

# Issues in Labor Statistics

U.S. Department of Labor U.S. Bureau of Labor Statistics



## Young adult employment during the recent recession

The recent recession lasted from December 2007 to June 2009, with the unemployment rate increasing from 5.0 percent at the beginning of the recession to 9.6 percent at the end.<sup>1</sup> The recession had different consequences for various demographic groups, with higher job losses affecting African Americans, Hispanics or Latinos, workers with lower levels of education, and younger workers.<sup>2</sup> This article focuses on the impacts of the recent recession on younger workers. It compares the labor market experiences of young adults (24- and 25-year-olds) over an 18-month period prior to the last recession to those of young adults of the same age over the 18 months of the recent recession. Many of these young adults had recently entered the labor market, and research has shown that workers who enter the labor market during a recession can see long-term negative effects on their employment and earnings.<sup>3</sup>

### The last edition

This marks the last edition of *Issues in Labor Statistics*. In May 2012, BLS will introduce a new publication entitled, "*Beyond the Numbers*." The content slated originally for *Issues in Labor Statistics* will be presented online in *Beyond the Numbers*. Past editions of *Issues in Labor Statistics* will appear in the *Beyond the Numbers* archive.

The data in this analysis are from the National Longitudinal Survey of Youth 1997 (NLSY97). The NLSY97 is a nationally representative sample of 8,984 men and women who were born between 1980 and 1984 and were living in the United States at the time of the initial survey. Survey participants were first interviewed in 1997 when they were between 12 and 17 years old, and they have been interviewed every year since. In the NLSY97, employment information is collected in an event-history format, which includes the start and stop dates of each job and dates when the respondent is unemployed or out of the labor force. This information is used to create a week-by-week history of employment for each survey participant.<sup>4</sup>

Three comparisons are used to illustrate the effects of the recent recession on the work experiences of young men and women born in 1980–1981 and those born in 1982–1983. The first analysis compares the 1980–1981 cohort's employment experience over the 18 months of the recession with their experience in the 18-month period that began in the 2 years before the recession.<sup>5</sup> The second comparison examines the employment experiences of the 1980–1981 cohort and the 1982–1983 cohort throughout the 18 months of the recent recession. The third comparison is between the two birth groups when they are both 24 and 25 years old. Those born in 1980–1981 turned 24 or 25 years old by December 2005 and those born in 1982–1983 turned 24 or 25 by December 2007; the employment experiences of each group

are compared during the 18 months following December 2005 (2 years prior to the recession) or December 2007 (the start of the recent recession).

In this article, men and women are compared separately. The timing of marriage, child birth, and related factors can influence women’s and men’s labor force participation decisions in different ways. Combining statistics for men and women could mask their different employment experiences, both within and across demographic groups.

**One group’s experience before and during the recession**

Table 1 shows the percentage of young adults in the 1980–1981 birth cohort who were employed during

the first and last weeks of the recession. It also shows the percentage of young adults in the same cohort who were employed in the parallel weeks in the 2-year period<sup>6</sup> before the recession.<sup>7</sup> Across most demographic categories, men and women born in 1980–1981 had stable or increasing employment from December 2005 to June 2007. During the recession, however, a number of demographic groups experienced decreasing employment, with the hardest hit being young men who had less than a high school education and young black women.<sup>8</sup> The percentage of employed young men with less than a high school diploma dropped almost 12 percentage points from December 2007 to June 2009, and the percentage of employed black women dropped more than 10 percentage points during the same period.

**Table 1. Percentage of young adults in the 1980–1981 birth cohort employed in the beginning and ending weeks of the recent recession and 2 years before the recession, by selected characteristics**

Characteristic	Percent employed			
	Before recession		Recession	
	December 2005	June 2007	December 2007	June 2009
<b>Men</b>				
All	84.1	87.3	86.7	82.0
White, non-Hispanic	86.1	89.3	90.0	84.7
Black, non-Hispanic	71.9	76.1	73.0	68.1
Hispanic or Latino	87.4	89.5	86.3	84.7
Less than high school diploma	70.7	77.6	75.1	63.4
High school diploma	89.7	89.3	88.2	81.8
Some college or more	86.4	90.9	91.2	88.9
<b>Women</b>				
All	77.5	77.4	77.8	73.5
White, non-Hispanic	79.0	78.0	77.2	74.0
Black, non-Hispanic	69.4	72.1	76.5	66.1
Hispanic or Latino	78.8	81.4	83.1	80.8
Less than high school diploma	49.9	57.2	55.5	48.7
High school diploma	71.6	70.8	72.2	67.5
Some college or more	87.1	85.4	85.6	82.8

NOTE: The recent recession began December 2007 and ended June 2009.

