Recent trends in the characteristics of unemployment insurance recipients

Data from the Benefit Accuracy Measurement program indicate that important changes in the composition of the unemployment insurance (UI) population took place from 1988 through 2010; changing shares, by gender, race and ethnicity, age, education, industry, and occupational status, reflected changes in the composition of the unemployed and in the UI takeup rate

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The composition of the U.S. labor force has changed dramatically over the last half century. The proportion of women in the labor force has now stabilized at a level only modestly below parity with men, while the shares of non-Whites and Hispanics in the labor force have continued to rise. In addition, the average age of the U.S. labor force is higher today than three decades ago, largely as a result of the aging of the baby-boom generation. Besides these demographic changes, there have been important shifts in the industrial and occupational structure of the U.S. economy. The steady decline of manufacturing and the rise of the service sector together have formed a system in which services play a dominant role. Partly because of the decline of manufacturing, the share of blue-collar jobs has fallen over time, and today most workers are employed in white-collar occupations. These changes and their impacts on overall employment and unemployment patterns have been well documented.[1]

Changes in the composition of the unemployed population in the past three decades have been associated with corresponding changes in the population served by the Unemployment Insurance (UI) program. Although there is substantial research examining the UI program in the modern U.S. economy,[2] very little of it focuses on how the composition of the UI recipient population has changed in the past 20 years and how it varies over the business cycle.

This article helps to fill that gap. Focusing on the composition of the UI population by major demographic and job characteristics—gender, race and ethnicity, age, education, industry, and occupational status—it uses data from the Benefit Accuracy Measurement (BAM) program, established by the U.S. Department of Labor to monitor calculations of UI eligibility and the provision of benefits by states. BAM data include a representative sample of UI recipients in each state between 1988 and 2010 and report information related to the socioeconomic and employment characteristics of recipients.

The analysis begins with an overview of trends in the unemployment rate from 1988 to 2010 by socioeconomic characteristic. Next, overall UI participation patterns during that period are discussed. In addition, BAM data are introduced and used to examine the distribution of UI recipients by socioeconomic characteristic. Then, changes in the composition of the UI population from 1988 to 2010 by socioeconomic characteristic are examined, as is the way the observed patterns relate to changes in

unemployment rates and in UI takeup rates. Finally, the findings are summarized.

Recent trends in the unemployment rate

In this section, data from the Current Population Survey (CPS) are used to provide an overview of recent unemployment patterns in the U.S. economy. The CPS, a nationally representative monthly survey of more than 50,000 households,[3] reports detailed information on respondents' labor force status (i.e., employed, unemployed, not in the labor force), as well as information about core demographic characteristics (gender, race and ethnicity, and age), educational attainment, and industry and occupation of employment.

Chart 1 presents the U.S. annual average unemployment rate from 1988 to 2010. The shaded areas highlight the three recessions experienced by the U.S. economy during that period: one in the early 1990s (July 1990–March 1991), one in the early 2000s (March 2001–November 2001), and the recent recession (December 2007–June 2009).[4] As shown in the chart, the unemployment rate in 1988 was 5.3 percent. The rate increased steadily during the early 1990s recession and reached its peak (7.1 percent) in 1992, after the end of the recession. After 1992, the unemployment rate began to decline at a fast pace, falling to 4.3 percent at the peak of the business cycle, in 1999. During the early 2000s recession, the rate increased steadily, reaching a high of 5.8 percent in 2003, following the official end of the recession, after which it declined to about 4.8 percent in 2006. During and shortly after the recent recession, the U.S. unemployment rate grew rapidly, increasing to 9.5 percent in 2010.

Chart 2 shows that the unemployment rates for men and women were quite similar from 1988 to 2010, except during and after the recessions, when the unemployment rate for women was lower. In a previous report prepared for the U.S. Department of Labor, Michaelides and Mueser showed that the gender gap in unemployment rates during the recessions of the early 1990s and early 2000s were largely a reflection of differences in the industries and types of occupations in which men and women were employed.[5] Specifically, men were found more likely than women to be employed in manufacturing and blue-collar occupations. During those recessions, unemployment rates for manufacturing and blue-collar jobs increased more than those for services and white-collar jobs, causing men's unemployment rates to rise more than women's. A similar pattern was observed in the recent recession: although both men and women experienced sharp increases in unemployment rates during and after the recession, the unemployment rate for men increased much more than the rate for women.

Unemployment rate patterns by race and ethnicity are shown in chart 3. Throughout this article, three mutually exclusive race and ethnicity groups are examined: Whites, excluding Hispanics; Hispanics, excluding those who identify themselves as members of a nonwhite racial group; and non-Whites.[6] From 1992 to 2010,[7] Whites had appreciably lower unemployment rates than Hispanics and non-Whites. During the 1992–1999 period, the unemployment rates of all three groups declined, although non-Whites and Hispanics experienced somewhat greater declines, causing their rates to converge toward those of Whites. Hispanic rates converged further to the White rates through 2007. Convergence appears to have stalled, however, with the onset of the recent recession, when the unemployment rates of all three groups increased substantially.

Chart 4 presents the unemployment rate from 1988 to 2010 by age group. From 1988 through 2007, the unemployment rate for younger workers (under 25) was consistently above 10.1 percent and much higher than the rates for workers 25 and older. In addition, the unemployment rate for prime-age workers (25–44) was about 2.0 percentage points above the rate for those 45 and older. As shown in the chart, through 2007 unemployment rate differences by age group did not change much over the business cycle. As would be expected given the impending recession, starting in 2008 all three age groups experienced sharp increases in their unemployment rates, with younger workers exhibiting the largest increases. Notably, the unemployment rate for prime-age workers increased at a pace similar to that of the younger workers, as did the rate for the 45-and-older group during this period; thus, the unemployment rate gap between prime-age workers and those 45 and older remained at about 2.0 percentage points during and after the recent recession.

As shown in chart 5, unemployment rates for workers with no high school diploma were much higher than the rates for workers with higher levels of education. In addition, unemployment rates for workers with no high school diploma were much more sensitive to the business cycle. Conversely, unemployment rates for those with at least some college, especially those with a college degree, were much lower and less sensitive to the business cycle. As examples of different sensitivities, (1) the decline in the unemployment rate from 1992 to 1999 was 2.1 percentage points for high school graduates (from 6.1 percent down to 4.0 percent) and 0.9 percentage point for college graduates (from 2.9 percent down to 2.0 percent) and (2) the unemployment rate increase from 2007 to 2010 was 5.1 percentage points (4.9 percent to 10.0 percent) for high school

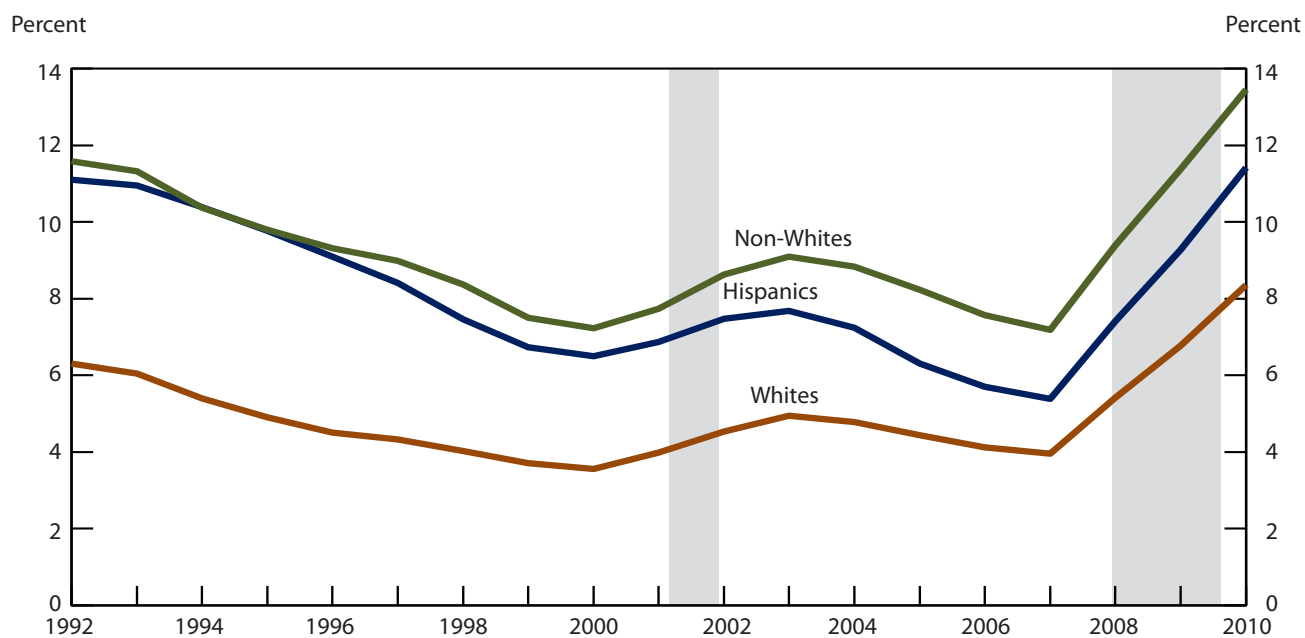**Chart 1.** **Unemployment rate, 1988–2010**
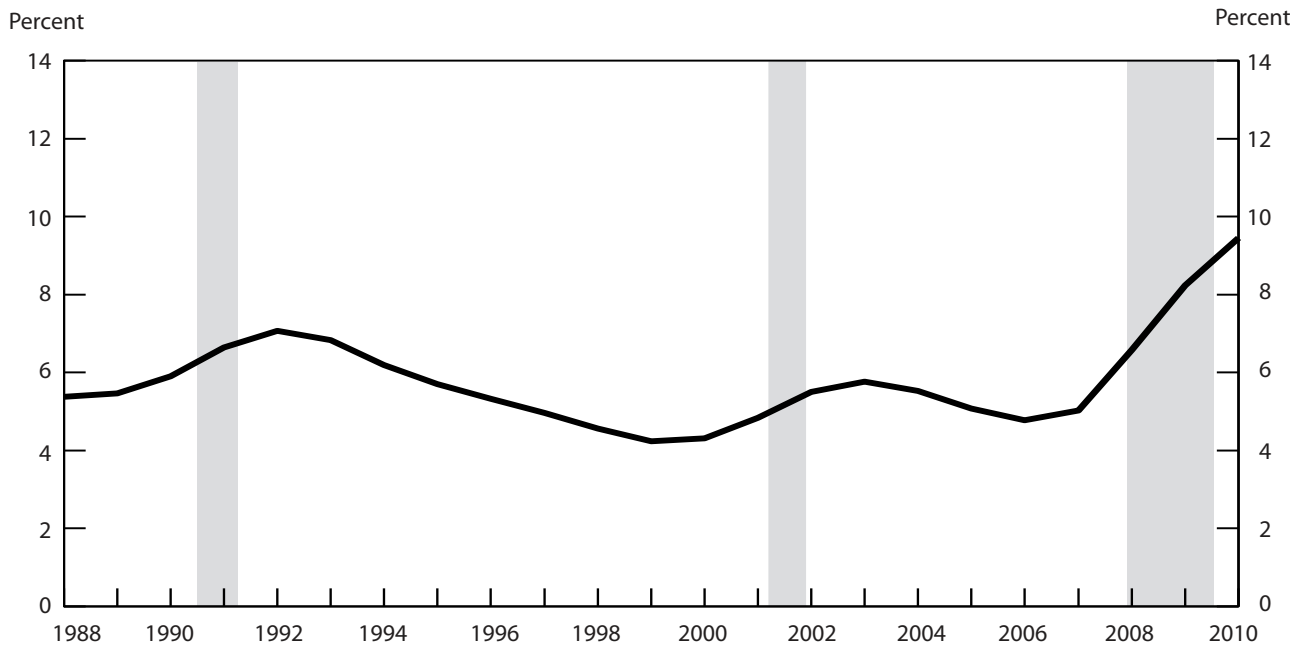
Percent

Percent

NOTE: Values are annual averages of CPS monthly data. Shaded areas identify the early 1990s recession (July 1990–March 1991), the early 2000s recession (March 2001–November 2001), and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

