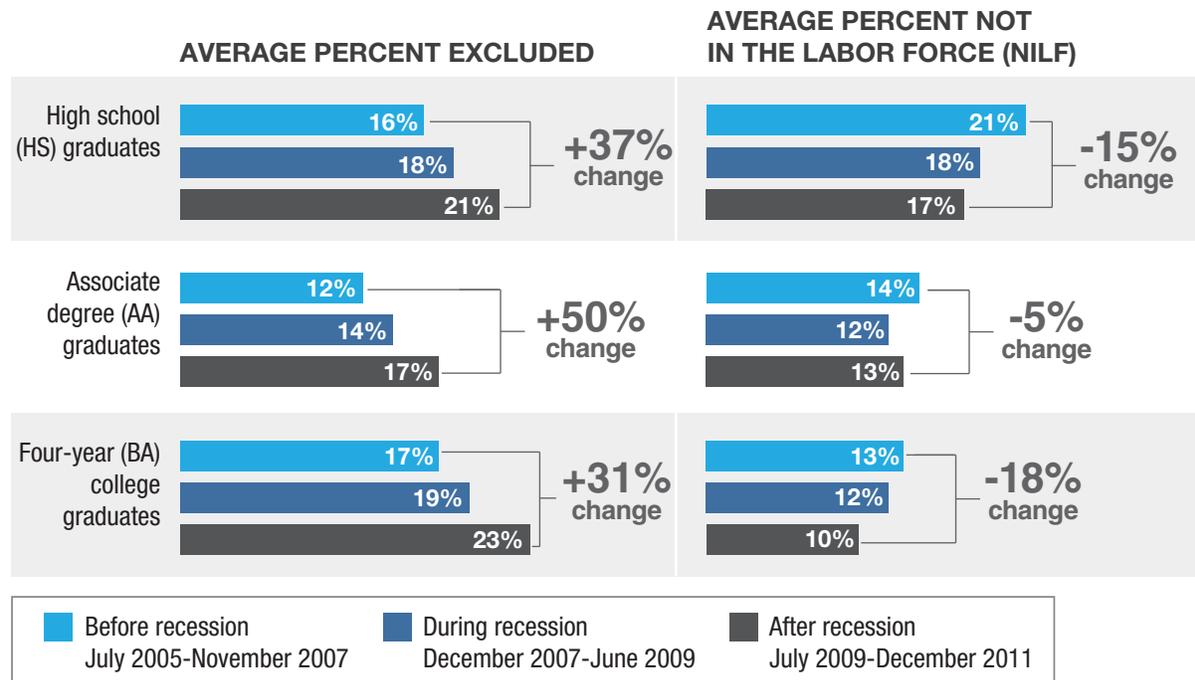
NOTES: The percentage change is calculated with unrounded estimates and may not reproduce the percentage change exactly based on the rounded estimates presented here. Statistics are weight-adjusted for probability of selection and household non-response. All differences are significant at the 1 percent level or lower with the exception of the percent change between the high school and bachelor's degree groups.

SOURCE: Current Population Survey (CPS), 2005-2011

As shown in Figures 8 (see page 17) and 9 (this page), approximately two-thirds of all nonworking graduates were attending school, a proportion that does not differ all that much across the three education groups. The trend lines for each group also are quite stable. The main change, observed across all three samples, was a slight downturn with the onset of the

recession and a leveling off or slight recovery in the post-recession period. The AA group did, however, experience a slightly more substantial decline in school attendance, as again shown in Figures 8 and 9. But none of the declines was substantial.

FIGURE 10:  
**COLLEGE GRADUATES WERE EMPLOYED AND IN THE LABOR FORCE AT HIGHER RATES**



NOTES: The percentage change is calculated with unrounded estimates and may not reproduce the percentage change exactly based on the rounded estimates presented here. Statistics are weight-adjusted for probability of selection and household non-response. All differences are significant at the 5 percent level or lower with the exception of: during the recession average percent of excluded between the high school and bachelor's degree groups; all percent changes for excluded between the three groups; and before and during the recession average percent of NILF between the associate degree and bachelor's degree groups.