Table 2 shows the probabilities that men and women in the 1980–1981 cohort who were employed at the beginning of the recession in December 2007 were also working at the end of the recession in June 2009. Table 2 also shows the probabilities that men and women in the 1980–1981 cohort who were employed in December 2005 were also working in June 2007. Almost 93 percent of men who were employed in December

2005 were also employed in June 2007, and 88 percent of men who were employed in December 2007 were also employed in June 2009. Overall, this shows a 5-percentage-point drop in employment probabilities from the period prior to the recession to the period of the recession. However, the employment losses were not spread evenly across demographic groups. The largest decline in employment probabilities from before the recession (December 2005 to June 2007) to during the recession (December 2007 to June 2009) occurred among men with less than a high school diploma, who experienced a decrease of more than 17 percentage points. In contrast, overall employment probabilities for women stayed nearly the same over the two periods (86 percent of those employed in December 2005 were employed in June 2007, and 84 percent of those employed in December 2007 were employed in June 2009), and women with less than a high school diploma experienced a decrease in the probability of employment of about 5 percentage points from before the recession to the time of the recession.

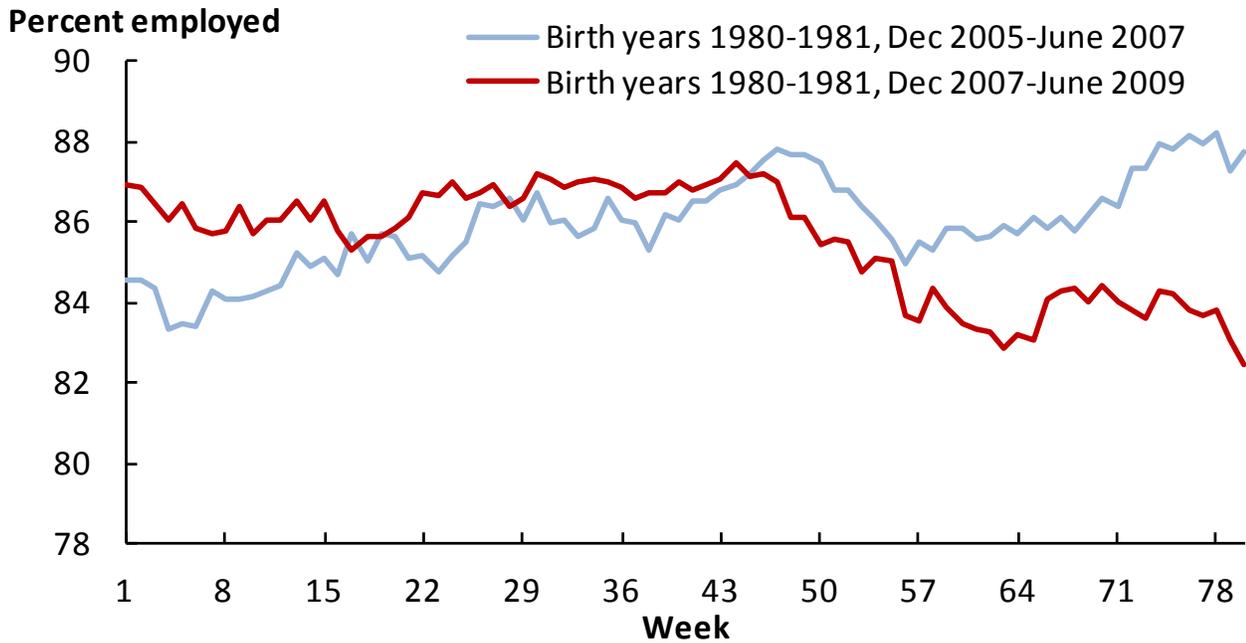
Charts 1 and 2 contrast the 1980–1981 cohort’s employment experiences before and during the recession by displaying week-by-week employment rates for men and women. The blue line shows employment for birth years 1980–1981 during the 18 months before the recession, and the red line shows employment for birth years 1980–1981 during the recession. The vertical axis shows the percentage of the group employed each week. The horizontal axis shows the weeks in each 18-month period; the starting point for the blue line is December 2005 and the starting point for the red line is December 2007.