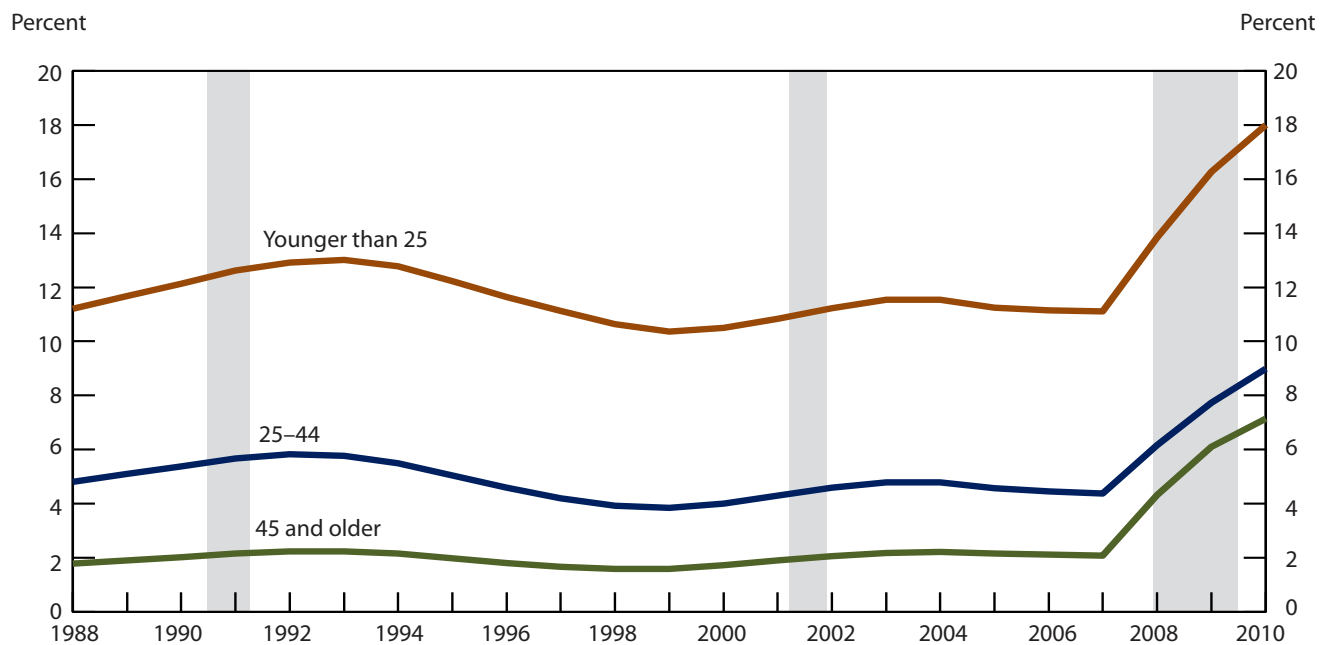**Chart 2.** **Unemployment rate, by gender, 1988–2010**
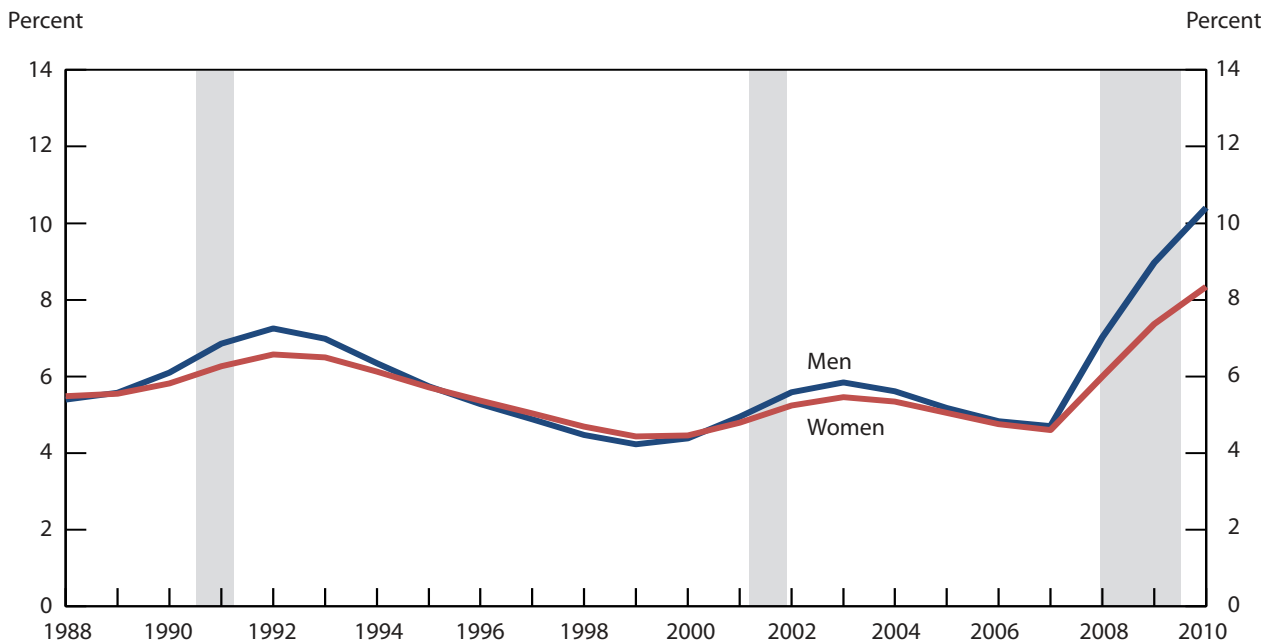
Percent

Percent

NOTE: Values are annual averages of CPS monthly data. Shaded areas identify the early 1990s recession (July 1990–March 1991), the early 2000s recession (March 2001–November 2001), and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

Chart 3.   Unemployment rate, by race and ethnicity, 1992–2010

Percent   Percent
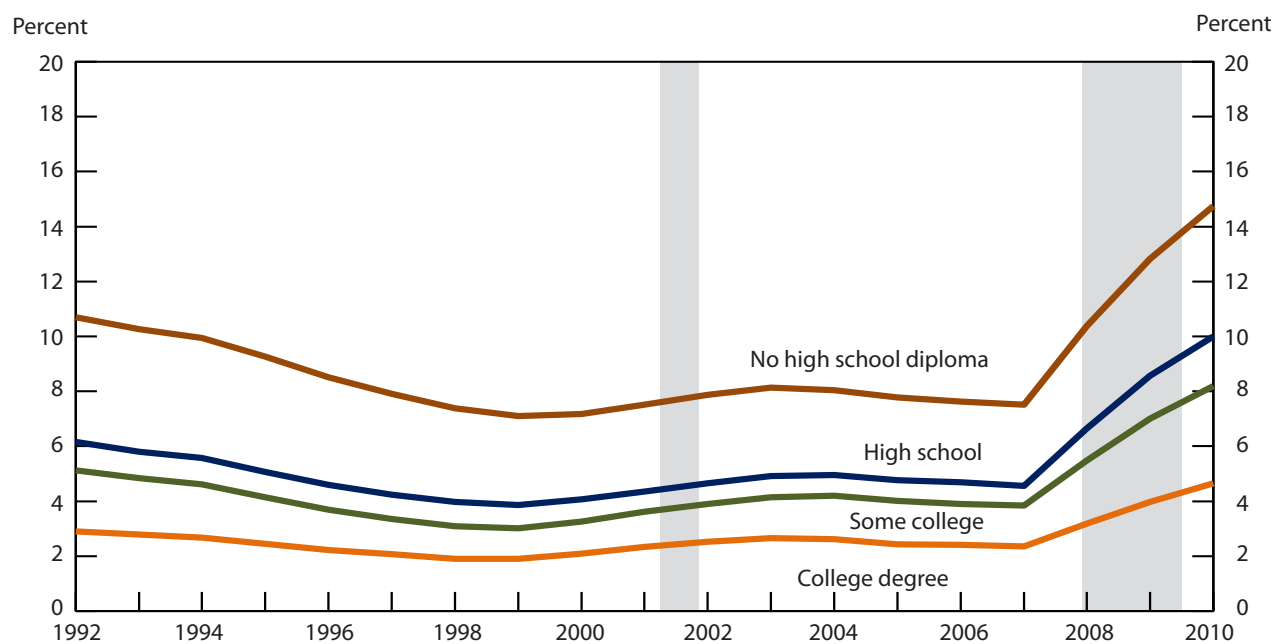

NOTE: Values are annual averages of CPS monthly data. Shaded areas identify the early 2000s recession (March 2001–November 2001) and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

Chart 4.   Unemployment rate, by age group, 1988–2010

Percent   Percent

NOTE: Values are annual averages of CPS monthly data. Shaded areas identify the early 1990s recession (July 1990–March 1991), the early 2000s recession (March 2001–November 2001), and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

Chart 5. **Unemployment rate, by education level, 1992–2010**

Percent

Percent

NOTE: Values are annual averages of CPS monthly data. Shaded areas identify the early 2000s recession (March 2001–November 2001) and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

graduates and 2.2 percentage points (2.6 percent to 4.8 percent) for college graduates.

The next consideration is unemployment by industry and occupational status. Because the CPS switched from the Standard Industrial Classification system to the North American Industry Classification System in 2000, CPS industry data for years prior to 2000 are not comparable to data for years from 2000 to the present. For this reason, industry results are reported only for the most recent period (2000 through 2010). Chart 6 presents unemployment rates for four major industry groups: construction, manufacturing, services, and "other" sectors.[8] As shown, construction was the major industry with the highest unemployment rate during that period. In 2003, following the end of the early 2000s recession, the unemployment rate in construction reached 9.1 percent whereas the unemployment rate for the remaining sectors was 6.2 percent or lower. By 2006, the construction unemployment rate had declined to about 7.5 percent, which was still at least 2.0 percentage points higher than the rate for any other major industry category. Although the recent recession affected all industries, construction experienced the sharpest unemployment rate increase, growing from 8.0 percent in 2007 to nearly 20.0

percent in 2010. During the same period, the manufacturing unemployment rate rose from 4.9 percent to 11.5 percent, the services rate grew from 5.0 percent to 8.2 percent, and the "other" industries rate increased from 5.1 percent to 9.7 percent. It is clear that during both recessions sensitivity to the business cycle was greatest for construction, followed by manufacturing.

Chart 7 shows that the unemployment rate for blue-collar occupations was substantially higher than the rate for white-collar occupations and that blue-collar unemployment was also more sensitive to the business cycle. The decline in the unemployment rate from 1992 to 1999 was 2.6 percentage points for blue-collar workers and 1.2 percentage points for white-collar workers. Analogously, the increase in the unemployment rate from 1999 to 2002 was 1.2 percentage points for blue-collar workers and 0.8 percentage point for white-collar workers. As expected, the most dramatic changes occurred in the recent recession, during which the unemployment rate for blue-collar workers increased from 6.3 percent in 2007 to 12.3 percent in 2010. Although the unemployment rate also increased for white-collar workers (from 3.6 percent to 5.8 percent), the gap between the unemployment rates for the two groups

Chart 6. Unemployment rate, by industry, 2000–2010
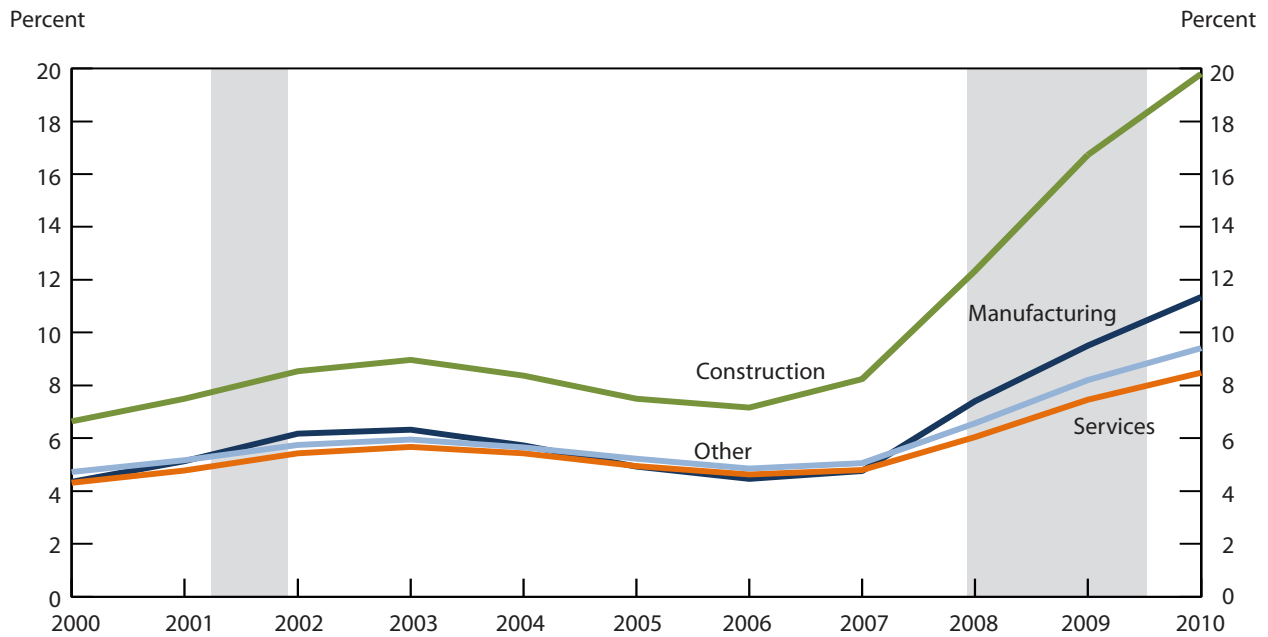
Percent   Percent