SOURCE: Current Population Survey (CPS), 2005-2011

In Figure 10 (this page), the corresponding trends for the excluded and NILF categories are shown, again for all three education groups. The trends are similar for all three groups; the only significant differences pertain to the NILF category, but even here, the cross-group differences are not that large.

Where do these results leave us? There were slight declines in employment rates for recent college graduates, slight declines in the desirability of their jobs, and slight declines in their wages. But these declines among recent BA graduates were considerably less substantial than those experienced by their less-credentialed counterparts.

# Opportunities for Mobility

The final set of analyses examines whether opportunities for short-term mobility, measured over a one-year period, were harmed during the recession.<sup>32</sup> The findings focus on transitions into employment for those who were not working and patterns of occupational and earnings mobility for those already working.

**The college-educated group continued to make the transition successfully into the labor market even during the downturn.**

As shown in the left panel of Table 3 (see page 21), the proportion of BA degree-holders who made the transition successfully from the excluded category (i.e., not working or in school) into employment remained roughly unchanged

despite the recession. By contrast, the corresponding proportions for high school graduates and associate degree-holders declined substantially and significantly with the recession. The decline for the AA group was approximately 10 percent, and the decline for the BS group was approximately 8 percent.

Likewise, the proportion of BA degree-holders who successfully made the transition from school to work was unaffected by the recession, whereas the proportion of high school graduates who made this transition declined by a significant amount with the recession (10 percent). The simple story here, and one that has surfaced throughout this report, is that recent college graduates weathered the recession better, at least when it comes to securing employment.

College degree-holders did not make the transition into college jobs as reliably as before the recession.

Did recent BA graduates make compromises to maintain such high rates of employment? As before, there are indeed signs of “settling” here that take the form of a slight drop in the rate of upward mobility from high school to college jobs.

As Table 3 (this page) shows, 29 percent of college graduates successfully made the transition from a high school to college job before the recession, whereas only 27 percent made this transition during and after the recession. Although the data suggest a minor deterioration in opportunities for upward mobility, there was not a corresponding decline in weekly earnings (see right panel, Table 3).

TABLE 3:  
**OUT-OF-WORK COLLEGE GRADUATES REENTERED EMPLOYMENT DURING THE DOWNTURN WITH MORE SUCCESS**

	EXCLUDED TO WORKING		TRAINING TO WORKING		HS JOB TO COLLEGE JOB		WEEKLY EARNINGS RATIO	
	Pre-Recession	Recession	Pre-Recession	Recession	Pre-Recession	Recession	Pre-Recession	Recession
High school (HS) graduates	47%	39%***	38%	34%***	8%	7%***	\$1.08	\$1.06
Associate degree (AA) graduates	57%	47%***	39%	42%***	12%	8%***	\$1.06	\$1.06
Four-year (BA) college graduates	68%	67%	43%	43%	29%	27%***	\$1.06	\$1.06

NOTES: The "pre-recession" panel includes all respondents who completed their first interview prior to December 2006, while the "recession" panel includes all respondents who completed their first interview in December 2006 or later. The weekly earnings ratio is based on the median rather than on the mean (to reduce sensitivity to the top of the distribution). The asterisks indicate whether the pre-recession and recession proportions (or medians) are significantly different. \* ≤ 0.05; \*\* ≤ 0.01 ; \*\*\* ≤ 0.001

SOURCE: Current Population Survey (CPS), 2003-2011

# Conclusion

This report explored whether recent college graduates weathered the recession more successfully than less-educated groups, drawing on data that extend to the very end of 2011, analyzing an exhaustive classification of labor market outcomes, comparing high school and college graduates, and examining new longitudinal evidence on mobility in the pre-recession, recession, and post-recession periods. This approach allows for a comprehensive analysis of the fate of recent college graduates.

The findings show a real deterioration over the course of the recession in the market position of recent college graduates: the proportion who are working declined by 7 percent; the proportion working in “college jobs” declined by 3 percent; and the weekly wages of working graduates declined by 5 percent. The results also show that recent college graduates found it slightly more difficult to move from lower-level “high school” jobs to higher-level “college” ones when compared with before the recession. It is

clear from such results that even college graduates, long the elite of the U.S. labor market, suffered under the recession.