**Table 2. Percentage of young adults in the 1980–1981 cohort employed at the end of the recent recession, conditional on being employed at its beginning, by selected characteristics**

Characteristic	Percent employed in June 2007, conditional on being employed in December 2005	Percent employed in June 2009, conditional on being employed in December 2007
	Before recession	Recession
<b>Men</b>		
All	92.8	87.8
White, non-Hispanic	93.6	88.6
Black, non-Hispanic	89.2	81.7
Hispanic or Latino	91.9	90.1
Less than high school diploma	90.4	73.1
High school diploma	92.9	86.5
Some college or more	94.2	92.1
<b>Women</b>		
All	86.1	84.3
White, non-Hispanic	86.4	86.1
Black, non-Hispanic	81.4	75.8
Hispanic or Latino	89.7	85.6
Less than high school diploma	76.7	71.5
High school diploma	83.0	81.7
Some college or more	88.3	88.1

NOTE: The recent recession began December 2007 and ended June 2009.

**Chart 1. Percentage of young men employed during the 80 weeks of December 2005 to June 2007 and of December 2007 to June 2009**



**Chart 2. Percentage of young women employed during the 80 weeks of December 2005 to June 2007 and of December 2007 to June 2009**

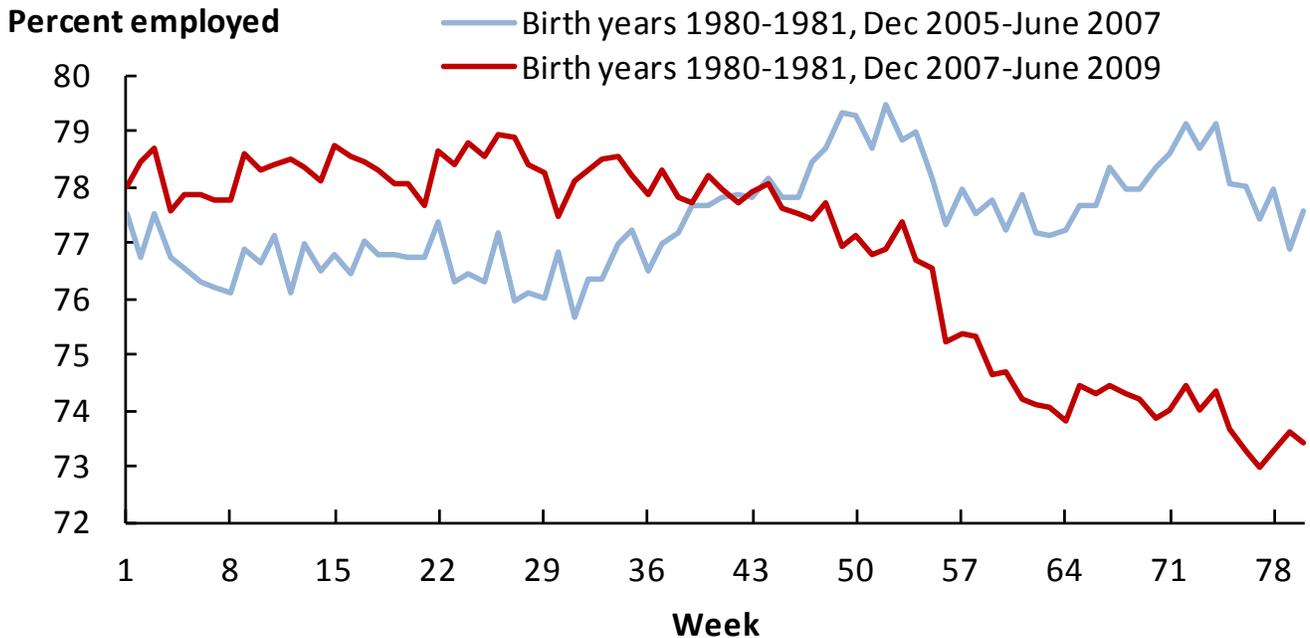


Chart 1 shows that the lines for men's employment from December 2005 to June 2007 and from December 2007 to June 2009 generally follow each other until about week 60 (January 2007 or January 2009). Then the 1980–1981 cohort's employment rate trended upward in the 2 years prior to the recession, but remained fairly flat in the comparable period of the recession. Chart 2 shows that the women's 1980–1981 cohort employment rate before the recession and during the recession began to diverge about 56 weeks after the start of each period. The employment rate for these women was fairly flat during the later part of the period before the recession, but it turned down during the later part of the recession.