NOTE: Values are annual averages of CPS monthly data. Shaded areas identify the early 2000s recession (March 2001–November 2001) and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

Chart 7. Unemployment rate, by occupational status, 1988–2010
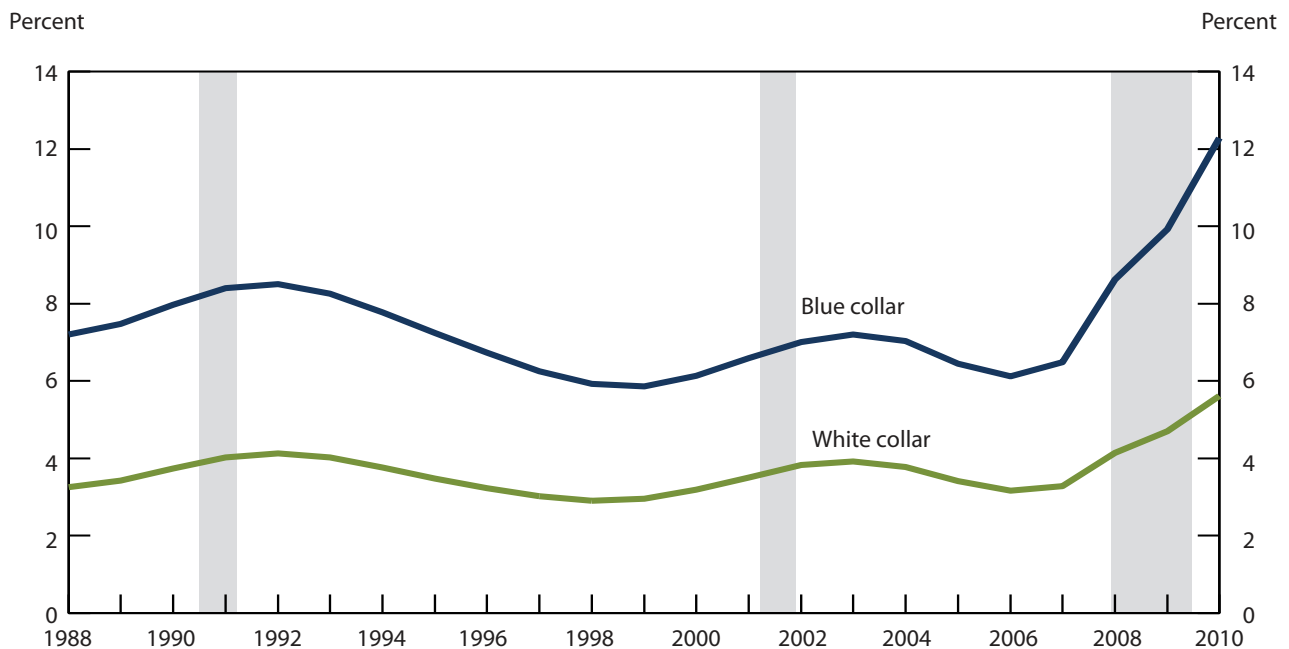
Percent   Percent

NOTE: Values are annual averages of CPS monthly data. Shaded areas identify the early 1990s recession (July 1990–March 1991), the early 2000s recession (March 2001–November 2001), and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

grew substantially, a finding that is consistent with the severity of the recession.

The preceding overview illustrates important differences in the unemployment patterns of major socioeconomic groups in the U.S. workforce from 1988 to 2010. Although men and women had similar unemployment rates during most of this period, men faced higher unemployment during the three recessions. Racial minorities (i.e., Hispanics and non-Whites), workers with no high school diploma, and younger workers had much higher unemployment rates than the rest of the population did over the period, particularly during recessions. Unemployment rates by industry and by occupational status also varied considerably, with the construction sector and blue-collar workers experiencing higher and more volatile unemployment rates than did the nonconstruction sectors and white-collar workers.
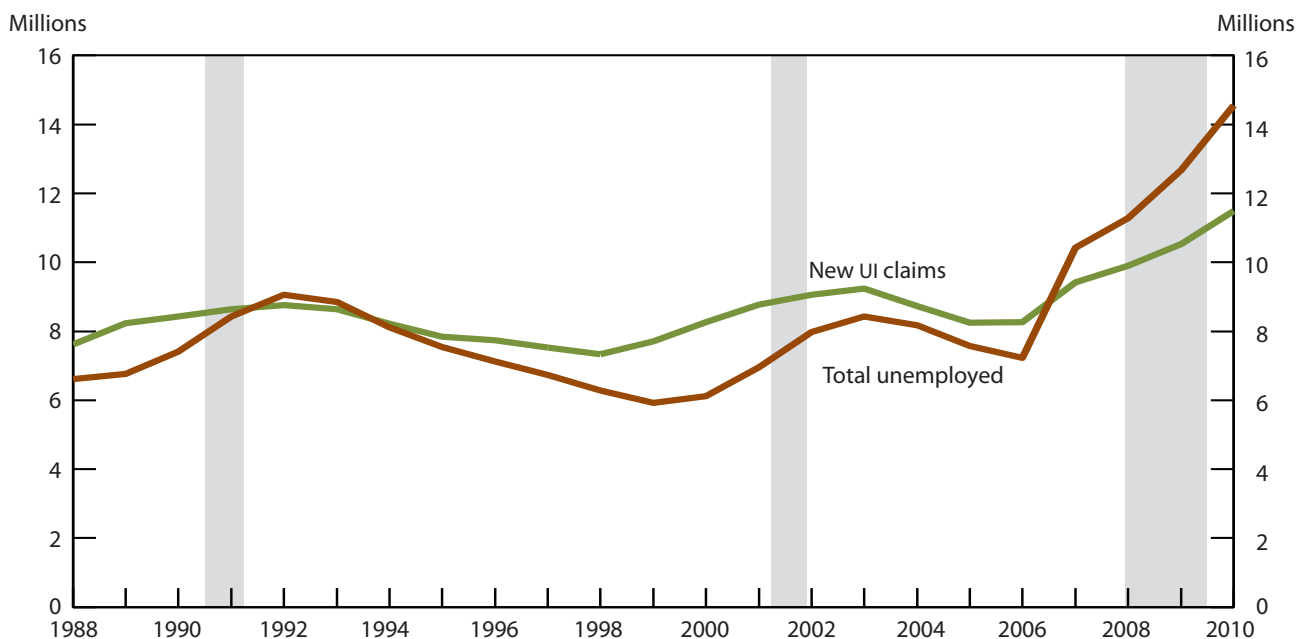
Unemployment insurance participation

This section discusses overall UI participation patterns from 1988 through 2010, beginning with an analysis of how UI participation has varied over the business cycle during that period. Following this examination, BAM data

are used to examine the overall distribution of UI recipients by socioeconomic characteristics.

UI participation over the business cycle. Participation in the UI program is strongly affected by the business cycle. Chart 8 illustrates the relationship between the annual average number of unemployed workers (based on the CPS) and the annual number of new UI claims (based on the U.S. Department of Labor's Unemployment Insurance Chartbook). Like unemployment, the annual count of new UI claims was highly countercyclical during that timespan. In 1988, there were 7.6 million new UI claims, a number that increased steadily during the early 1990s recession and reached 8.8 million after the end of the recession in 1992. By 1999, the peak of the late 1990s expansion, the number of new UI claims had declined to 7.3 million. Starting in 2007, both the total unemployed and the number of new UI claims increased dramatically, and by 2010, shortly after the official end of the recent recession, there were about 14.5 million unemployed workers and approximately 11.5 million new UI claims.

With regard to the three recessions, chart 8 shows major differences in the relationship between the total unemployed and the number of new UI recipients. In par-

Chart 8. Total unemployed and number of new UI claims, 1988–2010

NOTE: Values for total unemployed are annual averages from the CPS monthly data; values for new UI claims are from the U.S. Department of Labor's *Unemployment Insurance Chartbook* (**http://www.doleta.gov/unemploy/chartbook.cfm**). Shaded areas identify the early 1990s recession (July 1990–March 1991), the early 2000s recession (March 2001–November 2001), and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

ticular, the number of new claims peaked at more than 9 million immediately after the early 2000s recession, a figure that was above the number of new claims reached immediately after the early 1990s recession.[10] In contrast, the total unemployed was appreciably lower immediately after the early 2000s recession than it was immediately after the early 1990s recession, a reflection of the fact that unemployed workers were more likely to receive UI benefits during the early 2000s recession than during the early 1990s recession. In the recent recession, although both the total unemployed and the number of new claims increased dramatically, the growth in the former was much greater, creating a rather different pattern than that observed in previous recessions. The reason for the difference is the unprecedented growth in the duration of unemployment: unemployed respondents reported more continuous weeks of unemployment, on average, in the recent recession than in any other recession since the statistic was first collected in the 1940s.[9]

Characteristics of UI recipients. In the analysis that follows, BAM data are used to examine how the composition of the UI recipient population has changed in the past 20 years and how the composition is affected by the business cycle. BAM data, a statistical sampling of state administrative data developed by the U.S. Department of Labor, are designed to assess the accuracy of paid and denied claims in three major UI programs: State Unemployment Insurance, Unemployment Compensation for Federal Employees, and Unemployment Compensation for Ex-Service Members. BAM samples are designed to be representative of weekly benefit payments; thus, they can be used to estimate the characteristics, by state, of individuals receiving UI benefits. This design ensures that individuals with longer durations of UI benefits have a higher probability of selection, so the BAM sample is representative of the state caseload at a given point in time.[10] Among other information it provides, BAM reports core demographic characteristics of recipients, educational attainment, and industry and occupation of the recipient's previous job. Such information in turn yields estimates of the composition of the UI population for each year, by gender, race and ethnicity, age, education, industry, and occupation, enabling researchers to examine how this composition changes over the business cycle.[11]

DOL instituted the BAM survey in 1987 with the requirement that each state submit a representative sample of all UI claims and all benefit payments each year. Initially, states were required to submit minimum samples ranging from 500 to 2,000 claims or UI payments, depending on the size of the state. Sample sizes were subsequently adjusted to a range of 500–1,800 claims or UI payments in 1992 and 360–480 claims or UI payments in 1995. However, some states submitted samples that greatly exceeded the specified minimum, so there is substantial variation across states.

The reporting requirements, combined with state differences in data reporting into the BAM system, lead to uneven representation of recipients across states. Chart 9 presents the BAM sample proportion and the UI population proportion, by state, for the period from 1988 to 2010.[12] The chart shows that states' BAM sample proportions do not in general correspond to their proportions of total UI recipients in the United States. For example, California accounted for about 14 percent of UI recipients in the nation from 1988 to 2010, but for just 5 percent of the BAM sample. Other populous states, such as New York, Pennsylvania, and Texas, also are underrepresented in the BAM data. Thus, if the unweighted BAM data were used to estimate the characteristics of UI recipients, these states would be underrepresented in the analysis. In addition, many less populated states (e.g., Delaware, Rhode Island, and Wyoming) are overrepresented in the BAM data.