These effects are, however, quite small when compared with those experienced by high school and two-year college graduates. The declines in employment and wages, for example, were approximately twice as large for recent high school and two-year college graduates as they were for recent four-year college graduates.

The data here are at odds with media accounts suggesting that young college graduates are finding it much more difficult to get jobs, are accepting much less desirable positions and lower wages when they can get jobs, and are increasingly “camping out” at home and in schools when they cannot get jobs. When the comparative lens is applied, it is evident that recent college graduates were well-protected against the worst effects of the recession.

TABLE A1:  
**2003-2011 CPS SAMPLE SIZES FOR RECENT GRADUATES, AGES 21 TO 24**

	DEGREE			TOTAL
	HIGH SCHOOL (HS) GRADUATES	ASSOCIATE DEGREE (AA) GRADUATES	FOUR-YEAR (BA) COLLEGE GRADUATES	
<b>CROSS-SECTIONAL</b>				
Person-Months	466,596	55,482	118,168	<b>640,246</b>
Persons	71,023	8,251	19,499	<b>98,773</b>
<b>LONGITUDINAL</b>				
Persons	37,471	4,561	9,957	<b>51,989</b>

NOTES: The cross-sectional analysis is a snapshot of a single point in time compared with the longitudinal analysis that looks at the trajectory of graduates over a one-year period.

SOURCE: Current Population Survey (CPS), 2003-2011

# Endnotes

1 Pew Economic Mobility Project, “Pursuing the American Dream: Economic Mobility Across Generations,” (Washington, DC: The Pew Charitable Trusts, 2012), [http://www.pewstates.org/uploadedFiles/PCS\\_Assets/2012/Pursuing\\_American\\_Dream.pdf](http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/Pursuing_American_Dream.pdf).

2 Anthony P. Carnevale, Tamara Jayasundera, and Ban Cheah, “The College Advantage: Weathering the Economic Storm,” (Washington, DC: The Georgetown Public Policy Institute Center on Education and the Workforce, August 15, 2012), <http://cew.georgetown.edu/collegeadvantage/>.

3 The acronym BA is used to refer to those who have a bachelor of arts or a bachelor of science degree.

4 College-level jobs are defined using the Occupational Information Network (O\*NET) coding of 974 occupations. The sector includes such occupations as computer systems analysts and registered nurses, while the high school sector includes such occupations as carpenters and childcare workers. For more information, see p. 7 and endnote 25 in the full report.

5 The difference between the HS and BA groups in the percentage change is not significant.

6 Pew Economic Mobility Project, “Pursuing the American Dream.”

7 David Autor, “The Polarization of Job Opportunities in the U.S. Labor Market,” (The Hamilton Project and the Center for American Progress, April 2010), <http://economics.mit.edu/files/5554>. Gregory Acs and Seth Zimmerman, “U.S. Intragenerational Economic Mobility from 1984 to 2004: Trends and Implications,” (Washington, DC: Pew Economic Mobility Project, 2008), <http://www.economicmobility.org/assets/pdfs/>

PEW\_EMP\_1984\_TO 2004.pdf. Michael Hout, Asaf Levanon, and Erin Cumberworth, “Job Loss and Unemployment,” In *The Great Recession*, ed. David B. Grusky, Bruce Western, and Christopher Wimer (New York: Russell Sage, 2011).