**Comparing two birth groups during the recession**

Table 1 (two right columns) and table 3 show the percentage of young men and women in the 1980–1981 and 1982–1983 birth cohorts who were employed during the first and last weeks of the recession. Although men and women in both cohorts saw an overall decline in employment during the recession, some demographic groups in the younger cohort fared worse than their peers in the older cohort. For example, men in the 1980–1981 cohort with a high school diploma but no college experienced a decrease in employment of more than 6 percentage points from December 2007 to June 2009. However, men in the 1982–1983 cohort with a high school diploma but no college experienced a decrease of more than 10 percentage points. Black, non-Hispanic women in both cohorts experienced a substantial drop in

**Table 3. Percentage of young adults in the 1982–1983 birth cohort employed in the beginning and ending weeks of the recent recession, by selected characteristics**

Characteristic	Percent employed	
	Recession	
	December 2007	June 2009
<b>Men</b>		
All	84.5	79.9
White, non-Hispanic	86.7	82.0
Black, non-Hispanic	72.8	70.5
Hispanic or Latino	86.8	80.6
Less than high school diploma	74.0	63.8
High school diploma	88.5	78.1
Some college or more	87.3	88.1
<b>Women</b>		
All	77.7	73.5
White, non-Hispanic	78.1	74.9
Black, non-Hispanic	77.4	68.0
Hispanic or Latino	75.1	73.6
Less than high school diploma	62.4	55.2
High school diploma	71.7	67.1
Some college or more	85.2	82.8

NOTE: The recent recession began December 2007 and ended June 2009.

employment over the recession, as did men with less than a high school diploma. Overall, the probabilities that men and women in each birth cohort who were employed in December 2007 were also working in June 2009 are very similar for both birth cohorts. (See tables 2 and 4).

Charts 3 and 4 show the week-by-week employment rates for the 1980–1981 (red line) and 1982–1983 (green line) cohorts during the recession. Chart 3 shows that employment for each cohort of men generally moved together during the recession, with the

Chart 3. Percentage of young men employed during the 80 weeks of December 2007 to June 2009