These numbers indicate that, even though the BAM data can be used to conduct analyses that are representative at the state level, adjustments are required to conduct analyses that are representative at the national level. In particular, sampling weights are needed that will adjust for the uneven selection into the BAM data by state and by year. The following weight is intended to satisfy that need for a given state S and year Y:
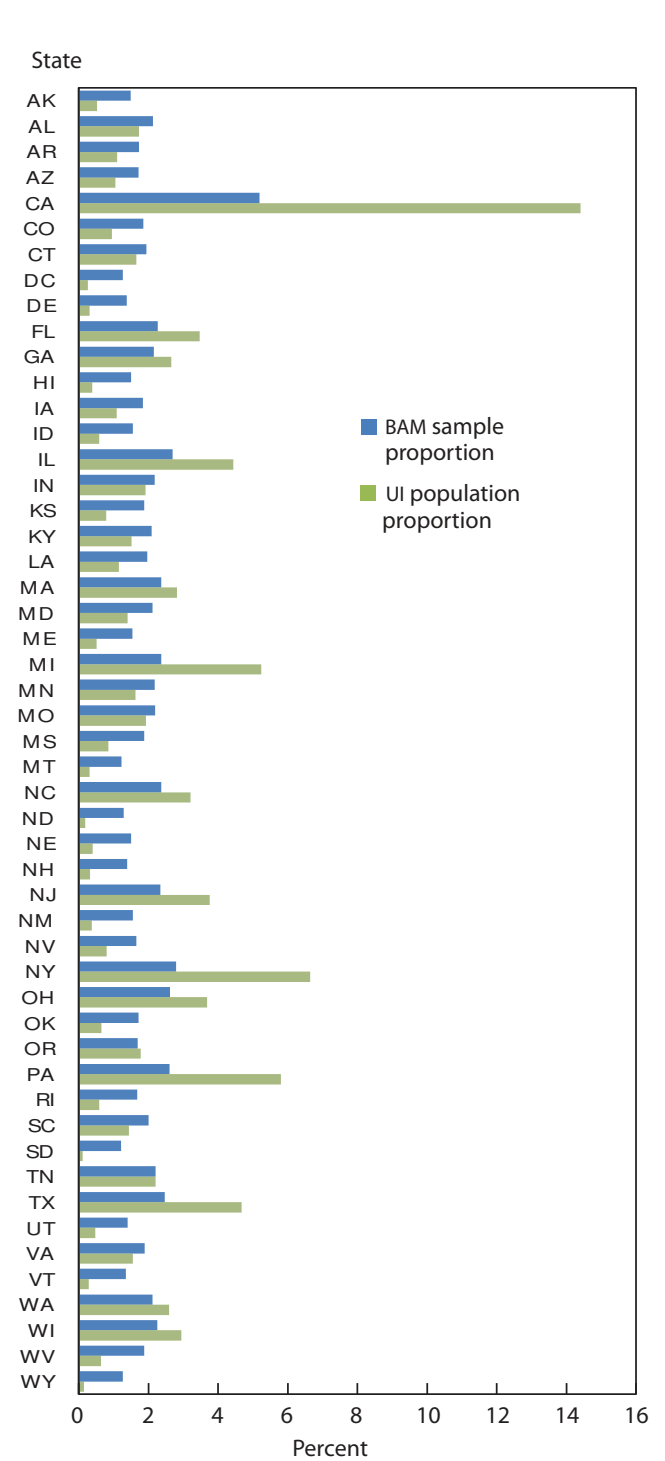
$$W_{S,Y} = \frac{\text{UI Population Proportion}_{S,Y}}{\text{BAM Sample Proportion}_{S,Y}}$$

The numerator is the proportion of the U.S. UI benefit weeks in year Y that is in state S, while the denominator is the proportion of BAM sample benefit weeks in year Y that is in state S. In the analysis that follows, all observations are weighted in this manner, making the results representative at the national level.[13]

Using the BAM data, the analysis examines the distribution of UI recipients during 1988–2010 by socioeconomic characteristics. Table 1 presents the distribution of the unemployed population (from CPS data) and of UI recipients (from BAM data), by gender, race and ethnicity, age group, education, industry, and occupational status. Women accounted for 45 percent of the unemployed, and for 43 percent of UI recipients, over the study period. This difference indicates that unemployed women were

Chart 9. BAM sample proportion and UI population proportion, by state, 1988–2010

State

AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY

■ BAM sample proportion

■ UI population proportion

Percent (0 2 4 6 8 10 12 14 16)

SOURCE: BAM sample proportions are calculated from BAM data for 1988–2010. UI population proportions are calculated from the numbers of UI recipients reported in "Monthly Program and Financial Data" (U.S. Department of Labor, Employment & Training Administration, updated monthly), **http://workforcesecurity.doleta.gov/unemploy/claimssum. asp**.

slightly underrepresented among UI recipients relative to their proportion of the unemployed. Hispanics and non-Whites also were underrepresented in the UI population, with lower proportions of UI recipients than proportions of the unemployed. Younger workers (under 25 years) accounted for 34 percent of the unemployed but only 8 percent of UI recipients; therefore, among the unemployed, younger workers were much less likely to receive UI benefits than were prime-age workers and those 45 and older. During the 2000–2010 period, construction and manufacturing had slightly higher shares of the UI population than their shares of the unemployed, indicating that unemployed workers in these industries were overrepresented in the UI population relative to those in other industries. Finally, during the entire study period, blue-collar jobs held equal shares of the unemployed and of UI recipients, indicating that unemployed workers in white-collar and blue-collar jobs were equally represented in the UI population.

Trends in the receipt of UI benefits

This section focuses on trends of differential representation of major socioeconomic groups among those receiving UI benefits from 1988 to 2010.[14] For each of the groups discussed, the proportion of that group among UI recipients is compared with the proportion among the unemployed, as are changes in those proportions over time. The analyses presented highlight the extent to which UI receipt patterns differed for unemployed individuals by demographic group during the period examined.

A quantitative measure of differential UI receipt is the ratio of the probability that unemployed individuals in a given group receive UI benefits to the ratio of the probability that those who are unemployed but not in that group receive such benefits. This measure may be written as $P_{it}/P_{(-i)t}$, where P_{it} is the probability that an unemployed individual in demographic group i receives benefits in year t and $P_{(-i)t}$ is the probability that an unemployed individual not in demographic group i receives benefits in year t.[15] The measure, therefore, captures the relative likelihood that unemployed individuals in a given demographic group receive UI benefits, compared with others, and is referred to as the *relative UI takeup*, or *relative UI takeup rate*, for the group.

Gender. The top panel in chart 10 presents the proportions of UI recipients and of the unemployed accounted for by women; the bottom panel presents the relative UI takeup for women during the study period. Women's pro-

Characteristic	Proportion of the unemployed	Proportion of UI recipients
Characteristics of the unemployed and of UI recipients, 1988–2010 [In percent]		
Gender		
Men	55	57
Women	45	43
Race or ethnicity		
Whites[1]	58	65
Hispanics	17	13
Non-Whites	25	22
Age group		
Younger than 25	34	8
25–44	44	55
45 and older	22	37
Educational attainment		
Less than high school[1]	20	20
High school diploma	36	42
Some college	26	26
College degree	18	12
Industry		
Construction[2]	11	14
Manufacturing	14	18
Services	49	45
Other	26	23
Occupational status		
White collar	40	40
Blue collar	60	60

[1] Race or ethnicity data and education data are for 1992–2010.
[2] Industry data are for 2000–2010.
NOTE: Estimates of proportions of the unemployed are based on annual averages from CPS data; estimates of proportions of UI recipients are based on annual averages from BAM data.
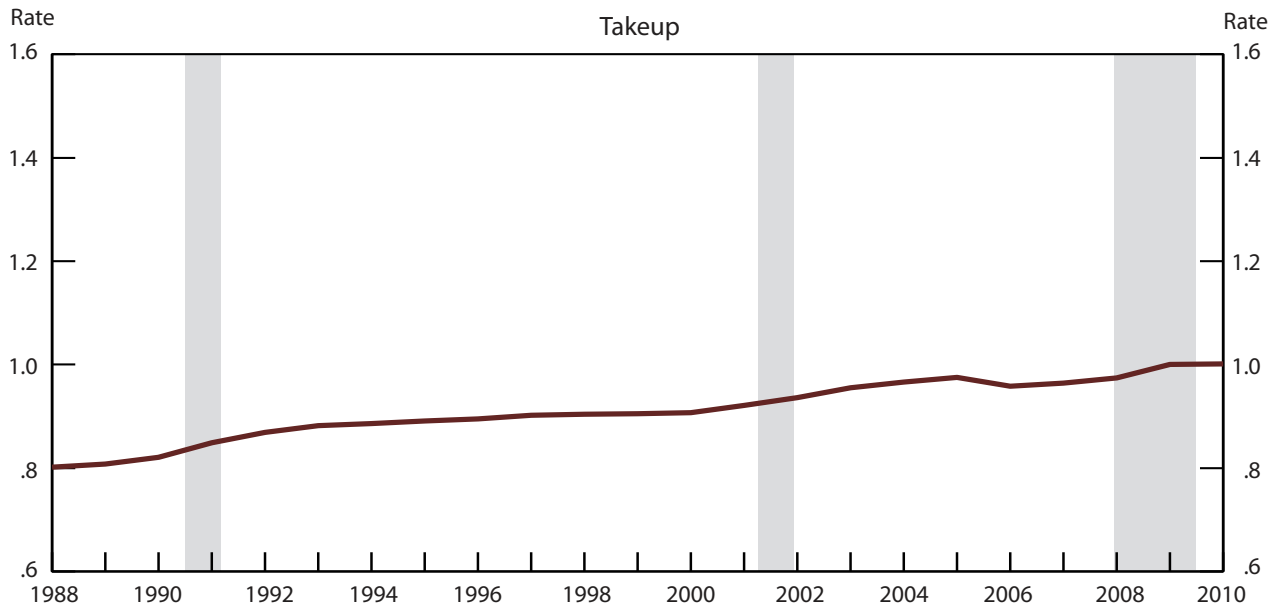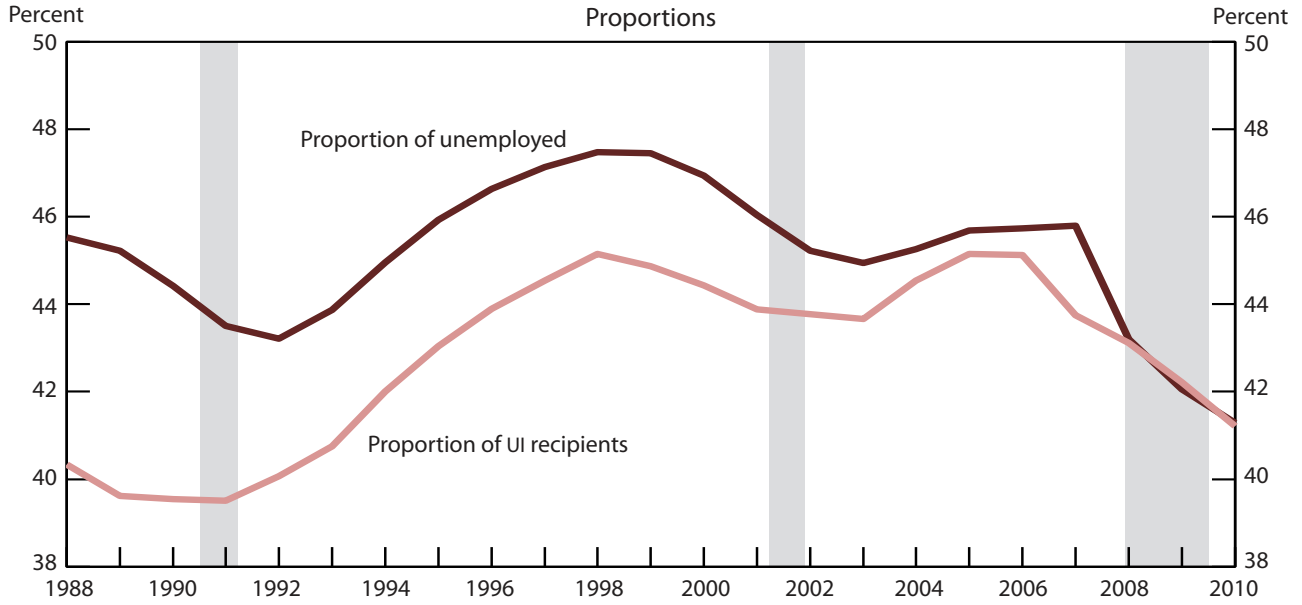
from 1988 through 2007, chart 10 shows that the proportion of the unemployed accounted for by women did *not* increase substantially over this period. As a result, the gap between the women's proportion of UI recipients and the women's proportion of the unemployed was very small by 2006. During and shortly after the most recent recession, both proportions fell rapidly and, in the most recent years, the gap disappeared.