8 Carnevale et al., “The College Advantage.”

9 The first wave of such popular concern was largely speculative and relied on anecdotal evidence, whereas the second wave drew on more extensive quantitative research about the wages and occupational outcomes of recent graduates. See: Sara Murray, “The Curse of the Class of 2009,” *The Wall Street Journal*, May 9, 2009, <http://online.wsj.com/article/SB124181970915002009.html>; Anny Shin, “College Degree No Shield as More Jobs are Slashed,” *The Washington Post*, January 4, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2009/01/03/AR2009010302143.html>; Catherine Rampell, “Once Again: Is College Worth It?” *The New York Times*, May 20, 2011, <http://economix.blogs.nytimes.com/2011/05/20/once-again-is-college-worth-it/>; Catherine Rampell, “More Young Americans Out of High School Are Also Out of Work,” *The New York Times*, June 6, 2012, <http://www.nytimes.com/2012/06/06/business/more-young-americans-out-of-high-school-are-also-out-of-work.html>. The third wave of commentary, precipitated by the Occupy Wall Street (OWS) movement, was again more anecdotal and pressed the claim that the movement is driven by disaffected, unemployed, or underemployed recent college graduates. See: Mike Konczal, “How Killer Student Debt and Unemployment Made Young People the Leaders at Occupy Wall Street,” (The Roosevelt Institute, October 3, 2011), <http://www.nextnewdeal.net/rortybomb/young-are-streets-because-they-have-most-lose>.

- 10 Daniel Hecker, “Reconciling Conflicting Data on Jobs for College Graduates,” *Monthly Labor Review* 115, no. 3 (1992): 3–12.
- 11 Philip Oreopoulos, Till von Wachter, and Andrew Heisz, “The Short- and Long-Term Career Effects of Graduating in a Recession: Hysteresis and Heterogeneity in the Market for College Graduates,” NBER Working Paper 12159 (2006), <http://www.nber.org/papers/w12159>.
- 12 Lisa B. Kahn, “The Long-Term Labor Market Consequences of Graduating from College in a Bad Economy,” *Labor Economics* 17, no. 2 (2010): 303–316.
- 13 Marie Gartell, “Unemployment and Subsequent Earnings for Swedish College Graduates: A Study of Scarring Effects,” Working Paper No. 10 (IFAU Institute for Labour Market Policy Evaluation, 2009), <http://www.ifau.se/upload/pdf/se/2009/wp09-10.pdf>; Jean Fares and Erwin R. Tiongson, “Youth Unemployment, Labor Market Transitions, and Scarring: Evidence from Bosnia and Herzegovina, 2001–04,” Policy Research Working Paper Series 4183 (The World Bank, 2007), [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2007/03/27/00016406\\_20070327134051/Rendered/PDF/wps4183.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2007/03/27/00016406_20070327134051/Rendered/PDF/wps4183.pdf); O. Raaum and K. Roed, “Do Business Cycle Conditions at the Time of Labour Market Entry Affect Future Employment Prospects?” *Review of Economics and Statistics* 88, no 2 (2006), 193–210.
- 14 Jessica Godofsky, Cliff Zukin and Carl van Horn, “Unfulfilled Expectations: Recent College Graduates Struggle in a Troubled Economy,” in *Work Trends: Americans’ Attitudes about Work, Employers, and Government* (Rutgers University: John H. Heldrich Center for Workforce Development, 2009), [http://www.heldrich.rutgers.edu/sites/default/files/content/Work\\_Trends\\_May\\_2011.pdf](http://www.heldrich.rutgers.edu/sites/default/files/content/Work_Trends_May_2011.pdf). Charley Stone, Carl Van Horn, and Cliff Zukin, “Chasing the American Dream: Recent College Graduates and the Great Recession” (Rutgers University: John J. Heldrich Center for Workforce Development, 2012), [http://www.heldrich.rutgers.edu/sites/default/files/content/Left\\_Out\\_Forgotten\\_Work\\_Trends\\_June\\_2012\\_0.pdf](http://www.heldrich.rutgers.edu/sites/default/files/content/Left_Out_Forgotten_Work_Trends_June_2012_0.pdf). Neeta P. Fogg and Paul E. Harrington. 2011. “Rising Mal-Employment and the Great Recession: The Growing Disconnection between Recent College Graduation and the College Labor Market.” *Continuing Higher Education Review* 75, p. 55.
- 15 Adam Looney and Michael Greenstone. 2011. “How Do Recent College Grads Really Stack Up? Employment and Earnings for Graduates of the Great Recession.” The Hamilton Project. [http://www.hamiltonproject.org/files/downloads\\_and\\_links/05\\_jobs\\_graduates.pdf](http://www.hamiltonproject.org/files/downloads_and_links/05_jobs_graduates.pdf). Hout, Levanon, and Cumberworth, “Job Loss and Unemployment,” in *The Great Recession*, ed. David B. Grusky, Bruce Western, and Christopher Wimer (New York: Russell Sage, 2011). Shierholz, Heidi, Natalie Sabadish, and Hilary Wething, “The Class of 2012: Labor Market for Young Graduates Remains Grim,” *Economic Policy Institute Briefing Paper* #340, 2012.
- 16 The available evidence does indeed suggest just such skill-biased demand: The employment rate for managerial, business, finance, and professional occupations actually increased from 2005 to 2009, whereas the corresponding employment rate for production, construction, and transportation occupations declined dramatically during that same period. See: Autor, “The Polarization of Job Opportunities in the U.S. Labor Market.” See also Timothy Smeeding, Jeffrey Thompson, Asaf Levanon, and Esra Burak, “Poverty and Income Inequality in the Early Stages of the Great Recession,” in *The Great Recession*, ed. David B. Grusky, Bruce Western, and Christopher Wimer (New York: Russell Sage, 2011). Even during the more recent recovery period, research suggests that demand is holding up better at the higher end of the labor market: Carnevale et al., “The College Advantage.”
- 17 Neeta P. Fogg et al, “Rising Mal-Employment and the Great Recession: The Growing Disconnection between Recent College Graduates and the College Labor Market.” See also Andrew Sum, forthcoming paper, Center for Labor Market Studies, Northeastern University, 2012.