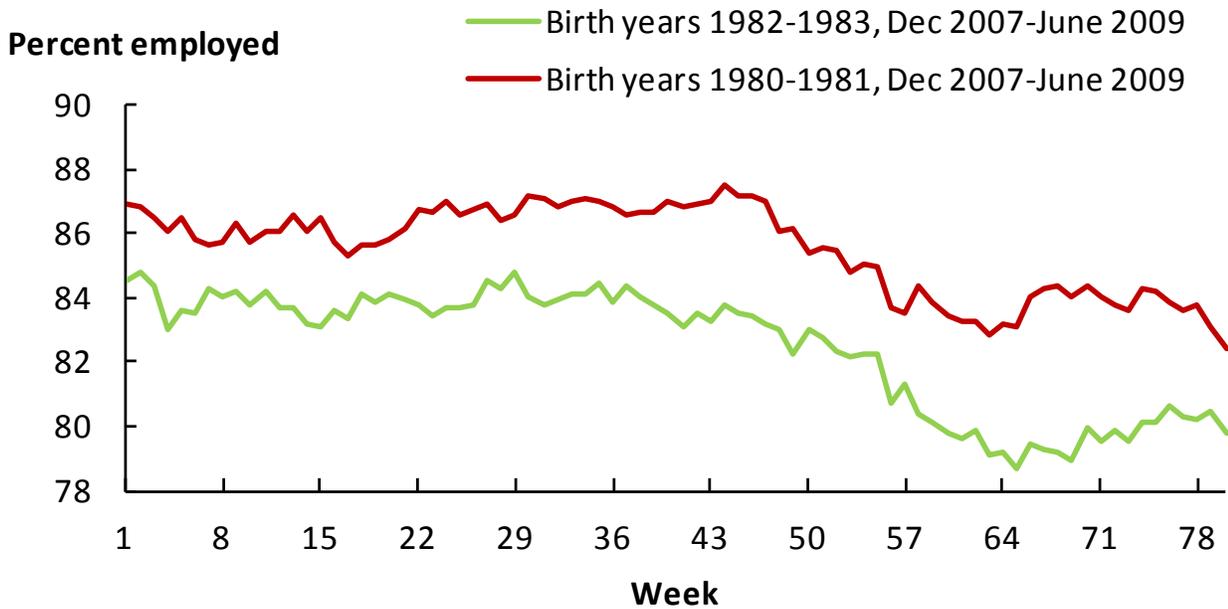
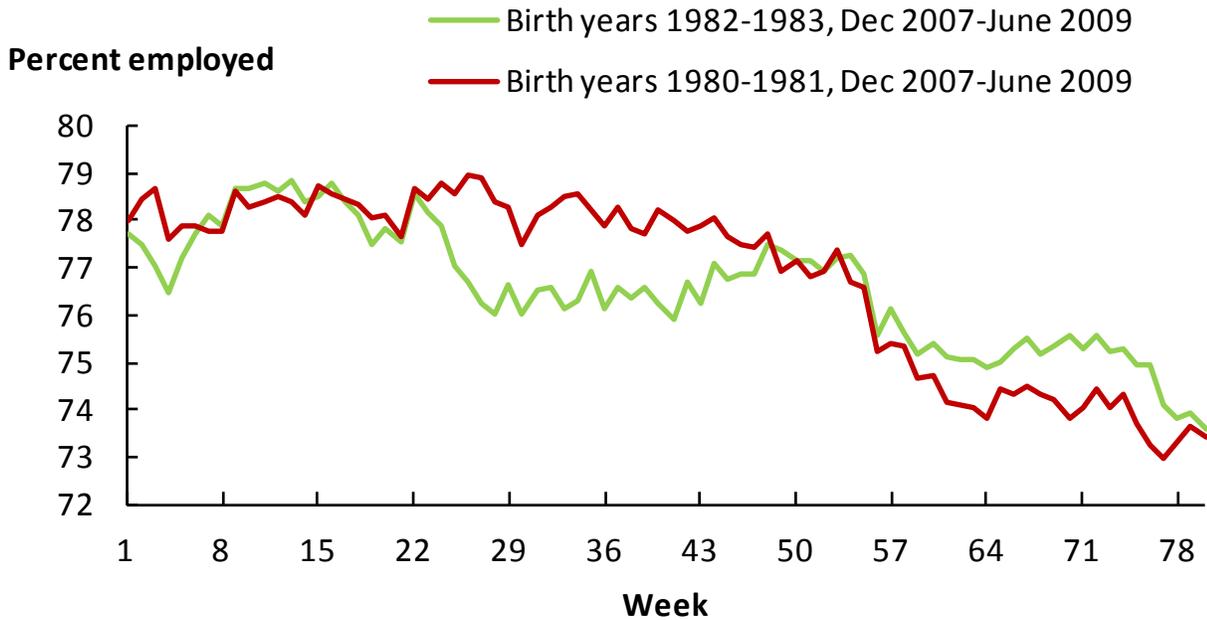


Chart 4. Percentage of young women employed during the 80 weeks of December 2007 to June 2009



1980–1981 cohort's employment trending above the 1982–1983 cohort's employment. Chart 4 shows the employment for the women's 1980–1981 cohort during the recession followed a similar trend as the 1982–1983 cohort's employment rate during this same period. The cohorts began to diverge during week 22 (April 2008) and slightly during week 60 (January 2009).

#### **Comparing two birth groups at the same age**

Even though they are close in age, the two birth groups had dissimilar employment experiences as 24- and 25-year-olds. Tables 1 and 3 show the percentages of young adults in each birth cohort who were employed during the first and last weeks of the recession. Table 1 also shows the percentage of young adults in the older cohort who were employed in the parallel weeks in the 2-year period before the recession. In December 2005, about 84 percent of men born in 1980–1981 were employed; a similar percentage of men born in 1982–1983 were employed in December 2007, the beginning of the recession. In June 2007, more than 87 percent of young adult men born in 1980–1981 were employed. By comparison, 80 percent of young men born in 1982–1983 were employed in the parallel week in June 2009, the end of the recession.