These trends are reflected in the measure of relative UI takeup for women (bottom panel of chart 10). This measure was equal to 0.8 in 1988, indicating that an unemployed woman was only four-fifths as likely as an unemployed man to be receiving UI benefits. The takeup rate increased continuously over the study period, but, interestingly, without regard to the business cycle. By 2010, the relative UI takeup for women was 1.0, implying that unemployed women were as likely as unemployed men to receive UI benefits.

Race and ethnicity. Chart 11 presents the relative UI proportions and takeup rates by race and ethnicity.[16] The top panel shows that the proportion of Whites in the UI recipient population has declined from more than 70 percent in 1992 to just over 61 percent in 2010. This decline is associated with the steady increase in the proportions of the Hispanic and non-White labor force that has occurred over the past two decades, a well-documented trend.[17] The proportion of Whites in the unemployed population was lower than the proportion of Whites among UI recipients during the period examined. However, the White proportion of the unemployed declined at a slower pace (from 63 percent in 1992 to 58 percent in 2010) than did the White proportion of UI recipients, and as a result, the gap between the two proportions declined slightly over time. Chart 11 provides details on the source of this decline: the proportion of non-Whites among those receiving UI benefits increased from just below 18 percent in 1992 to about 23 percent by the end of the study period, and the proportion of Hispanics increased from 11 percent to about 15 percent over the same period.
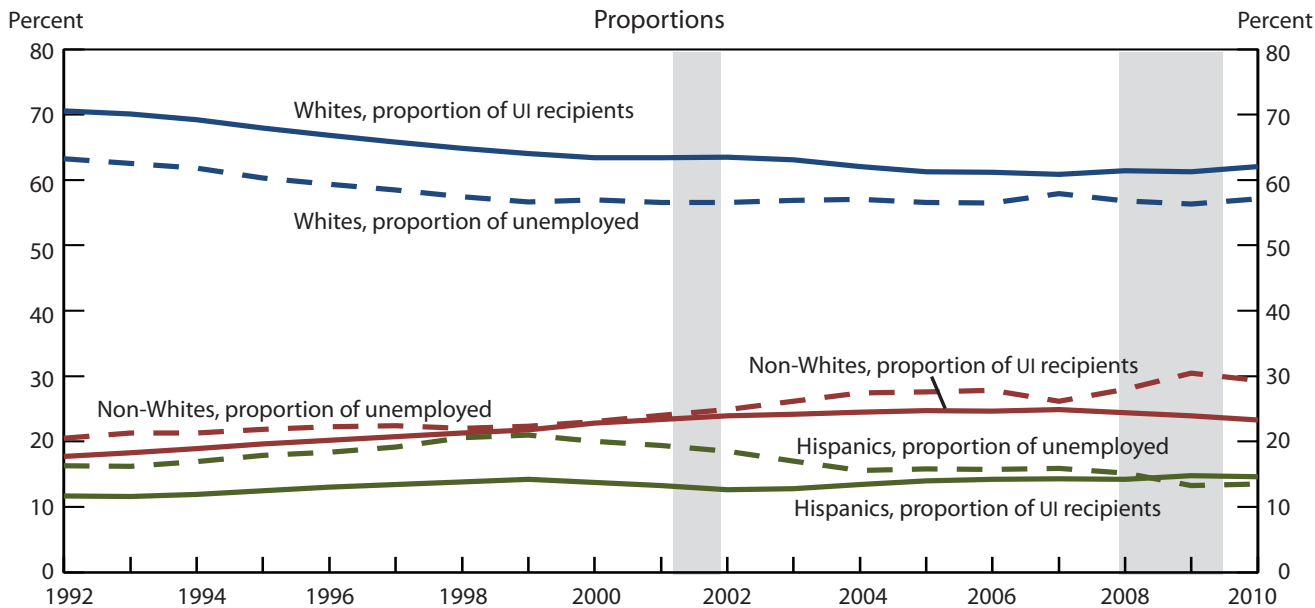
As a result of these shifts, there were substantial changes in the UI takeup by racial and ethnic group over the period examined. The bottom panel of chart 11 provides a direct measure of the extent of such changes. In 1992, the relative UI takeup for Whites was 1.4, indicating that an unemployed White person was 40 percent more likely to receive UI benefits than the average unemployed worker in another race or ethnicity category. By 2007, the ratio had declined to just below 1.2, followed by a slight increase after the beginning of the most recent recession.

portion of UI recipients was procyclical throughout the study period. For example, in the early 1990s recession, women accounted for less than 40 percent of UI recipients, but with the expansion of the economy, the proportion grew to 45 percent by 1998. Similarly, following the early 2000s recession, women's proportion of UI recipients increased from just below 44 percent in 2002 to more than 45 percent in 2006. This proportion then started to decline in 2007 and fell to about 41 percent in 2010, shortly after the end of the most recent recession.

Long-term trends are of interest as well. Whereas there was an increase in women's proportion of UI recipients

Chart 10. **Unemployment and unemployment insurance proportions, and unemployment insurance takeup, women, 1988–2010**

Proportions
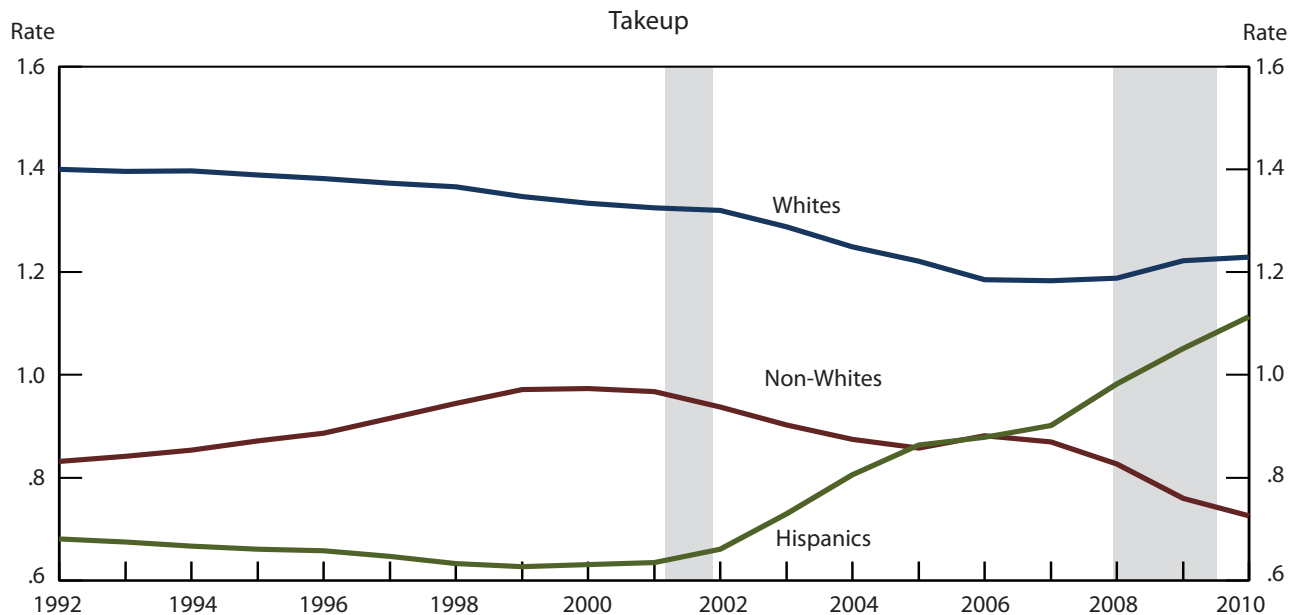
Percent

Percent

Proportion of unemployed

Proportion of UI recipients

Takeup

Rate

Rate

The same panel shows how the patterns for Hispanics and non-Whites contributed to this shift. For non-Whites, the relative UI takeup increased from slightly more than 0.8 in 1992 to nearly 1.0 in about 2000 but then declined to below 0.9 by 2007 and to just over 0.7 in 2010. The relative UI takeup was less than 0.7 for Hispanics in 1992 but started to increase after 2002. As a result, by 2005 Hispanics and non-Whites had similar relative UI takeup rates. However, from 2007 to 2010, the rate for Hispanics increased substantially, exceeding 1.1 in 2010. Overall, it is clear that Hispanics experienced the most important change in relative UI takeup over the study period, exhibiting a substantial increase. In contrast, the relative takeup rate for non-Whites increased from 1992 through 2000, but by the end of the study period it fell below the 1992 level.

It may be useful to consider three factors that contributed to the lower takeup rates for Hispanic and non-White workers in the early 1990s. First, Hispanics and non-Whites were more likely to be employed in low-paying, less stable jobs and were thus less likely to be eligible to receive UI benefits.[18] Second, White Hispanic workers may have been less likely to be familiar with the U.S. labor market and therefore less likely to apply for UI benefits.[19] Third, a certain proportion of White Hispanic workers consists of illegal immigrants, a status that prevents them from applying for social assistance.[20] All three factors may have become less important in recent years as the size of the Hispanic labor force has grown.

Age. There were dramatic differences in UI receipt by age over the period examined. The top panel of chart 12 shows that younger workers (under 25 years of age) accounted for a small and declining share of UI recipients. Workers 45 and older, in contrast, grew in importance, increasing their share by nearly half, from 30 percent in 1990 to 44 percent in 2010, while the proportion of prime-age workers (25–44) receiving UI benefits declined from 60 percent in 1990 to 47 percent in 2010. For the most part, these changes are driven by the changing labor force composition, reflecting the movement of the baby-boom cohort into the 45-and-older category.[21]

The bottom panel of chart 12 shows differences in relative UI takeup for the three age groups. Perhaps most notable is the very low level of relative UI takeup for younger individuals. An unemployed individual in this age group was only about one-fifth as likely as a worker 25 years or older to be receiving UI benefits. During the study period, the UI takeup rate was between 1.6 and 2.2 for workers 45 and older and between 1.2 and 1.8 for those in the prime-age worker group. The differences in UI takeup between the two groups reflect in part the fact that recent entrants into the labor force are overrepresented in the youngest ages and many have not worked long enough to be eligible for UI coverage. In addition, young workers are more likely to work in jobs that offer less coverage and in which, therefore, relatively fewer workers are eligible for benefits when they lose jobs.[22]

Although the relative UI takeup for workers 45 and older increased slightly through the early 1990s, exceeding 2.0 from 1995 through 2007, it declined with the most recent recession, falling to 1.7 in 2010. Over the period examined, there was a continuous decline in this measure for prime-age workers, with values standing at about 1.7 in the late 1980s but declining to 1.4 by 2007 and then falling further to just above 1.2 by 2010. For the youngest group, interestingly, the relative UI takeup rate declined and then increased over the study period.