18 For relevant evidence, see Bart Hobijn, Colin Gardiner, and Theodore Wiles, “Recent College Graduates and the Job Market,” *FRBSF Economic Letter*, March 21, 2011.

19 This definition draws on the Bureau of Labor Force Statistic’s U-5 measure of labor underutilization. The residual “not in labor force” (NILF) category is therefore reduced in size because it no longer includes, as is typically the case, workers who are marginally attached.

20 Although this category is likely to grow larger as the downturn plays out, it is again unclear whether it will expand much. The size of the category depends on the extent to which parents are willing or able to assist their children when they are experiencing labor market problems as well as the extent to which workers treat childrearing as a fallback when market demand is down and forgone wages are therefore lower.

21 The CPS, a representative sample of the U.S. non-institutionalized civilian population, is administered monthly and provides measurements of key labor market outcomes, such as employment status, occupation, earnings, and education. All respondents who are in school full time are assigned to the “training” category regardless of whether they are working part-time. By contrast, respondents who are enrolled in school part time, but working full time, are assigned to the “employed” category, as are respondents who are both enrolled part time and working part time.

22 The analyses are based on a four-year age group (i.e., 21 to 24 years old) because doing so affords larger samples. The age distribution of the samples could change over time and thereby introduce artifactual (i.e., age-driven) trends in some of the outcome states. However, when the age distribution for each of the samples is compared, the changes prove to be quite trivial. The proportion of the college-educated sample that is 21 years old ranges, for example, from 30.2 percent (in the baseline period) to 31.5 percent (in the post-recession period).

23 The acronym BA is used to refer to those who have a bachelor of arts or a bachelor of science degree.

24 For each CPS household, a series of eight interviews occur over a period of 16 months. The CPS households each are surveyed for four consecutive months, are then absent from the sample for the next eight consecutive months, and are again returned to the survey for four final consecutive months. The full complement of information in this 16-month longitudinal record is used in the cross-sectional analyses. If, for example, a respondent enters the first CPS month as a high school graduate, works for the next three months, and attends college thereafter, the trend measurements will properly reflect each of these status changes. Because many of the observations come from the same respondent, the analyses correct for the resulting departures from independence.