Women experienced a drop in employment during the recession, and overall had lower employment rates than men during these periods. In December 2005 and 2007, about 78 percent of 24- and 25-year-old women in both cohorts were employed. In June 2007, about the same

percentage of young women born in 1980–1981 were employed. Among women born in 1982–1983, less than 74 percent were employed in the parallel week in June 2009.

The relative employment losses of the recession can be seen across racial and ethnic groups. While employment generally stayed stable or increased for each racial and ethnic group in the 1980–1981 cohort from December 2005 to June 2007, it often decreased for the 1982–1983 cohort in the recessionary period of December 2007 to June 2009. For example, white, non-Hispanic men in the 1982–1983 birth cohort had a decrease in employment of 5 percentage points from December 2007 to June 2009. In addition, black, non-Hispanic women in the 1980–1981 birth cohort experienced an employment loss of more than 10 percentage points from December 2007 to June 2009.

Educational attainment played a large role in the loss of employment during the recession. Men and women who had less than a high school diploma experienced a relatively large decrease in employment during the recession, as did men who had a high school diploma but no college. Men and women who had at least some college education fared better. For example, men born in 1980–1981 who had less than a high school diploma experienced about a 7-percentage-point *increase* in employment from December 2005 to June 2007. In contrast, men born in 1982–1983 who had less than a high school diploma experienced a 10-percentage-point *decrease* in employment from December 2007 to June 2009. Similarly, women born in 1980–1981 who had less than a high school diploma experienced more than a 7-percentage-point *increase* in employment from December 2005 to June 2007. In

contrast, women born in 1982–1983 who had less than a high school diploma experienced about a 7-percentage-point *decrease* in employment from December 2007 to June 2009.

Tables 2 and 4 show the probabilities that men and women in the 1980–1981 and 1982–1983 birth cohorts who were employed in December 2007 were also working in June 2009, the end of the recession. Table 2 also shows the probabilities that men and women in the 1980–1981 cohort who were employed in December 2005 were also working in June 2007. Of the 1980–1981 cohort, almost 93 percent of young men and 86 percent of young women who were employed in December 2005 were also working in June 2007. In contrast, of the 1982–1983 cohort, about 86 percent of young men and less than 83 percent of young women who were working in December 2007 were also working in June 2009. Men in every racial and ethnic group of the 1982–1983 cohort experienced lower employment probabilities from the beginning to the end of the recession than did men in the 1980–1981 cohort at the same stage of their lives 2 years before. In addition, men in the 1982–1983 cohort who had less than a high school diploma were almost 19 percentage points less likely to be employed in June 2009, if they had been employed in December 2007, than were men in the older cohort in June 2007, if they had been employed in December 2005. Men in the 1982–1983 cohort with a high school diploma but no college were about 10 percentage points less likely to be employed in June 2009 than those in the 1980–1981 cohort were to be employed 2 years

**Table 4. Percentage of young adults in the 1982–1983 birth cohort employed at the end of the recent recession, conditional on being employed at its beginning, by selected characteristics**