As discussed earlier, the unemployment rate for workers 45 and older remained low and relatively stable from 1988 through 2007, but it increased rapidly from 2007 through 2010. (See chart 4.) Despite the decline in the UI takeup rate for this group (see chart 12), these workers are becoming more important in the UI population, both because they make up a larger share of the labor force and because they are more likely to face unemployment.[23]

Education. The top panel of chart 13 shows the proportion of UI recipients by education level. Individuals with a high school diploma, but no more education, accounted for the largest share of the UI population, with the proportion remaining between 40 percent and 45 percent throughout the study period. The proportion of the UI population with no high school diploma declined fairly dramatically, whereas the proportion with some schooling beyond high school increased. These patterns reflect changes in the composition of the labor force, not in unemployment rates. (See chart 5.) The growth in the proportions of UI recipients with higher levels of education is due to an overall increase in the education level of the labor force: those retiring from the labor market are less educated than new labor market entrants.[24]
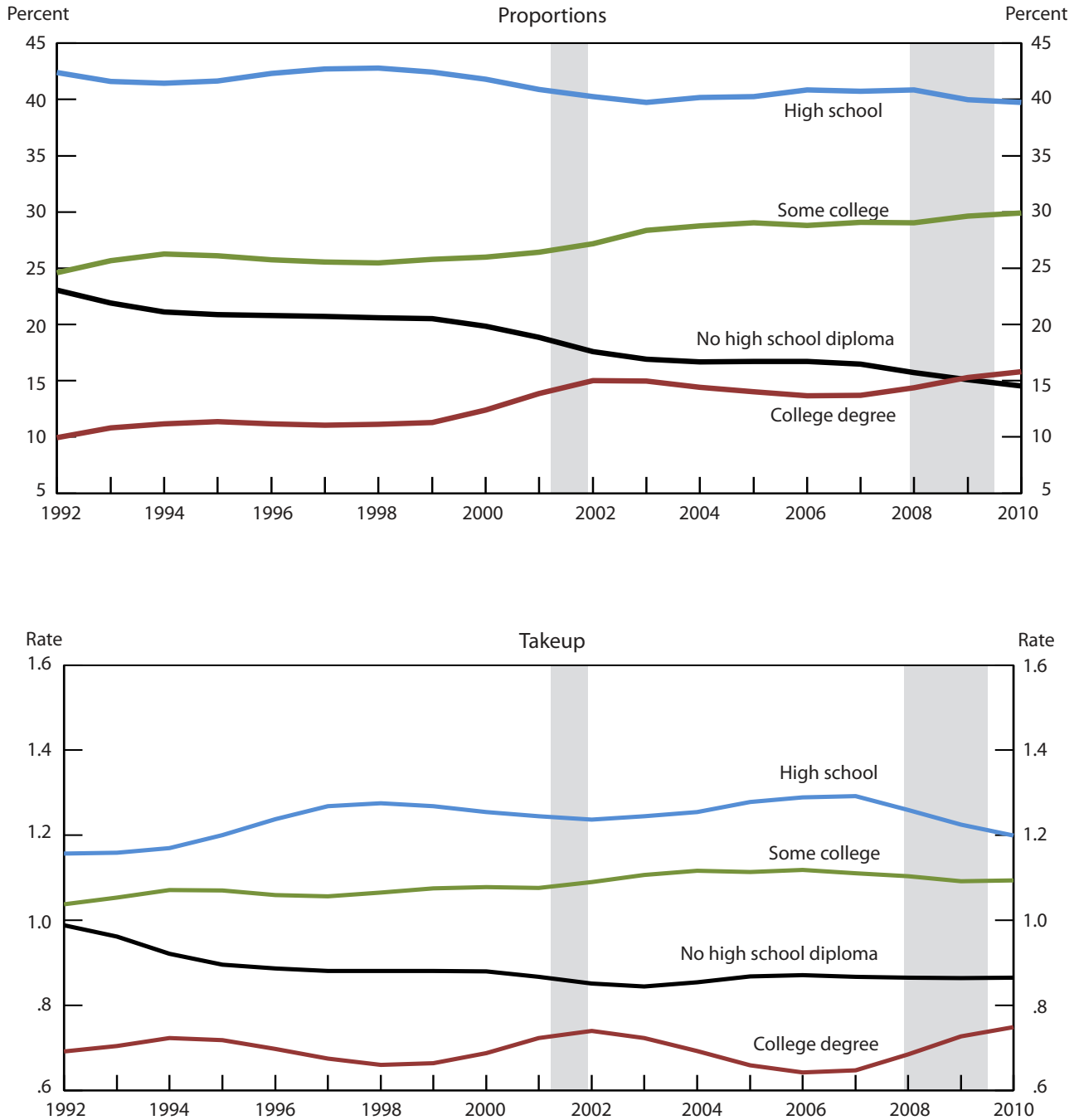
There were substantial differences in relative UI takeup by education group. As the bottom panel of chart 13 shows, unemployed workers with just a high school diploma were up to 30 percent more likely than others to receive UI benefits. The second-highest UI takeup was for workers with some college education, followed by those with no high school diploma; college graduates had the lowest UI takeup. These patterns reflect the interaction of

Chart 12. **Unemployment insurance proportions and unemployment insurance takeup, by age group, 1988–2010**
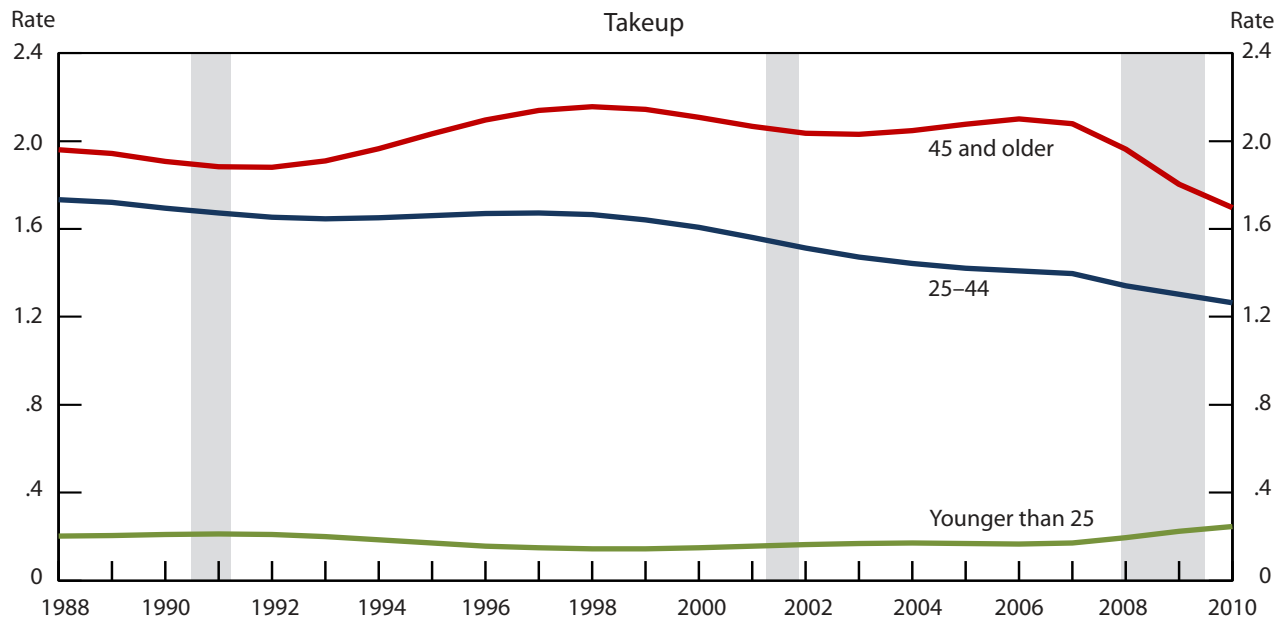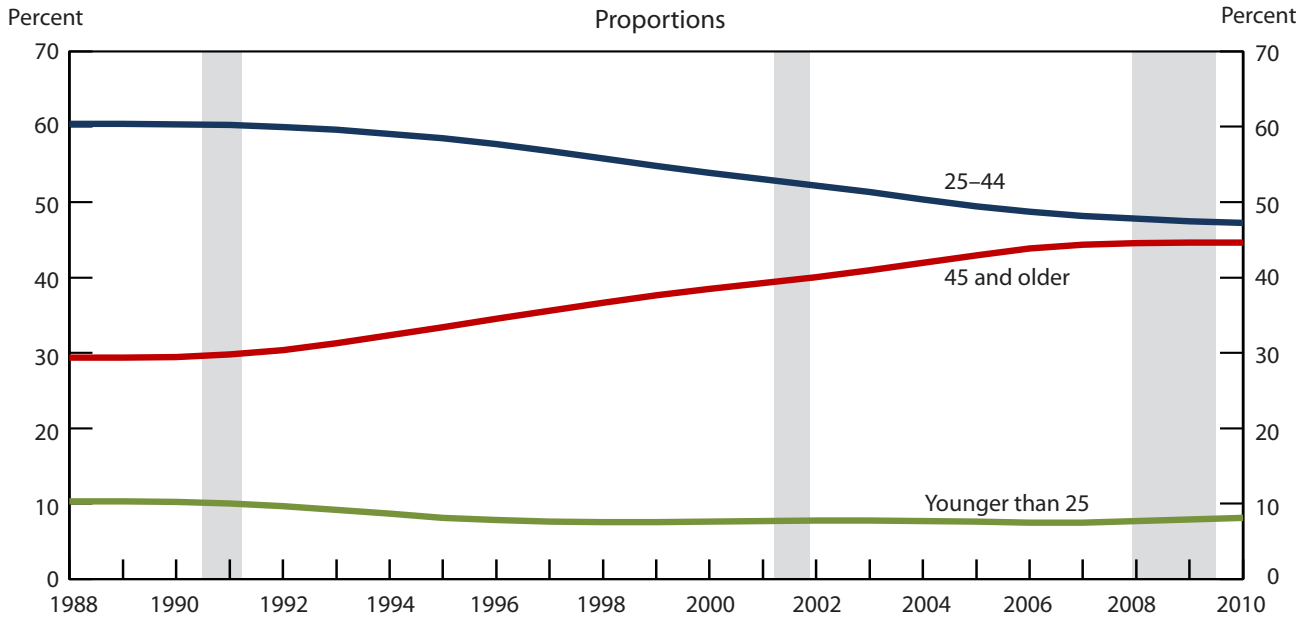
Proportions

Takeup

SOURCE: Proportion of UI recipients: U.S. Department of Labor, Benefit Accuracy Measurement program; proportion of unemployed: U.S. Census Bureau and U.S. Bureau of Labor Statistics, Current Population Survey. Shaded areas identify the early 1990s recession (July 1990–March 1991), the early 2000s recession (March 2001–November 2001), and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

Chart 13. **Unemployment insurance proportions and unemployment insurance takeup, by education, 1992–2010**

Percent — Proportions — Percent

Percent
45
40
35
30
25
20
15
10
5

High school
Some college
No high school diploma
College degree

1992 1994 1996 1998 2000 2002 2004 2006 2008 2010

Rate — Takeup — Rate

Rate
1.6
1.4
1.2
1.0
.8
.6

High school
Some college
No high school diploma
College degree

1992 1994 1996 1998 2000 2002 2004 2006 2008 2010

SOURCE: Proportion of UI recipients: U.S. Department of Labor, Benefit Accuracy Measurement program; proportion of unemployed: U.S. Census Bureau and U.S. Bureau of Labor Statistics, Current Population Survey. Shaded areas identify the early 2000s recession (March 2001–November 2001) and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

the UI program with the kinds of jobs held at various education levels. The low UI takeup for workers with no high school diploma reflects the fact that these workers are very likely to have unstable employment and low pay, so they may not qualify for benefits. At the other end of the spectrum, because benefits are capped, the earnings replacement rate for college graduates provided by UI benefits is much lower than that for high school graduates, reducing college graduates' incentive to apply for benefits.[25]

Industry.   One of the most important trends in the labor market has been the continuing decline of manufacturing and growth of the service sector. Chart 14 shows that these labor market changes were reflected in the UI population during the past decade. In 2000, 22 percent of UI recipients were employed in manufacturing, whereas, by 2010, the proportion fell to 16 percent. In contrast, the proportion in services increased from below 42 percent in 2000 to 46 percent in 2010. The decline in UI proportions in manufacturing occurred over the entire 2000–2010 period, including 2007 through 2010, when the manufacturing unemployment rate was higher than the services rate (see chart 6), indicating that, for the most part, these differences reflect labor force changes. The share of UI recipients in construction and other sectors remained relatively stable from 2000 through 2010.

The bottom panel of chart 14 shows that unemployed workers in manufacturing and in construction were more likely than unemployed workers in services and in the catchall "other industries" category to receive UI benefits. In 2000, the relative UI takeup for manufacturing and construction was at least 1.4, indicating that unemployed manufacturing and construction workers were over 40 percent more likely to receive UI benefits than the average unemployed worker in other industries was. Throughout the study period, the relative UI takeup declined for both manufacturing and construction and, by 2010, unemployed manufacturing and construction workers were about 20 percent more likely than other workers to receive UI benefits. During most of the period, the relative UI takeup rate for service industries was similar to that of the "other industries" category and increased steadily over time. Interestingly, these trends appear to be unrelated to the business cycle.