25 These O\*NET scores, which are based on the most frequent level of occupation education, were assigned to the detailed occupations used in the CPS. For purposes of validation, the analyses were replicated with two other occupation-level variables, a measure of occupational education, training, and certification requirements from the 2008 National Employment Matrix (NEM), and a continuous occupation scale inspired by the Hauser-Warren operationalization of occupational education. The NEM measure, unlike the O\*NET measure, takes into account not only formal education but also on-the-job training and certification. The Hauser-Warren measures were based on the proportion of workers in an occupation with some college or with a college degree (as indicated in the 2003-05 CPS samples). The results under these alternative specifications were much the same as those reported here. See Robert M. Hauser and John R. Warren, “Socioeconomic Indexes for Occupations: A Review, Update, and Critique,” *Sociological Methodology* 27, no. 1 (1997): 117–298; John R. Warren, Jennifer T. Sheridan, and Robert Hauser, “Choosing a Measure of Occupational Standing: How Useful Are Composite Measures in Analyses of Gender Inequality in Occupational Attainment?” *Sociological Methods and Research* 27, no. 1 (1998): 3–76.

26 The “pooled” sample is formed by selecting 21- to 24-year-olds from each of the 2003-2011 CPS surveys and then combining them into a single data set.

These data will be subdivided into three subsamples pertaining to whether the respondents entered the labor market before, during, or after the recession.

27 Given that this report focuses on recent graduates and that the number of available CPS cases is quite small, it was not feasible to break down subsequent analyses of labor market outcomes by race, gender, and other demographic variables. It was, however, possible to estimate models that explored whether the findings in this report could have been driven by over-time changes in the demographic composition of the samples. These analyses revealed that such compositional changes were too minor to have driven the labor market outcomes.

28 The first result of interest pertains to cross-group differences in trends in employment. In Figure 2, the relevant trend line for each education group is presented, with the recession (which runs from December 2007 to June 2009) highlighted in gray. The times series in this figure and all subsequent ones were smoothed with Brown’s exponentially weighted moving average (and, hence, seasonal effects are preserved).

Although other recession periodizations also were used in the analyses, the key results do not differ very much across them. These analyses were replicated using a different periodization that allows for lagged labor market effects. The results were much the same under this alternative approach.

Because monthly data are used, the seasonal effect is very apparent in Figure 2, especially for the HS and AA samples. Given that there are no adjustments in the analyses for seasonal effects, it bears noting that the “before” and “after” periods cover virtually identical seasons, indeed the only difference is that an additional month, December, appears in the after period. This seasonal similarity makes it possible to straightforwardly compare the employment rates in those two periods. The recession period, by contrast, covers a different mix of seasons and cannot be naively compared with the other two periods.

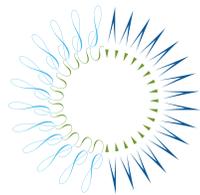
29 Significance is calculated at the 95 percent threshold.

30 See Heidi Shierholz, Natalie Sabadish, and Hilary Wething, “The Class of 2012: Labor Market for Young Graduates Remains Grim,” (Economic Policy Institute, May 3, 2012), <http://www.epi.org/publication/bp340-labor-market-young-graduates/>.

31 Because the size of the nonworking population is growing, this stability in the share going to school will translate into an increase in the absolute number of such school attenders.

32 These analyses are based on one-year transition rates in which the respondent’s first interview is matched to his or her re-interview one year later. The transition rates are calculated by matching the respondent’s first interview to his or her re-interview one year later. If the follow-up data from one year later are missing, data are drawn from interviews carried out in adjacent months, whenever possible choosing a pair of months separated by exactly one year. Even after such efforts to limit the amount of missing data, the attrition rate was still 42 percent for the pre-recession sample and 51 percent for the post-recession sample. Although attrition is therefore a serious concern, it will, of course, influence the results only if the underlying determinants of attrition change across the two periods. When a logistic regression model predicting attrition for each of the samples was estimated, very little evidence of such change was found.

The periods used for this analysis are slightly different than those used in the previous analyses. For the pre-recession period, all of the one-year transitions should be completed before the onset of the recession, as otherwise the transition rates may potentially reflect the effects of the recession. The pre-recession period for the mobility analysis, therefore, includes all respondents who completed their first interview no later than November 2006 (thus allowing follow up before the recession began). The recession sample then begins in the following month and continues until December 2010 (as that allows us exactly one year for a follow up interview).



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