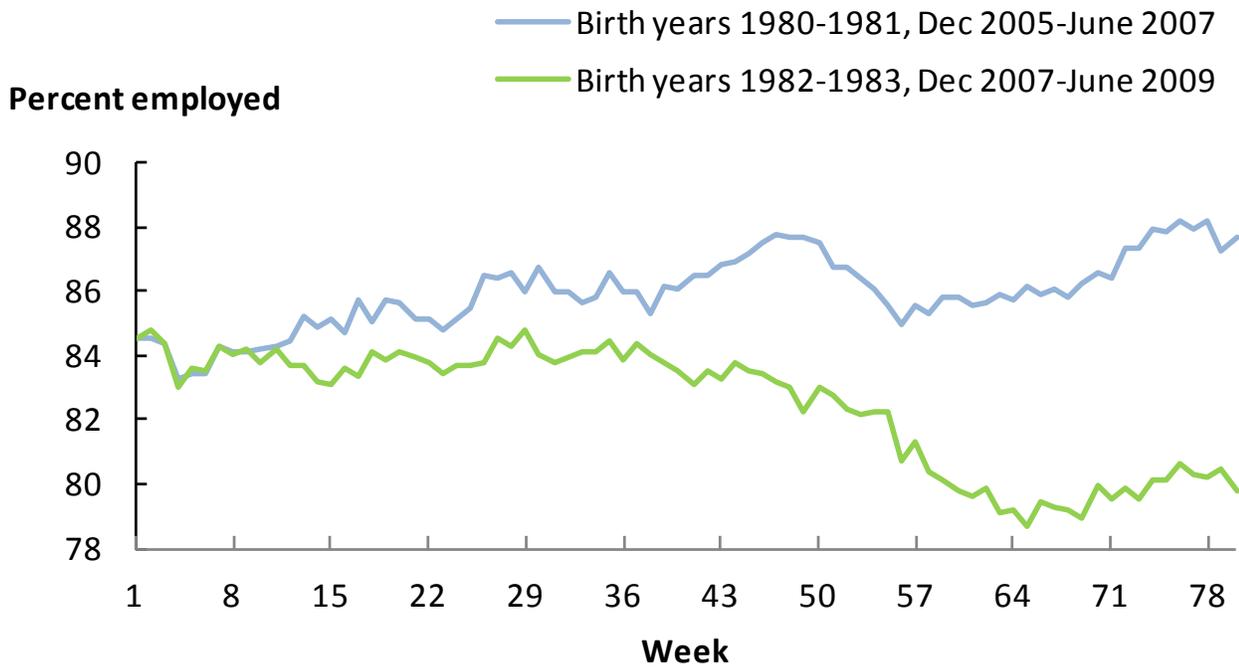
Characteristic	Percent employed in June 2009, conditional on being employed in December 2007
<b>Men</b>	
All	85.5
White, non-Hispanic	86.1
Black, non-Hispanic	81.2
Hispanic or Latino	86.8
Less than high school diploma	71.9
High school diploma	83.0
Some college or more	92.0
<b>Women</b>	
All	82.5
White, non-Hispanic	83.1
Black, non-Hispanic	78.7
Hispanic or Latino	85.0
Less than high school diploma	70.6
High school diploma	78.4
Some college or more	87.4

NOTE: The recent recession began December 2007 and ended June 2009.

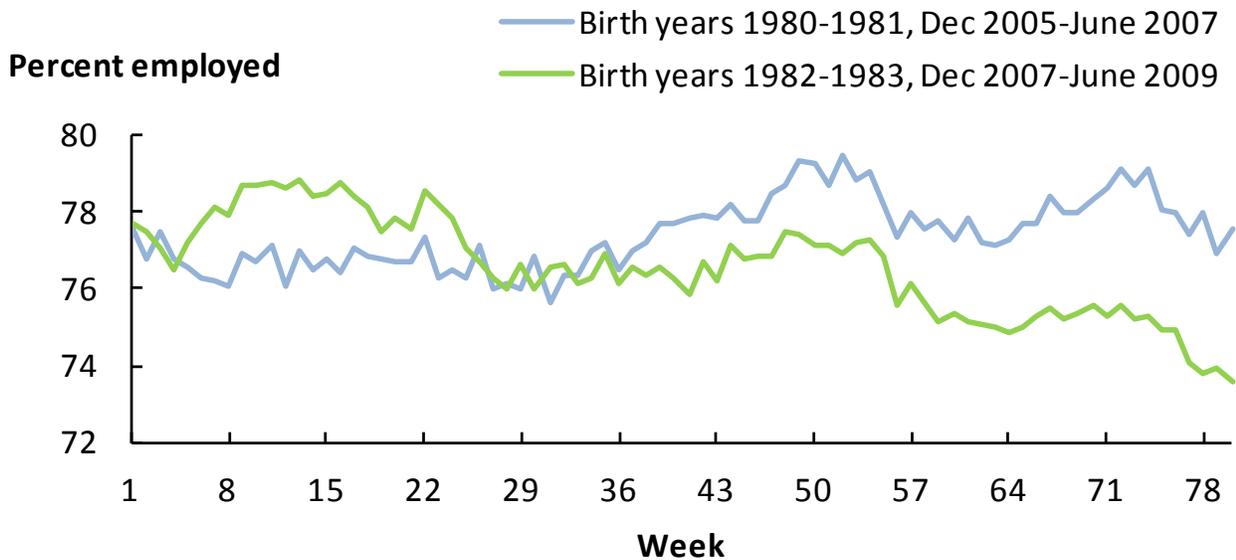
earlier (June 2007). These types of large differences in employment between the birth cohorts are not found for women in different educational groups.