Occupational status.   The top panel of chart 15 shows that the proportions of both UI recipients and the unemployed accounted for by blue-collar occupations declined from 1988 through 2004. In 1988, blue-collar occupations accounted for about 63 percent of UI recipients and 64 per-cent of the unemployed; by the early 2000s, blue-collar occupations accounted for about 57 percent of UI recipients and 56 percent of the unemployed. The decline in the blue-collar proportion of the unemployed is explained both by the steeper decline in the unemployment rate for blue-collar workers relative to white-collar workers (see chart 7) and by the shift of the U.S. economy toward white-collar occupations. Starting in 2005, the blue-collar proportion of the unemployed increased at a moderate pace, and by 2010 blue-collar jobs accounted for 61 percent of the unemployed. During the same period, the blue-collar proportion of UI recipients remained relatively steady.

The similarity in the blue-collar proportions of the unemployed and UI recipients reflects a balance between opposing effects. On one hand, blue-collar workers have lower average earnings (thus, greater UI replacement rates) than their white-collar peers, making them more likely to apply for UI benefits. They are also more likely to be union members, which increases the likelihood that an unemployed worker will apply for UI benefits.[26] On the other hand, blue-collar workers are more likely to be employed in less stable, low-wage jobs than white-collar workers are and are thus less likely to be eligible for UI benefits once they become unemployed.[27] Until the early 2000s, these effects appear to have largely canceled out. The bottom panel of chart 15 shows that the relative UI takeup for blue-collar occupations was close to 1.0 from 1988 to 2005 but declined to below 0.9 from 2006 to 2010.

It is notable that, although unemployment rates for blue-collar and white-collar workers differ dramatically over the business cycle, the relative UI takeup rates do not appear to vary systematically with the business cycle. Whereas the relative takeup rate for blue-collar workers appears to have increased slightly during and immediately following the early 2000s recession, there is no similar pattern in the most recent recession. Given that the major decline in the blue-collar relative takeup rate began in 2004, prior to the most recent recession, it is possible that it reflects new trends not related to the recession.[28]

THE U.S. ECONOMY HAS EXPERIENCED important changes in the past half century. Today, women account for almost half of the labor force and half of the unemployed population, and the shares of Hispanics and non-Whites are increasing steadily. The average age of the U.S. labor force also has been increasing over time, as a result of the aging of the baby boomers, while new entrants to the labor market are increasingly more educated than those retiring. In addition, there have been important structural changes in the U.S. labor market. Specifically, service and

Chart 14. **Unemployment insurance proportions and unemployment insurance takeup, by industry, 2000–2010**
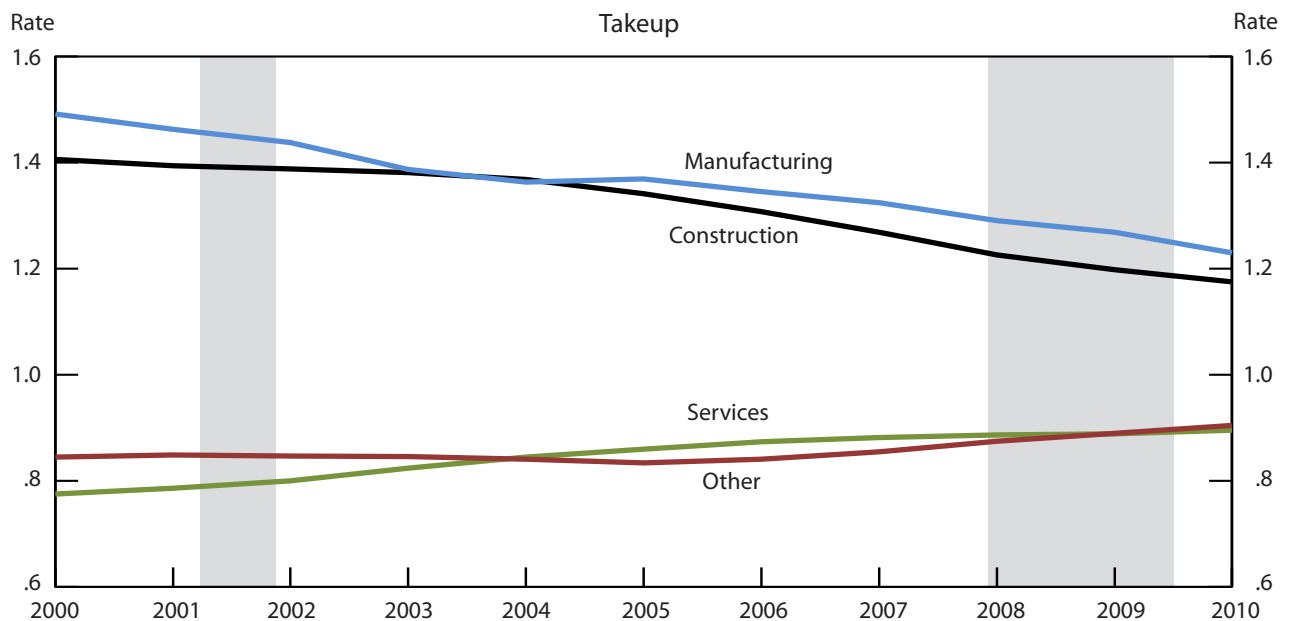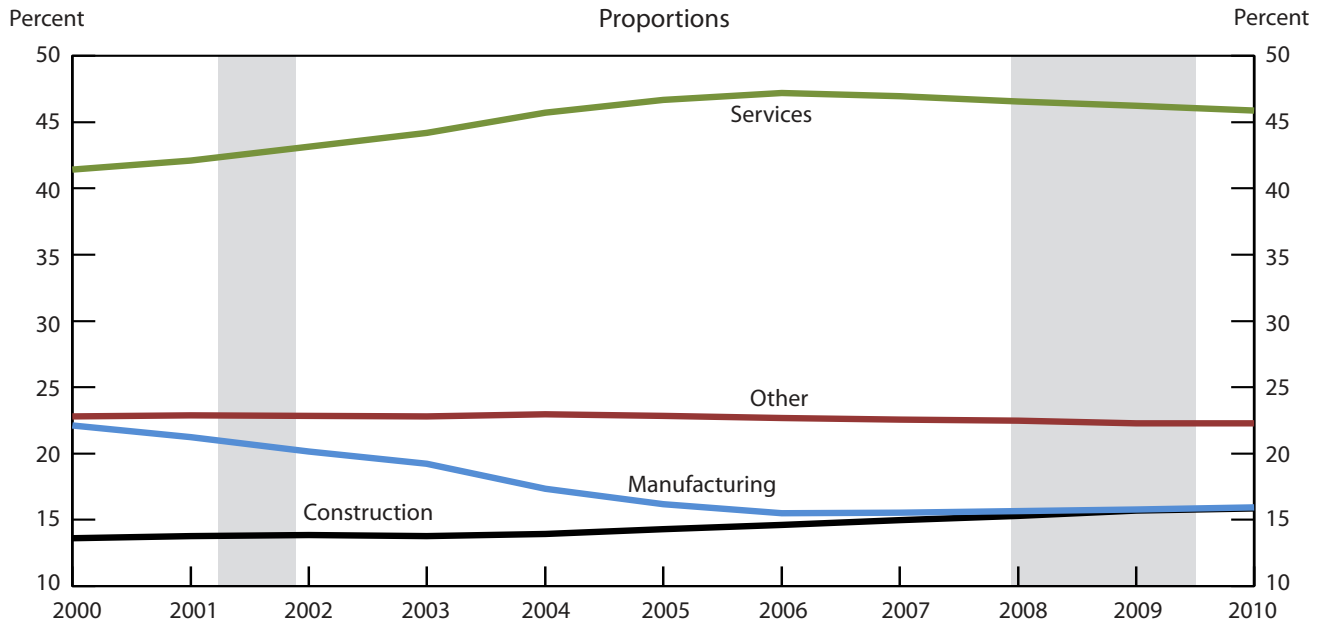
Percent Proportions Percent

Rate Takeup Rate

SOURCE: Proportion of UI recipients: U.S. Department of Labor, Benefit Accuracy Measurement program; proportion of unemployed: U.S. Census Bureau and U.S. Bureau of Labor Statistics, Current Population Survey. Shaded areas identify the early 2000s recession (March 2001–November 2001) and the most recent recession (December 2007–June 2009). Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

Chart 15. **Unemployment insurance proportions, and unemployment insurance takeup, blue-collar occupations, 1988–2010**
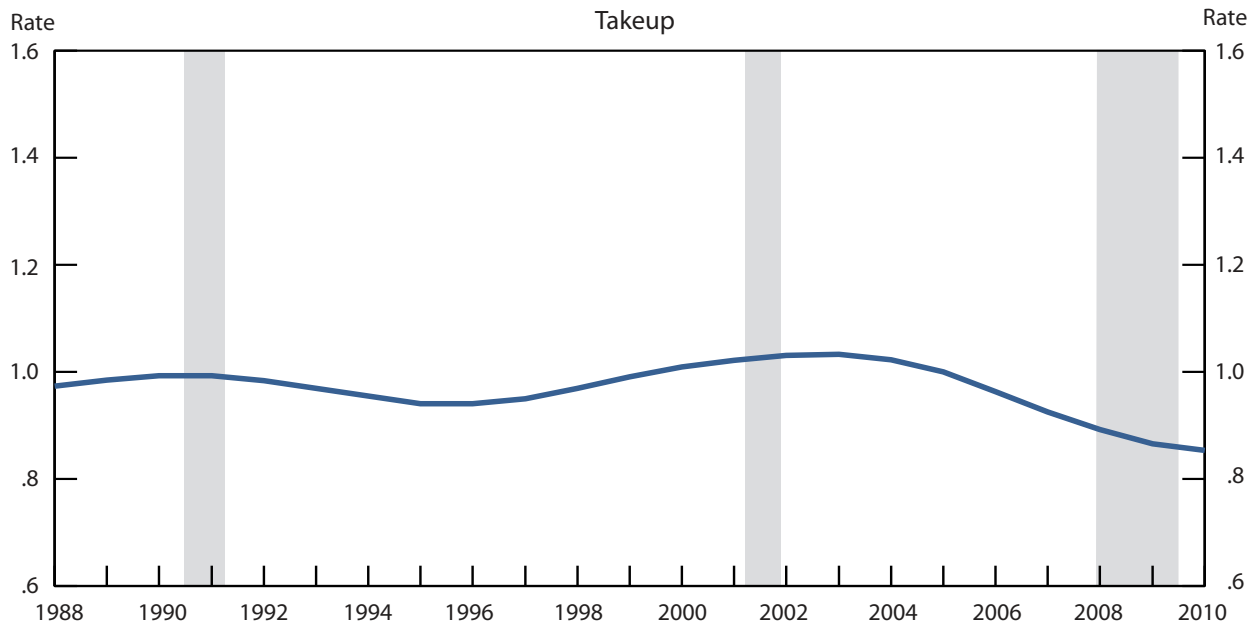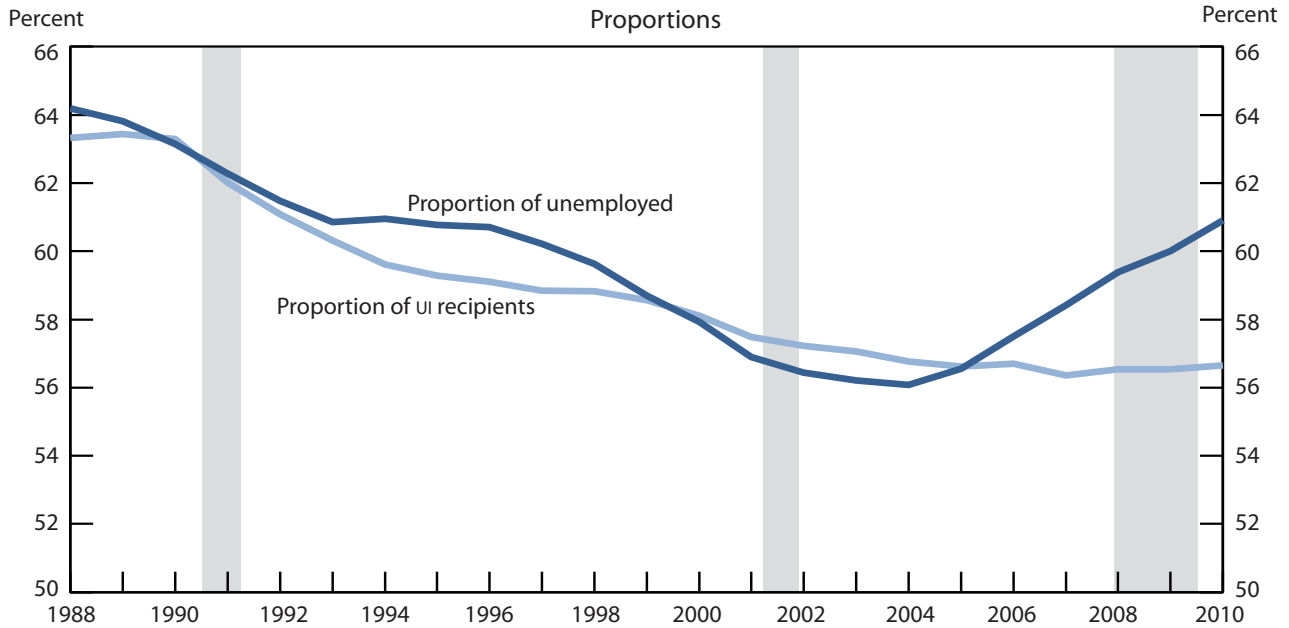
Proportions

Percent

Percent

Proportion of unemployed

Proportion of UI recipients

Takeup

Rate

Rate

white-collar occupations now account for a larger share of employment in the nation, while manufacturing and blue-collar jobs are becoming less important.