Charts 5 and 6 show week-by-week employment rates for the cohorts of men and women born in the years 1980–1981 (blue line) and 1982–1983 (green line). The vertical axis shows the percentage of each cohort employed each week. The horizontal axis shows the weeks in each 18-month period; the starting point is either December 2005 for the 1980–1981 cohorts or December 2007 for the 1982–1983 cohorts.

**Chart 5. Percentage of young men employed during the 80 weeks of December 2005 to June 2007 and of December 2007 to June 2009**



**Chart 6. Percentage of young women employed during the 80 weeks of December 2005 to June 2007 and of December 2007 to June 2009**



What is striking is the contrast between the employment experiences of men in the two birth cohorts in December of the year they were 24 or 25 years old and the following 18 months. The employment rates of both cohorts began at approximately the same level. By week 15 (either March 2006 or March 2008), they began to diverge, with the 1980–1981 cohort’s employment increasing, and the 1982–1983 cohort’s employment staying stable. From the beginning of the second half of the 18-month period (September 2006 or September 2008) until the end of the period studied, the 1982–1983 cohort’s employment rate trended downward as the recession continued, while the 1980–1981 cohort’s employment generally trended upward. Chart 6 shows the employment rates for women in the 1980–1981 and 1982–1983 cohorts also began at approximately the same level, but there is no clear divergence until after week 56 (December 2006 or December 2008). From that point, the 1980–1981 cohort’s employment remained fairly stable and the 1982–1983 cohort’s employment trended downward.

### **Conclusion**

In summary, young adult men and women who turned 24 or 25 years old just prior to the recent recession experienced more employment losses over the following 18-month period than the older cohort that turned 24 or 25 years old 2 years before the recession. The older cohort experienced stable or increasing employment during the parallel 18-month period at the same age. As the youth in the NLSY97 age, researchers will be able to investigate the labor market consequences of employment losses during one’s early career, and to what extent any short or long-term effects vary among demographic groups.

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## Notes

<sup>1</sup>The start and end dates for the recession are determined by the National Bureau of Economic Research, which is generally recognized as the arbiter of recessions in the United States.

<sup>2</sup>See Steven F. Hipple, "The Labor Market in 2009: Recession Drags On," *Monthly Labor Review* 133, no.3 (March 2010), pp. 3–22.

<sup>3</sup>See, for example, Lisa Kahn, "The Long-Term Labor Market Consequences of Graduating in a Bad Economy," *Labour Economics* 17, no. 2 (2010), pp. 303–316.

<sup>4</sup>A respondent in the military is counted as employed in the analysis.

<sup>5</sup>Data are weighted to be nationally representative using 2009 survey weights.

<sup>6</sup>For December 2005 and 2007, the 49th week of the year is used, which is November 27 to December 3 in 2005 and December 2 to

December 8 in 2007. For June of 2007 and 2009, the 24th week of the year is used, which is June 10 to June 16 in 2007 and June 7 to June 13 in 2009. The data are from the weekly work status event-history arrays in the NLSY97 public-use data set.

<sup>7</sup>The denominator for calculating the percent employed is the total population of the cohort.

<sup>8</sup>Education level is based on the highest grade completed and highest degree completed at the time of the 2005 interview for the 1980–1981 cohort and the 2007 interview for the 1982–1983 cohort. Respondents with a GED and no college are in the less-than-a-high-school-diploma category, as suggested by Cameron and Heckman's (1993) analysis. They find exam-certified high school equivalents to be more similar to high school dropouts than to those with a high school diploma. See Stephen V. Cameron and James J. Heckman, "The Nonequivalence of High School Equivalents," *Journal of Labor Economics* 11, no 1, part 1 (1993), pp. 1–47.