Although these changes certainly have affected the composition of the UI recipient population, there is very little research documenting such changes in the past two decades. This article has examined the composition of the UI population by major socioeconomic characteristics for the 1988–2010 period. Toward that end, the article uses BAM data, developed by DOL to monitor the calculation of UI eligibility and benefits by state UI programs. Because the BAM data include a representative sample of UI recipients for each state from 1988 to 2010, they are suitable—once appropriately weighted—for examining the composition of the UI population. BAM data report socioeconomic characteristics of recipients, including gender, race and ethnicity, age, education, industry, and occupation.

The analysis presented shows that the share of women in the BAM recipient population increased during the period examined, superimposing a strong positive trend on business cycle patterns. Given that women's share of the unemployed did not increase, the upshot is that unemployed women became more likely to receive UI benefits over time. As a result, although unemployed women were one-fifth less likely to receive such benefits than unemployed men were in the late 1980s, there were no UI gender receipt differences by the end of the study period.

The proportions of UI recipients accounted for by Hispanics and non-Whites also increased steadily over the study period. Among the unemployed, however, Hispanics and non-Whites were much less likely than White non-Hispanics to have received UI benefits at the start of the study period. The differences in UI receipt are attributable to the fact that racial and ethnic minorities were more likely to be employed in low-paying, less stable jobs and so were less likely to be eligible for UI benefits. In addition, Hispanics may have been less likely to be familiar with the UI program, while some may have been illegal immigrants who were not eligible for UI benefits. The analysis presented here, however, shows convergence in UI receipt by ethnicity, suggesting that, over time, these factors have become less important for Hispanics. In contrast, there is no comparable increase in receipt of UI benefits for non-Whites, and at the end of the study period White unemployed workers were only about 20 percent more likely to receive UI benefits relative to Hispanics and non-Whites combined. In contrast, there was a 40-percent differential in 1992.

Prime-age workers (those 25–44 years of age) account-ed for the largest share of the UI recipient population over the period examined. Their share, however, declined steadily from 1988 to 2010, while the share of workers 45 and older increased. Their pattern is driven by the movement of the baby-boom worker cohort into the latter category. The analysis results also confirm that, among unemployed workers, prime-age workers and workers 45 and older are much more likely to receive UI benefits than their younger peers are. These results are probably attributable to the fact that younger workers are more likely to be new entrants to the labor market, to work in part-time or low-paying jobs, or to quit their jobs, all of which make them less likely to be eligible for UI benefits. In addition, younger workers may be less familiar with the UI program and so may be less likely to apply for benefits once they become unemployed.

Individuals with just a high school diploma account for a greater share of UI recipients than any other education category. Among the unemployed, those with just a high school diploma also were more likely to receive UI benefits. Finally, the industrial and occupational shifts in the U.S. labor force are reflected in the composition of the UI recipient population. The share of the service sector among UI recipients increased over the study period, while the share of manufacturing declined. Among the unemployed, however, construction and manufacturing generally had higher takeup rates than other industries. In addition, the share of blue-collar occupations in the UI recipient population declined steadily over the period examined, as a result of the decline in blue-collar jobs in the U.S. economy. The UI takeup rates for the unemployed in blue-collar and white-collar occupations remained about equal over most of the study period, except in the last 5 years, when blue-collar workers exhibited substantial declines in relative UI takeup.

In conclusion, this article has illustrated the important changes in the composition of the UI recipient population over the past two decades and how that population was affected by changes in the U.S. labor market. Examining the connection between changes in the labor force and the unemployed population, on the one hand, and changes in the composition of the UI recipient population, on the other, is critical to gaining an understanding of how the UI program is affected by labor market conditions. The BAM data provide a valuable source of information that enables the monitoring of UI population patterns over time. Monitoring these patterns will be even more important in the next decade, in light of the important changes the U.S. economy will experience following the most recent recession.   □

Notes

[1] See, for example, Steven Hipple, "Worker displacement in an expanding economy," *Monthly Labor Review*, December 1997, pp. 26–39, **http://www.bls.gov/opub/mlr/1997/12/art3full.pdf**; Chinhui Juhn, Kevin M. Murphy, and Robert H. Topel, "Current Unemployment Historically Contemplated," *Brookings Papers on Economic Activity* (Washington, DC, Brookings Institution, 2002, pp. 79–116; Erica Groshen and Simon Potter, "Has Structural Change Contributed to a Jobless Recovery?" *Current Issues in Economics and Finance,* vol. 9, no. 8 (New York, Federal Reserve Bank of New York, 2003), pp. 1–7; Paul J. Devereux, "Effects of Industry Growth and Decline on Gender and Education Wage Gaps in the 1980s," *Industrial & Labor Relations Review*, July 2005, pp. 552–570; and Marios Michaelides and Peter Mueser, "Recent Changes in the Characteristics of Unemployed Workers," ETA Occasional Paper 2009–13 (U.S. Department of Labor, August 2009).

[2] See, for example, Wayne Vroman, "Low Benefit Recipiency in State Unemployment Insurance Programs," ETA Occasional Paper 2002–02 (U.S. Department of Labor, June 2001); Walter Nicholson and Karen Needels, "Unemployment Insurance: Strengthening the Relationship between Theory and Policy," *Journal of Economic Perspectives*, summer 2006, pp. 47–70; and Gary Burtless, "Trends in the Structure of the Labor Market and Unemployment: Implications for U.S. Unemployment Insurance," ETA Occasional Paper 2009–7 (U.S. Department of Labor, September 2008).

[3] The CPS is conducted by the U.S. Census Bureau for the U.S. Bureau of Labor Statistics (BLS, the Bureau). Today the CPS covers more than 60,000 households, but because the number has changed over time, the conservative estimate of 50,000 is cited to make sure that the analysis which follows pertains to all years from 1988 through 2007.

[4] Beginning and ending dates of recessions are determined by the National Bureau of Economic Research (NBER).

[5] See Michaelides and Mueser, "Recent Changes in the Characteristics."

[6] This classification provided the best match between CPS and BAM data. CPS data do not identify missing values on race or ethnicity measures. In contrast, BAM data fail to report race for 6.9 percent of individuals (all of Hispanic ethnicity) and fail to report ethnicity for 2.7 percent of individuals (1.1 percent White and 1.6 percent non-White). Hispanics with no race information in the BAM data were classified as Hispanic, and Whites with no ethnicity information were classified as White (non-Hispanic). The number of non-White Hispanics is small, so substantive results would be unchanged under alternative definitions.

[7] The series for race and ethnicity and for education begin in 1992 rather than 1988 because comparable CPS tabulations for these measures are not available for years prior to 1992.

[8] The "other" category is composed of transportation and warehousing, agriculture, mining, utilities, and public administration.

[9] See Robert G. Valletta, "Rising Unemployment Duration in the United States: Composition or Behavior?" (San Francisco, Federal Reserve Bank of San Francisco, April 2011 (unpublished manuscript)).

[10] The BAM sample of UI benefit payments can be used to provide estimates of caseload size and characteristics. Such estimates differ from the statistics derived from the population of individuals who report in the CPS that they received UI benefits in the previous year.

[11] In this article, BAM data are used only to examine the composition of the UI population by industry from 2000 to 2010, for two reasons: (1) the switch in industry classification from the Standard Industrial Classification system to the North American Industry Classification System precludes drawing comparisons pre and post 2000, and (2) available industry classifications in the BAM data from 1988 to

1999 are not consistent with the codes used in the CPS data, precluding any comparison of industry UI figures from the BAM data with industry unemployment figures from the CPS data.

[12] The UI population proportion is calculated with the use of data reported in "Monthly Program and Financial Data" (U.S. Department of Labor, updated monthly), **http://workforcesecurity.doleta.gov/unemploy/claimssum.asp**. These data identify the total number of UI recipients and the total number of UI weeks compensated, by state, during the period examined in this article.

[13] The BAM data include information on the universe from which the sample of UI payments is drawn, information that would allow the construction of weights to account for differences across states and over time. The weight chosen here ensures the consistency of UI caseload counts with published numbers.

[14] As noted earlier, because of data limitations, the analyses by education that follow are constrained to the 1992–2010 period and the analyses by industry are constrained to the 2000–2010 period.

[15] Note that $P_{it}/P_{(-i)t} = [Q_{it}/(1 - Q_{it})]/[S_{it}/(1 - S_{it})]$, where Q_{it} and S_{it} are the proportion of the unemployed and the proportion of UI recipients, respectively, who are in demographic group i in year t.

[16] Recall that three mutually exclusive categories identify race and ethnicity in this article: (a) Whites (excluding Hispanics), (b) Hispanics (excluding those who identify with a non-White racial group), and (c) non-Whites.

[17] See Mitra Toossi, "A century of change: the U.S. labor force, 1950–2050," *Monthly Labor Review*, May 2002, pp. 15–28, **http://www.bls.gov/opub/mlr/2002/05/art2full.pdf**; and Marlene A. Lee and Mark Mather, "U.S. Labor Force Trends," *Population Bulletin*, June 2008, pp. 3–16.

[18] Rebecca Blank, "An Overview of Trends in Social and Economic Well-Being, by Race," in Neil J. Smelser, William Julius Wilson, and Faith Mitchell, eds., *America Becoming: Racial Trends and Their Consequences* (Washington, DC, National Academy Press, 2001), pp. 21–39.

[19] Wayne Vroman, "An Analysis of Unemployment Insurance Non-Filers: 2005 CPS Supplement Results," ETA Occasional Paper 2009–7 (U.S. Department of Labor, September 2008), and "Unemployment insurance recipients and nonrecipients in the CPS," *Monthly Labor Review*, October 2009, pp. 44–53, **http://www.bls.gov/opub/mlr/2009/10/art4full.pdf**.

[20] Gordon H. Hanson, "Illegal Migration from Mexico to the United States," *Journal of Economic Literature*, December 2006, pp. 869–924.

[21] See Jessica R. Sincavage, "The labor force and unemployment: three generations of change," *Monthly Labor Review*, June 2004, pp. 34–41, **http://www.bls.gov/opub/mlr/2004/06/art2full.pdf**; and Marlene A. Lee and Mark Mather, "U.S. Labor Force Trends," *Population Bulletin*, June 2008, pp. 1–16.

[22] *Unemployment Insurance: Information on Benefit Receipt*, GAO–05–291 (U.S. Government Accountability Office, March 2005); and Vroman, "An Analysis of Unemployment Insurance Non-Filers."

[23] For an analysis of receipt of UI benefits by workers 50 and older, see Christopher O'Leary, "Unemployment Insurance and Reemployment among Older Workers," ETA Occasional Paper 2006–09 (U.S. Department of Labor, July 2006).

[24] Burtless, "Trends in the Structure of the Labor Market and Unemployment."

[25] Vroman, "An Analysis of Unemployment Insurance Non-Filers."

[26] *Ibid.*

[27] See "Unemployment Insurance: Role as a Safety Net for Low-Wage Workers is Limited," GAO–01–181 (U.S. General Accounting Office, December 2000).

[28] For an analysis of UI benefit receipt by industry and occupation, see "Unemployment Insurance: Factors Associated with Benefit Receipt," GAO–06–341 (U.S. Government Accountability Office, March 2006).